Dear Courtney Kendall,

I hope this email finds you well.

I am writing to bring to your attention an error in the author names listed for a paper we recently published on the SPIE website ([Link](https://www.spiedigitallibrary.org/conference-proceedings-of-spie/12949/3014941/Optimizing-stimuli-based-4D-printed-structures--a-paradigm-shift/10.1117/12.3014941.short): https://doi.org/10.1117/12.3014941). The name of the third author is incorrect in the online library. In our paper, the third author’s name is correctly listed as “Jingchao Jiang,” but on the online library, it is mistakenly listed as “Jiangchao Jiang.”

Could you please let me know if this error can be corrected?

Thank you very much for your help.

Best regards,

Liuchao Jin

尊敬的甬江实验室团队，

您好！

我很高兴申请参加甬江实验室第二届全球青年科技精英论坛。按照要求，我已填写完毕报名表并随此邮件附上。

请查收附件中的申请材料。期待您的审核结果，并希望能够有机会参与此次论坛，与全球青年科技精英们进行深入交流与学习。

感谢您的审阅与考虑！

祝好！

金刘超

Dear Prof. Liao,

Unfortunately, I will be returning to Hong Kong on the night of July 9th from France and thus will not be available to be the contact person for the lab visit on that day. Sorry about that.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Itinerary Attributes** | **Itinerary #** | **Departure** | **Flight** | **Terminal** | **Price (RMB)** | **Duration** |
| Outbound | 1 | 07-02 00:35 | EK381 | 07-02 04:20 | 6870/2 | 38h50m |
| Hong Kong International Airport T1 | Airbus 380 | Dubai Airports T3 |
| Transfer: | 23h45m |  |
| 07-03 04:05 | EK71 | 07-03 09:25 |
| Dubai Airports T3 | Airbus 380 | Paris-Charles-de-Gaulle Airport T2C |
|  | Transfer: | 8h55m | Different Airport |  |  |
| 2 | 07-03 18:20 | XK775 | 07-03 19:55 | 1724 | 1h35m |
| Paris-Orly Airport T3 | Airbus 320 | Ajaccio Napoleon Bonaparte Airport |
|  | Conference | 07-04 to 07-05 4D Materials Design and Additive Manufacturing Conference 2024 | | |  |
| Inbound | 3 | 07-07 09:30 | XK1135 | 07-07 11:10 | 1h40m |
| Ajaccio Napoleon Bonaparte Airport | Airbus 320 | Paris-Orly Airport T2 |
|  | Transfer: | 34h45m | Different Airport |  |  |
| 4 | 07-08 21:55 | EK76 | 07-09 06:35 | 6870/2 | 18h5m |
| Paris-Charles-de-Gaulle Airport T2C | Airbus 380 | Dubai Airports T3 |
| Transfer: | 3h30m |  |
| 07-09 10:05 | EK380 | 07-09 22:00 |
| Dubai Airports T3 | Airbus 380 | Hong Kong International Airport T1 |

Here also forwarded the conference agenda for 4DMDA.

Thank you for your understanding.

Best regards,

Liuchao Jin

Dear PGH 3 General Office,

I have checked with my bank, and I confirm that the transfer of HK$3,300.00 on 28 March 2024 was successful.

Thank you for arranging the refund of HK$200.00. I will plan to collect the cheque in person from the PGH 3 General Office. If there are any further steps or documents needed for the collection, please let me know.

Best regards,

Liuchao Jin

Dear Prof. Owens,

Thank you for your interest in my work.

I am available any day next week during the mentioned time period. Please feel free to choose a day that suits you best, and I will ensure I am available.

Looking forward to our discussion.

Best regards,

Liuchao Jin

Dear Prof. Owens,

Thank you for your email. I am very excited about the opportunity to chair Track 03 at the Making Futures conference.

I have attached my CV and a summary of my research focus for your review. My work primarily centers around the intersection of AI and material science, exploring how AI can be creatively applied to the design and development of hierarchical architectures. I believe my background and experience align well with the themes of Track 03.

Please feel free to contact me if you need any further information. Looking forward to your reply

Best regards,

Liuchao Jin

Dear PGH 3 General Office,

Thank you for your email.

I would like to inform you that **I have not received the transferred payment of HK$3,300.00**. Additionally, I **do not believe it is reasonable to deduct HK$200.00 from my hostel deposit**. I sent an email four months ago regarding this matter, but you overlooked it.

As mentioned previously, the washer was left by my roommate and moved out by my roommate, not by the PGH staff. I paid the dormitory fee for the entire month of January, which should cover any general disposal costs. Therefore, I believe that the HK$200.00 deduction should be refunded.

**(**Firstly, if the washer was indeed moved out and disposed of by your staff without permission, then I request compensation for the washer because this washer is belong to my roommate, which is valued at HK$1299.

Secondly, if the washer was moved out by my roommate and not by your staff, and you still insist on charging me a disposal fee, then I believe it is only fair to refund the portion of the dormitory fee for the period after I moved out. As I paid the dormitory fee for the entire month of January but moved out on the 24th, so the dormitory fee should cover all my garbage disposal through the whole month. If you still insist on charging me a disposal fee, I should be entitled to a refund for the remaining days of that month, which would amount to HK$500.**)**

I appreciate your assistance in resolving this matter. Please confirm the refund of the deducted amount and provide an update on the status of the transferred payment.

Thank you for your understanding.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’m writing to send you the revised version of Materials & Design and also the reply to reviewers’ comments. Could you kindly review them when you have time? Many thanks for your help!

Best regards,

Liuchao Jin

Dear PGH 3 General Office,

Thank you for your response. I appreciate your update regarding the refund of my hostel deposit.

However, I would like to clarify a couple of points:

* Will my hostel deposit be refunded in full? The previous communication regarding the disposal charges for the washer left by my roommate has not been addressed. As stated earlier, the washer was moved out by my roommate, not by PGH staff, and the dormitory fee for January was fully paid. I believe it is inappropriate to deduct any amount from my deposit for the disposal of items discarded by my roommate.
* You mentioned that the refund will be processed in approximately three months. However, it has already been almost four months since I moved out. Could you please provide a more accurate timeline for when I can expect to receive the refund?

Thank you for your understanding and assistance. I look forward to your prompt response.

Best regards,

Liuchao Jin

Dear PGH 3 General Office,

Thank you for your response and the update regarding my hostel deposit refund. I appreciate the clarification and am glad to hear that I will receive my full deposit.

Thank you once again for your help.

Best regards,

Liuchao Jin

Dear PGH 3 General Office,

I hope this email finds you well. I am writing to follow up on an email I sent four months ago regarding the disposal charges for the washer left by my roommate. I have not received a response yet and would appreciate an update on this matter.

To reiterate, the washer was left for my roommate and was moved out by my roommate, not the PGH staff. I have paid the dormitory fee for the entire month of January. As such, I do not believe it is appropriate to charge my hostel deposit for the disposal of items discarded by my roommate. Garbage disposal should be included in the dormitory fee, and I did not request any assistance for the removal.

I kindly request that you review my previous email and reconsider the charge. If there are any concerns or if additional information is needed, please let me know.

Thank you for your attention to this matter. I look forward to your prompt response.

Best regards,

Liuchao Jin

Dear Junyu,

Thank you for your message. It’s my pleasure to help you. Your HW1&2 grades were posted on BlackBoard, which were deducted 30% off due to late submission. If you have any further questions or concerns, please feel free to reach out to me directly via WeChat. My WeChat ID is Liuchao\_Jin. I’m here to help.

Wishing you a wonderful week ahead!

Best regards,

Liuchao Jin

Dear Prof. Yuan,

Here forwarded the email from TANG Junyu asking for late submission of HW1&2. I don’t know how to decide so I’m seeking your help. Thank you and looking forward to your decision.

Best regards,

Liuchao Jin

Dear Chongrui,

I think you perform well in this course. Because the final grade is calculated by Prof. Yuan, I don’t know how he will adjust the final grade. But there is a grading scheme in the lecture notes. You can calculate the final grade by yourself.

Best regards,

Liuchao Jin

Dear Lyndsey,

Thank you for your email and for your patience in this matter.

Regarding the transfer of funds, I understand your concerns about transferring funds to China mainland and would like to explore the possibility of transferring the funds to my bank account in Hong Kong instead, which seems easier compared to mainland China. Below are the complete banking details for my Bank of China (Hong Kong) Limited account:

Below is the requested information for the bank transfer:

1. Bank Name: Bank of China (Hong Kong) Limited

2. Bank Address: BANK OF CHINA TOWER, 1 GARDEN ROAD, CENTRAL, HONG KONG

3. Account Holder: JIN LIUCHAO

4. Account Number: 012-565-2-026793-8

5. IBAN: Not appliable

6. SWIFT: BKCHHKHHXXX

7. Sort Code or Clearing Number: Not appliable

8. 3 digits numeric bank code: 012

9. 3 digits numeric branch code: 565

10. Account type: Savings

11. Bank Currency: Hong Kong Dollar (HKD)

12. Photo copy of your Government issued ID: Refer to attachment

13. Bank statement: Refer to attachment

Please note that the bank currency of this account is HKD. Therefore, kindly transfer the funds in terms of HKD.

I hope that transferring the funds to my Hong Kong account will facilitate the process. Please let me know if there are any additional requirements or information needed.

Thank you once again for your assistance, and I look forward to your response.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I have finished uploading the relevant files for submissing our manuscript to *npj Computational Materials*. However, it seems that I cannot transfer the submission to your system for this journal.

In light of this, I would like to suggest the following solution: I will provide you with access to my account details (submission system: [Link](https://mts-npjcompumats.nature.com/cgi-bin/main.plex); username: liucjin; and password: Mqy520!!@Jlc). Could you kindly review all the materials and fill-ins, and proceed with the submission? I have already prepared and uploaded a cover letter onto the system. If you find it satisfactory, you may proceed with the submission directly. However, if any adjustments are necessary, I have also included the text version of the cover letter in this email for your convenience.

Thank you very much for your patient help. Your support is greatly appreciated.

Best regards,

Liuchao Jin

Dear Winnie,

Thank you very much for the invitation to the Annual Banquet of MSc MAE Programme on May 10, 2024. I am delighted to accept the invitation and am looking forward to attending the event.

Best regards,

Liuchao Jin

尊敬的李江宇教授，

我是机械与能源工程系葛锜老师的学生-金刘超，我非常荣幸能有机会与您联系。目前我正准备进行一项关于聚合物打印件的实验研究，希望能够使用您实验室的全场应变分析系统（VIC-3D）来测量三个打印件的应变场。

在此，我诚挚地希望能够得到您的许可。如果有任何使用规定或手续需要我遵循，我愿意尽最大努力确保遵守并配合。

非常感谢您抽出宝贵的时间阅读我的邮件，期待您的回复。

祝好！

金刘超

Dear Jingyi,

Yes, you are right. Thank you for pointing out. I have modified your grade on the Blackboard. Good luck in the exam.

Best regards,

Liuchao Jin

Dear Sir/Madam,

Thank you for your email and for your patient help with my damaged bag claim.

I’m Liuchao Jin, and my claim number is 28021429.

Below is the requested information for the bank transfer:

1. Bank Name: Bank of China (Hong Kong) Limited

2. Bank Address: BANK OF CHINA TOWER, 1 GARDEN ROAD, CENTRAL, HONG KONG

3. Account Holder: JIN LIUCHAO

4. Account Number: 012-565-2-026793-8

5. IBAN: Not appliable

6. SWIFT: BKCHHKHHXXX

7. Sort Code or Clearing Number: Not appliable

8. Bank Currency: Hong Kong Dollar (HKD)

9. Photo copy of your Government issued ID: Refer to attachment

Thank you for your attention to this matter. I appreciate your efforts in resolving the issue, and I look forward to the next steps.

Best regards,

Liuchao Jin

Dear H. Khanai,

Thank you for reaching out. I apologize for missing your call because it’s early morning here. I appreciate your confirmation regarding the clarity of the receipts date of purchase and payment mode.

If there are any further questions or concerns regarding the receipts or any other matter regarding mailing address, please don’t hesitate to contact me directly.

Thank you for your attention to this matter.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’m writing to send you the slides and the speech for SPIE2024: [Link](https://drive.google.com/drive/folders/1JEFBuNcFaMVLcHgD__kXQhe6XLq6vnO1?usp=sharing). Could you please review these materials at your convenience? Thank you so much for your help and have a good day!

Best regards,

Liuchao Jin

Dear Shang,

Thank you for reaching out and sharing your concerns. I understand your situation regarding the exam result. We can arrange for an offline discussion when I return to Hong Kong on April 5th. But if you cannot wait, you can consult professor directly on the class every week.

In the meantime, I suggest focusing on your studies and preparing for the final exam. The midterm exam constitutes only 25% of the total course grade, so there is still an opportunity to improve your overall grade.

If you have any further questions or need assistance, feel free to contact me anytime.

Best regards,

Liuchao Jin

尊敬的晏老师：

非常感谢您的回复和详细说明。我会等待院系秘书发出Fellowship续签邮件，并按时提交所需材料。祝您工作顺利，生活愉快！

祝好！

金刘超

机械与能源工程系

工号：30026668

Dear Shang,

Unfortunately, I will not be in Hong Kong next week for an entire week. Additionally, I have informed Prof. Yuan about your situation yesterday. Did he reply to you?

I think your paper is in Prof. Yuan’s hands. I recommend reaching out to him directly. He will be able to provide you with the guidance you need for the MAEG5725 course.

I apologize for any inconvenience this may cause, and I appreciate your understanding. If you have any further questions or need help, please feel free to contact me.

Best regards,

Liuchao Jin

关于续签南方科技大学SUSTech PhD Fellowship Program的咨询

尊敬的朱老师：

您好！我是机械与能源工程系的金刘超，工号为30026668。

我写信是想了解一下南方科技大学SUSTech PhD Fellowship Program的续签流程。由于我目前的合同即将到期，我想了解如果我希望将SUSTech PhD Fellowship Program延长一年，需要进行哪些步骤和程序。

请问您能否提供关于续签流程的指导？对于所需文件、截止日期以及需要采取的具体行动等方面的任何信息，我将不胜感激。

非常感谢您对此事的关注。期待您的指导和帮助。

此致

金刘超

机械与能源工程系

工号：30026668

南方科技大学

Dear Prof. Bodaghi,

I have finished a manuscript ([Link](https://drive.google.com/file/d/1zAEXuTu1d0XkKFsFfEqceAZ8XRmUyhco/view?usp=sharing)) titled “Machine Learning Driven Forward Prediction and Inverse Design for 4D Printed Hierarchical Architecture with Arbitrary Shapes,” which is intended to submit to *npj Computational Materials*. Would you be so kind as to be one of the co-authors? You can review it if you have time. Many thanks for your help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Here attached revised version of the [paper](https://drive.google.com/file/d/1zAEXuTu1d0XkKFsFfEqceAZ8XRmUyhco/view?usp=sharing) for npj Computational Materials, which is sent to you last month. Could you please help to review it when you have time? If it is ok, I will upload it onto the submission system. Many thanks for your precious help!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Here attached the abstract for [4DMDA 2024](https://4dprintings.com/events/4dmda2024/) in France. The deadline is today. Could you please review it when you have available time. Thank you so much for your help!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Well received! Many thanks for your generous help! We will proceed with the submission for Materials & Design and ICMR 2024.

Best regards,

Liuchao Jin

Dear Ms. Lam,

Thank you for your email.

If the **Country/Region** on the application form means “nationality”, my Country/Region **should be China** instead of Hong Kong.

For **Residential Address in home town** part you mentioned, I think **I filled the enough information**. You need to notice that my home is a villa, not an apartment, so there is no room # for me.

Apt. #: 137号(No. 137)

Street: 金家站村(Jinjiazhan Village)

Town: 店口镇(Diankou Town)

City: 诸暨市(Zhuji)

Province: 浙江省(Zhejiang Province)

Thank you again for your help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Meichen LU,

Thank you for your email.

Regarding your inquiries:

1. The midterm exam for MAEG 5725 is scheduled for March 13.
2. Currently, there are no fixed office hours for TAs. However, we are fully committed to providing support and assistance to all students. If you have any questions or need clarification on course materials, please feel free to email us directly. We will promptly respond to your inquiries. Additionally, if you prefer to schedule an online or offline meeting for a more in-depth discussion, please let us know, and we will arrange a suitable time.

Thank you for your understanding, and we look forward to help you further.

Best regards,

Liuchao Jin

Dear PGH 3 General Office,

Thank you for bringing this to my attention. However, I would like to clarify that the washer was left for my roommate and was moved out by my roommate, **not the** **PGH staff**. And I also paid the dormitory fee for the whole January. I don’t think I need to be charged for disposing of the “garbage” thrown away by my roommate during my stay, because the garbage disposal fee should of course be included in the dormitory fee. As I did not request any help for the removal, I believe it would be inappropriate to charge my hostel deposit for clearing/transportation fees.

If there are any concerns or additional information needed, please let me know.

Best regards,

Liuchao Jin

尊敬的先生/女士：

您好！我是香港中文大学的金刘超，对于“2024年广州市港澳青年科技人才托举工程项目” 表示浓厚的兴趣。我写信给您是为了提交我的申请材料以争取参与该项目，因为佐证材料比较大，所以附在了Google Drive的[Link](https://drive.google.com/file/d/17NBQQP6SURkjncfqz7T-bpeMaYgYJH0M/view?usp=sharing)里了。

非常感谢您的帮助。期待能够为该项目做出积极的贡献。

祝好，

金刘超

Dear Mr. Gao,

Nice to meet you. We both serve as TAs for Control and Industrial Automation. To facilitate better communication, could you kindly add me on WeChat? My WeChat ID is Liuchao\_Jin or you can scan following QR code to add me. Thank you and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Axinte,

Thank you for your swift response and for taking the time to consider our submission. We appreciate your clarification about the focus of IJMTM and completely understand the editorial considerations. We will consider other journal for submitting this review paper.

We look forward to the opportunity to submit future works that align more closely with the journal’s scope. Many thanks!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I have finished the manuscript for SPIE 2024. Could you kindly review the manuscript for SPIE 2024 attached in the Google Drive [Link](https://drive.google.com/file/d/1Gctxh4O4sd4k9ywhmri3l5Ef7xBTc4hN/view?usp=sharing) here? If it is ok, I will appreciate your help in submitting it. Many thanks!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your reminder. I will send the manuscript to you soon.

Best regards,

Liuchao Jin

Dear Prof. Bodaghi,

I hope this email finds you well. I am writing to inquire about your tentative plans about when to arrive in China. In addition, I will submit paper about machine learning for 4D printing design and attend “4D Materials Design and Additive Manufacturing” conference in France this July. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Ms. Wong,

Thank you for your prompt response. We have thoroughly reviewed Ng Cheng Meng’s assignment scores, and I can confirm that there is no miscalculation or mismarking in the grading of the four assignments.

If you need any further details or have additional queries, please feel free to reach out. I am ready to assist in any way necessary.

Best regards,

Liuchao Jin

Dear Ms. Wong,

The total grade for these assignments in the previous email sums up to 352/400, as indicated by the student. However, it is important to note that this total does not include the scores for the two course projects.

We would like to emphasize that the final grade for the entire course, inclusive of the course projects, is determined by Prof. Lam. As TAs, we do not have access to or influence over the project scores.

Best regards,

Liuchao Jin

Dear Ms. Wong,

I hope this email finds you well. Thank you for bringing this to our attention. We have reviewed the grades for Ng Cheng Meng’s four homework assignments, and the results are as follows:

Homework 1: 93.00/100

Homework 2: 94.00/100

Homework 3: 85.00/100

Homework 4: 80.00/100

However, we would like to inform you that we do not have access to the grades for the two presentations, as they were marked by the professor.

If there is anything else you need or if you have further instructions, please feel free to let us know. We appreciate your understanding and cooperation in this matter.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Happy New Year! Thank you for your information. I was wondering whether it is suitable to resubmit this paper to [*International Journal of Extreme Manufacturing*](https://iopscience.iop.org/journal/2631-7990)? This journal has a good impact factor. And the paper’s topic can align with its requirements.

Best regards,

Liuchao Jin

亲爱的校友，

你好！非常感谢你的信息。以下是我的收货信息：

收货人: 金刘超

手机号码: 13244613352

所在地区: 广东省深圳市罗湖区南湖街道

详细地址: 人民南路汇金天琅大厦2716

期待收到SCUPI校友会的新年大礼包，也祝你和校友会的全体成员新年快乐，一切顺利！

祝好，

金刘超

尊敬的网络信息中心，

您好！我是机械与能源工程系的博士生金刘超，我正在准备使用学校的高性能计算（HPC）资源进行研究。在这个过程中，我发现需要一个VPN账号来访问HPC。因此，我特此申请一个VPN账号，以便能够顺利使用HPC资源。

以下是我的个人信息：

姓名：金刘超

学号：30026668

联系电话：13244613352

电子邮件：liuchao.jin@link.cuhk.edu.hk

我已经详细阅读了相关政策和使用规定，并将遵守网络信息中心的规定使用VPN服务。我希望您能够批准我的申请，并提供我所需的VPN账号信息。

非常感谢您的帮助和支持。期待您的回复。

谢谢！

金刘超

Dear Mr. Wu,

I will forward to professor. Merry Christmas.

Best regards,

Liuchao Jin

Dear Prof. JC,

Received. Thanks. I think we have most of the results. We just need to write the manuscript, organize the structure, and tell the story for the paper.

Best regards,

Liuchao Jin

Dear Prof. Chen,

Thank you for your prompt response and generous offer to provide tours to your labs during Prof. Qi Ge’s visit. I have told Prof. Ge. Considering Prof. Ge’s schedule and travel plans, it seems that conducting the lab tour after the seminar would be more convenient, as he will be arriving CUHK from the mainland on the same morning. Looking forward to seeing you next Tuesday.

Best regards,

Liuchao Jin

Dear Dr. Xia,

I hope this message finds you well. I was wondering whether we can add each other on WeChat for better communication. My WeChat ID is Liuchao Jin.

Thank you for your help, and I look forward to connecting with you on WeChat.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

Thank you for your prompt response. We will coordinate with Dr. Xia for the lab tour. Very appreciate your help.

Best regards,

Liuchao Jin

Dear Prof. Song,

I hope this email finds you well. My name is Liuchao Jin, a second-year PhD student under the supervision of Prof. Wei-Hsin Liao. I am writing to tell you that my co-supervisor, Professor [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en) from Southern University of Science and Technology (SUSTech), will be visiting our department on December 19th (Tuesday) to deliver a seminar.

Prof. Ge is keenly interested in the work conducted by esteemed professors in our department, and he expressed a particular interest in your research. If it is convenient for you, we would greatly appreciate the opportunity for Prof. Ge to visit you and your lab after the seminar, possibly in the afternoon Dec. 19. He is eager to learn more about your work and explore potential areas of collaboration.

If you are available and open to this idea, please let me know your preferred time for the visit, and we will make the necessary arrangements. Additionally, if there are any specific aspects of your research or laboratory that you would like to highlight during the visit, please feel free to inform us.

Thank you very much for considering this visit. We are looking forward to the possibility of this academic exchange. And also, welcome to the seminar on Dec. 19 if you are interested in.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

I hope this email finds you well. My name is Liuchao Jin, a second-year PhD student under the supervision of Prof. Wei-Hsin Liao. I am writing to tell you that my co-supervisor, Professor [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en) from Southern University of Science and Technology (SUSTech), will be visiting our department on December 19th (Tuesday) to deliver a seminar.

Prof. Ge is keenly interested in the work conducted by esteemed professors in our department, and he expressed a particular interest in your research. If it is convenient for you, we would greatly appreciate the opportunity for Prof. Ge to visit you and your lab after the seminar, possibly in the afternoon Dec. 19. He is eager to learn more about your work and explore potential areas of collaboration.

If you are available and open to this idea, please let me know your preferred time for the visit, and we will make the necessary arrangements. Additionally, if there are any specific aspects of your research or laboratory that you would like to highlight during the visit, please feel free to inform us.

Thank you very much for considering this visit. We are looking forward to the possibility of this academic exchange. And also, welcome to the seminar on Dec. 19 if you are interested in.

Best regards,

Liuchao Jin

Dear Prof. Chen,

I hope this email finds you well. My name is Liuchao Jin, a second-year PhD student under the supervision of Prof. Wei-Hsin Liao. I am writing to tell you that my co-supervisor, Professor [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en) from Southern University of Science and Technology (SUSTech), will be visiting our department on December 19th (Tuesday) to deliver a seminar.

Prof. Ge is keenly interested in the work conducted by esteemed professors in our department, and he expressed a particular interest in your research. If it is convenient for you, we would greatly appreciate the opportunity for Prof. Ge to visit you and your lab after the seminar, possibly in the afternoon Dec. 19. He is eager to learn more about your work and explore potential areas of collaboration.

If you are available and open to this idea, please let me know your preferred time for the visit, and we will make the necessary arrangements. Additionally, if there are any specific aspects of your research or laboratory that you would like to highlight during the visit, please feel free to inform us.

Thank you very much for considering this visit. We are looking forward to the possibility of this academic exchange. And also, welcome to the seminar on Dec. 19 if you are interested in.

Best regards,

Liuchao Jin

Dear Prof. Chen,

I hope this email finds you well. My name is Liuchao Jin, a second-year PhD student under the supervision of Prof. Wei-Hsin Liao. I am writing to tell you that my co-supervisor, Professor [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en) from Southern University of Science and Technology (SUSTech), will be visiting our department on December 19th (Tuesday) to deliver a seminar.

Prof. Ge is keenly interested in the work conducted by esteemed professors in our department, and he expressed a particular interest in your research. If it is convenient for you, we would greatly appreciate the opportunity for Prof. Ge to visit you and your lab after the seminar, possibly in the afternoon Dec. 19. He is eager to learn more about your work and explore potential areas of collaboration.

If you are available and open to this idea, please let me know your preferred time for the visit, and we will make the necessary arrangements. Additionally, if there are any specific aspects of your research or laboratory that you would like to highlight during the visit, please feel free to inform us.

Thank you very much for considering this visit. We are looking forward to the possibility of this academic exchange. And also, welcome to the seminar on Dec. 19 if you are interested in.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

I hope this email finds you well. My name is Liuchao Jin, a second-year PhD student under the supervision of Prof. Wei-Hsin Liao. I am writing to tell you that my co-supervisor, Professor [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en) from Southern University of Science and Technology (SUSTech), will be visiting our department on December 19th (Tuesday) to deliver a seminar.

Prof. Ge is keenly interested in the work conducted by esteemed professors in our department, and he expressed a particular interest in your research. If it is convenient for you, we would greatly appreciate the opportunity for Prof. Ge to visit you and your lab after the seminar, possibly in the afternoon Dec. 19. He is eager to learn more about your work and explore potential areas of collaboration.

If you are available and open to this idea, please let me know your preferred time for the visit, and we will make the necessary arrangements. Additionally, if there are any specific aspects of your research or laboratory that you would like to highlight during the visit, please feel free to inform us.

Thank you very much for considering this visit. We are looking forward to the possibility of this academic exchange. And also, welcome to the seminar on Dec. 19 if you are interested in.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

I hope this email finds you well. My name is Liuchao Jin, a second-year PhD student under the supervision of Prof. Wei-Hsin Liao. I am writing to tell you that my co-supervisor, Professor [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en) from Southern University of Science and Technology (SUSTech), will be visiting our department on December 19th (Tuesday) to deliver a seminar.

Prof. Ge is keenly interested in the work conducted by esteemed professors in our department, and he expressed a particular interest in your research. If it is convenient for you, we would greatly appreciate the opportunity for Prof. Ge to visit you and your lab after the seminar, possibly in the afternoon Dec. 19. He is eager to learn more about your work and explore potential areas of collaboration.

If you are available and open to this idea, please let me know your preferred time for the visit, and we will make the necessary arrangements. Additionally, if there are any specific aspects of your research or laboratory that you would like to highlight during the visit, please feel free to inform us.

Thank you very much for considering this visit. We are looking forward to the possibility of this academic exchange. And also, welcome to the seminar on Dec. 19 if you are interested in.

Best regards,

Liuchao Jin

尊敬的主办单位：

您好！

感谢您们的邀请，我非常荣幸能够参加2023重庆国际人才交流大会，特别是海内外博士离岸创新创业项目洽谈会。在此，我确认收到您发来的参会邀请，并会按时参加。

为了确保顺利参会，所需材料已附在这封邮件中，文件包含：

1. 博士研究生学历证明材料（学生证）
2. 填写后的《海内外博士离岸创新创业项目洽谈会参会回执》
3. 一张2寸白底证件照（300像素以上，尺寸两寸，大小2M以内）

我已经阅读了关于活动交通报销的注意事项，并会按照规定提供相关信息以便报销。

再次感谢您的邀请，期待在大会上与各位专业人士和企业家进行深入交流。如果有任何需要进一步确认的事项，请随时与我联系。

马千懿

2023年12月9日

尊敬的主办单位：

您好！

感谢您们的邀请，我非常荣幸能够参加2023重庆国际人才交流大会，特别是海内外博士离岸创新创业项目洽谈会。在此，我确认收到您发来的参会邀请，并会按时参加。

为了确保顺利参会，所需材料已附在这封邮件中，文件包含：

1. 博士研究生学历证明材料（在读证明）
2. 填写后的《海内外博士离岸创新创业项目洽谈会参会回执》
3. 一张2寸白底证件照（300像素以上，尺寸两寸，大小2M以内）

我已经阅读了关于活动交通报销的注意事项，并会按照规定提供相关信息以便报销。

再次感谢您的邀请，期待在大会上与各位专业人士和企业家进行深入交流。如果有任何需要进一步确认的事项，请随时与我联系。

金刘超

2023年12月9日

Dear Ms. Wong,

No problem at all, and thank you for the quick update. I appreciate your prompt attention to the matter.

Have a good day!

Best regards,

Liuchao Jin

Dear Ms. Wong,

I hope this email finds you well. I am writing to bring to your attention a small error in the announcement for Professor Qi Ge’s upcoming seminar. **The date mentioned in the announcement is currently stated as December 12, 2023 (Tuesday). However, the correct date for the seminar is December 19, 2023 (Tuesday).**

I apologize for any confusion this may have caused and appreciate your prompt attention to this matter. If you require any further information or clarification, please feel free to contact me.

Thank you for your understanding and help.

Best regards,

Liuchao Jin

Dear Ms. Wong,

I trust this email finds you well. I am writing to request your kind assistance in submitting the recommendation letter for Weitong Wang’s application to the research postgraduate program at the Chinese University of Hong Kong (CUHK). His application number is 24357574.

Weitong has nominated me as his academic referee, and I understand that you are facilitating the submission process. I have completed the attached hardcopy form, and I am pleased to submit the recommendation letter via this email.

Please find attached the necessary documentation for your records. If there are any additional steps or information required, please feel free to let me know.

I appreciate your prompt attention to this matter, and I am grateful for your support in Weitong’s application process.

Thank you once again, and if you have any questions, please do not hesitate to contact me.

Best regards,

Liuchao Jin

Dear Prof. Liao and Prof. Ge,

We are very honored to invite Professor Qi Ge to conduct a seminar in our department, and I hope this email finds you well. I am writing to bring to your attention a proposal for the seminar scheduled for:

* Date: 19 Dec. 2023 (Tuesday)
* Time: 11:00 am - 12:00 pm

I believe this seminar would provide valuable insights and contribute significantly to our department's academic environment.

To facilitate the organization of this seminar, I kindly request your assistance in coordinating with Professor Qi Ge. If it aligns with your schedule, could you please arrange this seminar and ensure that the necessary resources are available?

Additionally, Professor Qi Ge will submit the seminar details (Title, Abstract, and Biography) at his earliest convenience. This information will be crucial for promoting the event and ensuring its success.

Thank you very much for considering arranging this seminar. I am confident that the seminar will be an enriching experience for our department.

Looking forward to your guidance and help in making this seminar possible.

Best regards,

Liuchao Jin

Dear Ms. Garie Wong,

Thank you for your prompt response. I acknowledge the requirement to complete the attached form for the Hostel Withdrawal Notification process.

I have duly filled out the form and attached it to this email. Additionally, I have included the necessary supporting documents for your thorough consideration.

Your assistance and attention to this matter are greatly appreciated. Please do not hesitate to inform me if there are any further steps required on my part or if you need any additional information.

Looking forward to your guidance on the next steps.

Best regards,

Liuchao Jin

Dear PGH Office,

And if it is feasible to allow me to move out before 20 December 2023, that would be more convenient for me.

In any case, I am committed to providing any necessary documentation to support my withdrawal request if needed. In light of the situation, I kindly request your understanding and consideration to allow me to move out before 20 December 2023 or 20 January 2024. I am willing to comply with any additional requirements or provide further documentation if needed.

Thank you for your attention to this matter, and I look forward to your guidance on the next steps.

Best regards,

Liuchao Jin

Dear PGH Office,

I appreciate your prompt response and the information provided regarding my Hostel Withdrawal Notification.

I would like to bring to your attention that I encountered technical difficulties when submitting the withdrawal application through the online Hostel Withdrawal System (<https://cloud.itsc.cuhk.edu.hk/webform/view.php?id=13669718>) before 20 Nov. I have reported this issue to ITSC, and they have confirmed the existence of technical bugs in the system. I have attached their response for your reference.

Due to these technical issues, I am unable to submit the withdrawal application by the deadline of 20 November 2023. That’s the reason why I need to withdraw the dormitory middle of the term. However, I am committed to providing any necessary documentation to support my withdrawal request.

In light of the situation, I kindly request your understanding and consideration to allow me to move out before 20 January 2024. I am willing to comply with any additional requirements or provide if further documentation is needed.

Thank you for your attention to this matter, and I look forward to your guidance on the next steps.

Best regards,

Liuchao Jin

尊敬的朱宝老师，

您好！

希望您一切都好。我是金刘超，SUSTech Fellow（学号：30026668），机械与能源工程系。

我写信是想把我的11月份的SUSTech Fellow工作记录确认表发送给您，请您查收。如果您需要我提供任何额外的信息，请随时告诉我。

感谢您的帮助，期待您的确认。

此致

敬礼！

金刘超

2023年11月29日

Dear PGH Office,

Thank you for your prompt response. I will reach out to ITSC to address the technical issue. If there are any updates or resolutions, I will keep you informed.

Best regards,

Liuchao Jin

Dear PGH Office,

I appreciate your efforts in testing the form. However, the issue still persists on my end, and I’m unable to log into the Hostel Withdrawal Notification System using the provided link (https://cloud.itsc.cuhk.edu.hk/webform/view.php).

To provide further clarity, I have attached a video demonstrating the problem. In the video, you will observe that I input the same OnePass password successfully into the CUHK portal, demonstrating that the password is correct. However, when I attempt to log into the Hostel Withdrawal Notification System with the same password, the system does not recognize the same credentials.

I understand that the form may be functioning for other residents, but it seems there might be an issue specific to my account or the interaction between my account and the form.

Could you please review the attached video and investigate further? I would appreciate any insights or solutions you can provide to resolve this matter.

Thank you for your continued help.

Best regards,

Liuchao Jin

Assistance Required: Issues with Hostel Withdrawal Notification and Hostel Deposit Refund Request System

Dear PGH Office,

I hope this email finds you well. My name is Liuchao Jin, a postgraduate student with the University ID 1155184008. I am writing to seek assistance regarding an issue I am facing with the Hostel Withdrawal Notification and Request for “Hostel Deposit” Refund system for the academic year 2023/24.

I have been trying to log into the system using my University ID (1155184008) and OnePass Password. I have tested these credentials on the CUHK portal (<https://sts.cuhk.edu.hk/adfs/ls/?SAMLRequest=fZFLb4MwEIT%2FCvI9GJxQghWQaHJopLRFhfbQS2WMU6wYm3pNH%2F%2B%2BSegjueS8szOz3y6Adaqn%2BeBa%2FSDeBgHO%2B%2ByUBnocpGiwmhoGEqhmnQDqOC3z2w0lfkB7a5zhRiEvBxDWSaOXRsPQCVsK%2By65eHzYpKh1rgeKcW%2BsY8rnQ7vzRTP47Q6Xraxro4RrfQCDD84EF%2FdlhbzVvorU7GD6bwEOzvZZswWsACNvvUrRSz2PyEw003h2FcU82HI%2Bnc%2B2YRKTMImIIHsZwCDWGhzTLkUkINNJGE5IUgUxjSJKkmfkFT9nXUvdSP16mUE9ioDeVFUxGas%2FCQvH2nsByhYHkvQYbE%2FYXrZlv0BRdgEf%2FOFb4JOUMbKnd3vb9aowSvIvL1fKfCytYE6kKEQ4G1fOf599Aw%3D%3D&RelayState=ss%3Amem%3A562212f984415da8f6a2b26b7ec721ff59cddcacca50a03d9ef37727646c7593>), and they were accepted.

However, when I attempt to log into the Hostel Withdrawal Notification system (<https://cloud.itsc.cuhk.edu.hk/webform/view.php>), I encounter difficulties, and the system does not seem to recognize my credentials (You have inputted an incorrect UID/OnePass Password or you do not have access right).

I would greatly appreciate your assistance in resolving this matter as I need to complete the withdrawal process. If there are specific steps or alternative methods to access the system, please advise accordingly.

Thank you for your prompt attention to this issue. I look forward to your guidance.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Kindly find attached the latest version of the proposal, incorporating the requested revisions for the part ‘Research questions’ – (ii) under (b) Research Project Statement.

Thank you for your continuous support and valuable insights throughout this process.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well. I have diligently worked on the “Pathways to Impact” section as per your guidance. I have addressed the questions you provided and aimed to make the section comprehensive and impactful.

Please take your time to review the document. I am open to any further suggestions or modifications you might deem necessary. Your feedback is invaluable, and I am committed to ensuring that this section aligns seamlessly with your expectations.

Thank you for your time and guidance.

Best regards,

Liuchao Jin

Dear Mr. Lau,

Thank you for bringing this to my attention. I have rebooted my PC as advised. Please let me know if there’s anything else I need to do to address this issue.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for providing the updated proposal. I will thoroughly revise the ‘Pathways to Impact’ section, addressing the questions you’ve outlined.

I appreciate your guidance, and I’ll send you the revised section tomorrow.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’ve enlarged Fig 1 as per your suggestion. Additionally, I’ve modified Fig 2 to a more than one-line layout to enhance clarity. Please find the updated figures attached.

In addition, I will also think about the deliverables for the Gantt chart.

Thank you for your feedback.

Best regards,

Liuchao Jin

Dear Mr. Pang,

Thank you for your inquiries.

Regarding the material LCE, unfortunately, it is not available in our laboratory. However, Professor Qiguang He’s lab has access to it. If necessary, we can explore the possibility of collaboration with his lab for obtaining LCE.

As for the combination of PLA and PCL, PCL is not available in our lab, and purchasing it online is not feasible due to unavailability from suppliers.

Considering the materials readily accessible in our lab, I would recommend utilizing PLA, TPU, and SMP for your printing needs. These materials are readily available, and SMP information can be found at <http://www.smptechno.com/index_en.html>.

Certainly, we can communicate through WeChat for any further discussions. My WeChat ID is Liuchao\_Jin. Please feel free to reach out, and we can discuss your project in more detail.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well.

I have made revisions to the figures and the Gantt Chart for our project. In particular, I’ve created different color modes for the Gantt Chart in the PDF format. I would appreciate it if you could take a moment to review them and select the version that best suits your preferences.

Once you’ve made a selection, please let me know, and I will promptly send you the corresponding PNG file.

Additionally, to ensure consistency, I would like to update the figure numbers in the text content of the proposal. Could you please share your revised version of the proposal?

Your feedback and collaboration are highly valued. Thank you for your time and help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for providing feedback on the proposal. I appreciate your guidance. I will promptly make the suggested changes to the figures and the Gantt Chart as follows:

Figures Adjustment:

* Insert the diagram into the two-page part for diagrams as Fig 1 (top left).
* Move and renumber the original figures accordingly: Fig 3 to Fig 2, Fig 1 and 2 to Fig 3 and 4.
* Change the numbers of the second page figures to Figures 5-8.

Gantt Chart Redrawing:

* Redraw the Gantt Chart to incorporate all milestones and deliverables in the timetable.
* Utilize the preferred sample attached for reference.

I will work on these revisions promptly and ensure that the updated documents are sent to you as soon as possible. Thank you.

Best regards,

Liuchao Jin

Dear Mr. Pang,

Thank you for your inquiry. I’m pleased to inform you that we have a multi-material 3D printer available in ERB G05 that allows printing with different materials simultaneously. Currently, we have three materials available: PLA, TPU, and SMP.

For specific details and assistance, I can provide guidance on the use of the multi-material 3D printer and answer any questions you may have.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I have attached the corresponding jpg file along with the updated figures in both pdf and jpg formats in following two emails. Please find them in the attachments.

This is Email 1.

If there is anything else you need or any further adjustments required, please do not hesitate to let me know.

Looking forward to your guidance.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your prompt feedback. I appreciate your keen observation. I have corrected the spelling of ‘Vehicle’ in the figure.

Attached to this email is the revised figure. Please review it. Thank you.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this message finds you well.

I have sent the revised figure as an attachment to this email. Please review it at your earliest convenience. I will try to think of the 15-arrow figure based on this figure. Thank you.

Thank you for your time and guidance.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your prompt response and for providing the suggested changes. Certainly, I'm available for a discussion. I’ve added you on WeChat (my WeChat ID is Liuchao\_Jin).

Looking forward to our conversation.

Best regards,

Liuchao Jin

Dear Prof. Bodaghi,

Thank you for your prompt and encouraging response. The conference you are organizing in France sounds like a fantastic opportunity, and I would be honored to attend. I will make every effort to participate and contribute to the discussions.

I’m genuinely excited about the prospect of future collaborations and exchanges of ideas. Let’s indeed keep in touch. I’ll stay connected and look forward to any updates regarding our potential meeting at SIAT and the conference in France.

Once again, thank you for your warm response and the invitation.

Best regards,

Liuchao Jin

Dear Prof. Bodaghi,

I hope this message finds you well. My name is [Liuchao Jin](https://liuchao-jin.github.io/), and I am a second-year PhD student under the supervision of Professor Wei-Hsin Liao. My research interest is computational 4D printing.

I’m writing to you today based on the information I received from Prof. Fei Gao. It is my understanding that you will be visiting SIAT (Shenzhen) next year to engage in research activities, right? I wanted to express my enthusiasm for the upcoming opportunity.

The prospect of your visit is particularly exciting for me as SIAT is next to the Southern University of Science and Technology (SUSTech), where I am currently engaged in an academic exchange. I will be here for about three years. My co-supervisor at SUSTech is Prof. [Qi Ge](https://faculty.sustech.edu.cn/?tagid=geq&iscss=1&snapid=1&orderby=date&go=1&lang=en), and I have been actively involved in research related to computational 4D printing during my time here.

Your background and expertise, as a graduate of Professor Liao Weixin, are of great interest to me, and I am eager to engage in meaningful academic exchanges and discussions with you. I am looking forward to the possibility of interacting with you, learning from your experiences, and sharing insights on our mutual research interests. Your visit holds the potential to enrich my academic journey, and I am genuinely excited about the knowledge and perspectives that you may bring.

Once your visit to SIAT is confirmed, I would be delighted to meet with you and explore avenues for collaboration or simply have a valuable academic exchange.

Thank you for taking the time to read this message, and I eagerly await your visit next year. If you have any questions or if there are specific areas of interest you’d like to explore, please feel free to let me know.

Wishing you safe travels and successful research endeavors in the coming year.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well. I wanted to share an update regarding our project, specifically the visual representation of the relationship among vibration, energy harvesting, and human motion.

I have created an initial version of the figure, which includes basic elements to illustrate this relationship. However, I recognize the importance of your insights and suggestions in refining this representation further.

Please let me know your thoughts on the figure, and if you believe it’s on the right track, I will proceed with the detailed development. Your feedback is eagerly awaited.

Thank you once again for your guidance and help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I trust this message finds you well. I am writing to submit the revised version of the proposal, as well as additional materials related to our project.

Here’s a breakdown of the files attached to this email:

1. **Revised Research Proposal (docx):** I have made substantial revisions to the research proposal, taking into consideration the feedback and suggestions you provided earlier. The updated proposal now reflects a more structured and comprehensive approach to our project, particularly in areas related to vibration, energy harvesting, and motion assistance.
2. **Modified Figure (pdf):** I have created a new figure to visually demonstrate the intricate relationship among vibration, energy harvesting, and motion assistance. This figure aims to enhance the clarity and understanding of our project’s core concepts.
3. **Response to Reviewers’ Comments (docx):** I have also prepared a document addressing the comments and suggestions from the reviewers. This response document outlines the changes made to the proposal and provides explanations for the modifications implemented.

I would greatly appreciate it if you could review these materials at your earliest convenience. Your feedback and guidance have been invaluable throughout this process, and I am eager to incorporate your insights to further improve the project proposal.

Best regards,

Liuchao Jin

Dear Daojun,

Yes, you are right.

Best regards,

Liuchao Jin

Dear Daojun,

Thank you for reaching out with your question regarding Assignment 3. I understand you’re looking for guidance on the first question. Let’s break down the problem to find the accelerometer calibration parameters and the calibrated readings for the two sensors.

* Calibration Parameters:
  + To calibrate the accelerometers, you need to determine their offset and scaling factors. These parameters ensure that the raw sensor readings are transformed into accurate measurements. In your case, you have AM01 and AM02 readings when experiencing gravity.
    - Offset (Bias): This parameter accounts for any deviation from zero when the accelerometer is at rest. It can be calculated as the average of the real number minus readings when the accelerometer is at rest (gravity only).
* Calibrated Readings:
  + To find the calibrated readings when these accelerometers are placed on the machine, you’ll use the calibration parameters. You can add offset to real number to calculate the calibrated readings.

This process ensures that your sensor readings are adjusted to provide accurate measurements after calibration.

I hope this explanation helps you to work through the problem. If you have any further questions or need additional assistance, please don’t hesitate to ask.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this message finds you well. I want to inform you that I have made the revisions we discussed. I utilized AI to improve the logical structure of the manuscript. Additionally, I’ve included a figure that illustrates the relationship between vibration, energy harvesting, and motion assistance. Furthermore, I have updated the timeline table for this project.

I have attached four files to this email for your review:

* AI-revised manuscript (docx)
* AI-generated suggestions (docx)
* Figure depicting the relationship among vibration, energy harvesting, and motion assistance (pdf)
* Figure illustrating the project timeline (pdf)

The only aspect I haven’t addressed yet is the organization of the seven figures at the end of the proposal. Please let me know if you think I should reorganize these figures to enhance their clarity and aesthetics or if it’s better to redraw some of them. If the former is preferred, I will need to source the original figure files from senior colleagues to ensure high resolution.

Your feedback and guidance on this matter are greatly appreciated.

Best regards,

Liuchao Jin

Dear Ms. Amy,

Thank you for your prompt response and for forwarding my request to Ms. Kan and the Graduate Panel for their consideration.

I appreciate your help in this matter. Please do keep me updated on any developments related to my request. Have a good coming weekend!

Best regards,

Liuchao Jin

Dear Ms. Amy,

I hope this message finds you well. I’m writing to follow up on my previous email sent Oct. 6 regarding my request to defer the oral examination for the Candidacy Examination.

I understand that you have a busy schedule, and I want to ensure that my request is being processed appropriately. Could you please confirm if you have received my previous email? Your acknowledgment would provide me with the assurance that my request is being considered.

Additionally, I would appreciate further guidance, particularly regarding any forms or procedures I need to follow in this process.

Thank you for your attention to this matter, and I appreciate your help in this process.

Best regards,

Liuchao Jin

Dear Mr. Rave,

Thank you very much for your prompt response and guidance. I will try to remote my department PC now and follow your advice to complete the necessary updates and reboot. Your help is greatly appreciated.

Best regards,

Liuchao Jin

Dear Mr. Rave,

My office is at ERB201. Thank you.

Best regards,

Liuchao Jin

Dear Mr. Rave,

I have just left my office. I will be available tomorrow morning between 8:30 and 9:30. Could we arrange to meet at my office during that time? Thank you and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Rave,

I trust this message finds you in good health. I am Liuchao Jin, a PhD student in the Department of Mechanical and Automation Engineering, with the Student ID 1155184008. My office is in Room 201. I am reaching out to you as I am currently encountering an issue with my departmental PC. Specifically, I am unable to log in, and the error message states, “The security database on the server does not have a computer account for this workstation trust relationship.” as shown in the figure below I would greatly appreciate your help in resolving this matter.

Best regards,

Liuchao Jin

尊敬的肖妮老师：

您好！

我希望一切安好。我是机械与能源工程系的SUSTech Fellowship金刘超。请接收附件中的9月和10月的工作记录电子版表格。同时，我已经将纸质版提交至工学院北楼530办公室。

非常感谢您的帮助，祝一切顺利。

此致

敬礼！

金刘超

2023年11月2日

Dear Prof. Liao,

I’ve received the attached files. I will proceed with generating the newly discussed files as per your instructions. Thank you and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Got it. Looking forward to seeing you soon. Thank you.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’m available at 10:45 am this morning, and I’m looking forward to our conversation.

Please let me know if you have any preferred platform for the meeting, or if you would like to meet in your office.

Thank you and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Sorry about that. Please check the following Google Drive files below:

[Manuscript](https://drive.google.com/file/d/1trOZZ0sAPIiGX-IJABMgKLd1v3UzYB1f/view?usp=drive_link): https://drive.google.com/file/d/1trOZZ0sAPIiGX-IJABMgKLd1v3UzYB1f/view?usp=drive\_link

[Cover Letter](https://docs.google.com/document/d/1SPuSVl6oZUH2fzqdgrTCpNR_EBX7KI5w/edit?usp=drive_link&ouid=113708245373509091633&rtpof=true&sd=true): https://docs.google.com/document/d/1SPuSVl6oZUH2fzqdgrTCpNR\_EBX7KI5w/edit?usp=drive\_link&ouid=113708245373509091633&rtpof=true&sd=true

Many thanks for your help!

Best regards,

Liuchao Jin

Manuscript for “Finite element analysis, machine learning, and digital twins for soft robots: state-of-arts and perspectives”

Dear Prof. Liao,

I hope this email finds you well. I am writing to you because we have successfully completed the paper titled “Finite element analysis, machine learning, and digital twins for soft robots: state-of-arts and perspectives.”

You can access the manuscript here: . Before proceeding, could you please review the manuscript and its contents? If you find this version satisfactory and without any concerns, I will proceed to upload materials to *Advanced Intelligent Systems*.

Furthermore, I’d like to draw your attention to the cover letter. It appears that a cover letter is optional for file submission but is required for a plain text version. For your convenience, I have attached the cover letter here: . If possible, could you review this cover letter, which will be put on the submission system in a plain text format?

One more important thing we need to pay attention to is that *Advanced Intelligent Systems* is an open-access journal, which costs about $3,510 USD for publishing. Do you think it’s valuable or we can switch for other journals?

Thank you very much for your ongoing help and guidance throughout this process. Your expertise is invaluable. Looking forward to your feedback and guidance. Please feel free to reach out if you have any questions or need further information.

Best regards,

Liuchao Jin

Dear Zhijie,

I’m sorry to hear about your situation, and I appreciate your proactive approach in addressing it. I understand that you’ve discussed your circumstances with Professor Alan, and I’m here to assist you with your presentation.

I’ve received the details for the online meeting you’ve arranged. Here are the specifics for your MAEG5715 Midterm Presentation:

**Topic:** MAEG5715 Midterm Presentation

**Date:** October 30, 2023

**Time:** 06:00 PM (Beijing, Shanghai Time)

**Meeting Link:** [Zoom Meeting Link](https://cuhk.zoom.us/j/97128089942)

**Meeting ID:** 971 2808 9942

Please add my WeChat (ID: Liuchao\_Jin) or WhatsApp (#: 95705790) for convenient contact. Please don’t hesitate to reach out if you need any further assistance or have any questions regarding your online presentation.

I wish you a smooth and successful presentation, and I hope you recover from chickenpox soon. Take care!

Best regards,

Liuchao Jin

Dear Runjie,

I hope this message finds you well. I’ve discussed your request with the professor, and there is some good news. The professor has agreed to grant an extension for the submission of your report. However, there is a crucial condition: it is still required that you submit your presentation (PPT) on time.

So, here’s the updated plan: you can submit your report later, but please make sure the presentation is submitted as scheduled. This way, you can still give your presentation as planned.

If you have any further questions or need additional guidance, please don’t hesitate to ask. We’re here to support you.

Best regards,

Liuchao Jin

Dear Runjie,

Thank you for reaching out.

I understand the challenges you’ve faced, and it’s not uncommon to have tight schedules and multiple commitments. I appreciate your dedication to your coursework.

I will certainly discuss your request with the professor. I understand that postponing the report deadline may provide you with some relief. Once I receive the professor’s response, I will promptly get back to you with the decision. In the meantime, I recommend you work on your report and presentation as best you can just in case the deadline cannot be extended.

I will do my best to support you in this matter. Please stay tuned for my response.

Best regards,

Liuchao Jin

Dear Tsz Pok Pang,

Thank you for your response. I completely understand that you have a lot on your plate right now with exams and deadlines. Your education and ongoing commitments should take precedence.

I’m glad to hear that the information I provided was helpful for your FYP planning report. Don’t worry about not responding promptly; I know that time can be a precious commodity, and your academic responsibilities should come first.

If you have any questions or need further assistance with your FYP in the future, please don’t hesitate to reach out. I’m here to support you, and we can discuss your project whenever it’s more convenient for you.

Good luck with your exams and other tasks, and I look forward to assisting you with your FYP when the time is right.

Best regards,

Liuchao Jin

尊敬的老师：

您好！

我计划参加10 月 30 日下午16:00 至 17:20的新用户培训。以下是我的信息：

* 院系：机械与能源工程系
* 姓名：金刘超

感谢您的帮助！

此致

敬礼！

金刘超

2023年10月27日

尊敬的老师：

您好！

感谢您的帮助。我们已收到培训邮件。祝即将到来的周末愉快！

此致

敬礼！

金刘超

2023年10月27日

Dear Tsz Pok Pang,

I hope this email finds you well. I’m reaching out to follow up on the previous email I sent regarding your FYP topic, “3D Printing with Shape Memory Materials.” I understand that your academic journey is important, and I want to ensure that you receive the guidance and information you need for your FYP project.

If you’ve been experiencing any issues or challenges in receiving or accessing my previous emails, please let me know. Your engagement and progress in your FYP are of great importance to you, and we want to ensure you have all the information and support you need.

I look forward to your response and to further discussing your FYP project.

Best regards,

Liuchao Jin

尊敬的老师，

您好！

希望您一切安好。我是机械与能源工程系葛锜老师课题组的访问学生金刘超。我写信是为了启动我们研究团队在南方科技大学计算中心新账户的流程。

根据南科大计算中心的指南，我们已经完成了所需的计算时数存款，现在我们准备继续进行账户申请的过程。附件是两份重要的文件：

* 账户申请表格：此文件已填写了我们研究团队所需的信息。
* 承诺书：此信已由我们的PI签署，确认我们承诺遵守计算中心设施使用的条款和条件。

如果您需要任何额外的信息或需要进一步的步骤，请随时通知我们。

感谢您的帮助，期待您的回复。祝工作顺利！

此致

敬礼！

金刘超

2023年10月27日

Dear Kyle,

I hope you’re doing well. Your question about the difference between block diagrams and system diagrams is a good one, and I’m here to provide some clarity:

**Block Diagram:**

A block diagram is a high-level visualization of a system that represents the system’s components or processes as individual blocks. Each block typically signifies a specific function, component, or element within the system. These blocks are connected by lines or arrows to indicate the flow of information or signals between them. Block diagrams are primarily used to illustrate the functional components of a system and their interconnections. They are valuable for simplifying complex systems into more manageable and understandable representations.

**System Diagram:**

A system diagram, on the other hand, provides a broader view of the system, showing its various components and their interactions in a more comprehensive manner. It often includes external elements and environmental factors that influence the system. System diagrams can be considered an extension of block diagrams, offering a holistic view of the entire system, including its inputs, outputs, and the connections between different subsystems.

The key difference is the level of detail and scope:

* Block diagrams focus on the internal details of a specific component or process within the system. They are great for understanding how individual elements work within a subsystem.
* System diagrams provide a higher-level view that encompasses the entire system, along with its interfaces and relationships with external entities. They are ideal for understanding the overall structure and function of the system.

In summary, while block diagrams dissect a system into its functional parts, system diagrams provide a more comprehensive view of the system as a whole, including its connections with external elements and how subsystems interact.

I hope this helps clarify the difference between these two types of diagrams. If you need further examples or have additional questions, please feel free to ask. I’m here to assist.

Best regards,

Liuchao Jin

Dear Daojun Teng,

I hope this message finds you well, and I appreciate your questions regarding the mid-term project for MAEG5715. I’m here to provide some clarification on your concerns:

**1. Mid-Term Report Length:**

While the professor has indicated that the mid-term report should not exceed ten pages, there is no specific minimum page requirement. The key focus should be on the quality of your content rather than the length. Your report should be comprehensive, covering the necessary aspects of your project idea, its implementation, and results. If you believe that you’ve adequately addressed all relevant content within fewer pages, it’s perfectly acceptable. The aim is to provide a clear and concise representation of your project’s progress.

**2. File Format and Equation Display:**

Your concern about equation and formula discrepancies between different document formats is valid. To ensure consistency and readability, submitting a PDF file alongside your DOC file is a good solution. This way, you can preserve the formatting and equations as intended, and there will be no ambiguity when the professor views your report.

Please make sure the content in the PDF version is consistent with the DOC version. You can easily convert your DOC file to PDF using various tools or software to maintain the equation and symbol integrity.

Your diligence in seeking this clarification is commendable. It’s important that your hard work is presented effectively. If you have any more questions or need further assistance with your project, please feel free to ask. We’re here to support your success in MAEG5715.

Best regards,

Liuchao Jin

Dear Jianwei Zheng,

I hope this email finds you well, and I appreciate your inquiry regarding the mid-term report for MAEG5715: Computer Interface and Simulation.

I understand that you’re looking for further clarification on the working direction for your project and would appreciate some references to help you decide and design your project direction. It’s great to see your proactive approach to ensure the success of your project. Here are some references and suggestions that might help you:

1. **Review of Existing Projects**:  
   Consider looking at similar projects or case studies related to computer interface systems. You can search for academic papers, articles, or online resources that showcase projects using sensors, actuators, or other technologies relevant to your field of interest. This can provide you with insights into the technology and details that should be showcased in your report.
2. **Course Materials**:  
   Revisit the lecture notes and materials from lectures 1-6 in the course. Identify key concepts, technologies, and examples discussed in these lectures. These materials should serve as a foundation for your project direction.
3. **Consultation with Instructor**:  
   Don’t hesitate to reach out to Prof. Lam for guidance. He can provide valuable insights and clarify any specific requirements or expectations for the mid-term report.
4. **Examples from Homework**:  
   You mentioned Homework 01 and 02. Consider how you can apply the concepts and technologies you’ve learned in these assignments to your project idea. These assignments likely contain examples and calculations that can be integrated into your report to showcase your understanding.
5. **Project Proposal Guidelines**:  
   Review the project proposal guidelines provided in the course description. Ensure that your proposal aligns with the requirements outlined there, including the problem statement, technologies to be adopted, system diagrams, and block diagrams.
6. **Peer Discussion**:  
   Engage in discussions with your peers who are also working on their projects. Sharing ideas and experiences can help you gain a fresh perspective on your project direction.

Regarding the design of a computer interface system, here are some general ideas to consider:

1. **Smart Home Automation**:

Design a system that enhances the efficiency and convenience of daily tasks in a home environment. This could involve controlling lighting, climate, or security systems through a user-friendly interface.

2. **Health Monitoring Device**:

Create a wearable health monitoring device that collects data such as heart rate, temperature, or activity levels and provides real-time feedback to users or healthcare providers.

3. **Environmental Monitoring**:

Develop a system that collects data on environmental parameters like air quality, temperature, or humidity, and presents this information through a user interface.

4. **Education Technology**:

Explore solutions to improve remote learning experiences. This could involve creating an interactive online learning platform or a device that aids in remote classrooms.

5. **Assistive Technology**:

Design a system to assist individuals with disabilities. This might include technologies like voice-controlled interfaces, braille displays, or mobility aids.

These are just a few project ideas to get you started. You can choose one that aligns with your interests and the technologies you’ve learned in the course.

I hope these references and suggestions, along with the design ideas, help you decide on your project’s design direction. If you have any more specific questions or need further assistance, please don’t hesitate to reach out. We’re here to support your success in the course.

Best regards,

Liuchao Jin

Dear Ms. Kan and Ms. Wong,

I hope this message finds you well. I’m Liuchao Jin, PhD student @ MAE (Student ID: 1155184008). My supervisor is Prof. Wei-Hsin Liao. I am writing to express my sincere interest in applying for the Yu To Sang Memorial Scholarships, and I attached the application form to this email for this scholarship opportunity.

From the provided information, it is evident that the Yu To Sang Memorial Scholarships encompass the kind of support and recognition that would significantly contribute to my academic goals and personal growth. I believe that the combination of financial assistance and acknowledgment of my commitment to academic excellence and participation in university-wide leadership training programs would be immensely valuable for my educational journey.

I have attached the completed Excel form as instructed, and I am genuinely excited about the possibility of being considered for this scholarship and am prepared to provide any supplementary documentation or information that may be needed during the application process.

I appreciate your guidance and support as I pursue this scholarship opportunity, and I look forward to the prospect of being a nominee for the Yu To Sang Memorial Scholarships.

Thank you for your guidance and help. Looking forward to hearing from you.

Best regards,

Liuchao Jin

Dear Haoming,

Got it. Many thanks!

Best regards,

Liuchao Jin

Dear Jin,

Thank you for your email and for providing a detailed explanation of the circumstances surrounding your HW02 submission. I appreciate your proactive communication and your efforts to clarify the situation.

I understand that you faced several unexpected challenges, including technical difficulties and unforeseen library closures, which contributed to the late submission of your assignment. Given the exceptional circumstances you’ve described, I want to assure you that your grade for this assignment will not be affected by the late submission.

I appreciate your commitment to your studies and your dedication to completing the assignment under challenging conditions. However, I would like to take this opportunity to remind you to plan your work in advance and manage your time effectively to avoid any future issues with assignment deadlines.

If you have any further questions or concerns regarding the assignment or any other aspects of the course, please feel free to reach out. I’m here to assist you and support your academic progress.

Thank you for your understanding, and I wish you a successful and productive semester.

Best regards,

Liuchao Jin

Dear Ms. Amy,

I hope this message finds you well. I’m writing to follow up on my previous email sent Oct. 6 regarding my request to defer the oral examination for the Candidacy Examination.

I understand that you have a busy schedule, and I want to ensure that my request is being processed appropriately. Could you please confirm if you have received my previous email? Your acknowledgment would provide me with the assurance that my request is being considered.

Thank you for your attention to this matter, and I appreciate your help in this process.

Best regards,

Liuchao Jin

Dear Daojun,

I appreciate your follow-up question, and I understand your concern about the simplicity of your initial interpretation. Let me provide some further guidance.

While it’s true that you can mention the scenarios where all data is either successfully transmitted (best case) or completely lost (worst case), it’s indeed essential to consider that these scenarios might be overly simplistic for this assignment.

To provide a more comprehensive response, you could:

* **Discuss Probabilities**: Delve into the probabilities associated with data transmission errors. Explore how different factors, such as channel noise, interference, or error rates, can affect the likelihood of data loss in both best and worst-case scenarios.
* **Quantify Data Loss**: Consider calculating the expected number of data packets lost in both cases based on given probabilities. This adds a quantitative aspect to your answer and demonstrates a deeper understanding of the topic.
* **Explore Real-World Factors**: Consider real-world scenarios where not all data may be lost in the worst case but could still suffer significant loss. Discuss factors like error correction techniques or retransmission strategies that can mitigate data loss to some extent.

By taking these additional steps, your response will demonstrate a more thorough analysis of the assignment question and show that you’ve considered the complexities involved in data transmission.

If you still have concerns or need further clarification on specific aspects of the question, please don’t hesitate to ask. I’m here to assist you with any additional queries you may have.

Best regards,

Liuchao Jin

Dear Ms. Amy,

I hope this message finds you well. I’m Liuchao Jin, PhD student @ MAE (Student ID: 1155184008). My supervisor is Prof. Wei-Hsin Liao. I am writing to request a deferral of my oral examination for the Candidacy Examination, which was initially scheduled to be completed within six months after the written examination on May 19, 2023.

The reason for my request is that I require additional time to obtain more technical results and conduct further research related to my candidacy. Given the complex nature of my research and the need for more comprehensive data and analysis, I believe that extending the timeline for my oral examination would allow me to present a more substantial and well-prepared body of work.

I understand that such a deferral requires approval from the Graduate Panel, and I am committed to following the necessary procedures to obtain this approval promptly. My intention is to ensure that I present the highest quality of work during my oral examination, which aligns with the rigorous standards of our program.

I have obtained approval from my supervisor for this deferral. I will also maintain open communication with my supervisor to determine a suitable date for the rescheduled oral examination and promptly nominate the members of the Graduate Committee, as per the guidelines provided.

I appreciate your understanding of my situation and your help in facilitating this deferral process. If you require any additional information or documentation to support my request, please do not hesitate to let me know. I am committed to meeting all the requirements of the program and ensuring a successful outcome for my oral examination.

Thank you for your attention to this matter, and I look forward to your guidance throughout this process.

Best regards,

Liuchao Jin

Dear Daojun,

Thank you for reaching out with your question regarding the fourth assignment question in MAEG 5715. I understand your confusion about the terms “best” and “worst” case in this context.

In the context of this question, the “best case” typically refers to the scenario where everything goes perfectly, and there is minimal or no data loss during transmission. Conversely, the “worst case” refers to the scenario where everything goes wrong, leading to maximum possible data loss.

You are correct in your general understanding. In the best case, you can assume that all data is successfully transmitted with no loss. In the worst case, you can assume that all data is lost during transmission. However, I believe the question may be more interested in exploring the probabilities associated with data loss.

I hope this clarifies the concept of “best” and “worst” case in this context. If you have any further questions or need additional clarification, please don’t hesitate to ask.

Best regards,

Liuchao Jin

Dear Jianwei Zheng,

I hope this message finds you well. Thank you for reaching out with your question regarding homework question 2. I’m here to provide clarification and help you understand how to approach this problem correctly.

**Question 2**: You are tasked with calculating the speed ratio of the gear train and determining the angular velocity of gear 3. The gear train consists of three gears (G1, G2, and G3) with specified tooth counts (T1, T2, T3) and gear 1 (G1) as the driving gear with an angular velocity of 2400rpm.

To address your confusion, you should indeed showcase the relationship between the three gears in the gear train. The speed ratio should be expressed as a ratio that reflects how the rotational speeds of these gears are interconnected. In this case, the correct answer would be ‘4:2:1.’

The gear train’s speed ratio is essentially a comparison of the rotational speeds between the gears. So, in your response, please provide the ratio ‘4:2:1’ to indicate the relationship between gears G1, G2, and G3. Additionally, calculate and include the angular velocity of gear 3 as part of your solution.

I hope this clarifies the question for you. If you have any more questions or need further assistance with this or any other homework problems, please don’t hesitate to ask. I’m here to help you succeed.

Best regards,

Liuchao Jin

Dear Kacia Mak,

I hope this message finds you well. Thank you for your inquiry regarding homework questions 3 and 4. I’d be happy to clarify their relationship and provide details on the data frame format for question 4.

Question 3 and question 4 are indeed related in the context of communication systems and data transmission. Let me break down the connection between these two questions:

**Question 3**: In this question, you are asked to determine the maximum sampling frequency of a sensor system that needs to send out 3-axis data wirelessly. The key parameters include the baud rate (9600bps), asynchronous communication, odd parity, and two stop bits. You’re essentially calculating how often the sensor system can sample and transmit data while adhering to these communication parameters.

**Question 4**: This question deals with the transmission of data at a baud rate of 9600bps, with a specified probability of error (0.005). You’re asked to calculate the number of data and the number of errors per second. Additionally, you’re asked to determine how many data points are lost in both the best and worst-case scenarios.

Now, to address the data frame format for question 4:

In question 4, the data frame format is not explicitly provided because it focuses more on the transmission and error aspects of data. The question revolves around the transmission rate (baud rate) and the probability of errors, without delving into the specifics of the frame structure itself.

In this context, you are not required to define a specific data frame format. Instead, you’ll be working with the given parameters to analyze the transmission efficiency and error rates.

If you have any further questions or need additional clarification on these questions or any other aspects of your coursework, please feel free to ask. I’m here to assist you.

Best regards,

Liuchao Jin

Dear Tsz Pok Pang,

I hope this email finds you well. It is great to hear from you regarding your interest in your FYP topic, “3D Printing with Shape Memory Materials,” under the supervision of Prof. Liao. I appreciate your enthusiasm for this fascinating field.

Certainly, I would be delighted to provide you with more insights and guidance on this topic. “3D Printing with Shape Memory Material” is an exciting area of research, with various avenues you can explore. As you have mentioned, there are two primary directions:

1. **4D Printing Structure Design**: In this direction, you can focus on designing intricate structures that can be created using 4D printing technology. The key is to come up with innovative designs that leverage the unique properties of shape memory materials. This path is relatively straightforward and could be an excellent starting point for your project.
2. **Computational 4D Printing**: This direction involves using programming and computational techniques to control the allocation of shape memory material, resulting in desired 4D-printed shapes. It is a more advanced route that requires a solid background in programming and simulation. However, it can lead to highly customizable and precise outcomes.

Considering your background and interests, you can choose the direction that aligns better with your skills and research goals. Another thing I want to tell you that you have access to shape memory polymers for 4D printing in your lab, but they are the one-way shape memory polymer is available, which means when you heat up, the material will deform to the desired shape, but after cooling down, it will not return back. You can also explore the possibilities with two-way shape memory materials like Liquid Crystal Elastomers (LCE). The paper attached, “Recent Advances in 4D Printing of Liquid Crystal Elastomers,” is an excellent resource to gain deeper insights.

I encourage you to review the attached essays about these two directions. Afterward, we can discuss your thoughts and ideas further. Feel free to reach out if you have any questions or if you would like to schedule a meeting to discuss your FYP in more detail. I am here to assist you in any way I can.

Best regards,

Liuchao Jin

Dear Jianwei,

You are very welcome, and I am glad to hear that the explanation was helpful to you.

Regarding your question about the worst case, you are absolutely correct. If you explain that you cannot calculate the worst case due to the lack of information about the frame size and provide a clear reason for it, that would be a valid and responsible approach. It shows that you have considered the limitations of the problem.

As for your other questions:

1. “Frame size” refers to the number of bits in a data frame used for communication. In error analysis, knowing the frame size is essential because it helps determine how errors are distributed within the frame, which in turn affects the calculation of worst-case data loss.
2. Yes, “9600bps” indeed means “9600 bits per second.” Bps stands for “bits per second,” and it represents the data transmission rate.

Feel free to ask if you have any more questions or need further assistance. I am here to help!

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for your question regarding Homework Problem 4. I’ll provide some clarification on what “How many data are lost in the best and worst case?” means in this context.

In Homework Problem 4, you are dealing with data transmission, where there is a probability of error in the received data. Let’s break down the best and worst case scenarios:

**Best Case:**

* In the best case scenario, you would want all errors to occur in a way that minimizes their impact on the transmitted data. Essentially, you want errors to affect as few bits as possible.
* So, in the best case, you assume that errors occur in such a way that only one bit is affected per error.
* Given that the probability of error is 0.005, this means that for every 1000 bits transmitted, 5 bits are expected to be in error.
* Therefore, in the best case, you would lose exactly 5 bits of data for every 1000 bits transmitted.

**Worst Case:**

* In the worst case scenario, you want to consider how errors could occur in a way that maximizes their impact on the transmitted data. You’d want to know how many bits could be affected by a single error.
* Unfortunately, to calculate the worst-case data loss accurately, we need to know the frame size or the number of bits in a frame. This is because the worst case depends on the specific data transmission protocol and how errors are distributed within a frame.
* Without the frame size information, we can’t determine the exact worst-case data loss.

**In summary:**

* Best Case: 5 bits of data lost per every 1000 bits transmitted.
* Worst Case: We can’t calculate the worst-case data loss without knowing the frame size.

I hope this explanation clarifies the concept for you. If you have any more questions or need further assistance, please don’t hesitate to ask.

Best regards,

Liuchao Jin

尊敬的Mischa Zhang老师，

您好！

我希望您一切安好。我是金刘超，一名保留党组织关系的中共党员，目前正在香港中文大学攻读博士学位。我发这封邮件是为了提交我的半年个人思想汇报情况。

我已仔细阅读了最新的组织关系保留时间公告，感谢您的通知。

我将在邮件附件中提供我的半年个人思想汇报，这是以手写形式完成的，并已扫描为电子版。我的思想汇报覆盖了2023年1月至2023年6月期间的进展和思想情况。

请收下附件中的思想汇报，如果需要额外的信息或文件，请随时与我联系。期待您的反馈和建议。

再次感谢您的时间和关注。祝您工作顺利！

此致

敬礼！

金刘超

2023年9月23日

Dear Zhaoyang,

Thank you for your email and for bringing up this important question regarding the gauge factor calculation in HW1Q1.

I appreciate your detailed explanation of the matter and your exploration of the concept of Vex. You’ve made a valid point in considering the use of Vex as a more accurate representation when there is no other load in the system.

To address this issue, I will review your homework submission on the BlackBoard, taking into account your argument about using Vex instead of Vs. I will make the necessary adjustments in the grading to ensure fairness and accuracy.

Thank you for your understanding and for helping to improve the clarity of the course materials.

Best regards,

Liuchao Jin

Dear Yingtian,

Thank you for reaching out and providing your insights regarding the calculation of the Gauge Factor in HW01.

You have a valid point, and I appreciate your attention to detail. I agree that the choice of equation can impact the precision of the result. To address this, I will regrade your homework submission on the BlackBoard, taking into consideration the more precise equation you’ve used for the Gauge Factor.

Your dedication to accuracy is commendable, and I want to ensure that your efforts are duly recognized. I updated your grade on the BlackBoard. You can check now.

Thank you for your understanding, and I appreciate your proactive approach to clarifying this matter.

Best regards,

Liuchao Jin

Dear Grace,

Thank you for reaching out and seeking clarification. I appreciate your diligence in ensuring a smooth assignment submission process.

In your previous submission, we received one PDF file, as expected. The comment you received in the attached photo is not an indication of any issues with your submission. **The announcement just sent is a general reminder regarding assignment submissions for all students, not just for you**.

I apologize for any confusion this may have caused. Your submission was received and reviewed appropriately, and there were no problems with it.

If you have any further questions or concerns, please don’t hesitate to ask. Your commitment to ensuring the integrity of the submission process is commendable, and we’re here to assist you with any inquiries you may have.

Thank you for your dedication to the course, and I look forward to your continued participation.

Best regards,

Liuchao Jin

Dear all,

I hope this message finds you well. After carefully grading the first homework, we have noticed several issues that need addressing. To ensure a smooth and fair assessment process for all students, we have set some essential guidelines for submitting assignments moving forward. Please take a moment to familiarize yourself with these important changes.

Key Issues Identified:

* Wrong File Formats: Some assignments were submitted in incorrect file formats, making it challenging for us to review and assess your work properly.
* Non-English Writing Language: Assignments must be submitted in English. Non-English submissions create difficulties in grading and feedback provision.
* Late Assignments: Several assignments were submitted after the specified deadline, which affects the fairness of the grading process.

Therefore, we have uploaded detailed submission requirements and instructions on the BlackBoard in the Homework folder. Please review these guidelines carefully before beginning your assignments. Adhering to these rules will help ensure that your assignments are properly reviewed and graded.

We appreciate your understanding and cooperation in maintaining the integrity and fairness of the assessment process. If you have any questions or need clarification on any assignment-related matters, please do not hesitate to reach out to us.

Thank you for your attention, and we look forward to your continued dedication and hard work throughout this course.

Best regards,

Liuchao Jin

Dear Ka Lok,

Thank you for your email and for submitting Assignment 1 on Blackboard. I have received your message and the copy of your assignment for reference.

I appreciate your prompt submission and confirmation. If you have any questions or need further assistance in the future, please don’t hesitate to reach out. We are here to support you throughout the course.

Wishing you success in your studies, and if you have any more assignments or questions, feel free to contact me or Mr. Haoming Mo anytime.

Best regards,

Liuchao Jin

Dear Ka Lok,

Thank you for your email, and welcome to MAEG5715.

I appreciate your honesty and your proactive approach in reaching out. I understand that starting a new course can be challenging, and I appreciate your dedication to your studies. I have noted your request for an extension for your assignment submission.

In consideration of the circumstances, we’re willing to grant you an extension until the end of Wednesday for the assignment submission. Please ensure that you submit it by the agreed-upon time. The most important thing is that you have the opportunity to complete and submit the assignment.

If you have any questions or need further assistance with the assignment or the course, please don’t hesitate to reach out. We are here to support you in your studies.

Thank you for your understanding, and I look forward to receiving your assignment.

Best regards,

Liuchao Jin

Dear Jue,

Greetings! Thank you for reaching out and submitting your first homework assignment.

I apologize for any inconvenience you experienced with Blackboard access. Rest assured that your email submission is absolutely fine. we’ve received your attached homework and will promptly review it.

If you encounter any further issues with Blackboard access or have more questions about the course when it is accessible, please don’t hesitate to reach out via email.

Best wishes for your studies in MAEG5715.

Best regards,

Liuchao Jin

Dear Zhiqing,

Thank you for reaching out with your question regarding homework submission format. I appreciate your proactive approach to clarifying this.

Yes, you can absolutely write and draw your homework using computer software such as Microsoft Word. Converting the Word document into PDF format before submission is a suitable method, as it helps maintain the document’s formatting and ensures compatibility across different systems.

This approach is not only efficient but also allows you to neatly organize your work and incorporate digital drawings or diagrams as needed.

Feel free to use this method for your homework submissions. If you have any more questions or need further assistance during the course, please don’t hesitate to ask. I’m here to help.

Best regards,

Liuchao Jin

Dear Andrea,

Good morning! Thank you for reaching out with your question regarding the homework.

For the homework in this course, it’s beneficial to include relevant mathematical calculations, source code, or any technical details that support what you did in this homework. While the primary focus is on describing your homework, including these technical aspects can enhance the comprehensiveness and clarity of your homework.

Here’s a general guideline:

* Mathematical Calculations: If your project involves any mathematical models, equations, or algorithms, include them along with explanations of their significance.
* Source Code: If applicable, provide snippets or excerpts of your source code to demonstrate how specific functionalities are implemented. You don’t need to include the entire codebase, but key sections that are relevant to your project’s core features.

If you have any further questions or need specific guidance related to your homework, please feel free to ask. We’re here to assist you throughout the course.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I have updated the abstract for the second topic, made the necessary changes, and provided the submission information in the attached document.

Could you be so kind to help me proceed with the submission? Please let me know if there are any other specific details or requirements for the submission.

Many thanks for your guidance and support.

Best regards,

Liuchao Jin

Dear Daojun,

I hope this message finds you well. I wanted to let you know that you’re welcome to connect with me on social media platforms like WeChat. You can find my WeChat ID listed in my email signature below.

Feel free to add me, and if you have any questions or need assistance with anything related to our coursework or any other matters, don’t hesitate to reach out. I’m here to support your academic journey and am always available for any help you may need.

Looking forward to staying connected, and I hope we can continue to work together effectively.

Best regards,

Liuchao Jin

Dear Daojun,

I appreciate your dedication to understanding the material and your commitment to resolving your question. I noticed that your emails are marked as junk email, which is why you didn’t receive a prompt response. Sorry about that.

Regarding your question about the second problem, I understand your concerns and want to assure you that your diligence in seeking clarification is commendable. To address this, I have posted a detailed explanation in the announcement section on the BlackBoard system, where I have provided the correct approach to solving the problem.

I recommend checking the announcement for the necessary corrections and additional guidance on the question. If you continue to have doubts or face any challenges while reviewing the materials, please feel free to reach out to me. I am here to help and support your learning process.

Once again, I apologize for any inconvenience caused by the email issue. If you have any more questions or require further assistance, please do not hesitate to ask.

Thank you for your patience and dedication to your studies.

Best regards,

Liuchao Jin

Dear Jingyi,

I hope this message finds you in good health. Thank you for reaching out regarding the discrepancy in your calculations for the homework assignment.

I appreciate your diligence in providing the question and your answer for reference. To address your concern, I would like to inform you that I have posted a detailed response to this issue in an announcement on the BlackBoard system. I’ve outlined the correct calculations and explanations to help you understand the problem better.

Please review the announcement for the necessary corrections and additional insights into the question. If you have any further questions or require more assistance, please do not hesitate to ask. I’m here to support your learning and ensure your understanding of the course material.

Thank you for your commitment to your studies, and I look forward to assisting you further.

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for reaching out, and I appreciate your dedication to your coursework. I understand your desire to receive prompt assistance with your homework questions.

I’d like to inform you that I’ve addressed the questions you raised in an announcement on the BlackBoard system just now. Please check the announcement for detailed explanations and corrections related to the homework problems.

If you have any further questions or need additional clarification on any of the course materials, please don’t hesitate to ask. I’m here to support your learning and assist with any challenges you encounter.

Wishing you a productive and successful weekend!

Best regards,

Liuchao Jin

Dear all,

I hope this message finds you well. We wanted to bring to your attention a small correction in Homework 1, specifically in Question 2. We’ve identified a couple of typos related to minus signs as marked in figure below.

Please make this adjustment when working on Homework 1, Question 2. We apologize for any confusion these typos may have caused and appreciate your understanding.

If you have any further questions or concerns regarding this assignment or any other course-related matters, please don’t hesitate to reach out. Your success in this course is our priority.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your prompt response and valuable input. I appreciate your suggestions regarding the abstract for the conference paper. I have made the adjustments as per your recommendation. The materials are attached to this email.

Your guidance and support are greatly appreciated. Looking forward to your reply and suggestions

Best regards,

Liuchao Jin

Dear all,

I hope this message finds you well. We would like to draw your attention to an important correction regarding Lecture Note #2, specifically on Page 33.

Upon careful review, we have identified a typographical error in the lecture material. It appears that a minus sign (-) is missing in an equation on this page, which affects the accuracy of the content. To ensure clarity and correctness, please refer to the corrected figure below:

We apologize for any confusion this oversight may have caused and appreciate your understanding. It is essential to us that you have access to accurate and reliable course materials.

If you have any questions or require further clarification regarding this correction or any other course-related matters, please do not hesitate to reach out to us. Thank you for your attention.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this message finds you well. I am writing to seek your guidance regarding the suitability of our review paper for submission to an upcoming conference.

Upon reviewing the “Call for Papers” for the conference, I came across a stipulation that states, “Only original material should be submitted. Commercial papers, papers with no new research/development content, and papers with proprietary restrictions will not be accepted for presentation.” Given that our paper is a review and does not present our new research, I have some concerns about its eligibility for submission.

In light of this, I have prepared two abstracts for your consideration, each addressing a different topic:

1. Abstract for Our Review Paper: This abstract provides an overview of the key themes and insights covered in our review article. It highlights the value of synthesizing existing knowledge and provides a compelling argument for its relevance to the conference’s audience.
2. Abstract for Design Optimization of Stimuli-Based 4D Printed Structures: This abstract presents an original research idea focusing on the design optimization of stimuli-based 4D printed structures. It outlines the significance of this research in advancing the field and addressing emerging challenges.

Both abstracts are attached to this email for your review. Which one is better do you think?

Your guidance on this matter will be instrumental in guiding our next steps, and I value your insights on this decision. After you decide, I will carefully revise the corresponding abstract.

Thank you for your time and consideration. I look forward to hearing your thoughts on this.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this message finds you well. I am writing to seek your guidance regarding the suitability of our review paper for submission to an upcoming conference.

Upon reviewing the “Call for Papers” for the conference, I came across a stipulation that states, “Only original material should be submitted. Commercial papers, papers with no new research/development content, and papers with proprietary restrictions will not be accepted for presentation.” Given that our paper is a review and does not present our new research, I have some concerns about its eligibility for submission.

I would greatly appreciate your expert opinion on whether our review paper aligns with the conference’s submission criteria. If it is acceptable, I will proceed to develop content based on our review paper for the submission. However, if our review paper does not meet the conference’s requirements, I plan to focus on crafting an abstract for a submission related to the design optimization of stimuli-based 4D printed structures.

Your guidance on this matter will be instrumental in guiding our next steps, and I value your insights on this decision.

Thank you for your time and consideration. I look forward to hearing your thoughts on this.

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for providing the details for our upcoming meeting. I’ve taken note of the specific pages in the “MAEG5715-LN02 PPT” that you’d like to discuss, as well as your questions regarding homework, especially question 2.

I appreciate your proactive approach in attaching your answer for question 2, which will help us address it more efficiently.

Regarding the choice of platform, Microsoft Teams works perfectly for our meeting, and I’m glad to hear that you’ve already scheduled the appointment there I have opened the permission for you to share your screen.

I understand your preference for Cantonese, but I cannot speak and understand Cantonese. So, English is better and preferred.

Please feel free to reach out if you have any additional questions or if there’s anything else you’d like to discuss before our meeting. I look forward to our productive session.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for clarifying the timeline. I understand that only the abstract is needed at this stage, and we can finalize the actual content of the conference paper in early March 2024. I will write an abstract for submission to the conference as soon as possible. Thank you for your help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for bringing the SPIE Smart Structures + Nondestructive Evaluation 2024 conference to my attention. I’m indeed interested in attending this conference and believe it presents a valuable opportunity to share our research.

I also have another attached review paper that is almost finished (only figures and tables are left to be done), which includes some contents related to 4D printed soft robots. I plan to combine these two reviews and write an abstract for submission to the conference as soon as possible. Once the abstract is ready, I’ll share it with you for your review and feedback.

Thank you for considering this conference opportunity.

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for booking a time slot for our meeting. I have received the booking information for today between 14:30-15:00. The meeting is confirmed, and I will be ready to assist you during that time.

If you have any specific topics or questions you’d like to discuss during our meeting, please feel free to let me know in advance. Otherwise, we can address any concerns you have during our Teams session.

Looking forward to our discussion at 14:30!

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for your message and your suggestion to meet via Zoom. I appreciate your proactive approach to finding a solution.

I believe a Zoom meeting is a great idea, and it can indeed be an efficient way to address any questions or concerns you have. I would be happy to schedule a meeting with you.

To make the process smoother, you can book a meeting with me on my personal website at <https://liuchao-jin.github.io/>. Please refer to the booking section, and you should find a suitable time slot for our meeting.

Once you’ve booked a slot, please let me know, and I’ll confirm it on my end. If you encounter any difficulties with the booking process or have any specific questions you’d like to discuss during our meeting, feel free to mention them.

Looking forward to our productive discussion via Zoom!

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for reaching out, and I appreciate your proactive approach to resolving your questions. However, I want to let you know that I won’t be available for an in-person meeting over the next few days. Nevertheless, I understand the urgency of your request, and I would recommend getting in touch with another tutor who might be able to help you promptly.

Please contact Tutor MO, Haoming, at [hmmok@link.cuhk.edu.hk](mailto:hmmok@link.cuhk.edu.hk). He may have availability and can provide you with the assistance you need. Feel free to discuss your questions with him, and I’m sure he will be glad to help.

If you have any further questions or require additional support, please don’t hesitate to reach out. We’re here to ensure your understanding and success in the course.

Best regards,

Liuchao Jin

Dear Jianwei,

Thank you for your question, and I appreciate your diligence in seeking clarification.

In this context, both notations are essentially correct, but it’s a matter of perspective and convention. Let me explain:

Use left-hand rule, z-axis pointing up is positive. Gravity is pointing down so it is negative. If it is positive, it means that the coordinate frame rotates the z-axis pointing to Earth. Is that clear?

If you have any more questions or need further assistance, please feel free to reach out. We’re here to help!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your prompt response and for approving the submission to the *Engineering* journal. Your support throughout this process has been invaluable, and I’m grateful for your guidance.

Once again, thank you for your time and help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this message finds you well. I wanted to provide you with an update on the submission process for our manuscript to the *Engineering* journal.

I’m pleased to inform you that I have successfully uploaded all the necessary materials, including the manuscript and source files, to the *Engineering* journal’s submission system. Our submission has been processed and is now transferred to your system for your review and approval.

**Could you please replace the corresponding cover letter for this journal?** Furthermore, for the editor selection, I have chosen Nan Zhan.

If you have any additional instructions or if there are specific details you would like to address, please do not hesitate to inform me.

Thank you for your time and help. I look forward to your feedback and any further actions required.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your prompt response and for providing your insights on the journal submission decision. Your feedback is highly valued. We will proceed with the submission to the journal *Engineering* as originally planned. If, for any reason, the paper is not accepted by *Engineering*, we can then explore the option of submitting it to the *Journal of Intelligent Manufacturing*.

Once again, thank you for your guidance and patient help throughout this process.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well. I wanted to update you on a change in our decision regarding the journal to which we plan to submit our paper.

After careful consideration and discussions with my co-authors, we have decided not to submit our paper to the journal *Engineering*. Instead, we would like to submit it to the [*Journal of Intelligent Manufacturing*](https://www.springer.com/journal/10845). We have two primary reasons for this change:

1. Co-Author Expertise: One of our co-authors, Dazhong Wu, holds the position of Associate Editor at the *Journal of Intelligent Manufacturing*. His expertise and familiarity with the journal’s submission and review process could be invaluable in ensuring a smoother and more efficient review experience.
2. Cost Consideration: We learned that the journal *Engineering* has recently transitioned to an open access journal, and publishing in this journal now comes with a significant cost of $1300. Therefore, we believe that submitting to the *Journal of Intelligent Manufacturing*, which offers a more cost-effective option, is a better fit for us.

We wanted to keep you informed of this change in our submission plans, and we hope it aligns with your expectations. If you have any concerns or suggestions regarding this decision, please feel free to share them with us.

Thank you for your understanding, and we appreciate your guidance throughout this process. We will proceed with the submission to the *Journal of Intelligent Manufacturing* after your approval.

Best regards,

Liuchao Jin

Dear Teng,

Yes, you are correct.

Best regards,

Liuchao Jin

Dear Daojun Teng,

Thank you for your question, and I appreciate your diligence in seeking clarification.

In this context, both notations are essentially correct, but it’s a matter of perspective and convention. Let me explain:

Use left-hand rule, z-axis pointing up is positive. Gravity is pointing down so it is negative. If it is positive, it means that the coordinate frame rotates the z-axis pointing to Earth. Is that clear?

If you have any more questions or need further assistance, please feel free to reach out. We’re here to help!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your swift response and approval to submit our paper to the journal “Engineering.” I will promptly gather relevant papers published in this journal ASAP and change the corresponding author to you once ready.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for forwarding the rejection notice for our review article submitted to *Additive Manufacturing*. I appreciate your prompt response and diligence in managing our submissions.

After careful consideration and discussions with my co-authors, we believe that the journal [*Engineering*](https://www.elsevier.com/journals/engineering/2095-8099/guide-for-authors) would be a suitable choice for the submission of our paper. This journal aligns well with the scope of our work.

Before proceeding, I would like to hear your thoughts on submitting our paper to [*Engineering*](https://www.elsevier.com/journals/engineering/2095-8099/guide-for-authors). Your input is highly valuable. If this journal is ok, I will upload relevant files onto its submission system.

Thank you for your guidance and support throughout this process.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your understanding and your kindness.

I greatly appreciate your prompt action in moving our group meeting online. It’s reassuring to know that we can continue our work safely and effectively despite the challenging weather conditions.

Take care, and I look forward to our online meeting.

Best regards,

Liuchao Jin

Dear Prof. Lam,

Thank you for providing the updated details for MAEG5715.

The revised course structure is clear, and I appreciate the information regarding our responsibilities as tutors. The grading is also well-defined.

Additionally, please take care of yourself in light of the typhoon.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for the update. I appreciate your prompt response. Take care and stay safe.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well. I wanted to bring to your attention that **there is a very strong typhoon forecasted for tomorrow**. Considering the safety and well-being of everyone, it might be considered to conduct the group meeting tomorrow online instead of in person.

If this change is deemed appropriate, I’ll be more than happy to meet you offline during our next group meeting on Friday, September 8, to sign the TA sheet.

I genuinely hope you remain safe and sound during the typhoon. Your well-being is paramount, and we can certainly adapt our plans to accommodate any changes resulting from the weather.

Thank you for your consideration and help.

Best regards,

Liuchao Jin

Dear Ms. Winnie,

Thank you for the update and for granting us access to the MAEG 5715 blackboard for the upcoming Term 1, 2023-24. We appreciate your efforts in making this arrangement.

We will promptly liaise with Prof. Alan Lam to clarify any further details regarding our job assignment.

Once again, thank you for your guidance and help.

Best regards,

Liuchao Jin

Dear Ms. Winnie,

I hope this email finds you well. I wanted to inform you that I have received approval from my supervisor, Prof. Liao, to take on the role of tutor for MAEG5715 as you mentioned in your previous email. I am excited about this opportunity and am committed to fulfilling my responsibilities effectively.

I will complete and return the required engagement form and log sheet as per your instructions by the specified deadline. If there are any additional steps I need to take, please let me know, and I will ensure to follow them accordingly.

Thank you once again for your support and guidance throughout this process.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you very much for your swift response. I greatly appreciate your approval for me to take on the role of tutor for MAEG5715.

Once again, thank you for your patient help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Good morning. I hope this email finds you well. I am writing to seek your approval and guidance regarding a potential part-time tutoring opportunity.

I have been offered a position as a tutor for the MAEG 5715 course under the supervision of Prof. Alan Lam.

Considering the course is scheduled to begin on September 4, I kindly seek your preliminary approval to proceed with this opportunity. I am committed to maintaining a balance between this role and my academic commitments.

I understand the urgency of this matter, and I intend to communicate and tell your decision (just **replying** **yes or no** is okay) to Ms. Winnie **no later than** **tomorrow (August 31, Thursday) at noon** (Ms. Winnie told us). Your timely response will be greatly appreciated. If it is yes, I will find you to **sign up part-time engagement sheet** **after the group meeting this week (this Friday)**.

Thank you for your attention and help, and looking forward to your reply.

Best regards,

Liuchao Jin

你好，

非常感谢您的信息。

我明白关于2022年9-10月团购账户的情况。我非常高兴得知CSSA的团队正在全力以赴地寻求解决方案，以期能够恢复所有账户的正常使用。目前的临时解决方案对我来说是可接受的，即将我纳入到2023年5月团购的订阅计划中。在原有订阅恢复之前，我将使用这个临时授权。

我已经在下面提供了我的学校邮箱：[1155184008@link.cuhk.edu.hk](mailto:1155184008@link.cuhk.edu.hk)，以便您为我注册。我真诚希望能够很快地回到正常的订阅状态，并继续使用Grammarly。

非常感谢您的理解和帮助，期待问题能够顺利解决。

祝一切顺利，

Best regards,

Liuchao Jin

Dear Thomas,

Thanks for your help. I will give the case to the police. Thanks.

Best regards,

Liuchao Jin

Dear Ms. Chan,

Thanks for your help.

Best regards,

Liuchao Jin

Dear Ms. Chan,

I’m Liuchao Jin, a PhD student in Room 201. I’m writing to you because I was wondering whether there is a monitor (CCTV) in Room 201. I lost some cash (about HK$3000) and some cards in Room 201.

Best regards,

Liuchao Jin

Inquiry about CCTV in our department

Dear Ms. Chan,

I’m Liuchao Jin, a PhD student in Room 201. I’m writing to you because I was wondering whether there is a monitor (CCTV) in Room 201. I lost some cash (about HK$3000) and some cards in Room 201.

Best regards,

Liuchao Jin

Dear Prof. Lam,

Thanks a lot. I’ve added your WhatsApp and look forward to engaging in more direct and efficient communication.

Your offer of a lunch is greatly appreciated. I would be honored to meet and discuss the course and its preparations in further detail. Please let me know a suitable time for you, and I will be more than happy to arrange accordingly.

Thank you once again for your time and guidance.

Best regards,

Liuchao Jin

Dear Ms. Winnie,

I found that the CV I attached to my previous email might have some problems in opening. To ensure there are no further issues, I have attached my CV once again to this email. I apologize for any inconvenience this may have caused and appreciate your understanding.

Best regards,

Liuchao Jin

Dear Ms. Winnie,

I hope this email finds you well. I am writing to express my keen interest in the Teaching Assistant position for the upcoming MAEG5715: Computer Interface and Simulation course, as advertised.

My name is Liuchao Jin, and I am currently a PhD student in Mechanical and Automation Engineering. After reviewing the course details and responsibilities outlined by Prof. Lam, I am excited about the opportunity to contribute to this course and assist fellow students in their learning journey.

I am confident that my strong communication skills, attention to detail, and dedication to fostering academic excellence would make me a valuable addition to the MAEG5715 teaching team. I am enthusiastic about the chance to contribute to the success of this course and support its students.

Enclosed, please find my CV for your reference. Additionally, you can learn more about my background and accomplishments on my personal website: <https://liuchao-jin.github.io/>.

Thank you for considering my application. I eagerly await the opportunity to contribute to MAEG5715: Computer Interface and Simulation. Please do not hesitate to contact me if you require any further information or documents.

Looking forward to your reply. Thank you.

Best regards,

Liuchao Jin

Dear Prof. Lam,

I hope this email finds you well. I greatly appreciate your prompt response and the clarity you provided regarding the tutor responsibilities for the MAEG5715. Your detailed explanation has given me a comprehensive understanding of the role and its expectations.

I am enthused by the prospect of contributing to the success of the course and supporting fellow students in their academic journey. Considering the information you provided and my enthusiasm for the position, **I intend to submit my application for the TA role of your course to Ms. Winnie**, the Programme Assistant of MSc in MAE.

I am committed to upholding the standards of the course and to assisting you in ensuring a valuable learning experience for all students.

Thank you once again for your guidance and responsiveness. Looking forward to the opportunity to collaborate and contribute to the success of MAEG5715.

Best regards,

Liuchao Jin

Inquiry Regarding TA Duties for MAEG5715: Computer Interface and Simulation

Dear Prof. Lam,

I hope this email finds you well. I am Liuchao Jin, a Ph.D. student from MAE. I am writing to inquire about the duties of TA for your course—MAEG5715: Computer Interface and Simulation for the upcoming term.

After carefully reviewing the comprehensive course syllabus and the recruitment advertisement, I am captivated by the prospect of contributing to this engaging learning opportunity. However, before formalizing my application, I would appreciate the privilege of seeking further insights into the role’s responsibilities and expectations. Specifically, I am keen to understand the following:

* Grading Homework Assignments: Could you kindly provide an approximate count of the homework assignments that TAs will be involved in grading throughout the term?
* Presentation Evaluation: Does the TA role involve assessing and grading student presentations during the course?

These insights will be invaluable in ensuring I am fully prepared to meet the expectations and responsibilities of the TA role.

To provide a more comprehensive overview of my background, I have attached my CV for your reference. Additionally, I invite you to explore my personal website at <https://liuchao-jin.github.io/> for a deeper understanding of my academic pursuits and achievements.

Thank you for considering my inquiries. Your guidance in this regard would greatly help me in aligning my application and aspirations effectively.

Looking forward to your response.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I have addressed the issues as mentioned and have successfully reduced the manuscript size to below 100 MB. I have resubmitted the revised version, and the submission has been transferred to your system for approval.

Could you please check it when you have time? Thank you so much for your patient help.

Best regards,

Liuchao Jin

Dear JC,

Kindly review the attached comments. Thank you.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your approval and our team’s effort! Your patient help is greatly appreciated. Wishing you all the best.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I appreciate your prompt response and for taking the time to review the revised manuscript. I’m pleased to inform you that I’ve made the necessary updates to the cover letter in the submission system and have now changed the corresponding author to you for final approval.

Thank you once again for your valuable guidance throughout this process.

Best regards,

Liuchao Jin

Dear Thomas,

I have restarted my PC. Please check whether it is ok. Thank you and by the way, I’m Jin.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well. I am writing to you because we have successfully completed the paper titled “Big Data, Machine Learning, and Digital Twin Assisted Additive Manufacturing: A Review.”

You can access the manuscript through the following link: [Manuscript Link](https://drive.google.com/file/d/1K8dtSLSAOiT-L0yMyrhA-ULkNCbhHSoe/view?usp=sharing). Additionally, I have already uploaded the relevant materials and manuscript to the Additive Manufacturing submission system.

Before proceeding, could you please review the manuscript and its contents? If you find this version satisfactory and without any concerns, I will proceed to transfer the materials to your submission system.

Furthermore, I’d like to draw your attention to the cover letter. It appears that there is a requirement to upload a cover letter to the submission system. For your convenience, I have attached the cover letter to this email. If possible, could you please remove the cover letter that I initially uploaded in the submission system and replace it with your version?

Thank you very much for your ongoing help and guidance throughout this process. Your expertise is invaluable. Looking forward to your feedback and guidance. Please feel free to reach out if you have any questions or need further information.

Best regards,

Liuchao Jin

Dear Prof. Cui,

I wanted to express my heartfelt gratitude for your continuous guidance and support throughout the publication process of our recent article.

Your insightful feedback and mentorship have been instrumental in shaping the success of this work. I am truly appreciative of the knowledge and expertise you shared, which significantly enhanced the quality of our research.

I am in the final stages of preparing another paper, which I will be sharing with you soon. Your continued guidance and insights would be invaluable as I work towards its completion.

Once again, thank you for your unwavering support and mentorship. Wish you a pleasant day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your prompt response and for providing us with the link to the suggested changes and comments on the paper. We greatly appreciate your valuable feedback.

Rest assured, our team will diligently review all the comments and suggestions outlined in the pdf file. We are committed to incorporating the necessary revisions to ensure the quality and accuracy of the paper. We will collaborate closely to address each point raised and provide a revised version that aligns seamlessly with your expectations.

We are grateful for your guidance and input throughout this process. Your insights have been instrumental in refining the paper, and we are eager to work towards the final version that reflects the highest standards.

**We will** make every effort to complete the revisions as promptly as possible and **share the final version of the paper with you shortly**.

Thank you once again for your valuable help and support.

Best regards,

Liuchao Jin

Application for Guest Editor Position in MDPI Materials Journal

Dear Materials Office,

I hope this email finds you well. My name is Liuchao Jin, and I am a PhD student specializing in 3D & 4D printing at The Chinese University of Hong Kong (CUHK). I am writing to express my keen interest in the Guest Editor position for the forthcoming issue of the Materials Journal in MDPI.

The prospect of contributing to the field of materials science and engineering as a Guest Editor is tremendously exciting. The esteemed reputation of the Materials Journal and its commitment to advancing knowledge in the realm of materials have greatly impressed me. As an aspiring academic and researcher, I am eager to collaborate with the journal’s editorial team and contribute to the rigorous review and editing process that ensures the high-quality content for which MDPI is renowned.

My research focuses on 3D & 4D printing, aligning well with the themes explored within the Materials Journal. Through my academic journey, I have developed a deep appreciation for meticulous research, attention to detail, and the dissemination of cutting-edge findings. By joining the editorial efforts of the Materials Journal, I aim to foster an environment of knowledge exchange and enrichment.

I have attached my CV to provide you with a comprehensive overview of my academic background, research accomplishments, and relevant experiences. And you can also visit my personal website at <https://liuchao-jin.github.io/>. My commitment to excellence, coupled with my passion for materials science, drives me to seek this opportunity to contribute as a Guest Editor.

I am enthusiastic about the possibility of collaborating with MDPI and the Materials Journal’s esteemed team. If you require any additional information or have any queries, please do not hesitate to reach out to me. I am readily available via email at [liuchao.jin@link.cuhk.edu.hk](mailto:liuchao.jin@link.cuhk.edu.hk).

Thank you for considering my application. I look forward to the possibility of contributing to the Materials Journal as a Guest Editor.

Best regards,

Liuchao Jin

Dear PGH General Office,

Thank you for your swift response. I appreciate your clarification regarding the bank code. I will proceed with entering the appropriate account number without including the bank code “012.” Thank you.

Best regards,

Liuchao Jin

Dear PGH General Office,

I hope this email finds you well. I am in the process of applying for the refund of the HK$3,500 resident deposit as per the instructions provided in your recent communication. However, I have encountered an issue regarding the account number length for option (a2) "Please arrange to transfer the said amount (HKD) to my Saving Account."

The system is indicating that the **account number must be between 8 and 12 characters** as shown in figure below, whereas **my account number consists of 14 characters**. Could you kindly advise on how I should proceed in this situation?

Your prompt help in this matter would be greatly appreciated. Thank you for your attention.

Best regards,

Liuchao Jin

Dear Prof. Cui,

Thank you for your kind words. I greatly appreciate your guidance throughout the publication process. Your support has been invaluable in helping me understand the process of paper publication.

I am excited to continue applying this knowledge and experience in my career endeavors. Your encouragement means a lot to me. Thank you.

Best regards,

Liuchao Jin

Dear CSSA Team,

I hope this email finds you well. I am writing to inquire about the recent development concerning the Grammarly Premium group purchase that took place last October. I participated in this group purchase and noticed that, despite the promotional materials indicating an expiration date of October 19, 2023, the subscription seems to have expired prematurely in late July. **Till now, almost one month has passed but the problem is still there.**

Could you kindly clarify why the subscription has become inactive well before the specified expiration date? I was under the impression that the subscription would remain valid until October 19, 2023, as stated in the promotional information.

Moreover, I would like to understand whether there is a way to extend the subscription period or reactivate the account to ensure that I receive the full benefit of the subscription period I initially signed up for.

Your prompt response and assistance with this matter would be greatly appreciated. Thank you for your attention and support.

Best regards,

Liuchao Jin

Dear Dr. Michelle Narvasa,

Thank you for the update and for trying to re-upload the files. I’m glad to hear that the upload is now successful.

I appreciate your help in processing the manuscript, and I’m looking forward to the next steps. Thank you.

Best regards,

Liuchao Jin

Dear Dr. Michelle Narvasa,

Regarding the files, I would prefer to use the LaTeX source files. However, to ensure a smooth process, I have also provided the Word document files as an alternative.

Once again, thank you for your patient help.

Best regards,

Liuchao Jin

Dear Michelle,

I hope this email finds you well. Thank you for your congratulations on the acceptance of our manuscript. I’m delighted to provide the clean, editable manuscript source files you require to proceed with the pre-publication processes.

Attached to this email, you will find the following clean, editable manuscript source files for your convenience:

* Word Document (.docx)
* LaTeX Source Files (.zip)
* PDF Source File

Thank you for your continued help and prompt attention to our submission. Should you have any further inquiries or require any additional information, please don’t hesitate to reach out to us.

Best regards,

Liuchao Jin

Dear Ali,

Jingchao and I have a meeting tonight. So, we need to go back. I apologize for any inconvenience this may cause. However, we would be delighted to meet you tomorrow at a time that is convenient for you.

Thank you, and we look forward to meeting with you tomorrow.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I hope this email finds you well. We have completed the manuscript titled “Big Data, Machine Learning, and Digital Twin Assisted Additive Manufacturing: A Review.” The PDF file of the manuscript is attached to this email. We highly value your expertise and would greatly appreciate your feedback on the work. I also share an Overleaf project with you so that you can modify it if you want.

Regarding the submission of our manuscript, we are considering three suitable journals: *Additive Manufacturing*, *Engineering*, or *Journal of Intelligent Manufacturing*.

Thank you for your attention to this manuscript and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Ali,

Thank you for your inquiry regarding the procedure for purchasing research items from Taobao, especially for items below 500 HKD.

In our group, for items with a value below 500 HKD, there is usually no need to seek approval from the professor individually. Instead, we have the flexibility to use our individual Taobao accounts to make such purchases.

Therefore, you can go ahead and make the purchase using your own Taobao account. Once the transaction is completed, kindly take screenshots of the order confirmation and the payment record. Afterward, please hand over these screenshots to Ms. Maggie in room 204.

If you have any further questions or need more information, feel free to let me know. I’m here to assist.

Best regards,

Liuchao Jin

Dear Ms. Kan,

Thank you for your prompt reply. I apologize for any confusion, but it seems that I am unable to add the time period to the “Thesis/Research and other academic activities” section. The system does not allow me to add specific time periods in this section. So, I have completed the re-submission of the Study Plan to you.

Once again, thank you for your kindness and patience. I look forward to the next steps and the endorsement from my supervisor. Have a good day!

Best regards,

Liuchao Jin

Dear Ms. Kan,

I hope this email finds you well. I received a notification that my Study Plan has been returned for revision by the Supervisor or Programme Administrator of my Division via the Study Plan and Progress Report Online System. However, I’m not entirely sure about the specific reasons for the return.

Could you kindly provide me with more details regarding the revisions required or any feedback from the Supervisor? I would like to ensure that I address the necessary changes effectively.

Thank you for your attention and support. I look forward to resolving this matter promptly.

Best regards,

Liuchao Jin

Dear Ms. Kan,

Thank you for your email. I have reviewed and updated the form to meet the requirement of 300 words. Here, attached, you will find the revised Form B with the appropriate word count.

Thank you for your patient help and support.

Best regards,

Liuchao Jin

Dear Ms. Kan,

Thank you for the email and for sharing the feedback from my supervisor on Form A. I have reviewed the comments, and everything else looks good.

I noticed one small typo in the Overall Comment section. My name is typed as “JING Liuchao,” but it should be “JIN Liuchao” as shown in figure below. I have already corrected the typo and resent the updated Form A to you.

Besides, I will confirm with you that there are no additional updates on Form B.

Once again, thank you for your attention to detail, and I apologize for any inconvenience caused by the typo.

Best regards,

Liuchao Jin

Dear Ali,

Nice to meet you. Here is the official guideline from GitHub about how to make a personal page (<https://pages.github.com/>). My website was forked from a famous academic personal page named “academicpages” and I modified it according to my personal information. Here is the link: <https://github.com/academicpages/academicpages.github.io>. You can fork it directly to make your personal pages or you can google search GitHub homepage, there are a lot of templates on it. Besides, ChatGPT is one of my best friends. Whenever I meet some problems with coding (for construction of personal page, java or markdown language are needed), I will ask ChatGPT and it will always answer my questions correctly.

I hope this information proves helpful to you as you embark on creating your personal page. You are most welcome, and I look forward to the possibility of collaborating in the future.

Best regards,

Liuchao Jin

Dear all,

I hope this email finds you well. I am excited to extend a warm welcome to all of you as new members of our group. Congratulations on becoming a part of our team!

I am Liuchao JIN, a current member of the group, and I am thrilled to have you on board. If you have any questions or need assistance with anything related to the group, feel free to reach out to me. You can add me on WeChat (ID: Liuchao\_Jin) or connect with me on WhatsApp (+852 9570 5790).

Once again, welcome to the group!

Best regards,

Liuchao Jin

Dear Ms. Kan,

Thank you for your email regarding the annual report for the Hong Kong PhD Fellowship Scheme (HKPFS). I would like to inform you that I have completed both Form (A) and Form (B) as requested. I have attached the completed Annual Report Form (A) in Word format and the completed and signed Annual Report Form (B) in PDF format to this email.

For Form (A), I have provided the required information, including the assessment of my performance during the reporting period. In addition, I have filled out the sections related to coursework undertaken, course grades, semester GPA, cumulative GPA, publications/papers presented in the past year, overseas research-related activities participated in, related outputs of those activities, and the amount of conference and research-related travel allowance utilized.

Regarding Form (B), I have included a summary of my study progress in the specified section, comprising 300 words.

Thank you for your guidance and patient help throughout this process. Wish you all the best.

Best regards,

Liuchao Jin

Dear Dr. Zhai,

My presentation materials (PDF+PPT) are attached to this email. Thank you and hope you all the best!

Best regards,

Liuchao Jin

Dear Dr. Chan,

Thank you for your arrangement. I confirm my availability and look forward to seeing you tomorrow at SHB-G01A at 09:30.

Thank you and see you tomorrow!

Best regards,

Liuchao Jin

To: [maesemcuhk@gmail.com](mailto:maesemcuhk@gmail.com)

Subject: Make an Appointment for Tensile, Compression, Three-Point Bending, and Hardness Test

Dear Sir/Madam,

I hope this email finds you well. My name is Liuchao Jin, and I am a PhD student from the Department of Mechanical and Automation Engineering at CUHK (Student ID: 1155184008). I am writing to request an appointment for conducting Tensile, Compression, Three-Point Bending, and Hardness Tests on a Low Melting Point Alloy.

I have attached the photos of the test parts to this email for your reference. These tests are essential for my research project as they will provide crucial data on the material’s mechanical properties and behavior for different materials.

Considering the complexity of the tests, I anticipate that the entire session will require approximately **3 hours** to complete. I kindly request your assistance in scheduling a suitable time slot for the tests.

I am available for the tests either **this Friday** (14 July) or during the **next week**. Please let me know your preferred date and time within this timeframe. Additionally, if there are any specific requirements or preparations needed for the tests, please inform me in advance so that I can make the necessary arrangements.

Your support and help in facilitating this appointment are highly appreciated. The results from these tests will significantly contribute to the advancement of my research, and I am eager to proceed with the experiments.

Thank you for your attention to this matter. I look forward to your response, and I am available to provide any additional information or answer any questions you may have.

Dear Mr. Rave,

Thank you for your prompt response. I have rebooted my departmental PC as instructed. I am pleased to inform you that it is now successfully connected to the Internet.

I appreciate your assistance in resolving this matter quickly. Have a good day!

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Yip,

Long time no see. How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I was hoping you could advise me on where I can measure the roughness of a printed part. Any help you can provide would be greatly appreciated.

Thank you in advance for your assistance. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

尊敬的肖妮老师：

您好！我希望您一切安好。我已经完成了附件中的统计信息表，并附在了这封邮件中将其发送给您。

如果您需要我提供任何其他文件或信息，请随时告知我。感谢您的耐心指导和帮助。

祝您工作顺利，期待与您进一步的沟通。

此致

敬礼！

金刘超

2023年7月9日

Subject: Suggestion for Purchasing Taylor & Francis Online Database

Dear CUHK Library,

I hope this email finds you well. My name is Liuchao Jin, a PhD student from the Department of Mechanical and Automation Engineering at CUHK (Student ID: 1155184008). I am writing to suggest that the CUHK Library consider purchasing the Taylor & Francis Online database.

Taylor & Francis Online is a renowned and extensive database that encompasses a wide range of academic disciplines, including engineering. It hosts a vast collection of scholarly articles and research papers, which are instrumental for scientific research and academic advancement. The database’s comprehensive coverage in the field of engineering makes it an invaluable resource for researchers, students, and faculty members alike.

I would like to emphasize the importance of acquiring the Taylor & Francis Online database for our university’s library. Without access to this database, the progress of scientific research in the engineering field may be seriously hindered. Many pivotal research articles and cutting-edge advancements in engineering are published exclusively in this database. By providing access to Taylor & Francis Online, our library would enable researchers and students to explore a vast array of high-quality content, facilitating their research endeavors and fostering academic excellence.

I kindly suggest the CUHK Library to consider the potential benefits that the Taylor & Francis Online database would bring to our academic community. The inclusion of this database in our library’s collection would not only enhance the research capabilities of our students and faculty but also contribute to the overall quality of scientific output at CUHK.

Thank you for your attention to this matter. I believe that acquiring the Taylor & Francis Online database would be a valuable investment in the future of scientific research at our university. If you require any further information or have any questions regarding this suggestion, please do not hesitate to contact me. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Peter,

Thank you so much for your reply and for remembering me from our class in the fall of 2020. I’m glad you still recall my research on the English training program and my German teacher. It was a memorable project for me, and I appreciate your kind words about it.

Indeed, studying in Hong Kong has been a great experience so far. Despite the challenges brought by the pandemic, I’m managing well and trying to stay positive. I understand that this period has been tough for many young people around the world, and I feel fortunate to have the opportunity to continue my studies.

Your words about uncertainty during your own youth resonate with me. It’s comforting to know that such feelings are not uncommon. I appreciate your support and encouragement.

I will definitely stay in touch, and I won’t hesitate to reach out if I need any assistance. Your offer to help means a lot to me. I will continue to work hard and maintain a positive outlook, just as I did in our class. Thank you again for your kind words.

Best regards,

Liuchao Jin

Subject: Survey and Update from Your Former Student, Liuchao Jin

Dear Peter,

I hope this email finds you in good health and high spirits. My name is Liuchao Jin, and I was one of your students at 川大. It has been almost two years since you taught us, and I wanted to take this opportunity to reconnect and provide you with an update on my life. I have heard from many other students, and it’s been wonderful to maintain these connections.

Firstly, I would like to express my gratitude for your dedication and the impact you had on our lives during your time in Chengdu. The knowledge and experiences you shared with us have had a lasting influence, and I am grateful for the guidance you provided.

I was delighted to learn that you are planning to stay in touch with your former students by sending regular updates. Serena (李懿娟), who was my classmate for several semesters, will be assisting you with this endeavor. I believe it’s a fantastic initiative, and it will be an excellent opportunity for all of us to stay connected and share our experiences.

During your time in Fuling, I recall the paper letters you sent to your former students before the advent of internet and phones. It’s remarkable how technology has transformed our ability to connect, and I am excited about the prospect of receiving your updates via email and WeChat, just as we did in Fuling. I still cherish those memories and the insights we gained from your experiences and the surveys you conducted.

Speaking of surveys, I vividly remember your practice of sending surveys to your former students in Fuling, seeking to understand how our lives had changed and our thoughts on various matters. It was a valuable exercise that helped us reflect on our journey and provided you with meaningful insights. I am thrilled to participate in the surveys once again, knowing that my responses will remain anonymous. Your commitment to understanding larger trends and tendencies within our group of students is commendable, and I look forward to contributing to this ongoing dialogue.

I appreciate your consideration regarding the anonymity of our responses. Should you ever find the need to quote something by name, I am more than willing to be contacted directly to provide my consent. Maintaining privacy and respecting each individual’s comfort level is paramount, and I fully support your approach in this matter.

On a personal note, things have been going well for me. Since your time at 川大, I have been pursuing [briefly mention your academic or professional pursuits or any significant life events]. I have been fortunate to have supportive mentors and colleagues who have helped shape my journey.

I appreciate the glimpse into your life and the experiences you have shared in your email. It is fascinating to read about your writing projects, particularly the book that serves as a follow-up to “River Town.” The insights you gained during your teaching at 川大 and the transformations in your daughters’ lives provide a rich backdrop for this work. I eagerly anticipate its publication in the fall of 2024, knowing it will offer valuable perspectives and engaging storytelling.

Your observations regarding education in different cultures resonate with me. The extremes in both the Chinese and American systems highlight the strengths and weaknesses of each approach. The contrasting emphasis on physical activity and academics is intriguing, and I appreciate your efforts to strike a balance for your daughters. It is heartening to hear that they have maintained their connection to the Chinese language and culture.

Living in a small town certainly has its charms, and I can understand your preference for the tranquil mountainous setting of Ridgway. It must be a refreshing change from the bustling cities you’ve experienced. The community you described, with its diverse range of residents, sounds like a fascinating place to call home. I appreciate how you mentioned the sense of interconnectedness and the opportunity to engage with people from various backgrounds. It’s through these interactions that we gain new perspectives and broaden our understanding of the world.

Regarding your question about the changes I have witnessed in China since you left, I can provide some insights based on my observations. China has continued to undergo rapid development and transformation in various sectors. The country’s economy has expanded, and technological advancements have played a significant role in driving innovation and improving people’s lives. There has been an increased focus on environmental sustainability, with the government implementing policies to address pollution and promote renewable energy sources. Additionally, there has been a greater emphasis on cultural preservation and heritage, as well as initiatives to promote international exchange and understanding.

In terms of societal changes, there has been a growing awareness and discourse around social issues such as gender equality, mental health, and individual rights. Younger generations are more vocal about their opinions and aspirations, and there is a burgeoning entrepreneurial spirit among the youth. The advent of social media platforms has also facilitated the sharing of ideas and the formation of online communities.

However, it’s important to note that these observations are based on my perspective, and there may be nuances and complexities that I have not fully captured. China is a vast and diverse country with regional variations, and experiences may differ depending on one’s location and social background.

Once again, I want to express my gratitude for your dedication as a teacher and for reaching out to your former students. Your commitment to maintaining these connections is commendable, and I eagerly await your updates and the opportunity to contribute to the surveys. Please feel free to reach out if you have any further questions or if there is anything else I can assist you with.

Wishing you all the best in your writing projects and your endeavors in Ridgway.

Best regards,

Liuchao Jin

Dear Ms. Lai,

Looking forward to seeing you tomorrow in AB1-206.

Best regards,

Liuchao Jin

Dear Ms. Lai,

Thank you for your prompt response. I appreciate your suggestion regarding the experiment schedule. **14:00 on 13 Jun** works well for me. I will be available at that time to discuss the detailed instructions and guidelines for using the fume hood and handling DCM.

Best regards,

Liuchao Jin

Dear Ms. Lai,

I hope this email finds you well. Firstly, I would like to express my gratitude for your prompt response and valuable guidance regarding the use of Dichloromethane (DCM) in my experiments. Your safety recommendations are duly noted, and I fully understand the importance of carrying out my research in a safe and controlled environment.

I appreciate your help and guidance in facilitating the reservation process. If there are any specific instructions or procedures I need to follow, please provide me with the necessary information. Additionally, if there are any guidelines regarding personal protective equipment or the proper disposal of chemical waste, I would be grateful to receive those as well.

In order to finalize the reservation, I kindly need your help in determining the availability of the fume hood. Additionally, it would be helpful to know **when you will be available** to provide me with detailed instructions on the appropriate use of the fume hood, as well as guidelines for personal protective equipment and proper disposal of chemical waste generated during the experiment.

Thank you again for your guidance and help. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. JIN,

Thank you for reaching out, and congratulations on your upcoming enrollment as a freshman on August 1, 2023. Welcome to our lab with open arms!

Certainly, I would be happy to connect with you on WeChat. My WeChat ID is Liuchao\_Jin or 18258525750. Please feel free to add me, and we can stay in touch for any future communication or help you may need.

I look forward to connecting with you on WeChat and cooperate with you throughout your academic journey. If you have any further questions or require any information, please do not hesitate to reach out.

Best regards,

Liuchao Jin

To: [rcyxy@opic.sz.gov.cn](mailto:rcyxy@opic.sz.gov.cn)

Subject: Application Materials for “SHENZHEN NEXT” Study Tour Program

Dear Sir/Madam,

I hope this email finds you well. I am writing to submit my application materials for the “SHENZHEN NEXT” study tour program. I am excited about the opportunity to participate in this program and further enhance my knowledge and understanding of Shenzhen’s development. I will send application files to you through two emails because of the file size limitation.

Please find attached the following application materials in this email (1st):

* “SHENZHEN NEXT” study tour program application form: I have completed and signed the application form, providing all the necessary information as required.
* Educational background documents: I have included copies of my studying certificates, diplomas, and credentials to demonstrate my educational qualifications and achievements.
* Certificate of honor (file 1): I have enclosed a copy of my certificate of honor, which highlights my outstanding contributions or achievements in a relevant field.
* Roadshow PPT / Project introduction: I have prepared a comprehensive and engaging CV that introduces my project and its potential impact.

I believe that the “SHENZHEN NEXT” study tour program will provide me with valuable insights into Shenzhen’s innovation ecosystem, technological advancements, and urban development. I am eager to learn from experts and industry leaders during the study tour and contribute to the program through active participation and meaningful interactions.

Thank you for considering my application. Should there be any additional documents or information required, please do not hesitate to let me know. I look forward to the opportunity to join the “SHENZHEN NEXT” study tour program and contribute to its success.

Best regards,

Liuchao Jin

Dear Sir/Madam,

Please find attached the following application materials in this email (2nd):

* Certificate of honor (file 2): I have enclosed a copy of my certificate of honor, which highlights my outstanding contributions or achievements in a relevant field.

Thank you for your attention and have a good day!

Best regards,

Liuchao Jin

Fume Hood Booking Request for PLA Dissolution Experiments

Dear Ms. Lai,

I hope this email finds you well. I am writing to you because I was wondering whether I can book a fume hood in our department for a period of **20 days** starting **from next week**. **Everyday**, I will need the fume hood for approximately **one hour** to carry out the PLA dissolution experiments. The purpose of this request is to conduct experiments involving the use of Dichloromethane (DCM) for the dissolution of Poly(lactic acid) (PLA) as part of my Ph.D. research under the supervision of Prof. Wei-Hsin Liao.

My name is Liuchao Jin, and I am a Ph.D. student with a student ID of 1155184008. The experiments I will be conducting require the use of a fume hood to ensure proper ventilation and safety measures while handling DCM.

I understand that the availability of the fume hood may depend on the needs of other researchers in the department. In case the requested dates are not feasible, I am open to alternative arrangements or adjustments that can still meet the requirements of my research. Your guidance and help in this matter would be greatly appreciated.

Please feel free to contact me at your convenience. I am looking forward to your positive response.

Thank you for your attention and help.

Best regards,

Liuchao Jin

Dear Ms. Wong,

I am pleased to inform you that I have successfully placed an order through the DGS system. This accomplishment was possible due to your generous help and guidance.

I wanted to express my sincere gratitude for your help throughout this process. Your willingness to quickly answer questions and resolve issues was truly appreciated.

Thank you again for your help and dedication.

Best regards,

Liuchao Jin

Dear Ms. Wong,

Thank you very much for your swift response and action in upgrading the user privileges for our DGS account to “Advanced User”. I appreciate your support in this matter.

I have checked the inventory system, and it appears to be working well now.

However, I noticed that we are unable to edit the delivery location in the system, and unfortunately, **our lab’s location isn’t included in the current list**. As such, could I kindly request that our lab’s location, **Room 201, William M.W. Mong Engineering Building (ERB201)**, be added to the location list in the system?

Thank you again for your help and attention to these matters.

Best regards,

Liuchao Jin

Dear Ms. Wong,

I hope this email finds you well. I am writing to you regarding the Dangerous Goods Stores (DGS) account for our research group under Prof. Wei-Hsin Liao, the account name being “SMS”.

While using this account, I noticed that the current User Rank is set to “Regular User”. This restriction limits some of the functionalities we require, specifically the ability to check out the inventory, which, as I understand, is only available to “Advanced Users” (as depicted in the attached figure).

Given the significance of this functionality for the smooth execution of our ongoing experiments, I was wondering whether you could be so kind as to upgrade the User Rank for the account “SMS” from “Regular User” to “Advanced User”.

Your prompt attention to this matter would be greatly appreciated. If there is any additional information required or any process I need to follow for this change, please let me know.

Thank you for your help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you very much for your prompt response and for providing the necessary information for the DGS account. Very much appreciate your help. Take care, stay safe, and keep healthy.

Best regards,

Liuchao Jin

Inquiry About HKPFS Annual Assessment Form and Conference Attendance

Dear Ms. Wong,

I hope this email finds you well. My name is Liuchao Jin, I’m a Ph.D. student under the supervision of Prof. Wei-Hsin Liao, with the student ID of 1155184008. I am writing this email to inquire about a few important matters related to the Hong Kong Ph.D. Fellowship Scheme (HKPFS).

Firstly, I noticed that some students from other departments have already received their annual assessment forms for HKPFS. As the deadline for submitting this form is fast approaching, I would like to confirm whether this form has been received by our department’s general office. If it has, could you kindly send it to me so that I can fill it?

Secondly, I am planning to attend an international conference in October this year. As this will be a valuable opportunity for my academic development, I would like to know the process for obtaining leave for the duration of the conference. Furthermore, I am also interested in understanding the procedure for claiming the round-trip travel expenses from the HKPFS funding.

I understand that these processes may be complicated, and I greatly appreciate your guidance and help. Please let me know if there is any additional information required from my side or any forms that I need to fill out.

Thank you for your time and support.

Best regards,

Liuchao Jin

Dear Miss Zhu,

I would like to express my deepest apologies for the oversight in my previous email, where I addressed you as “Mr. Zhu” instead of “Miss Zhu”. Please accept my sincere apologies for this unintentional error.

Best regards,

Liuchao Jin

Dear Mr. Zhu,

Thank you very much for your email and for offering me a place in the SUSTech Fellowship Program. I am incredibly honored and excited to accept this opportunity.

I have reviewed the offer letter thoroughly and I am pleased to confirm my acceptance of the Fellowship Program. Please find attached the signed “Letter of Consent - Liuchao JIN”, as requested.

If there are any further steps or procedures that I should be aware of, or any additional information I need to provide, I would be very grateful if you could inform me.

Thank you once again for this fantastic opportunity. I am very much looking forward to joining SUSTech and contributing to the vibrant academic community.

Best regards,

Liuchao Jin

To: [whliao@mae.cuhk.edu.hk](mailto:whliao@mae.cuhk.edu.hk); [bmchen@cuhk.edu.hk](mailto:bmchen@cuhk.edu.hk); [ylkan@mae.cuhk.edu.hk](mailto:ylkan@mae.cuhk.edu.hk); [phwong@mae.cuhk.edu.hk](mailto:phwong@mae.cuhk.edu.hk);

Cc: [dengzy22@link.cuhk.edu.hk](mailto:dengzy22@link.cuhk.edu.hk); [zxguo@link.cuhk.edu.hk](mailto:zxguo@link.cuhk.edu.hk); [1155186689@link.cuhk.edu.hk](mailto:1155186689@link.cuhk.edu.hk); [1155179289@link.cuhk.edu.hk](mailto:1155179289@link.cuhk.edu.hk); [liuchao.jin@link.cuhk.edu.hk](mailto:liuchao.jin@link.cuhk.edu.hk); [1155186649@link.cuhk.edu.hk](mailto:1155186649@link.cuhk.edu.hk); [qtlu@link.cuhk.edu.hk](mailto:qtlu@link.cuhk.edu.hk); [1155186662@link.cuhk.edu.hk](mailto:1155186662@link.cuhk.edu.hk); [1155170424@link.cuhk.edu.hk](mailto:1155170424@link.cuhk.edu.hk);

Dear Prof. Liao, Prof. Chen, Ms. Kan, and Amy,

We think the email we just received is not a good solution for the Candidacy Exam. Here are four reasons:

1. The Candidacy Exam is postponed arbitrarily as if the CE is very sloppy.
2. Many people have already made their own arrangements after May 19, including annual leave, research tasks (experiments, papers), and attending meetings. Some annual leave application is already in Ms. Kan’s office and some are on the way. Especially on June 2, some people were no longer in Hong Kong. And arbitrarily postponing exams will also cause financial loss for us.
3. Allowing students from ENGG5402 and MAEG5140 courses to bring a piece of A4 paper in this time would solve all problems.
4. In previous Candidacy Exams, A4 papers were allowed to be brought in. Why is it suddenly notified that we can’t bring them in this year? It’s unfair to us this year.

We kindly hope that you can seriously consider the overall situation and reconsider the solution to this issue. Thank you for your time and patience.

Best regards,

1. DENG Zhiyu

2. GUO Zixuan

3. HAN Bingxin

4. JIN Liuchao

5. LI Chenzui

6. LIN Haoyan

7. LU Qitao

8. PENG Cheng

9. WANG Feiran

10. YANG Guidong

Request for Ph.D. Candidacy Exam

Dear Ms. Wong,

We hope this email finds you well. We are writing to you because we think it is unreasonable for such a major change (closed-book & closed-note) to be notified just **less than two days** before the exam. We have been preparing for the Candidacy Exam according to the information from instructors for almost a month. Some instructors informed us we can bring one A4 paper for their courses. The sudden change of the rules resulted in a huge amount of things to memorize, especially for some difficult courses, which cannot be completed in two days at all. Even if this rule needs to be changed this year, it is acceptable to notify us at least half a month in advance instead of just less than two days before the exam begins. Moreover, Prof. Fei Chen (ENGG5402 Advanced Robotics) and Prof. Wing Lam Tsang (MAEG5140 Materails Charaterization Techniques) have formally announced that we can bring double-sided A4 paper for the CE as shown in figures below:

Therefore, we sincerely request that the closed-book & closed-note rule not be implemented in May this year. The regulation could come into force this November with advance notice.

Hope you can consider our request carefully and looking forward to your earliest reply. Thank you so much for your help!

Best regards,

1. JIN Liuchao

2. GUO Zixuan

3. HAN Bingxin

4. LI Chenzui

5. LIN Haoyan

6. LU Qitao

7. PENG Cheng

8. WANG Feiran

9. YANG Guidong

Dear Ms. Wong,

I hope this email finds you well. I am writing to inquire whether we are allowed to bring an A4 paper for some courses, like ENGG5402 Advanced Robotics, in the coming Ph.D. Candidacy Exam. Because I get the information from the course instructor that we are permitted to bring one double-sided A4 paper. The same information also comes from MAEG5140 Materials Characterization Techniques.

Thank you for your time and consideration. Looking forward to your reply.

Best regards,

Liuchao Jin

Inquiry about Ph.D. Candidacy Exam

Dear Ms. Wong,

I hope this email finds you well. I am writing to inquire whether we are allowed to bring an A4 paper for some courses, like ENGG5402 Advanced Robotics, in the coming Ph.D. Candidacy Exam. Because I get the information from the course instructor that we are permitted to bring one double-sided A4 paper. The same information also comes from MAEG5140 Materials Characterization Techniques.

Thank you for your time and consideration. Looking forward to your reply.

Best regards,

Liuchao Jin

ENGG5402 Advanced Robotics Ph.D. Candidacy Exam

Dear Prof. Chen,

Thank you very much for your information. Your guidance has been very helpful and valuable. Wish you all the best.

Best regards,

Liuchao Jin

Dear Prof. Chen,

I hope this email finds you well. I am writing to inquire whether we are allowed to bring an A4 paper for the course - ENGG5402 Advanced Robotics in the coming Ph.D. Candidacy Exam.

Thank you for your time and consideration. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Ms. Mok,

There is one typo in Low 4. Here attached the revised version. Sorry for invonvenience.

Best regards,

Liuchao Jin

Subject: Connecting on WeChat for Candidacy Exam Preparation

To: 1155179289@link.cuhk.edu.hk

Dear Chenzui,

Nice to meet you. I hope this email finds you well. My name is Liuchao JIN, and I noticed that we are both scheduled to take the Candidacy Exam this May, as mentioned in the email from Amy Wong. I thought it might be helpful for us to connect on WeChat to communicate and support each other while preparing for the exam.

My WeChat ID is: 18258525750. If you’re interested in connecting, please feel free to add me, and we can share resources or discuss any questions we may have during the review process. I believe that collaborating in our preparation could be beneficial for both of us.

I look forward to potentially connecting with you and wish you the best of luck in your exam preparations.

Best regards,

Liuchao Jin

Student Samples of HW5 for MAEG4050 Modern Control Systems Analysis and Design

Dear Ms. Mok,

I hope this email finds you well. I am Liuchao JIN, the tutor for MAEG4050 Modern Control Systems Analysis and Design. I am writing to provide you with the student samples for Homework 5, which are attached to this email.

If you encounter any issues or have any questions, please do not hesitate to contact me. Thank you for your attention.

Best regards,

Liuchao Jin

Dear Dr. Li,

Here attached the recordings for HW5. If you have any questions or require further information, please do not hesitate to contact me.

Best regards,

Liuchao Jin

Dear Guidong,

I hope you are doing well. I received an email from Winnie Wong regarding the Annual Banquet of MSc Programme, which is scheduled for May 12, 2023, at 6:45 p.m. at Garden Room, 2/F, New World Millennium Hong Kong Hotel, Tsimshatsui, Kowloon.

I thought it would be a great idea if we could go to the event together. Would you like to join me? If so, I suggest we add each other on WeChat to make coordinating our attendance more convenient. My WeChat ID is: 18258525750. Please feel free to add me.

I am looking forward to attending the banquet with you and enjoying the evening together. Have a good night!

Best regards,

Liuchao Jin

Submission of Research Proposal for Candidacy Exam

Dear Ms. Wong,

I hope this email finds you well. My name is Liuchao JIN, and my student ID is 1155184008. I am currently working under the supervision of Prof. Wei-Hsin Liao. In accordance with the requirements for the upcoming Candidacy Exam written part on May 19, 2023, I am submitting my research proposal to you.

Please find the attached PDF document containing my research proposal. As mentioned in your email, I understand that this proposal can be revised and submitted again at least one week before the actual oral exam, if needed.

If you have any questions or require further information, please do not hesitate to contact me. I look forward to your confirmation of receipt and any additional information about the Candidacy Exam questions.

Thank you for your attention and patient help.

Best regards,

Liuchao Jin

Dear Ms. Wong,

Thank you for the invitation to the Annual Banquet of the MSc Programme on May 12, 2023 (Friday) night. I am pleased to inform you that I will be able to attend the event. I appreciate the opportunity to join my fellow MSc tutors and classmates at the banquet and look forward to a wonderful evening.

Please let me know if any further information or confirmation is needed from me before the event. I eagerly await the details regarding the exact time and venue.

Thank you, and I look forward to meeting everyone at the banquet.

Best regards,

Liuchao Jin

Dear Ching Man,

I understand that this is a busy period with finals and exams, and I appreciate your effort in completing the homework despite the challenges. I can see that you have already attached your homework to this email, and I will ensure that it is submitted for grading.

In the future, if you encounter any difficulties or foresee any delays in submitting assignments, please inform me in advance so that we can make suitable arrangements.

Thank you for your understanding and best of luck with your finals and exams.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

Thank you very much for granting me access to the course materials for MAEG5130 Computational Mechanics on Blackboard. I can access them now. I greatly appreciate your patient help. Your guidance has been very helpful and valuable. Wish you all the best.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

Thank you for your prompt response. My student ID is **1155184008**. I appreciate your help in providing me access to the course materials for MAEG5130 Computational Mechanics.

In addition to the course materials, I wanted to share with you that I am currently reading the book titled “A First Course in Finite Elements” (2nd edition). I have found it to be quite useful and have already read up to Chapter 10. I believe this book will be a valuable resource as I continue to prepare for the Ph.D. Candidacy Examination.

Once again, thank you for your assistance and support. I look forward to gaining access to the course materials on Blackboard and further deepening my knowledge of computational mechanics.

Best regards,

Liuchao Jin

Subject: Request for Assistance in Installing and Updating Apps on My Department Computer

Dear Mr. Lau,

I hope this email finds you well. My name is Liuchao JIN, and I am a Ph.D. student under the supervision of Prof. Wei-Hsin Liao. My Student ID is 1155184008, and my office is located in ERB 201. I am writing to ask for your help in installing and updating several apps on my department computer.

Firstly, I would like to install the following three apps on my computer:

1. GitHub Desktop
2. Atom
3. AnyConnect

I have already downloaded the installation packages for these apps. However, I need your help to authorize the installation on my department computer.

Additionally, I would appreciate it if you could update the following three apps on my computer:

1. WeChat
2. QQ
3. Youdao Dict

For your convenience, you can access my computer remotely using TeamViewer. My TeamViewer ID is 1 754 212 816, and the password is 3i4vxg9g.

Please let me know when you might be able to help me with this task, or if you need any additional information. Your help is greatly appreciated, and I look forward to having these apps installed and updated on my computer.

Thank you in advance for your time and support.

Best regards,

Liuchao Jin

Dear Mr. Rave,

I just checked there is no anydesk on my computer. So, how can we do?

Best regards,

Liuchao Jin

Dear Prof. Zhang,

Thank you for your prompt response to my email. I greatly appreciate your patience and help, and I am looking forward to receiving further details. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Huang,

Thank you for your prompt response and for providing clarification on the exam scope for MAEG5070 Nonlinear Control Systems in the Ph.D. Candidacy Examination. I appreciate your guidance and will ensure that I thoroughly review all the topics covered in the course during the 2022 academic year. Have a good day!

Best regards,

Liuchao Jin

Subject: Inquiry for MAEG5070 Nonlinear Control Systems Exam Scope for Ph.D. Candidacy Examination

Dear Prof. Huang,

I hope this email finds you well. My name is Liuchao JIN, and I am a Ph.D. student with Student ID 1155184008. I am writing to you because I have decided to choose your course, MAEG5070 Nonlinear Control Systems, as an exam subject in my upcoming Ph.D. Candidacy Examination this May.

As I have been reviewing the content of your course, I have found that it covers a wide range of topics, which has made it challenging for me to determine the specific areas to focus on in my preparation. In order to be well-prepared for the examination, I kindly need your guidance on the exam scope for MAEG5070 Nonlinear Control Systems in the Candidacy Examination.

Could you please clarify whether the exam will primarily cover the theoretical aspects or the design aspects of nonlinear control systems? This information would be extremely helpful for me to review the course content more carefully and in greater detail, allowing me to better allocate my study time and resources.

Thank you very much for your time and consideration. I am eagerly awaiting your response.

Best regards,

Liuchao Jin

Subject: Inquiry for MAEG5130 Computational Mechanics Review Materials and Exam Scope for Ph.D. Candidacy Examination

Dear Prof. Zhang,

I hope this email finds you well. My name is Liuchao JIN, and I am a Ph.D. student under the supervision of Prof. Wei-Hsin Liao with Student ID 1155184008. I am writing to you because I have decided to choose your course, MAEG5130 Computational Mechanics, as an exam subject in the upcoming Ph.D. Candidacy Examination this May.

I have always been fascinated by finite elements and their applications in solving complex engineering problems. Although I have not had the chance to take your course, I believe that your expertise in this area will significantly benefit my research and enhance my understanding of computational mechanics.

In order to better prepare for the examination, I was wondering whether you could be so kind to provide me with the review materials of your course, including lecture notes, homework assignments and their solutions, as well as the midterm and final exams with their answers. These materials would be incredibly helpful in allowing me to gain a deeper understanding of the course content and ensure I am well-prepared for the examination.

Additionally, I would greatly appreciate it if you could provide me with the general exam scope of MAEG5130 Computational Mechanics for the Candidacy Examination. This information would help me to focus my study efforts and cover the essential topics that will be assessed during the exam.

Thank you very much for your time and consideration. I am looking forward to learning from your course materials and advancing my knowledge in computational mechanics.

Best regards,

Liuchao Jin

Dear Mr. Sim,

Thank you for promptly updating the assignment settings to allow multiple attempts in the Advanced Robotics (ENGG5402) course. I appreciate your assistance and the swift action taken to address this matter.

This change will undoubtedly help me and my fellow classmates in submitting our refined work and ensuring the best possible outcome. We are grateful for your support and understanding.

Once again, thank you for your help, and have a great day!

Best regards,

Liuchao Jin

Dear Prof. Chen,

Thank you for your prompt response and support in allowing multiple submission attempts for the Advanced Robotics (ENGG5402) assignment.

I appreciate your understanding and willingness to accommodate this request. It will undoubtedly help me and my fellow classmates to submit our best work before the deadline. I am grateful for your attention to this matter and look forward to the updated settings on BlackBoard.

Once again, thank you for your help, and I hope you have a great day.

Best regards,

Liuchao Jin

Subject: Request for Multiple Assignment Attempts in Advanced Robotics (ENGG5402)

Dear Mr. Sim,

I hope this email finds you well. My name is Liuchao JIN, and I am a student in the Advanced Robotics (ENGG5402) course. My student ID is 1155184008.

I am writing to request a modification to the assignment settings on BlackBoard for our current assignment. Currently, the settings allow for only a single submission attempt. However, after submitting my assignment once, I have made some changes to my work and would like to submit it again.

Could you please adjust the assignment settings on BlackBoard to allow for multiple submission attempts? This change would enable me to resubmit my updated work for evaluation.

I understand that you may have set the current settings to maintain a consistent submission process for all students. However, I believe that allowing multiple submission attempts could be beneficial for those who wish to improve their work before the deadline.

Thank you for your understanding and assistance in this matter. I appreciate your support in helping me submit the best possible work for this assignment.

Best regards,

Liuchao Jin

Expression of Interest in Attending GYSS 2024 and CV Submission

Dear Ms. Wong,

I hope this email finds you well.

I’m Liuchao JIN (Ph.D. student, Student ID: 1155184008, Supervisor: Prof. Wei-Hsin Liao). I am writing to express my strong interest in attending the Global Young Scientists Summit (GYSS) 2024, which will take place in Singapore from 08-12 January 2024.

I am excited about the opportunity to engage with distinguished speakers and fellow young scientists from various fields during the Summit. I believe that participating in GYSS 2024 will provide me with valuable insights into the latest developments in my research area and help me broaden my perspectives through interdisciplinary work.

I have attached my CV to this email for your review and consideration. As you will see from my CV, I am deeply committed to my research and have been actively involved in several projects that align with the goals of GYSS. I am confident that my participation in the Summit will not only enhance my own research endeavors but also contribute to the discussions and collaborations among the attendees.

I understand that the Department will nominate one PhD student to the Faculty of Engineering for further review and consideration by the University. I would be extremely grateful for your support in nominating me for this prestigious event.

Please let me know if you require any further information or supporting documents from me. I look forward to your positive response and the opportunity to represent our University at GYSS 2024.

Thank you for your time and consideration.

Best regards,

Liuchao Jin

Top Up Printing Fee—Liuchao JIN

Dear Ms. Djin,

I’m Liuchao JIN (Ph.D. student, Student ID: 1155184008). I am writing to you because I was wondering whether you could be so kind as to help me top up my card with HKD 300 for the printing fee.

Thank you so much for your help, and I hope you enjoy your holiday!

Best regards,

Liuchao Jin

Submission of Declaration Form for CE (Written Part)—Liuchao JIN

Dear Ms. Wong,

I’m Liuchao JIN (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I am pleased to submit the declaration form for CE (written part), which is attached to this email. Please let me know if you require any additional information.

Thank you for your attention, and I hope you enjoy your holiday!

Best regards,

Liuchao Jin

Dear Mr. Sim,

Sure. I was just confused by the figure you provided in the new homework so I searched “One Leg Hopping Bot” on Google. And the first result was this paper. I did not intend to just copy and paste but in order to make my effort not to vanish like last week, it takes me almost a whole day to think about previous question and type it in (I hope you will not change the homework question again after you find this question can also be copied and pasted) so I send this email to you. 🙂

Best regards,

Liuchao Jin

Dear TA,

But the revised homework 2 is on one paper attached. How can we do?

Best regards,

Liuchao Jin

Dear TA(s),

I submitted this version of homework in case of you change homework again. 🙂

Best regards,

Liuchao Jin

Dear Ms. Mok,

Sorry for mistake. Actually, the total score is correct because the mark for question 4 is 17. I revised the paper and send it to you via this email. Many thanks for your help.

Best regards,

Liuchao Jin

Dear Prof. Ge,

I am reaching out to you to provide the necessary documents that need your help for my application of the SUSTech Fellowship Program. Enclosed in this email, you will find two important documents:

1. Supporting Letter signed by the supervisor of SUSTech. This document needs to be completed by the SUSTech Supervisor.

2. Research Proposal signed by the applicant and both supervisors. My CUHK supervisor and I have already signed this document. I can bring the original hard copy to you at SUSTech for your signature, and also take the opportunity to visit your lab this week. Alternatively, we can proceed with this electronic copy for the application. You can simply print it out, sign it, scan it, and send it back to me.

If there are any issues or concerns, please don’t hesitate to contact me. Thank you so much for your patient help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Very much appreciate your reply. See you at 10:30.

Best regards,

Liuchao Jin

Make an appointment for sign up the documents

Dear Prof. Liao,

I hope this email finds you well. I’m writing to make an appointment to visit you to sign up for two documents in the early next week. One for application of SUSTech Fellowship Program (the deadline is April 1st) and the other for PhD Candidacy Examination (the deadline is April 11th). I will come up with Qitao. He also wants your sign-up for PhD Candidacy Examination. I was wondering when it is available for you in your office next week.

Prof. Qi Ge fully supported my application for SUSTech Fellowship Program. His laboratory is well-equipped with advanced experimental facilities and staffed with brilliant researchers. He has agreed to accommodate our requirement of having two corresponding authors for our essay, and has also allowed me to list The Chinese University of Hong Kong as my first affiliation. I strongly believe that my exchange with his laboratory will pave the way for future exchanges and collaborations between our two laboratories. I have completed the preparation of my application materials, which I have attached to this email. These materials include my CV, personal statement, and research proposal. And the research proposal needs to be signed by the applicant and both supervisors.

Furthermore, Qitao and I plan to take our candidacy examination in May. Do you think that this timeline is feasible? If so, we would be grateful if you could help us sign the declaration form for the candidacy examination.

Thank you for taking the time to read this email. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

MAEG4050 Midterm Exam Student Samples

Dear Ms. Mok,

I’m Liuchao JIN, the tutor for MAEG4050 Modern Control Systems Analysis and Design. I’m writing to send you student samples for the midterm exam, which are attached to this email.

If there is any problem, please don’t hesitate to contact me. Thank you for your attention.

Best regards,

Liuchao Jin

Qualified Exam: Take it this May

Course: Only one course left for the program.

Duration: I prefer 2 years because I want more stable outcome.

During the first week, I helped Hongpeng’s exoskeleton project. My main responsibilities included conducting tests and providing feedback on the various aspects of the exoskeleton’s design.

In the second week, I shifted my focus to the exciting field of soft robotics, specifically the design optimization of soft robots. This involved extensive research into the latest advancements in soft robot design, as well as analyzing various design parameters and their impact on the performance of soft robots.

Dear Prof. Ge,

I hope this email finds you well. I had a discussion with my supervisor, Professor Wei-Hsin Liao, regarding the SUSTech Fellowship Program, and he fully supported my application. In terms of authorship, he has agreed to accept two corresponding authors for the essay, and for the first affiliation of mine, he suggested that it would be preferable to list The Chinese University of Hong Kong. He also expressed his willingness to maintain in-depth exchanges and cooperation with you.

Besides, I have completed the preparation of my application materials, which I have attached to this email. These materials include my CV, personal statement, and research proposal, all of which have been carefully crafted to highlight my skills, experience, and academic achievements.

Thank you for taking the time to review my application materials. I am eager to hear your feedback and look forward to discussing my application further with you.

Best regards,

Liuchao Jin

Discuss exchange opportunities through SUSTech Fellowship Program

Dear Prof. Liao,

I hope this email finds you well. I am writing to you because I am considering an exchange opportunity through the SUSTech Fellowship Program (<https://fellow.sustech.edu.cn/#/fellowship/enHome>) at Southern University of Science and Technology (SUSTech), and I have contacted Prof. Qi Ge (<https://faculty.sustech.edu.cn/geq/en/>) as a potential co-supervisor for this opportunity. He has a great achievement in 4D printing.

I believe this opportunity will allow me to broaden my research experience and expertise, and contribute to my overall academic growth. Therefore, I would like to have your approval and support for this exchange opportunity.

I would be grateful if we could discuss this matter further after the group meeting this Friday. I would appreciate any guidance or advice you can offer regarding this opportunity.

Thank you for your understanding and support. I look forward to discussing this further with you during our group meeting.

Best regards,

Liuchao Jin

Dear Mr. Wang,

How about 2 p.m.? I’m waiting for you in the room.

Best regards,

Liuchao Jin

自我介绍

研究兴趣

未来打算

工资期望

Dear Mr. Wang,

Please wait for 10 minutes. I forget to paste the meeting information in the last email. Thank you.

Best regards,

Liuchao Jin

Dear Mr. Wang,

Glad to hear from you again. How about let’s do a quick video meeting this Saturday afternoon? Would you be available then?

Here is the room for tomorrow’s meeting.

Join Zoom meeting:

<https://cuhk.zoom.us/j/96803713725>

Meeting ID: 968 0371 3725

See you tomorrow!

Best regards,

Liuchao Jin

Dear Prof. Reed,

Thank you for your prompt response and for sharing the link to the university’s faculty application procedure. I appreciate your guidance and Mr. Jiang will make sure to follow the process accordingly. Enjoy your coming weekend.

Best regards,

Liuchao Jin

Dear Mr. Yip,

I’m also fine. Actually, the part we want to test is a printed plane, as shown in figure attached. I’m curious to know your thoughts on whether or not we can get an accurate roughness measurement for this plane. Your expertise in this area would be invaluable to us.

Looking forward to hearing back from you soon!

Best regards,

Liuchao Jin

To: [reed@westlake.edu.cn](mailto:reed@westlake.edu.cn)

Cc: [jjia547@aucklanduni.ac.nz](mailto:jjia547@aucklanduni.ac.nz)

Subject: Recommend Dr. Jingchao Jiang for a faculty position at Westlake University

Dear Prof. Reed,

Long time no see. How are you? Hope you are doing well.

I’m Liuchao Jin from SCUPI 2018. I am writing to recommend an excellent senior of mine, Dr. Jingchao Jiang, for a faculty position at the School of Engineering in Westlake University for the direction of material science and engineering. As Jiang’s labmate, I had the pleasure of witnessing his exceptional academic skills and personal qualities.

Dr. Jiang got his Ph.D. from the University of Auckland. He was granted of **World’s Top 1% Scientists** by Elsevier and Stanford University. He has published **27 papers** in intentionally leading journals, including **18 first/corresponding-author journal papers** and **3 highly cited papers** in Web of Science, attracting more than **1,600 citations**. His research interests are in the general area of additive manufacturing, including improving additive manufacturing processes, development of new additive manufacturing techniques, and new applications of additive manufacturing.

I believe that Dr. Jiang would be an excellent addition to the faculty at Westlake University. He has the academic credentials, leadership qualities, and personal characteristics necessary to make a positive impact in the broader academic community.

His CV is attached to this email. Thank you for your consideration of this recommendation.

Best regards,

Liuchao Jin

Dear Mr. Wang,

It is a great pleasure to receive your email. You have a strong background and your CV is really impressive to me. Your experience is also very consistent with our research direction. Before our meeting, I want to highlight one important point.

This recruitment of RA is not an official channel. Because the supervisor of our laboratory, Prof. Wei-Hsin Liao, does not typically recruit MSc or undergraduate students for scientific research, but our laboratory is eager to have more people to do scientific research with us, so this recruitment was initiated by our Ph.D. students and postdoc. The salary is offered by myself and the corresponding guidance and supervision are undertaken by me and the postdoctoral fellows in our laboratory. Our purpose is to make our results better and faster to publish, and to help MSc and undergraduate students make progress and get a stepping stone towards a better future.

If you are interested in joining us, we can arrange a meeting via Zoom. I look forward to hearing from you.

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Yip,

Long time no see. How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I was hoping you could advise me on where I can measure the roughness of a printed part. Any help you can provide would be greatly appreciated.

Thank you in advance for your assistance. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

Dear John,

I’m not quite sure when I will be available in the office. Before you come, you can check the following link to see whether I’m in the office:

[Book time with JIN, Liuchao: Make an appointment with Mr. Liuchao JIN](https://outlook.office.com/bookwithme/user/e979816620a34abca6a6b3329ea492e7@link.cuhk.edu.hk/meetingtype/BerJKgccy0im-Zdz0UAX4g2?anonymous)

Looking forward to seeing you.

Best regards,

Liuchao Jin

Dear Prof. Ge,

Got it. Thank you for providing me with the details for the online interview. See you on Thursday!

Best regards,

Liuchao Jin

SUSTech Fellowship Program Application—Liuchao JIN—CUHK

Dear Prof. Ge,

I hope this email finds you well. My name is Liuchao Jin, a first-year Ph.D. student from the Smart Materials and Structures Laboratory at The Chinese University of Hong Kong, under the guidance of Prof. Wei-Hsin Liao. As a passionate researcher in the field of 4D printing and soft robotics, I am thrilled to apply for the SUSTech Fellowship Program (<https://fellow.sustech.edu.cn/#/fellowship/cnHome>), and I couldn’t help but think that you would be the perfect supervisor to guide me through this journey.

Our lab has been making some strides in the area of 4D printing, and I am eager to work with you and your team to explore this fascinating field further. I believe that your expertise and guidance will provide me with a unique and valuable research experience that will greatly benefit my career as a researcher.

For your reference, I have attached my CV to this email, and you can also visit my homepage at <https://liuchao-jin.github.io/> for more information about my background.

Thank you for taking the time to consider my application. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

Long time no see. How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I was hoping you could advise me on where I can measure the roughness of a printed part. Any help you can provide would be greatly appreciated.

Thank you in advance for your assistance. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

Long time no see. How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I was hoping you could advise me on where I can measure the roughness of a printed part. Any help you can provide would be greatly appreciated.

Thank you in advance for your assistance. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

Long time no see. How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I was hoping you could advise me on where I can measure the roughness of a printed part. Any help you can provide would be greatly appreciated.

Thank you in advance for your assistance. I look forward to hearing from you soon.

Best regards,

Liuchao Jin

Dear Mr. Allan,

It is a pleasure to receive your message. I have had some experience researching origami energy harvesters, and my laboratory is also dedicated to the study and development of (smart) materials.

One of the objectives of my post on Xiaohongshu is to build my own team, so that after graduation, I will be more competitive in applying for a faculty position at a university.

I look forward to keeping in touch and exploring potential future collaborations. Additionally, I have added your WeChat account (provided by Mr. Ruize Xue) and appreciate the opportunity to connect with you. Thank you!

Best regards,

Liuchao Jin

Dear Miss. Xia,

It is a pleasure to receive your message. I have had some experience researching origami energy harvesters, and my laboratory is also dedicated to the study and development of (smart) materials.

One of the objectives of my post on Xiaohongshu is to build my own team, so that after graduation, I will be more competitive in applying for a faculty position at a university.

I look forward to keeping in touch and exploring potential future collaborations. Additionally, I have added your WeChat account (provided by Mr. Ruize Xue) and appreciate the opportunity to connect with you. Thank you!

Best regards,

Liuchao Jin

Dear Rui,

Here is the link for the meeting.

Liuchao JIN is inviting you to a scheduled Zoom meeting.

Topic: Peng and Jin’s Meeting

Time: Mar 11, 2023 10:00 AM Beijing, Shanghai

Join Zoom Meeting

https://cuhk.zoom.us/j/99549893828

Meeting ID: 995 4989 3828

Thank you and see you tomorrow!

Best regards,

Liuchao Jin

Dear Rui,

It is a pleasure to receive your message. I have had some experience researching origami energy harvesters, and my laboratory is also dedicated to the study and development of (smart) materials.

One of the objectives of my post on Xiaohongshu is to build my own team, so that after graduation, I will be more competitive in applying for a faculty position at a university.

I look forward to keeping in touch and exploring potential future collaborations. Additionally, I have added your WeChat account (provided by Mr. Ruize Xue) and appreciate the opportunity to connect with you. Thank you!

Best regards,

Liuchao Jin

Dear John,

Here attached my answer.

Dear Mr. Cheuk,

I was wondering whether we could

Best regards,

Liuchao Jin

Dear Mr. Cheuk,

13:30-17:30 next Mon and Tue are suitable for us. Thank you for your help and see you next Monday!

Best regards,

Liuchao Jin

Dear Mr. Cheuk,

I hope this email finds you well. I am writing to request a reschedule of our DMA test for this afternoon. During our testing this morning, we discovered that the temperature control of the sample was slower than expected, and we would like to increase the number of sampling points for the next test. Unfortunately, 2.5 hours will not be sufficient for us to conduct the next sample adequately.

Therefore, I would like to request for another 8 consecutive hours of lab time next week (Mon-Fri) to conduct the test thoroughly. In addition, I would appreciate it if you could guide me for the first hour on how to operate the MTS machine correctly. With your guidance, I will be able to conduct the remaining 7 hours of the test independently.

Thank you for your patience and understanding, and I look forward to hearing back from you soon to schedule the new appointment.

Dear Iris,

Love you so much. Miss you very much. You are my ideal.

Best regards,

Your boyfriend, Liuchao Jin

Dear Dr. Li,

I was wondering when you will be in the office today so that I can pick up the exam paper from you. Thanks and looking forward to your reply!

Best regards,

Liuchao Jin

To: ycfeng@mae.cuhk.edu.hk

Subject: Submission of Homework 01 for MAEG5160 - Design for Additive Manufacturing

Dear Mr. FENG Yuncong,

I am writing this email to submit my Homework 01 for the course MAEG5160 - Design for Additive Manufacturing. As per the course requirements, I have attached two files to this email that include the MATLAB source code for function top\_chair and a user instruction document for this MATLAB code.

I am Liuchao Jin, and my Student ID is 1155184008. I hope that you receive my submission without any problem.

Please let me know if you encounter any difficulty in accessing the attached files or if there is any other issue with my submission.

Thank you for your time and consideration.

Best regards,

Liuchao Jin

Dear Mr. Cheuk,

This time slot is suitable for us. Thank you for your help and see you next Friday!

Best regards,

Liuchao Jin

Dear Mr. Cheuk,

This time slot is suitable for us. Thank you for your help and see you next Friday!

Best regards,

Liuchao Jin

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin, a Ph.D. student from the Department of Mechanical and Automation Engineering (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I am writing to inquire about the availability of the DMA test on **Thursday or Friday next week (Mar 2nd or 3rd)**.

Ideally, we would require a time slot of approximately **5 hours**. The experiment set-up is the same as that done in this week. Your patient help would be greatly appreciated.

Thank you for your time, and I look forward to your response.

Best regards,

Liuchao Jin

Dear Mr. Cheuk,

This time slot is suitable for us. Thank you for your help and see you on Wednesday!

Best regards,

Liuchao Jin

Dear Mr. Cheuk,

The thickness of the printed parts we want to test is 5 mm. Many thanks for your attention.

Best regards,

Liuchao Jin

Dear Sir/Madam,

Yes. I’m coming!

Best regards,

Liuchao Jin

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin, a Ph.D. student from the Department of Mechanical and Automation Engineering (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I am writing to inquire about the availability of the DMA test this week (Wednesday to Friday).

Ideally, we would require a time slot of approximately 2 hours for the first trial. Would it be possible for you to assist us in booking the test during this period? Your assistance would be greatly appreciated.

Thank you for your time, and I look forward to your response.

Best regards,

Liuchao Jin

Dear Mr. Yip,

Many thanks for your patient help and kindness today. Really touched. Happy New Year and have a good night!

Best regards,

Liuchao Jin

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin, a Ph.D. student from the Department of Mechanical and Automation Engineering (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I’m writing to you because I was wondering whether we could book the machine for the tensile test to test our samples in our department. The time we need is about 2.5 hours. Could you be so kind to help us book it?

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Yip,

11:00 am is OK. Many thanks for your patient help. See you tomorrow!

Best regards,

Liuchao Jin

Dear Mr. Allan,

Thank you so much for your information. I will contact Billy for more information. Have a good day!

Best regards,

Liuchao Jin

Dear Law,

I see. Thank you for your information. Have a good day!

Best regards,

Liuchao Jin

Coral’s Photo

Dear Coral,

Here attached your photo. Please check whether there is any problem. Happy new year!

Best regards,

Liuchao Jin

Enquiry about RPg Study Plan

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin, a Ph.D. student from the Department of Mechanical and Automation Engineering (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I’m writing to you because we can not get access to the section on CUSIS where RPg Study Plan needs to be submitted so far, as shown in the figure below. I was wondering when the system will be fixed because the deadline for the study plan is approaching soon.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Ms. Lam,

Thank you so much for your information. I will contact Mr. Wong for more information. Enjoy your coming holiday and happy new year!

Best regards,

Liuchao Jin

My New Email Signature

Dear Ian,

Here is my new email signature. I think it’s very good. Thank you for your attention.

Best regards,

Liuchao Jin

My New Email Signature

Dear Coral,

Here is my new email signature. I think it’s very good. Thank you for your attention.

Best regards,

Liuchao Jin

To: [mowong@cuhk.edu.hk](mailto:mowong@cuhk.edu.hk)

Cc: [xiaoyazhai@cuhk.edu.hk](mailto:xiaoyazhai@cuhk.edu.hk)

Inquiry about the Purchase of DCM

Dear Mr. Wong,

How are you? Hope you are doing well!

I’m Liuchao Jin, a Ph.D. student from the Department of Mechanical and Automation Engineering (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I’m writing to you because I want to purchase 5 bottles of 4L **DCM**. I was wondering what the price for them is and how we can pay for them.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

To: [nicoleli@orientalab.com](mailto:nicoleli@orientalab.com)

Cc: [liuchao.jin@link.cuhk.edu.hk](mailto:liuchao.jin@link.cuhk.edu.hk); [xiaoyazhai@cuhk.edu.hk](mailto:xiaoyazhai@cuhk.edu.hk)

Inquiry about the Purchase of DCM

Dear Ms. Nicole,

I’m Liuchao Jin from The Chinese University of Hong Kong. I’m writing to you because I want to purchase 5 bottles of 4L DCM. I was wondering what the price for them is and how we can pay for them.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Coral,

Here is the link for the files of course recording. If there is any problem, please don’t hesitate to contact me.

<https://drive.google.com/drive/folders/1EtubrqwGfsWC6PoZ83mc9M383bh5lUne?usp=sharing>

Thanks for your help and have a good day!

Best regards,

Liuchao Jin

Dear Dr. Li,

Here is the link for the files of course recording. If there is any problem, please don’t hesitate to contact me.

<https://drive.google.com/drive/folders/1EtubrqwGfsWC6PoZ83mc9M383bh5lUne?usp=sharing>

Thanks for your help and have a good day!

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print four files attached to this email? These four files print first.

Here are the requirements:

* Material: PLA
* Infill: 100%

Your assistance will be appreciated.

Best regards,

Liuchao Jin

MAEG5745 Course Record

Dear Dr. Li,

I have done the recording for course MAEG5745, which is attached to this email. Here are things left needed to be done.

1. For midterm exam, I only scan three copies of top, mid, and low. So, two more samples for each level need to be scanned. The test paper is in your office. Could I come to pick up the midterm test or could you help me to scan two more samples?
2. For midterm exam, the test paper and solution manual needed.
3. For final exam, 5 samples of each level needed. I can help to scan it after the grading is finished. And also, the test paper and solution manual are needed.

Thanks for your help and enjoy your weekend!

Best regards,

Liuchao Jin

Dear John,

Glad to hear from you. Enjoy your Christmas holiday! Take care, stay safe, and keep health.

Best regards,

Liuchao Jin

尊敬的张老师：

您好！

我是匹兹堡学院2018级的金刘超。我的近半年（2022.6-2022.12）的个人情况汇报附在这封邮件中了。祝老师工作顺利！

此致

敬礼！

金刘超

2022年12月16日

Dear John,

Because *S* is only related to *T*, it is the derivative.

Best regards,

Liuchao Jin

Dear Lam,

Yes. You can use any course material.

Best regards,

Liuchao Jin

Dear John,

Sorry. Update the solution.

Best regards,

Liuchao Jin

Dear John,

Here is the solution.

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print two files attached to this email? **Each file needs to be printed for 32 copies.** So, the total piece of parts is 64.

Here are the requirements:

* Material: PLA
* No support
* Infill: 30%
* For the placement of the part, the hole on the part should be upward.

Your assistance will be appreciated and have a wonderful night.

Best regards,

Liuchao Jin

To: [nicoleli@orientalab.com](mailto:nicoleli@orientalab.com)

Cc: [xiaoyazhai@cuhk.edu.hk](mailto:xiaoyazhai@cuhk.edu.hk)

Inquiry about the Purchase of DCM

Dear Ms. Nicole,

How are you? Hope you are doing well!

I’m Liuchao Jin from The Chinese University of Hong Kong. I’m writing to you because I want to purchase 5 bottles of 4L DCM. I was wondering what the price for them is and how we can pay for them.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Lau,

Yes, I also miss Joyce toooo. Hope she will enjoy the journey.

Best regards,

Liuchao Jin

Dear Mr. Lau,

Yes, I also miss Joyce toooo. Hope she will enjoy the journey.

Best regards,

Liuchao Jin

Dear Mr. Lau,

Yes, I can also submit the original file (29 MB) now. Very nice.

Best regards,

Liuchao Jin

Dear Mr. Lau,

I did it! Very appreciated for your help and have a good day.

Best regards,

Liuchao Jin

Dear Mr. Lau,

OK. Let me try.

Best regards,

Liuchao Jin

Dear Mr. Lau,

I send a pure email with an attachment to you and it seems successful. Could you please help me to upload it onto the system?

Best regards,

Liuchao Jin

Dear Mr. Lau,

Sorry, I tried it yesterday. I cannot send it as an attachment to you as shown in the email below. The size of my file is about 29 MB, which is not very large I think. I don’t know why. Many thanks for your patient help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Lau,

Here attached my report. Thank you so much for your patient help!

Best regards,

Liuchao Jin

Dear Mr. Lau,

It still doesn’t work as shown in video attached.

Best regards,

Liuchao Jin

Dear Mr. Lau,

Actually, the problem still existed. After submission, there is no response as shown in video attached to this email. I don’t know why. Thank you so much for your patient help and looking forward to your reply.

Best regards,

Liuchao Jin

MAEG8006 Term-End Report – JIN Liuchao

Dear Prof. Liao,

I’m Liuchao Jin (Student ID: 1155184008). Due to a technical problem, we cannot submit the MAEG8006 term-end report to the system so I am sending it as an attachment in this email to you.

If there is any problem, please don’t hesitate to contact me. Thank you very much for squeezing time out of your busy schedule to look through these materials. Have a good day!

Best regards,

Liuchao Jin

Dear John,

Yes, it is.

Best regards,

Liuchao Jin

Dear John,

I get the answer for the acceleration part same as you.

Best regards,

Liuchao Jin

Dear John,

0.306 is……actually wrong answer.

Best regards,

Liuchao Jin

Dear John,

Yes. Angular velocity (rad/s) is used to calculate the transient time. You can see that it is *ωn*, the natural frequency, which is rad/s.

Best regards,

Liuchao Jin

Dear John,

Yes, you are right. For indirect method, the sensor range can be smaller than the force range.

Best regards,

Liuchao Jin

Dear John,

Yes, you are right.

Best regards,

Liuchao Jin

Dear John,

I think you are right. Where is this sentence from?

Best regards,

Liuchao Jin

Dear John,

It’s my pleasure. Hope you can get a lot through this course. Have a good day!

Best regards,

Liuchao Jin

Dear John,

No hurry. I will be here for a long time. See you then.

Best regards,

Liuchao Jin

Dear John,

Sure. Welcome!

Best regards,

Liuchao Jin

Dear Prof. GONZAGA,

How are you? Hope you are doing well!

I am Yu Zhang from Sichuan University. Since the last time I contacted you, l have submitted my application to the Graduate School on 27th October and my application number is 23324348. l sincerely hope l can have opportunities to learn from your experience and expertise. l believe that l will be a valuable addition to your team. I will wait for the application results patiently.

Thank you so much for your precious time and patient help. Have a good day!

Best regards,

Yu Zhang

Dear Sir/Madam,

I see. Thank you for your patient reply and have a good day!

Best regards,

Liuchao Jin

Enquiry about Guest Room in PGH 3

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin, a resident of PGH 3-816B (Student ID: 1155184008). I’m writing to you because I was wondering whether the guest room in PGH 3 or PGH 1 is available for rent and what the price is.

My brother from the mainland will come to visit me on 12 Dec. He will stay here about 10 days. It’s very convenient if he can live in the guest room.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print seven files attached to this email? Here are the requirements:

* Material: PLA
* No support
* Infill: 20% (grid)

Also, could you scale the size of the parts along the x-axis to 40 mm for each file before printing via uniform scaling?

Your assistance will be appreciated and enjoy your weekend!

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print two files attached to this email? I have modified it so that it will not fall down during printing. **Each file needs to be printed for 16 copies.** So, the total piece of part is 32.

Here are the requirements:

* Material: PLA
* No support
* Infill: 30%
* For the placement of the part, the hole on the part should be upward.

Your assistance will be appreciated and have a wonderful day.

Best regards,

Liuchao Jin

Dear Mr. Lin,

Many thanks for your patient reply! It’s really helpful. I can fully understand. Have a good day!

Best regards,

Liuchao Jin

Ask Question about Minimum Phase

Dear Mr. Lin,

How are you? Hope you are doing well!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to ask one question about the minimum phase. What if there are some terms in *b*(*s*) and *a*(*s*) cancelled? (*b*(*s*) and *a*(*s*) is the numerator and denominator as shown in figure below:)

Actually, this happened in last year’s final exam as shown in figure below. *b*(*s*) = 4(*s*-*λ*), and *a*(*s*) = (*s*-1)2(*s*-*λ*), so *H*(*s*) is actually equal to 4/(*s*-1)2. So, is *b*(*s*) still equal to 4(*s*-*λ*) or *b*(*s*) equal to 4?

Here is the MATLAB code to calculate *H*(*s*):

syms s lambda;

A = [1, 0, 0;

2, 1, 0;

0, 1, lambda;

];

B = [2;

0;

0;

];

C = [0, 1, 0;

];

H = C\*inv(s\*eye(3)-A)\*B;

And here is result for *H*(*s*):

H = 4/(s - 1)^2

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Tang,

*ω*/*ωn* is read from figure provided at the peak. Just approximately read the corresponding value. Thanks and have a good day!

Best regards,

Liuchao Jin

Inquiry about Lab Oven

To: [whliao@cuhk.edu.hk](mailto:whliao@cuhk.edu.hk)

Cc: [jingchaojiang@cuhk.edu.hk](mailto:jingchaojiang@cuhk.edu.hk); [xiaoyazhai@cuhk.edu.hk](mailto:xiaoyazhai@cuhk.edu.hk); [zhangkangcas@gmail.com](mailto:zhangkangcas@gmail.com); [qtlu@link.cuhk.edu.hk](mailto:qtlu@link.cuhk.edu.hk); [zhichaoshen@cuhk.edu.hk](mailto:zhichaoshen@cuhk.edu.hk)

Dear Prof. Liao,

We heard from Mr. Zhang Kang and Ms. Lai Asta that someone donated an oven to our lab. We would like to try using an oven to reheat our printed part for LMPA and see whether the property of printed part can be further improved. So, we were wondering whether there is any news on donated ovens?

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

We got the furnace from Mr. Allan Mok and put it in our office (ERB 201). It is very nice. Thank you so much for your help!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Many thanks for your prompt reply. We will check with Mr. Allan Mok. Have a good day!

Best regards,

Liuchao Jin

Dear Mr. Allan,

Don’t need to hurry. I just want to check whether it is feasible. Thank you again for your patient help!

Best regards,

Liuchao Jin

Dear Mr. Allan,

How are you? Hope you are doing well!

I was wondering whether the five documents sent to you earlier can be printed? Will something go wrong? I notice that the size is quite large.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Allan,

How are you? Hope you are doing well!

I was wondering whether the five documents sent to you earlier can be printed? Will something go wrong? I notice that the size is quite large.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear John,

The stl. file can be edited in SolidWorks, but the robustness of the model is poor. To execute STL file with micros scale-level drawing files, it’s better to use software called Rhino (<https://www.rhino3d.com/>).

Have a good day!

Best regards,

Liuchao Jin

Dear Coral,

Here is my new email signature. Test 1 2 3 and have a good day!

Best regards,

Liuchao Jin

Dear John,

You can refer to the following code:

syms x

solve(x^4+x==0);

Have a good day!

Best regards,

Liuchao Jin

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print five files attached to this email? Here are the requirements:

* Material: PLA
* Infill: 15% (grid)

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear John,

You can refer to following link:

<https://ww2.mathworks.cn/matlabcentral/answers/107508-solving-a-nonlinear-equation-using-newton-raphson-method>

Have a good night!

Best regards,

Liuchao Jin

Dear John,

YY has changed *R2* to *R3* yesterday in the announcement. Have a good day!

Best regards,

Liuchao Jin

Dear John,

I will be available on Wednesday during the following time: 8:00-15:00 18:00-22:00. Is it OK? If so, see you on Wednesday. (๑•̀ㅂ•́)و✧

Dear Dr. Li,

Could I pick up them on Tuesday? I have a conference tomorrow. It’s hard for me to come back. Thank you so much for your help!

Best regards,

Liuchao Jin

Dear Tang,

*gc* is a constant. Please refer to page 36. Have a good day!

Best regards,

Liuchao Jin

Dear Zhang,

In the question, notice *R1* = *R2* and substituting *uR1* = 0.01*R1* into the calculation of *uRTD*, you can cancel all resistance term. Have a good day!

Best regards,

Liuchao Jin

Dear Tang,

Yes, we need to plot a graph from 0°C to 50°C only and the output at 50°C is correct.Dear Qitao,

Received! I will print once the printer is available! Have a good night!

Best regards,

Liuchao Jin

Dear Tang,

Sure. Welcome!

Best regards,

Liuchao Jin

Dear Catherine,

Great! Let’s meet at my office (Room 201, William M.W. Mong Engineering Building) first and then go to the meeting room to have the exam on Friday. See you then.

Best regards,

Liuchao Jin

Dear Winnie,

I have asked Joyce for the help to book the meeting room for the make-up exam. Many thanks for your help and have a good day!

Best regards,

Liuchao Jin

Dear Joyce,

Many thanks for your patient help. I will come to pick the room key one day before the exam. Have a good day!

Best regards,

Liuchao Jin

Dear Joyce,

I’m Liuchao Jin, the tutor for MAEG5745 Measurement and Instrumentation. I’m writing to you because I was wondering whether you could help me to book a meeting room this Friday (Nov. 11) from 11:00 to 14:00 since one student in this course needs to attend the make-up exam so it’s better to have a quiet place.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Winnie,

I’m Liuchao Jin, the tutor for MAEG5745 Measurement and Instrumentation. I’m writing to you because I was wondering whether you could help me to book a meeting room this Friday (Nov. 11) from 11:00 to 14:00 since one student in this course needs to attend the make-up exam.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Joyce,

Many thanks for your help and have a good day! (๑•̀ㅂ•́)و✧

Best regards,

Liuchao Jin

Need Help in Replace Purifier Filter in the 2nd-Floor Pantry

Dear Joyce,

I’m writing to you because I was wondering whether you could help us find someone to replace the water purifier filter in the 2nd-floor pantry. It hasn’t been changed for almost five months. It looks very dirty as shown in the picture below and the water coming out of it has a very bad smell. I noticed last year that the filter was replaced once a month. It may be that the person responsible for replacing the filter element this year forgot to do it.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Catherine,

That’s good! Thank you for informing me of that. Let’s wait for comfirmation. Have a good night!

Best regards,

Liuchao Jin

Dear John,

Glad to hear from you. Sorry, I will not be on campus tomorrow afternoon. But I will return to campus after 6:30 p.m. How about tomorrow night? Or we can meet on zoom? Looking forward to your reply!

Best regards,

Liuchao Jin

Dear Catherine,

How are you? Hope you are doing well.

Have you decided which time period you are going to take the make-up exam next week?

Looking forward to your reply. Thank you and have a good night!

Best regards,

Liuchao Jin

Dear John,

OK. That’s good. See you next week!

Best regards,

Liuchao Jin

Dear John,

Sure. I will be in office before 3:30 pm and after that I will have a class until 6:30. Thank you and have a wonderful weekend!

Best regards,

Liuchao Jin

Dear Catherine,

Here are the time periods that are available for me and I will be in my office (ERB 201):

Monday: 8:00-13:00 14:30-22:00

Tuesday: 8:00-15:30 19:00-22:00

Wednesday: 8:00-15:00 18:00-22:00

Thursday: 8:00-15:30 18:00-22:00

Friday: 11:00-22:00

Saturday: 8:00-22:00

Sunday: 9:00-22:00

The exam will last 150 minutes. Please select time that is suitable for you.

Looking forward to your reply. Thank you and have a good night!

Best regards,

Liuchao Jin

Dear Prof. Jiang,

Great work! Here attached the revised version of the manuscript. Thank you and have a good night!

Best regards,

Liuchao Jin

Dear WENQI,

The grade has been uploaded onto the BlackBoard. Please take a look at it. Thanks and have a good day!

Best regards,

Liuchao Jin

Dear John,

OK. See you on Thursday!

Best regards,

Liuchao Jin

Dear Mr. Leung,

Thanks for your information. I did nothing during this period. I don’t know what’s going on.

Best regards,

Liuchao Jin

Dear John,

OK. Welcome!

Best regards,

Liuchao Jin

wkmok@mae.cuhk.edu.hk

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print one file attached to this email? Here are the requirements:

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear all,

The midterm score has been uploaded onto BlackBoard. Please check it. Here are the statistics for this exam:

|  |  |
| --- | --- |
| Maximum Value | 100.00 |
| Average | 84.59615 |
| Median | 87.00 |
| Standard Deviation | 14.59881 |
| Variance | 213.12536 |

You can come to my office (ERB 201) to pick up your test paper during the tutorial (Thursday 9:30-10:30 am). You can also pick it up at the following times when you pass by my office (most likely I will be in the office).

Monday: 8:00-13:00 15:00-22:00

Tuesday: 8:00-15:00 19:00-22:00

Wednesday: 8:00-15:00 18:00-22:00

Thank you and enjoy your weekend!

Best regards,

Liuchao Jin

Dear Dr. Li,

I will take care of this submission. Thanks for your information and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I asked Mr. Allan whether we can get access to the 3D Printing room. The answer is not. In order to maintain the good quality of the 3D Printer, no student can use these 3D printers by themselves. We can only send the model to Mr. Allan and ask him for help printing it out. And also, he said PLA is the only material choice if we want Mr. Allan to help print, no other choice. Considering this situation, maybe it is better for us to buy a new one? Maybe the RMB5980 one? What do you think?

Best regards,

Liuchao Jin

Dear Prof. Liao,

Sorry. It is USD. If you think it’s too expensive, we can purchase the 3rd generation of the current printer (2nd generation) from the mainland, which costs about RMB5980, but Raise3d should have better performance. What do you think? Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I consulted Mr. Allan about the 3D Printer. He suggested us to buying a 3D Printer called Raise3d (<https://www.raise3d.com/pro2-series/>). We investigated this printer, whose performance is very excellent and totally meets our needs. Its price is about $3999. We were wondering whether we can buy one. If it is ok, we will contact this company to further check the detail.

Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Sir/Madam,

Many thanks for your help. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

OK. I will check with ERB203. Many thanks for your help! Have a good day!

Best regards,

Liuchao Jin

Help Needed for 3D Printing

Dear Mr. Allan,

How are you? Hope you are doing well!

I saw that one technical staff tested “positive” in ERB107. Please take care and stay safe!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print one file attached to this email?

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin, a resident of PGH 3-816B (Student ID: 1155184008). I’m writing to you because I cannot reach PGH 3 during the daytime so that I cannot pick up the Cantonese Class – Deposit Refund during office hour. Could you please help me put the refund at the counter in PGH 3? I will pick it about 10 pm today!

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Another 3D Printer Needed

Dear Prof. Liao,

How are you? Hope you are doing well!

Due to the relatively low accuracy, unexpected problems sometimes, and heavy workload of the current printer, we are considering purchasing another printer. There are two options we have investigated.

First is the Ultimaker S3, which takes about HKD38000. Because it is too expensive, Xiaoya and I visited the agency of Ultimaker in Hong Kong. To be honest, we didn’t find any advantages of Ultimaker S3 compared with our current printer except for the stability and excellent after-sales service.

The second option is to purchase the 3rd generation of the current printer (2nd generation) from the mainland, which costs about RMB5980. The merchants advertise that the accuracy and stability of the 3rd generation are greatly improved compared to the 2nd generation. And their engineers are also very serious and responsible. He can answer any questions in a timely manner.

By the way, we have found some strange properties of SMP and are about to conduct some tests to further verify the finding.

Your precious suggestion will be greatly appreciated about the 3D printer and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Yang,

Your understanding is correct. The Nyquist rates should be less than sampling rate to avoid aliased. Have a good day!

Best regards,

Liuchao Jin

wkmok@mae.cuhk.edu.hk

Needs Help from Liuchao JIN

Dear Mr. Allan,

How are you? Hope you are doing well!

I’m Liuchao Jin from ERB 201 (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). Could you please be so kind to help me print two files attached to this email? Here are the requirements:

* Material: PLA
* No support
* Infill: 20% (grid)

Also, could you check that the value of size along the x-axis is about 50 mm for each file before printing?

By the way, do you know any place on campus that can conduct the dynamic mechanical analysis (DMA) test?

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear John,

Sorry for late reply. I had class this afternoon. Could you please come to ERB201 on Thursday morning. Many thanks and have a good night!

Best regards,

Liuchao Jin

Dear Mr. Lam,

Good. No need to submit it to BlackBoard again. Have a good night!

Best regards,

Liuchao Jin

Dear Yingying,

I’m Liuchao Jin, a friend during the eco-tour. I heard on the coach bus that you have AirDrop so you have all photos taken by Alice. Could you be so kind to send these photos to me via WeChat? My WeChat ID is: Liuchao\_Jin. Many thanks for your patient help!

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear friends,

Very nice to meet you all. I felt excited and happy during this eco-tour. Here attached one of the photos I took. Some of you maybe appeared in this photo so I pass this on to you.

My WeChat ID is: Liuchao\_Jin; and WhatsApp is +852 9570 5790. Don’t hesitate to contact me, we can often play together in the future.

Take care and have a wonderful weekend!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thanks for your reply. We will complete the procurement as soon as possible and move forward with the experiment. Have a wonderful weekend!

Best regards,

Liuchao Jin

Dear Mr. Lam,

OK. Please go ahead and submit the handwriting copy of assignment 1 ASAP. Have a good day!

Best regards,

Liuchao Jin

Dear Dr. Li,

OK. Thanks for you suggestion! Have a good weekend!

Best regards,

Liuchao Jin

Dear Dr. Li,

Here is one another student who has problem because he submitted the typed homework. What do you think about his submission? Deduct 5 or 10 points? Or do nothing because he will submit hand-writing homework later?

Best regards,

Liuchao Jin

Subject: SMP Purchase

To: [whliao@cuhk.edu.hk](mailto:whliao@cuhk.edu.hk)

Cc: [zhaoxuan505@163.com](mailto:zhaoxuan505@163.com)

Dear Prof. Liao,

We want to buy some SMP Materials for 3D printing from SMP Technologies Inc. Yerlan, Xiaoya, and me need to use this material. The minimum purchase quantity for this material is 5 rolls, which cost USD 1,039.00 (Material: USD 790.00, Shipping fee: USD 249.00).

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Dr. Li,

Got it! I will pay attention to this submission. Thanks for your information.

Best regards,

Liuchao Jin

Dear Ms. Kan,

Sorry for being late.

I’m Liuchao Jin (Student ID: 1155184008). I’m quite interested in Yu To Sang Memorial Scholarship. The excel form for nomination is attached to this email. Thanks so much for your patient help!

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear John,

Glad to hear from you again. Sure, you can use Excel. Go ahead! Have a good night!

Best regards,

Liuchao Jin

Dear Zhang,

Giving the confidence interval of the area is correct. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

The way you calculated the expected number of data is correct. Sure, it is true that the expected number of data can be not equal to the actual number of data. Have a good night!

Best regards,

Liuchao Jin

Dear Gao,

Sure. Go ahead!

Best regards,

Liuchao Jin

Dear Mr. Tang,

Sure. Go ahead!

Best regards,

Liuchao Jin

Dear John,

Hahaha. Sorry for the small typo.

Best regards,

Liuchao Jin

Dear all,

Please kindly note that there is a typo on Page 61 of Ch 2 Uncertainty Data Analysis slides. There should be a square on the numerator when calculating the degree of freedom as shown in the red font in the figure below.

Best regards,

Liuchao Jin

Dear Prof. Chan,

With my pleasure. If there is any problem, please don’t hesitate to contact me. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. GONZAGA,

I feel honored to receive your reply. I will submit the application as soon as possible. Thanks for your information and patient help. Have a good day!

Best regards,

Yu Zhang

Dear Mr. Leung,

All is ok. Many thanks for your help and enjoy your coming holiday!

Best regards,

Liuchao Jin

kwleung@mae.cuhk.edu.hk

Apply for Access to G05

Dear Mr. Leung,

How are you? Hope you are doing well!

I was wondering whether you could open access to ERB G05 for our group. Here is the information about us:

**Name Student ID / Working ID**

Jingchao Jiang 616362

Xiaoya Zhai 616639

Liuchao Jin 1155184008

Qitao Lu 1155188233

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Sir/Madam,

I’m the resident of PGH 3-816B (Name: Liuchao JIN; Student ID: 1155184008). The link you provided for Recruitment of New PGHRA Executive Members 22/23 (https://docs.google.com/forms/d/e/1FAIpQLSfu4zVG1G0zY\_2KFttIU6JFO1Ynq9CXIRKBXsDAl0XeQ76XMQ/viewform?usp=sf\_link) cannot work. Could you please be so kind to check it? Thanks for your patient help and looking forward to your reply.

Best regards,

Liuchao Jin

尊敬的卢暖老师：

您好！

我已收到老师的邮件。谢谢提醒，我会按时到研招网系统进行报名。

祝您工作顺利！

此致

敬礼！

张羽

2022年9月26日

Dear Prof. Lim,

I feel honored to receive your reply. I will submit the application as soon as possible. Thanks for your help and information. Have a good day.

l feel honored to receive your reply.I received Elaine’s email too because of your thorough consideration. I will submit application as soon as possible.Thanks for your help.

Best regards,

Yu ZHANG

Want Chair 1 and Fridge

Dear Cally,

I’m Liuchao JIN (Student ID: 1155184008). I’m writing to you because I need the free Chair 1 and Fridge for our lab. I was wondering whether they are still available.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Cally,

Many thanks for your reply and help. Looking forward to your reply next time if they become available again 🙂.

Best regards,

Liuchao Jin

Dear Mr. Zhang,

Sure. Welcome!

Best regards,

Liuchao Jin

Dear Ms. Wong,

I’m Liuchao JIN (Student ID: 1155184008). I’m writing to send you the *Laboratory Safety Examination Exemption Application Form*, which is attached to this email. If there is any problem, please don’t hesitate to contact me. Thank you so much for your patient help and have a good day!

Best regards,

Liuchao Jin

Dear all,

The **requirements** for submitting assignments have been uploaded on the BlackBoard. Please note that **all assignments** are submitted **via BlackBoard** instead of hardcopy. The first assignment will come out around 29th Sept. Please pay attention to the BlackBoard and read everything carefully before starting the assignment. Thanks for your attention.

Best regards,

Liuchao Jin

Dear Sir/Madam,

I’m the resident of PGH 3-816B (Name: Liuchao JIN; Student ID: 1155184008). I tested the COVID today, which was negative as shown in attachment. If it is ok, I will return to the dormitory today. Thanks for your attention.

Best regards,

Liuchao Jin

Dear Sir/Madam,

I’m the resident of PGH 3-816B (Name: Liuchao JIN; Student ID: 1155184008). I tested the COVID today, which was negative as shown in attachment. Thanks for your attention.

Best regards,

Liuchao Jin

PGH 3-816B Resident

Dear Sir/Madam,

Thank you so much for your reply. I will assign a delegate to pick it up for me up. BTW, these three days, I tested the COVID every day, and the results were all negative. Thanks for your attention.

Best regards,

Liuchao Jin

PGH 3-816B Resident

Dear Sir/Madam,

I’m the resident of PGH 3-816B (Name: Liuchao JIN; Student ID: 1155184008). My roommate has gotten COVID. I stayed in the hotel off-campus by myself for seven days until 20 Sept. So, I can not go to dormitory to pick up free musk immediately. **Could you please leave a pack of musk for me?** Thank you so much for your help and effort. Have a good night!

Best regards,

Liuchao Jin

[wkmok@mae.cuhk.edu.hk](mailto:wkmok@mae.cuhk.edu.hk)

ERB 201 Electricity Break

Dear Mr. Mok,

How are you? Hope you are doing well!

I’m Liuchao JIN (Student ID: 1155184008). There are some physical problems with the electricity in ERB 201. Half of the sockets have lost their power. I was wondering whether you could be so kind to help me fix this problem tomorrow. Many thanks for your patient help!

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Mok,

Problem has been solved by Paul. Thanks so much for your attention and have a good day!

Best regards,

Liuchao Jin

Dear Ms. Wong,

Many thanks for your help and have a good day!

Best regards,

Liuchao Jin

Dear Ms. Wong,

I’m Liuchao JIN (Student ID: 1155184008). There are some physical problems with the lock of the door in ERB 201. But I don’t know who can fix this problem. Could you be so kind to help me forward this email to relevant technician? Many thanks for your patient help!

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

[mhwong@mae.cuhk.edu.hk](mailto:mhwong@mae.cuhk.edu.hk)

ERB 201 Door Lock Break

Dear Ms. Wong,

I’m Liuchao JIN (Student ID: 1155184008). There are some physical problems with the lock of the door in ERB 201. But I don’t know who can fix this problem. Could you be so kind to help me forward this email to relevant technician? Many thanks for your patient help!

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Lin,

Many thanks for your patient help. It’s ok now. Have a wonderful day!

Best regards,

Liuchao Jin

PGH 3-816B Resident

Dear Sir/Madam,

I’m the resident of PGH 3-816B (Name: Liuchao JIN; Student ID: 1155184008). My roommate has gotten COVID but I didn’t stay with him for the last two nights. I will stay in the hotel off-campus by myself for seven days. Thank you so much for your help and effort. Have a good night!

Best regards,

Liuchao Jin

Dear Sir/Madam,

My COVID test result has come out, which is negative as shown in the attachment. Thanks for your notice!

Best regards,

Liuchao Jin

Unlimited Assignment Attempts before Deadline

Dear Prof. Huang,

How are you? Hope you are doing well!

I’m Liuchao JIN (Student ID: 1155184008; Course: MAEG5070 Nonlinear Control Systems). This afternoon, I asked you in the class whether the assignment is single attempt, multiple attempts, or unlimited attempts when submitting. I got the answer that the homework can be submitted unlimited times before the deadline. So, I happily submitted my Assignment 01 just now. However, I found that I could not Start New bottom in that page as shown in figure below so that I can not submit assignment again once I find there is any problem in my assignment.



Could you be so kind to help change the assignment setup as shown in figure below from single attempt to unlimited attempts?



Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Hi CHEUNG,

Glad to hear from you. The tutorials are mainly for Q&A, similar to the office hour, i.e. if you have problems with the course, you can ask me during the tutorial. But, if you have no problem, you are not required to attend the tutorial. So, this will not be counted towards attendance. In this case, if you have any problem, could you please come to my office on Monday night from 7 pm to 8 pm or by appointment? Thanks and have a good night!

Best regards,

Liuchao Jin

Tutorial Time & Location

Dear all,

According to the availability of the majority of students, the tutorial will be held on **9:30-10:30 am** every **Thursday** (starting from week 2) at my office (**ERB 201**). The tutorials are mainly for **Q&A**, similar to the office hour, i.e. if you have any problems with the course, please don’t hesitate to come to me during the tutorial. Thanks!

Best regards,

Liuchao Jin

Dear Ms. Wong,

Here attached the No Objection Letter (NOL). And I have also completed the registration of student helper system via CUSIS. Many thanks for your help and have a wonderful holiday!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Here attached the photo just taken. Happy Mid-Autumn Festival Teacher’s Day! Enjoy your holiday!

Best regards,

Liuchao Jin

kwleung@mae.cuhk.edu.hk

Username and Password of WiFi ERGWAVE

Dear Mr. Leung,

How are you? Hope you are doing well!

I was wondering whether I can apply for a username and password for the WiFi “ERGWAVE” because there are some problems with WiFi “CUHK1x” now.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Leung,

I see. “CUHK1x” was broken yesterday afternoon and night. It is ok now. Thanks for your information and help.

Best regards,

Liuchao Jin

Hi Tang,

The tutorials are mainly for Q&A, similar to the office hour, i.e. if you have problems with the course, you can ask me during the tutorial. But, if you have no problem, you are not required to attend the tutorial. So, this will not be counted towards attendance. Thanks and have a good day!

Best regards,

Liuchao Jin

Hi Yeung,

The tutorials are mainly for Q&A, similar to the office hour, i.e. if you have problems with the course, you can ask me during the tutorial. But, if you have no problem, you are not required to attend the tutorial. So, this will not be counted towards attendance. Thanks and have a good night!

Best regards,

Liuchao Jin

Hi Tang,

Glad to hear from you. If you have any problem, could you please come to my office on Monday night from 7 pm to 8 pm or by appointment? Looking forward to your reply.

Best regards,

Liuchao Jin

Hi Yeung,

Glad to hear from you. If you have any problem, could you please come to my office on Monday night from 7 pm to 8 pm or by appointment? Looking forward to your reply.

Best regards,

Liuchao Jin

Welcome to MAEG5745

Dear all,

Welcome to MAEG5745 Measurement and Instrumentation. I am the TA of this course, Liuchao JIN.

The venue and time of the course are as follows:

Thu. 6:30 p.m. – 9:30 p.m. Lecture Theatre 5, 2/F, Yasumoto International Academic Park

Note that the course outline and part of our course materials have been released on Blackboard (<https://blackboard.cuhk.edu.hk/>). You can check them for more information.

Please select your **time** available for the **tutorial** via the following link before **11th Sept.**: <https://forms.gle/SDqHbyVP8VCucomD7>.

Please don’t hesitate to contact me ([Liuchao.Jin@link.cuhk.edu.hk](mailto:Liuchao.Jin@link.cuhk.edu.hk)), come to my office (ERB201) during the tutorial, or by appointment if you have any questions. Thanks!

Best regards,

Liuchao Jin

kwleung@mae.cuhk.edu.hk

Ask for Help about the Internet Problem in ERB 201

Dear Mr. Leung,

How are you? Hope you are doing well!

There are some problems with the Internet connection (Internet cable) in ERB 201 from yesterday. We originally thought it was the problem of the whole building, because at that time we found that the official website of our department—www.mae.cuhk.edu.hk—was also inaccessible. But we still can’t connect to the Internet today. Could you help us to check this problem?

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Mr. Leung,

I feel honoured to receive your reply. Many thanks for your patient help. Yes, we have rebooted our dept. pc many times but the problem still existed. We don’t know why.

Best regards,

Liuchao Jin

Dear Mr. Leung,

We can connect now! So happy. You have helped us a lot. Thanks so much for your help and have a good day!

Best regards,

Liuchao Jin

Dear Mr. Leung,

Sure. I have checked the cable connection but no problem was found, the Internet still cannot be connected. Could you be so kind to help us check the problem after you finish checking the problem in your office? Thank you so much for your help!

Best regards,

Liuchao Jin

Dear Dr. Li,

No problem. 11:30 am is ok for me. See you then at your office.

Best regards,

Liuchao Jin

Dear Dr. Li,

I feel honoured to receive your reply. Many thanks for your patient help. I have a TA training this afternoon from 14:30 to 16:30. All the TAs need to attend this training. Could we meet earlier or later? Thank you so much for your precious time. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Ms. Wong,

I feel honoured to receive your reply. Many thanks for your patient help. Take care, stay safe, and keep healthy!

Best regards,

Liuchao Jin

Apply for Teaching Assistant for MAEG 5745

yli@mae.cuhk.edu.hk

Dear Dr. Li,

How are you? Hope you are doing well!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to send you other supplements for applying for Teaching Assistant in Course—MAEG 5745: Measurement and Instrumentations.

As Ms. Wong forwarded to you, I had previous experience to be a teaching assistant for the course—Mechanical Measurements, which was almost the same as MAEG 5745. In addition, I have taken the courses that covered the topics in MAEG 5745 like Mechatronics, whose syllabuses are attached to this email.

I will be grateful if offered the chance. Looking forward to your reply.

Best regards,

Liuchao Jin

[fkwong@mae.cuhk.edu.hk](mailto:fkwong@mae.cuhk.edu.hk)

Apply for Teaching Assistant for MAEG 5745

Dear Ms. Wong,

How are you? Hope you are doing well!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to apply for the part-time Teaching Assistant for the MSc course of MAEG 5745: Measurement and Instrumentations.

I had the exact same experience before. I used to be a teaching assistant for the course—Mechanical Measurements, which was almost the same as MAEG 5745. The syllabus for the course I was the teaching assistant for is attached to this email. My CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I will be grateful if offered the chance. Looking forward to your reply.

Best regards,

Liuchao Jin

yuechen@cuhk.edu.hk

Make Updates for New Semester Work

Dear Prof. Chen,

How are you? Hope you are doing well!

I’m Liuchao Jin. I’m the tutor for your course—MAEG4070 Engineering Optimization. I am writing to ask whether I need to do anything before school starts. If you need any help before semester starts, please don’t hesitate to contact me. In addition, my latest CV is also attached to this email to introduce me better.

Good luck and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I feel honored to receive your reply. We will make our design in these days and send to you ASAP. Thanks for your help and have a good day.

Best regards,

Liuchao Jin

Make an Appointment to Discuss the Conference in October

Dear Prof. Liao,

How are you? Hope you are doing well.

My undergraduate paper about 6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on The Unit Dual Quaternion was accepted by the 2022 5th IEEE International Conference on Unmanned Systems (ICUS), which will be held in Guangzhou from October 14th to 16th. Now, we need to decide who will attend the meeting. My undergraduate advisor suggested me to attending this conference and he can reimburse all expenses. My opportunity cost is that I will miss two weeks of classes. I was wondering when it is available for you these days so that we can have further discussion about this planning.

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

I haven’t changed my password but the system said that my password was incorrect. I tried to recover my password through forget password, but I can not the recovery code in my Email (Other). I don’t know why and how to get the password again.

Dear Sir/Madam,

I feel honored to receive your reply. Here attached the photo of my CU Link Card. Thanks for your help.

Best regards,

Liuchao Jin

I feel honored to receive your reply. Here attached the photo of my CU Link Card. Thanks for your help.

Dear Prof. Liao,

We were wondering which directions below should be put on the current poster.

* Energy harvesting (Watch, Fluid Shock Absorber)
* Vibration Control (High-Speed Rail)
* Exoskeletons
* 4D Printing

BTW, could we replace the old pictures in the previous poster with some latest pictures to demonstrate our current research?

Your assistance will be appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

We will finish it ASAP. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Cui,

Looks nice. Thank you so much for your precious time. Let’s keep in touch. Take care, stay safe, and keep healthy!

Best regards,

Liuchao Jin

Dear Prof. Cui,

Sounds good. Overleaf is a really amazing app for paper writing. Hope you will enjoy it.

Yes, I started my four-year Ph.D. studies recently at the Chinese University of Hong Kong. My research directions are soft robots, 4D printing, and smart structures. Thank you for your continued help and encouragement.

Best regards,

Liuchao Jin

Dear Prof. Cui,

Good morning. Here is the user guide for Overleaf (LaTeX), which is attached to this email. The project I shared with you yesterday is a collaborative format, so any changes we make in that project can be seen by each other in real-time. If you have further questions, please don’t hesitate to contact me. Thank you.

Your assistance will be greatly appreciated and have a wonderful day.

Best regards,

Liuchao Jin

Dear Prof. Cui,

Hope you are safe and doing well!

I have made initial changes and adjustments based on Reviewer #2’s comments and criticisms. The files are attached to this email. File #1 is the revised paper and file #2 is the reply to reviewer.

In addition, the LaTeX source code for the manuscripts was sent to you in the previous email. If you need the word version, I will convert them to word and send them to you tomorrow. Looking forward to your further comments on the manuscripts to improve our paper.

Your assistance will be greatly appreciated and have a good night.

Best regards,

Liuchao Jin

Dear Sir/Madam,

How are you? Hope you are doing well!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to upload my Bank Account, which is attached to this email.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

[areum.jeong@scupi.cn](mailto:areum.jeong@scupi.cn)

[areumjeong@ucla.edu](mailto:areumjeong@ucla.edu)

Inquire about Ph.D. Study for Theater and Performance Studies at UCLA

Dear Prof. Jeong,

How are you? Hope you are doing well!

I’m Liuchao (Christopher) Jin (Student ID: 2018141521058). I’m writing to you because one of my best friends from Art College in Sichuan University-Yu Cheung-wants to apply for Ph.D. Study in Theater and Performance Studies at UCLA. I notice that you also have relevant experience in this major at this university, so I was wondering whether you could be so kind to give her previous suggestions about the Ph.D. application at UCLA. Her CV is attached to this email. If it is available for you, can she make an appointment with you to have a further discussion?

I feel very sorry to disturb you during the summer vacation. Hope you have a wonderful holiday. Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

kwleung@mae.cuhk.edu.hk

Inquire about Work Computer Purchases

Dear Mr. Leung,

How are you? Hope you are doing well!

I’m Liuchao Jin (Student ID: 1155184008; Supervisor: Wei-Hsin Liao; Room: ERB 201). I’m writing to you because I was wondering whether I can get a work computer from you.

I received CU Link Card yesterday so I can use CUHK1x WiFi now. Here are the softwares I need on my computer:

1. Software on the list: Microsoft Office, Acrobat Reader, Internet Browser, Matlab, Solidworks, AutoCAD, Visual Studio, Labview.
2. Free software not on the list: Google Chrome, ToDesk, Zoom, WeChat, Baidu Disk, Tencent QQ, Youdao Dictionary, PotPlayer, WPS Office (If I have permission to install these softwares on my computer, I can install it myself. If not, could you be so kind to help me install them?).

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Sir/Madam,

I have conducted the COVID test last night and the results are negative as shown in the attachment. My student ID is 1155184008 and my room number is PGH 3-816B. Thank you for your notice.

Best regards,

Liuchao Jin

Dear Prof. Cui,

How are you? Hope you are doing well!

I have been thinking a lot about this paper in the past few days. At first, I thought this paper should not be treated as a review because there are too few studies on underwater autonomous charging of robotic fish, and most of the current studies focus on AUV underwater charging, and at that time I thought this paper was just an idea so it should be submitted to a conference, not a journal. But then I thought about it carefully, the review is a paper describing the development status of each branch of this technology at this stage, and it is not necessary to have a lot of progress in the overall research. So, this paper can describe the development status of each branch even though there is little research on the overall technology.

Based on this thought, when we are writing a review about one of the technologies, we can’t just write about what we think is feasible in this technology, we need to write about the development in other directions as well, whether it is feasible or not. For example, when reviewing marine renewable energy, I can’t just introduce wave energy harvesting because I think wave energy harvester is more feasible than other methods of absorbing energy. I need to describe other ways of absorbing energy (e.g. solar, wind) in detail, and specify their respective advantages and disadvantages. This is also the fundamental reason why the reviewer pointed out that our paper is not comprehensive. I was wondering whether my thought about the comments from the reviewer is appropriate. If so, I will change our paper in this direction and make the language more academic.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Coral,

This is my new email. Have a good night!

Best regards,

Liuchao Jin

Dear Lorraine,

This is my new email. You are my ideal forever!

Best regards,

Liuchao Jin

Dear Lorraine,

I have corrected some errors in my previous email signature. Now, this signature is almost perfect I think. If there is any further problem, please don’t hesitate to contact me. Many thanks for your help!

Best regards,

Liuchao Jin

bmchen@mae.cuhk.edu.hk

Apply for Tutor of Course ENGG2720B + ESTR 2014 Complex Variables for Engineers

Dear Prof. Chen,

How are you? Hope you are doing well!

I’m Liuchao Jin (Student ID: 1155184008, Supervisor: Wei-Hsin Liao). I’m writing to you because I was wondering whether there is a tutor vacancy for the course ENGG2720B + ESTR 2014 Complex Variables for Engineers this semester. If so, I really want to apply for the tutor of this course. I have submitted the preferences form for the tutor and selected this course as 1st preference. My CV is attached to this email and here is the reason why I want to be the tutor of Complex Variables for Engineers.

During my undergraduate, I conducted some basic research related to (dual) quaternion. I deeply learned that some small changes to the description method of the system will lead to the huge simplification of the system. Therefore, during my graduate study and research, I want to get more involved in some mathematical tools like complex variables. Although I haven’t learned this course, I will follow every class and listen to your lecture carefully so that I can handle the class material and help students acquire the knowledge more smoothly.

I will be grateful if offered the chance. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Chen,

Thanks for your reply. I have submitted the application form, and Joyce already knew it. Let’s wait for the final news. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your reply. See you at 3 pm this afternoon!

Best regards,

Liuchao Jin

Dear Prof. Liao,

How are you?

I arrived in Hong Kong yesterday and stayed in the hotel for one night. Everything goes very smoothly. I will come to campus today. See you then.

Best regards,

Liuchao Jin

Dear Prof. Cui,

Thanks for updating your email address. In my hometown, Zhejiang, the temperature in recent days has been bizarrely higher than 40 degrees. Really hot melt. But I came to Guangdong by train yesterday. I need to stay in Guangdong for 14 days so that I don’t need to quarantine when entering Hong Kong and the school starts on August 1st. The weather in Guangdong and Hong Kong is quite good, the highest temperature is about 30 degrees, which is very comfortable. I am about to start my Ph.D. journey. Hope you are doing well in your life in America.

Best regards,

Liuchao Jin

Dear Prof. Sui,

Thanks for updating your email address. In my hometown, Zhejiang, the temperature in recent days has been bizarrely higher than 40 degrees. Really hot melt. But I came to Guangdong by train yesterday. I need to stay in Guangdong for 14 days so that I don’t need to quarantine when entering Hong Kong and the school starts on August 1st. The weather in Guangdong and Hong Kong is quite good, the highest temperature is about 30 degrees, which is very comfortable. I am about to start my Ph.D. journey. Hope you are doing well in your life in America.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Many thanks for greeting. I have settled down in Guangdong today and everything goes well. I cannot wait to see you on campus. Have a good night!

Best regards,

Liuchao Jin

Dear Mr. Lee,

Many thanks for informing me of that. Happy! I’m so sorry to bother you so many times before. Hope you are doing well in your work and life. **Looking forward to seeing you on campus!**

Best regards,

Liuchao Jin

Dear Ms. Wong,

I **have gotten** the **revised e-visa** from the Graduate School this afternoon and have **submitted** the application form for **EEP** in my hometown this afternoon. Now, I’m on the train to Guangdong. I will stay in Guangdong for 14 days and then enter Hong Kong via come2hk. I think I **can** come to campus **on time**. Thank you for your patient help last time. **Looking forward to seeing you on campus!**

Best regards,

Liuchao Jin

[qmmr@immd.gov.hk](mailto:qmmr@immd.gov.hk)

[enquiry@immd.gov.hk](mailto:enquiry@immd.gov.hk)

Enquiry about Progress of E-Visa Revision

Dear Sir/Madam,

Hope you are doing well and safe!

I’m Liuchao Jin. I’m writing to you because I was wondering how my e-visa revision was going.

The e-visa I got from IMMD last time typed my name “金劉超” wrongly into “金劉旭”, which is attached to this email. The teacher from graduate school at the Chinese University of Hong Kong has liaised with the IMMD for revision. However, this mistake ruins all my schedules. **It’s hard for me to go to campus on time if I can’t get the e-visa before July 15th, which will result in a financial loss of more than HK$10,000.** I was wondering when my revised e-visa will be issued.

I originally planned to go to Guangdong Province on July 10th and stay there for more than 14 days so that I can go to HK via come2hk Scheme without quarantine. **I booked all the air tickets to Shenzhen and the hotel in Shenzhen.** All planning is time-ample without IMMD’s mistakes.

Now the error has occurred. I learned that it takes **14 working days** for me to apply for the Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP) in my hometown after I get the e-visa. Besides, I also need another **14 days** to stay in Guangdong. The registration date for CUHK is **August 1st**. So, I **don’t have much time** before getting the e-visa. I would be grateful if you could help me to revise the e-visa **as soon as possible**.

Here is my personal information:

* Chinese Name: 金劉超
* Chinese Pinyin: Jin, Liuchao
* Visa Application Reference Number (last time): MEEN-0012196-22

If there is any further problem, please feel free to contact me.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

[enquiry@immd.gov.hk](mailto:enquiry@immd.gov.hk)

Check Progress of E-Visa Revision

Dear Sir/Madam,

Hope you are doing well and safe!

I’m Liuchao Jin. I’m writing to check the progress of the revised e-visa.

The e-visa I got from IMMD last time typed my name “金劉超” wrongly into “金劉旭”, which is attached to this email. The teacher from graduate school at the Chinese University of Hong Kong has liaised with the IMMD for revision. I was wondering when my revised e-visa will be issued. Here is my personal information:

* Chinese Name: 金劉超
* Chinese Pinyin: Jin, Liuchao
* Visa Application Reference Number (last time): MEEN-0012196-22

If there is any further problem, please feel free to contact me.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Check “English Score Report” Condition – Liuchao Jin

Dear Sir/Madam,

Hope you are doing well and safe!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to check my “English score report” condition. Here is my information.

* My full name: Liuchao Jin
* Application number: 22311025
* Programme of study: Ph.D. in Mechanical and Automation Engineering
* Order record of English score report: attached to this email in Attachment 1
* Scanned copy of your examinee report: attached to this email in Attachment 2

If there is any problem, please feel free to contact me.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Ms. Wong,

Thank you for informing me of that. Your help is greatly appreciated. I will wait for the updated e-visa patiently. Have a good day!

Best regards,

Liuchao Jin

Dear Mr. Lee,

Hope this email finds you well.

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to you because I was wondering how my e-visa revise was going.

The e-visa collected by Graduate School from Immigration Department (IMMD) typed my name “金劉超” wrongly into “金劉旭”. However, this mistake ruins all my schedules. **It’s hard for me to go to campus on time if I can’t get the e-visa before July 10th.**

I originally planned to go to Guangdong Province on July 10th and stay there for more than 14 days so that I can go to HK via come2hk Scheme without quarantine. **I booked all the air tickets to Shenzhen and the hotel in Shenzhen.** All planning is time-ample without IMMD’s mistakes.

Now the error has occurred. I learned that it takes **14 working days** for me to apply for the Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP) in my hometown after I get the e-visa. Besides, I also need another **14 days** to stay in Guangdong. The registration date for CUHK is **August 1st**. So, I **don’t have much time** before getting the e-visa. I would be grateful if you could help me **remind** the **Immigration Department** to revise the e-visa **as soon as possible**.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Help Needed - Liuchao Jin

Dear Miss Wong,

Hope you are doing well and safe!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to you because I met a serious problem with the e-visa application. It will be greatly appreciated if you could do me a favour.

The e-visa collected by Graduate School from Immigration Department (IMMD) typed my name “金劉超” wrongly into “金劉旭”. Mr. Tony Lee from Graduate School told me that he was liaising with the IMMD for revision. However, this mistake ruins all my schedules. It’s hard for me to go to campus on time if I can’t get the e-visa before July 10th.

I submitted the visa application material to Graduate School on 20/2/2022. And the Graduate School sent a visa application to HKSAR IMMD on 10/5/2022 and collected Visa from HKSAR IMMD on 2/6/2022. After this, I still cannot view my visa because, on the application system, it said: Please do not download the e-visa from the Immigration Department until you are informed by Graduate School. Duplicated visa fee will not be refunded. However, the Graduate School didn’t inform me until 23/6/2022. Mr. Tony Lee told me that some particulars as printed on the “e-visa” available for download from the IMMD website were wrong. Till now, there is no further information about when my e-visa can be issued.

I originally planned to go to Guangdong Province on July 10th and stay there for more than 14 days so that I can go to HK via come2hk Scheme without quarantine. I booked all the air tickets to Shenzhen and the hotel in Shenzhen. All planning is time-ample without IMMD’s mistakes.

Now the error has occurred. I learned that it takes 14 working days for me to apply for the Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP) in my hometown after I get the e-visa. Besides, I also need another 14 days to stay in Guangdong. The registration date for CUHK is August 1st. So, I don’t have much time before getting the e-visa. I would be grateful if you could help me deal with this problem.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao JIN

Updated Email Address – Liuchao Jin

Dear Mr. Lee,

Hope you are doing well and safe!

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to you because I was wondering how my e-visa was going.

Last time, you told me that some particulars as printed on the “e-visa” available for download from the Immigration Department website were incorrect. However, time is very urgent, that’s why I am writing this email to you. I learned that it takes 14 working days for me to apply for the Exit-Entry Permit for Travelling to and from Hong Kong and Macao (EEP). Also, I’m considering going to Hong Kong via come2hk Scheme. So, I must travel to and stay in Guangdong Province for 14 days. The registration time for CUHK is August 1st. So, I don’t have much time before getting the e-visa. I would be grateful if you could help me remind the Immigration Department to revise the e-visa as soon as possible.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Updated Email Address – Liuchao Jin

Dear Prof. Sui,

Hope you are doing well and safe!

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I would like to inform you so that I will not miss any important message from you. Thank you for your attention and have a good day.

Best regards,

Liuchao Jin

Updated Email Address – Liuchao Jin

Dear Prof. Sui,

Hope you are doing well and safe!

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I would like to inform you so that I will not miss any important message from you. Thank you for your attention and have a good day.

Best regards,

Liuchao Jin

Updated Email Address – Liuchao Jin

Dear Prof. Cunningham,

Hope you are doing well and safe!

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I would like to inform you so that I will not miss any important message from you. Thank you for your attention and have a good day.

Best regards,

Liuchao Jin

Updated Email Address – Liuchao Jin

Dear Prof. Qi,

Hope you are doing well and safe!

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I would like to inform you so that I will not miss any important message from you. Thank you for your attention and have a good day.

Best regards,

Liuchao Jin

Updated Email Address – Liuchao Jin

Dear Prof. Fok,

Hope you are doing well and safe!

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I would like to inform you so that I will not miss any important message from you. Thank you for your attention and have a good day.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thank you for your information. Hope you will enjoy your life in China. Let’s keep in touch.

Best regards,

Liuchao Jin

Updated Email Address – Liuchao Jin

Dear Prof. Liao,

Hope you are doing well and safe!

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I would like to inform you so that I will not miss any important message from you. Thank you for your attention and have a good day.

Best regards,

Liuchao Jin

Dear Mr. Lee,

Thank you for informing me of that. Your help is greatly appreciated. I will wait for the updated e-visa patiently. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Here attached the final grade for MATH0230. If there is any further question, please don’t hesitate to contact me. Have a good day!

Best regards,

Liuchao Jin

Dear Sir/Madam,

Thank you so much for your help! All the problems have solved. Have a good day!

Best regards,

Liuchao Jin

Dear Sir/Madam,

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to update my email address.

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. And I cannot change the contact information on the application system by myself, because up to now, I don’t have the OnePass ID and password. Could you please help me to change the contact email address? My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I need this email to receive the e-visa.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Sir/Madam,

I’m Liuchao Jin (Student ID: 1155184008). I’m writing to update my email address.

My original university email ([LIJ33@pitt.edu](mailto:LIJ33@pitt.edu)) will be expired on 07/01/2022. And I cannot change the contact information on the application system by myself, because up to now, I don’t have the OnePass ID and password. Could you please help me to change the contact email address? My permanent email address is [Liuchao.Jin@outlook.com](mailto:Liuchao.Jin@outlook.com). I need this email to receive the e-visa.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Qi,

Sorry about that. Actually, there are some groups which has problems with their submitted files. I will let them bring their computer tomorrow morning to show you their work. See you tomorrow.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished the ABET for syllabus, lecture notes, quizzes, and projects of Design 1 and Vibration, which is attached to this email. Could you please check it to see whether there is any problem? Thank you so much for your help! Have a good night and see you tomorrow.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Yes, sure. Enjoy your weekend!

Best regards,

Liuchao Jin

toeflnews@ets.org

Dear Sir/Madam,

I’m writing to check my order status. I ordered to send additional score report to my university on April 7th (Order number: 133304645). However, my university didn’t receive any report now. Could you please help me check the status of this order because the deadline for sending the score report will pass soon.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Qi,

Jiang Sheldon (ID: 2018141521043) said he has talked to you that he wants to get his grade in advance because he needs to graduate. I calculate his final grade, which is 81. (Exam: 70, Homework: 94, Project: 90). Thank you and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Yes, I have CAD on my computer. Actually, every computer in the classroom has CAD. Have a good day.

Best regards,

Liuchao Jin

Dear Prof. Or,

I will fly to Nanjing this afternoon to do XXX research. If you are free, can we make an appointment to meet tomorrow night?

Best regards,

Liuchao Jin

Dear Prof. Fok,

Yeah, you are right. Sorry about this. Here attached the grading for Design 1. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished grading for project of design 1. The comments are attached to this email. Have a wonderful holiday!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished grading for project of vibration. The comments are attached to this email. I will start to grade project for Design 1 tomorrow. Enjoy your holiday!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Friday and Saturday are both ok for me. Your time is preferred. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have told students about the extension. Thank you very much for your help. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have set up quiz 06 for vibration and there are 15 questions on it. Besides, one thing needs to be checked. Is the deadline for the project of Mechanical Design extended to Wednesday evening? Looking forward to your reply and enjoy your weekend!

Best regards,

Liuchao Jin

Dear Namratha,

How are you doing? Sorry for my late reply to you because this email is lying in junk email. You are the first person to come to me. Nice to meet you.

Hope the following information is useful to you.

Regarding your question, last year my Mitacs internship was online and I received all the stipends when my internship started. You should feel free to get in touch with helpdesk@mitacs.ca to consult what are the specific policies for this year. My girlfriend is also participating in the Mitacs internship this year, and I will also help you ask my girlfriend if she has received messages about this year’s subsidy. I will reply to you ASAP.

Sorry again for my late reply. I check my mailbox every day but never notice that there are emails in junk emails.

Take care, stay safe, and keep healthy.

Best regards,

Liuchao Jin

Dear Prof. Qi,

The questions look good. Do I need to add the formal cover page to it or just use this cover page? In addition, do I need to remind students to bring their textbooks? Because some topics need to refer to the textbook, such as the fifth question: Example 17-2 resulted in selection of a 10-in-wide A-3 polyamide flat belt.

Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Dean Mai,

My pleasure.

Take care and stay safe

Best regards,

Liuchao Jin

A Professor Who Wants to Join SCUPI

Dear Dean Mai,

A professor on LinkedIn sent me a CV, and he wanted to join the faculty team of SCUPI. I am forwarding his CV to you. And I also asked him to apply for our faulty through the official channel (scupi\_faculty@scu.edu.cn). Hope he succeeds.

Thanks and have a good night!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Wait for a moment. There are some problems in this document. The attachment you sent to me is not the Mechanical Design 2 exam paper, but the Static 2 exam paper, right? Looking forward to your reply.

Best regards,

Liuchao Jin

To: [janghoyoon@scupi.cn](mailto:janghoyoon@scupi.cn)

Cc: [2018141521037@stu.scu.edu.cn](mailto:2018141521037@stu.scu.edu.cn); [2018141521057@stu.scu.edu.cn](mailto:2018141521057@stu.scu.edu.cn)

Make An Appointment to Discuss The Senior Project

Dear Prof. Cunningham,

How are you?

I am Liuchao Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you to make an appointment with you to discuss our senior project since you are our non-tech professor in the advisory committee. Our final paper and poster are attached to this email. I was wondering when it is available for you next week so that we can talk further about our project. We are honored to have you as our non-tech professor. Wish us a pleasant collaboration.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

I feel honored to receive your reply. I asked my teammate. We are all free at 1:30pm on next Wednesday. Enjoy your weekend and see you next Wednesday.

Best regards,

Liuchao Jin

To: [janghoyoon@scupi.cn](mailto:janghoyoon@scupi.cn)

Cc: [2018141521037@stu.scu.edu.cn](mailto:2018141521037@stu.scu.edu.cn); [2018141521057@stu.scu.edu.cn](mailto:2018141521057@stu.scu.edu.cn)

Make An Appointment to Discuss The Senior Project

Dear Prof. Yoon,

How are you?

I am Liuchao Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you to make an appointment with you to discuss our senior project since you are our same discipline professor in the advisory committee. Our final paper and poster are attached to this email. I was wondering when it is available for you so that we can talk further about our project. We are honored to have you as our same discipline professor. Wish us a pleasant collaboration.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

To: [janghoyoon@scupi.cn](mailto:janghoyoon@scupi.cn)

Cc: [2018141521037@stu.scu.edu.cn](mailto:2018141521037@stu.scu.edu.cn); [2018141521057@stu.scu.edu.cn](mailto:2018141521057@stu.scu.edu.cn)

Make An Appointment to Discuss The Senior Project

Dear Prof. Yoon,

How are you?

I am Liuchao Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you to make an appointment with you to discuss our senior project since you are our same discipline professor in the advisory committee. Our final paper and poster are attached to this email. I was wondering when it is available for you so that we can talk further about our project. We are honored to have you as our same discipline professor. Wish us a pleasant collaboration.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

To: [changxi.wang@scupi.cn](mailto:changxi.wang@scupi.cn)

Cc: [2018141521037@stu.scu.edu.cn](mailto:2018141521037@stu.scu.edu.cn); [2018141521057@stu.scu.edu.cn](mailto:2018141521057@stu.scu.edu.cn)

Make An Appointment to Discuss The Senior Project

Dear Prof. Wang,

How are you?

I am Liuchao Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you to make an appointment with you to discuss our senior project since you are our same discipline professor in the advisory committee. Our final paper and poster are attached to this email. I was wondering when it is available for you so that we can talk further about our project. We are honored to have you as our same discipline professor. Wish us a pleasant collaboration.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Wang,

I feel honored to receive your reply. Many thanks for your help, have a good day, and see you tomorrow.

Best regards,

Liuchao Jin

Dear Prof. Yoon,

I feel honored to receive your reply. Many thanks for your help, have a good day, and see you on Thursday.

Best regards,

Liuchao Jin

Dear Prof. Qi,

It looks very good. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Some students want to change the time for exam 2 because they have a fluid exam on May 11th too, which is also hard. They are worried about if these two exams are on the same day, they don’t have enough time to review for both exams. I was wondering how you would deal with it. Thanks and looking forward to your reply.

Best regards,

Liuchao Jin

Proctor Change

Dear Prof. Fok,

Since Coral Ling had a meeting that conflicted with her proctored exam, we want to swap proctored subjects, i.e. she will proctored the mechanical vibration exam tomorrow and I will proctored the subject she is TA in a few days. It will be appreciated if this will be approved by you. Many thanks and looking forward to your reply!

Best regards,

Liuchao Jin

Dear Prof. Qi,

OK. HAPPY HOLIDAYS AND SEE YOU TOMORROW!

Best regards,

Liuchao Jin

Dear Prof. Fok,

OK. No problem. I will not give it to students. Thanks and have a good night!

Best regards,

Liuchao Jin

Dear Prof. Jeffrey,

I am Liuchao Jin from SCUPI 2018, majoring in Mechanical Engineering. I’m writing to make an appointment for writing center.

I have finished poster the thesis for senior project about 6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on The Unit Dual Quaternion. Could you please help me revise it? If you could help, I was wondering whether 4 p.m. on Friday is available for you. Also, our electronic version for poster is attached to this email.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

尊敬的杨老师：

您好！

我的大中小学生同上一堂航天精神思政大课活动的观后感附在这封邮件中了。祝老师工作顺利！

此致

敬礼！

金刘超

2022年4月23日

Dear Prof. Fok,

Thanks. There are some problem in quiz 05 for mechanical design 1. I will come to your office tomorrow afternoon. Thanks a lot and good night!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished printing. 49 copies of both the exam paper and the formula sheet were printed, which should be enough. I have a meeting at the Wangjiang campus at 1:30 this afternoon. Can I hide the papers in my closet and bring them to the exam classroom tomorrow morning? Don’t worry, I’ll keep it a secret and no one will see it. Also, Please remember to bring enough answer sheets and stretch papers as well as the exam sign-up sheet with you tomorrow morning. Thanks a lot and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Qi,

The data for IE 4 is attached to this email. Thanks and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Got it! Many thanks. I will print it tomorrow morning. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished setting up quiz 04 for vibration. I put 15 questions in this quiz because there are some fill in blank questions. Could you please take a look at it when it is available for you? Thanks and enjoy your weekends!

Best regards,

Liuchao Jin

Dear Prof. Lu,

Good morning. The final paper in which the introduction is updated again is attached to this email. Your advice for this version of the draft will be greatly appreciated. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Lu,

The updated final paper for the senior project is attached to this email. In the days to come, we will make some minor changes, but the general framework is almost ready. Your advice for this version of the draft will be greatly appreciated. Have a good night.

Best regards,

Liuchao Jin

Dear Prof. Fok,

OK, got it! I will grade the project as soon as possible according to the grading guide. Have a good night.

Best regards,

Liuchao JIN

Dear Prof. Fok,

Received! I have set up quiz 04 for Design 1. The deadline for it is April 21st. Could you please take a look at it when it is available for you? Besides, I have modified some typos in quiz 03 for Vibration. I will come to you next week to talk about it. Thanks and have a good weekend!

Best regards,

Liuchao JIN

Dear Ms. Wong,

Many thanks for your help. Have a good day!

Best regards,

Liuchao JIN

Dear Ms. Wong,

Thank you for informing me of that. I **have** made an application to PGH for hostel places on March 8th and sent the hand copy of the application form as well as the cheque to PGH on March 14th. I have also received the auto-reply from PGH indicating that my submission of application and the courier are all **successful**, which is shown in figure below. Please don’t hesitate to contact me if there are any further questions. Thank you so much for your patient help.

Your assistance will be greatly appreciated and looking forward to your reply. Take care, stay safe, and keep healthy!

Best regards,

Liuchao JIN

Dear Prof. Jeffrey,

I am Liuchao Jin from SCUPI 2018, majoring in Mechanical Engineering. I’m writing to make an appointment for writing center.

I have finished writing the thesis for senior project about 6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on The Unit Dual Quaternion. Could you please help me revise it? If you could help, I was wondering when it is available for you.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Jeffrey,

I feel honored to receive your reply. 4pm on Friday is ok for me. Many thanks for your help and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Jeffrey,

See you then~

Best regards,

Liuchao Jin

First Draft of Final Paper for Senior Paper

Dear Prof. Lu,

The first draft of the final paper for the senior project is attached to this email. Could you please take a look at it when it is available for you?

Thanks! Take care and stay safe. Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Lu,

The updated first draft of the final paper for the senior project is attached to this email. Thank you so much for your help! Have a good day.

Best regards,

Liuchao Jin

Dear Prof. Fok,

OK. Have a wonderful weekend too!

Best regards,

Liuchao Jin

Decision on the Acceptance of the Fellowship

Dear Sir/Madam,

I feel honored and grateful to be informed that I have been selected to receive a Hong Kong PhD Fellowship commencing in the 2022/23 academic year. I am very happy to accept this offer and study and research in Hong Kong during Ph.D. A scanned copy of the duly completed and signed the “Reply Slip” at Annex 2 is attached to this email.

Thank you for giving me this opportunity. Take care, stay safe, and keep healthy!

Best regards,

Liuchao Jin

Good News about HKPFS

Dear Prof. Liao,

Look forward to seeing you on the campus at CUHK. I will work hard in the Ph.D. Thank you for your continued help. Take care, stay safe, and keep healthy!

Best regards,

Liuchao Jin

Dear Prof. Liao,

How are you?

I am excited to inform you that I have been selected to receive a Hong Kong Ph.D. Fellowship commencing in the 2022/23 academic year. I feel very honored and grateful to receive your help and supervision during my Ph.D. study and research.

Thank you again and have a wonderful day!

Best regards,

Liuchao Jin

me-grad-application@umich.edu

Change Program from Ph.D. to MSE

Liuchao Jin

Room2521, Pingan Finance Centre,

No.99 Xiadongda Street, Jinjiang District,

Chengdu, 610021 CHN

Degree: Mechanical Engineering Ph.D.

Dear Sir/Madam,

Hoping this letter finds you well.

I feel honored and excited to receive the offer of MSE from the University of Michigan. I would like my program changed from Ph.D. to MSE. Thank you so much for informing me of that.

Looking forward to hearing from you and thank you again. Have a good weekend. Take care, stay safe, and keep healthy.

Best regards,

Liuchao Jin

Dear Prof. Clarke,

I feel excited and honored to receive your email. Thank you for informing me of that. Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Sure. Here attached the cover page for exam. Please don’t hesitate to come to me if you have any further questions.

Best regards,

Liuchao Jin

Dear Prof. Qi,

It all looks good, I adjusted the cover of the exam paper according to the requirement from SCUPI and wrote the instruction, can you review this instruction at your convenience?

Best regards,

Liuchao Jin

Dear Prof. Qi,

Here attached three exams when I took Mechanical Design 2. Please don’t hesitate to come to me if you have any further questions.

Best regards,

Liuchao Jin

Dear Graduate Admissions Office,

I feel excited and honored to receive your email. Thank you for informing me of that. Take care and stay safe!

Best regards,

Liuchao Jin

Dear Office of Recruitment & Admissions,

I feel excited and honored to receive your email. Thank you for informing me of that. Take care and stay safe!

Best regards,

Liuchao Jin

Dear Sir/Madam,

I feel excited and honored to receive your email. Thank you for informing me of that. Take care and stay safe!

Best regards,

Liuchao Jin

Something about next week exam

Dear Prof. Qi,

One thing I want to tell you is that the printer for teacher in the printing room is broken. It’s better to prepare ahead of time, just in case. In addition, could you send me a list of Mechanical Design 2 students with Chinese name? Because I need it to make the exam sign-up sheet. If you don’t have this file, I’ll ask the Academic Affairs teacher for help. If you need any other help for print out the exam paper, don’t hesitate to come to me.

Best regards,

Liuchao Jin

Liuchao Jin—May I apply for reconsider my application for Mechanical Engineering Ph.D.?

Dear Caltech Admission Committee,

Hoping this letter finds you well.

* Name: Liuchao Jin
* Degree: Mechanical Engineering Ph.D.

I am writing this appeal to reconsider my application result for admission to the **Mechanical Engineering Ph.D.** program. I got caught in the disappointment and anxiety I feel at the denial to Caltech. I have made every effort to gain as much knowledge as I can and build up my academic competency during my college years. Thus, with my new updated supplements, I’m writing to hopefully get your attention and reconsideration for the admission decision have been made.

I have made tremendous efforts in succeeding and maintaining the GPA under strict circumstances with an average GPA of 4.0 (96.39/100) in major in mechanical engineering. Recently, I accomplished my paper about “6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion”, which is submitted to 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) as 1st author.

Besides, my novel utility patent application—air purification device—has been approved with the patent number: 15943165. In addition to these academic achievements, I have three other patents submitted to be approved. I will keep updated with you as soon as they are approved successfully if needed.

I have made lots of effort to get myself further down the road and attend my dream university – Caltech. All the events, research, and activities I have participated in have been due to sheer love and enjoyment towards mechanical engineering. My research enthusiasm has always been and always will be the source of energy to support me to go on the road of science.

Please kindly reconsider my application and my appeal. Your kindness and precious time would be truly appreciated.

Here attached my updated CV and paper for your reference. Please let me know if there is anything I could do or more information is needed.

Looking forward to hearing from you and thank you again.

Best regards,

Liuchao Jin

Liuchao Jin—May I apply for reconsider my application for Mechanical Engineering SM to Ph.D.?

Dear MIT Admission Committee,

Hoping this letter finds you well.

* Name: Liuchao Jin
* Degree: Mechanical Engineering Ph.D.

I am writing this appeal to reconsider my application result for admission to the **Mechanical Engineering SM to Ph.D.** program. I got caught in the disappointment and anxiety I feel at the denial to MIT. I have made every effort to gain as much knowledge as I can and build up my academic competency during my college years. Thus, with my new updated supplements, I’m writing to hopefully get your attention and reconsideration for the admission decision have been made.

I have made tremendous efforts in succeeding and maintaining the GPA under strict circumstances with an average GPA of 4.0 (96.39/100) in major in mechanical engineering. Recently, I accomplished my paper about “6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion”, which is submitted to 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) as 1st author.

Besides, my novel utility patent application--air purification device--has been approved with the Patent number: 15943165. In addition to these academic achievements, I have three other patents submitted to be approved. I will keep updated with you as soon as they are approved successfully if needed.

I have made lots of effort to get myself further down the road and attend my dream university – MIT. All the events, research, and activities I have participated in have been due to sheer love and enjoyment towards mechanical engineering. My research enthusiasm has always been and always will be the source of energy to support me to go on the road of science.

Please kindly reconsider my application and my appeal. Your kindness and precious time would be truly appreciated.

Here attached my updated CV and paper for your reference. Please let me know if there is anything I could do or more information is needed.

Looking forward to hearing from you and thank you again.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Received. Thank you for letting me know! I will give him grade as soon as possible.

Best regards,

Liuchao Jin

Dear Miss Qi,

Thank you for informing me of that. Now, I think this allocation is very reasonable. Thank you for your help and have a good day!

Take care and stay safe!

Best regards,

Liuchao Jin

Supplement Materials for Application (Liuchao Jin & Mechanical Engineering Ph.D.)

Dear Admission Committee,

Hoping this letter finds you well.

* Name: Liuchao Jin
* Degree: Mechanical Engineering Ph.D.

I am writing this letter to provide more supplement materials for my application to the Mechanical Engineering Ph.D. Program.

Recently, I accomplished my paper about “6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion”, which is submitted to 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) as 1st author.

Besides, my novel utility patent application--air purification device--has been approved with the Patent number: 15943165. In addition to these academic achievements, I have three other patents submitted to be approved. I will keep updated with you as soon as they are approved successfully if needed.

All the events, research, and activities I have participated in have been due to the sheer love and enjoyment of mechanical engineering. My research enthusiasm has always been and always will be the source of energy to support me to go on the road of science.

Please kindly browse my updated CV and paper attached. I wish they could help to make the admission decision somehow. Your kindness and precious time would be truly appreciated.

Looking forward to hearing from you and thank you again.

Best regards,

Liuchao Jin

Supplement Materials for Application (Liuchao Jin & Mechanical Engineering Ph.D.)

Dear Admission Committee,

Hoping this letter finds you well.

* Name: Liuchao Jin
* Degree: Mechanical Engineering Ph.D.

I am writing this letter to provide more supplement materials for my application to the Mechanical Engineering Ph.D. Program.

Recently, I accomplished my paper about “6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion”, which is submitted to 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) as 1st author.

Besides, my novel utility patent application—air purification device—has been approved with the Patent number: ZL 2021 2 2679101.4. In addition to these academic achievements, I have three other patents submitted to be approved. I will keep updated with you as soon as they are approved successfully if needed.

All the events, research, and activities I have participated in have been due to the sheer love and enjoyment of mechanical engineering. My research enthusiasm has always been and always will be the source of energy to support me to go on the road of science.

Please kindly browse my updated CV and paper attached. I wish they could help to make the admission decision somehow. Your kindness and precious time would be truly appreciated.

Looking forward to hearing from you and thank you again.

Best regards,

Liuchao Jin

Supplement Materials for Application (Applicant Number: 515135706)

Dear Admission Committee,

Hoping this letter finds you well.

* Name: Liuchao Jin
* Applicant Number: 515135706
* Degree: Mechanical Engineering Ph.D.

I am writing this letter to provide more supplement materials for my application to the Mechanical Engineering Ph.D. Program.

Recently, I accomplished my paper about “6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion”, which is submitted to 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) as 1st author.

Besides, my novel utility patent application--air purification device--has been approved with the Patent number: 15943165. In addition to these academic achievements, I have three other patents submitted to be approved. I will keep updated with you as soon as they are approved successfully if needed.

All the events, research, and activities I have participated in have been due to the sheer love and enjoyment of mechanical engineering. My research enthusiasm has always been and always will be the source of energy to support me to go on the road of science.

Please kindly browse my updated CV and paper attached. I wish they could help to make the admission decision somehow. Your kindness and precious time would be truly appreciated.

Looking forward to hearing from you and thank you again.

Best regards,

Liuchao Jin

mech-me@berkeley.edu

Supplement Materials for Application (Applicant Number: 515135706)

Dear Admission Committee,

Hoping this letter finds you well.

* Name: Liuchao Jin
* Applicant Number: 515135706
* Degree: Mechanical Engineering Ph.D.

I am writing this letter to provide more supplement materials for my application to the Mechanical Engineering Ph.D. Program.

Recently, I accomplished my paper about “6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion”, which is submitted to 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM) as 1st author.

Besides, my novel utility patent application—air purification device—has been approved with the Patent number: ZL 2021 2 2679101.4. In addition to these academic achievements, I have three other patents submitted to be approved. I will keep updated with you as soon as they are approved successfully if needed.

All the events, research, and activities I have participated in have been due to the sheer love and enjoyment of mechanical engineering. My research enthusiasm has always been and always will be the source of energy to support me to go on the road of science.

Please kindly browse my updated CV and paper attached. I wish they could help to make the admission decision somehow. Your kindness and precious time would be truly appreciated.

Looking forward to hearing from you and thank you again.

Best regards,

Liuchao Jin

Discussion about Workload of TA in MATH0230

Dear Prof. Cunningham,

I’m writing to you because I was wondering that could you be so kind to tell Miss Aoxin that I want to raise my salary for MATH0230 because I think my workload is a bit heavy. It would be great if my salary could be increased a bit, or I would appreciate it if I can be promoted to an A2 position. The large workload is caused by the following reasons.

1. This is a huge class. There are a total of 70 students in our class, which is made up of two classes, one is your class and the other is Dean Mai’s class. Our class has about twice as many students as most courses.
2. The amount of homework in our course is a bit heavy. In general, one homework a week is a normal workload. However, our classes have assignments twice a week, which may be because our courses have four credits.
3. Our courses have one hour tutorial per week. Many other courses do not have tutorials, but our courses do. Moreover, in the tutorial, our courses will have a very large number of students, which is also very rare. Moreover, the frequency of my students asking me questions online is quite high.

Under normal circumstances, if the teaching assistant feels that the workload is too large and wants to raise his salary, he must first talk to the professor. After the evaluation, the professor will talk to the academic teacher—Miss Aoxin. So, I first come to you to discuss about workload. In addition, please do not change course settings because of this email. I think it is helpful for students to do homework twice a week, and the one-hour tutorial a week is also very beneficial to students’ learning. So, just increasing my salary a bit is the best choice.

Your assistance will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

I feel honored to receive your reply. Here is the log of hours worked in the past 3 weeks.

|  |  |
| --- | --- |
| Item | Workload in 3 weeks |
| Tutorial | 6 credit hours |
| Grading & Make Solutions & ABET | 46 credit hours (8 homework & 2 quizzes) |
| Q&A | 20 credit hours (≈5 students/day) |
| Total: | 72 credit hours in 3 weeks (24 hours/week) |

I think it will be helpful if they decided it is better to add a second TA to the class, which is also feasible. But I can also handle this workload by myself. Any solution is OK for me. Thank you very much for your help and enjoy your night.

Best regards,

Liuchao Jin

Dear Prof. Qi,

OK, no problem. I will come to see you this afternoon. See you then.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished setting up quiz 03 for Mechanical Deisgn 1. Could you please take a look at it when it is available for you. Thank you so much for your help and have a good weekend!

Best regards,

Liuchao Jin

Ask for Extension of Deadline for IE Set 1

Dear Prof. Qi,

So, can I set the deadline of IE Set 1 to Sunday night?

Best regards,

Liuchao Jin

Dear Prof. Qi,

Some students said they had too much homework last night from other courses so they failed to submit the IE Set 1 for Mechanical Design 2. They asked for the extension of deadline for IE Set 1. It will be appreciated if you could approve their requirement.

Thanks and looking forward to your reply. Have a good weekend!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I feel honored to receive your reply and thank you for informing me of that. I will read the related literature carefully. Hope the pandemic will end soon and wish you all the best in your work and research.

Best regards,

Liuchao Jin

Dear Prof. Qi,

I feel honored to receive your reply. Here are all my homework for Mechanical Design 2. See you then~

Best regards,

Liuchao Jin

Dear Prof. Fok,

No problem. With my pleasure. Have a good night and see you tomorrow!

Best regards,

Liuchao Jin

Dear Prof. Qi,

My personal experience tells me that I think **we should assign homework using practice questions in the end of each chapter** instead of letting students do the example questions again with different data. Because in this way, students can exercise their problem-solving thinking. If we only set up questions for students to do according to the example question in the chapter, the students will not try to understand what each step in the example is doing, which will not help them much. I am also more willing to grade those pratice questions for each chapter. Hope my suggestion can be considered and adopted. Thank you so much for you help! Good night.

Best regards,

Liuchao Jin

Dear Prof. Qi,

Please check the processed pictures. Please feel free to contact me if you have any further questions. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I got the book Mechanical Vibration from a private shop, which is attached to this email. He spent a day working on the book and scanning it down. I paid him 90 yuan. Please take look at it when it is available for you. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Please check Mechanical Design 1 Quiz 01 Question 02 again for units. I divide 1000 from the original answer. Hope it is correct. Thank you for your help!

Best regards,

Liuchao Jin

Update My Progress And Prepare for the Future

Dear Prof. Liao,

How are you? Hope you are well and safe during this unusual year!

I am writing to you because I was wondering could you be so kind to give me some guidance on preparation for Ph.D. research and study before I arrive at CUHK. I will appreciate it if you could share any recommended literature and knowledge worth reading and learning with me.

Recently I have successfully completed my senior project about 6 Degree of Freedom Unified Tracking Controller for Tilt-Rotor Multi-Rotor Unmanned Aerial Vehicles Based on Unit Dual Quaternion. And I have submitted the paper as 1st author to the 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics. I almost finished everything in my undergraduate study, so I think it’s time to gradually shift my focus to Ph.D. research and prepare for it. At this stage I would like to be exposed to the literature on topics I will study in the future. So, I desperately need your recommendation about the literature and knowledge I need to study.

Your assistance will be greatly appreciated and looking forward to your reply.

Take care, stay safe, and keep healthy!

Best regards,

Liuchao Jin

About Homework 01 Grading

Dear Prof. Qi,

I hope you had a fulfilling weekend.

I’m writing to tell you that I have finished grading the homework 01 and made the solution for it, which is attached to this email in the first file. The first two questions are the example in the textbook, so I directly use one of students’ homework answer. I have gotten the permission from her, so don’t worry abou this thing. And the last two questions are made by myself. Could you please take look at it when it is available for you? If the solution for homework is good, I will release it on the BlackBoard for students to check their homework.

In addition, there are three similar works, which are attached to this email as the last three files, especially for the homework of Xuyi Zhang and Jesse Song. I don’t know how to deal with them for plagiarism. So, could you please take look at their homework and give a final decision?

Thank you so much for your help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Sir/Madam,

I feel honored to receive your reply. Thank you for your information. I will revise the choices by hand writing on the hard copy. Have a nice day!

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Qi,

I will do it as soon as possible and tell you if there are some problems.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Fok,

For the book you mentioned today. I searched it on Google but got only first two chapters, which is attached to this email. And I searched it in Taobao, only one store can get a scanned copy of the book, and because the book is uncommon, it’s expensive. Generally speaking, it is about 20 yuan to buy an e-book on Taobao. But the scanned version of this book actually sells for 90 RMB. These are the circumstances of my search for that book today.

In addition, I have already finished setting up quiz 02 for vibration. Please take look at it when it is available to you. Thank you for your help!

Have a good weekend and looking forward to your reply!

Best regards,

Liuchao Jin

Dear Prof. Fok,

OK, I got it. Unfortunately, the owner of that shop told me again that he couldn’t get access to William’s mechanical vibration, I will keep asking more shops to see if they have this book for sale. Have a good weekend!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Received. I will begin to set up quiz 02 for both courses this week.

Thank you and have a good day!

Best regards,

Liuchao Jin

Consultant about Dormitory Preferences in Application System

Dear Sir/Madam,

I am Jin Liuchao (Student ID: 1155184008). I am writing to you to ask whether I can fill the same choice in many blanks when indicating the dormitory preferences as shown in the file in the attachment.

I heard from my friend who has already been in CUHK that the different blanks must be filled with the different choices when choosing the preference for the dormitory. However, I have submitted my dormitory application. I chose the single room at JCPGH 1 for the first four options because I really wanted to live there. First, it is only 500 meters away from my laboratory, and second, I like to live alone so that I can sleep peacefully. I have not sent my hard copy of the materials for application to CUHK. So, before the sending, I want to check whether filling the same choice for many blanks is legal. If it is not allowed, could you please be so kind to help me to modify my choice to ABCDEF (A is the 1st Choice)?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Take care and stay safe!

Best regards,

Liuchao Jin

Inquiries about Payment Methods for Dormitory Applications

Dear Sir/Madam,

I feel honored to receive your reply. Thank you for your information. I will apply for a bank draft at Bank of China. Have a nice weekend!

Best regards,

Liuchao Jin

Dear Sir/Madam,

Hope you are well and safe during this unusual year.

I am Jin Liuchao (Student ID: 1155184008). I am writing to you to ask when visa couriers will be accepted.

I just received an offer from CUHK in February. Now I am applying for a visa. I sent the visa application materials from Chengdu China on February 22, and the express delivery started on February 26. But I saw on the Internet that the courier called ((852) 3943 8976) for 4 consecutive days, but no one answered. I asked a friend of mine in Hong Kong to help me call you, and the reply I received was that this phone number was closed. Since March 1, the status of this express has been displayed as: Affected by the epidemic, the current area cannot be delivered on time. If you need it, my SF Express tracking number is: SF1409673698397. I was wondering if it’s because of the epidemic that the phone can’t get through and the package can’t be delivered. If this is the case, I hope visa applications can continue after the epidemic is over.

The recent pandemic in Hong Kong is a bit serious. Please pay attention to your own protection and health. I believe that everything will pass eventually, and hope the pandemic will get better soon. Take care and stay safe!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Qi,

OK. I will tell them on the QQ group. Thank you for reminder and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Some students asked whether our exam is open-book or close-book because most of them don’t have the paper-version textbook. If the exam is open-book, I can help them to print out the textbook.

Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

OK. Got it! I will delete five questions for each quiz. Have a nice weekend too!

Best regards,

Liuchao Jin

Dear Prof. Fok,

OK. Got it! Have a good day!

Best regards,

Liuchao Jin

**Please read the guidelines for quizzes carefully before starting the quizzes.**

Dear students of MATH0230,

The tutorial of MATH0230 Analytic Geometry and Calculus 2 will be held in **Zone 3-101** from **12:30 p.m.** to **1:15 p.m.** every **Friday**. The tutorial is mainly for Q&A. Please come if you have any questions and problems in this course. Of course, you can also come to me via QQ. Looking forward to seeing you during the tutorial!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Many thanks for your help!

Best regards,

Liuchao Jin

Dear Prof. Qi,

Some students asked why the deadline of HW set 1 was not changed on the BlackBoard since you said the HW set 1 didn’t need to be submitted next week. They are wondering what the actual deadline of HW set 1 is.

Thanks and enjoy your weekend!

Best regards,

Liuchao Jin

Dear Prof. Qi,

I think this website is not free for creating an account. It shows that the individual subscriptions can be purchased on a monthly ($9.99) or an annual basis ($59.99), but for basis usage, it is free and doesn’t need to sign up an account in this website.

By creating an account with MechaniCalc, you will receive the following benefits:

* Unrestricted access to all calculators and other content on this site
* Ability to create new materials and cross sections for use in the calculators
* Ability to save input files so that you never lose your work
* Ability to generate beautifully formatted reports to document results
* Removal of all advertisements and popups

Do you think it is necessary for us to pay for it for above benefits?

Thanks and have a nice weekend!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished set up the first quiz for both Mechanical Design and Mechanical Vibration. I have also written the guidelines for quizzes for both courses, which are attached to this email. Could you please review it when it is available for you? If it is OK, I will release it on the BlackBoard.

Many thanks and looking forward to your reply. Have a good weekend!

Best regards,

Liuchao Jin

Dear Prof. Jeffrey,

I feel honored to receive your reply. I will come to your office at 10am next Monday. Many thanks for your help and have a good night!

Best regards,

Liuchao Jin

Dear Prof. Jeffrey,

I am Liuchao Jin from SCUPI 2018, majoring in Mechanical Engineering. I’m writing to make an appointment for writing center because it seems that the appointment link on the writing.scupi.cn cannot work.

I have almost finished writing the thesis for senior project about 6 DoF Unified Tracking Controller for Tilt-Rotor Multi-Rotor UAV based on Unit Dual Quaternion. Could you please help me revise it? If you could help, I was wondering when it is available for you.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Qi,

Received! Thanks for your information.

I have written some guidances and requirements for submitting homework, which is attached to this email. Could you please review it when it is available for you? If it is OK, I will release it on the BlackBoard.

Many thanks and looking forward to your reply.

Best regards,

Liuchao Jin

Please read this Homework Submission Rules carefully before starting homework.

Dear Prof. Fok,

Shiyi Bai told me that she can come back and join the offline classroom because her quarantine will end on the 19th. FYI and thanks!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Received! Thank you for your help. I will set up these quizzes as soon as possible. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Huang Wenchang (2019141520071) was unable to attend the first two weeks of classes (Mechanical Design 1) because he injured his leg while exercising during the winter vacation. He showed me the chat history between the counselor and him, and confirmed that this was indeed the case. He is still at home now, so I was wondering whether he can take classes online? Looking forward to your reply!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Many thanks! I will tell him.

Best regards,

Liuchao Jin

Dear all,

Welcome to our course. The QQ group number for Analytic Geometry and Calculus 2 is **490029213**. Please join the course QQ group as soon as possible.

Looking forward to seeing you on campus! 👏

Dear students of MEMS1028,

Welcome to our course. The QQ group number for Mechanical Design 1 is **681456135**. Please join the course QQ group as soon as possible. If you have any problem joining the QQ group, please contact me via QQ: 1782616120.

Looking forward to seeing you on campus! 👏

Dear students of ME1020,

Welcome to our course. The QQ group number for Mechanical Vibration is **825997894**. Please join the course QQ group as soon as possible. If you have any problem joining the QQ group, please contact me via QQ: 1782616120.

Looking forward to seeing you on campus! 👏

Please Join the QQ Group

Dear students of ME1041,

Welcome to our course. The QQ group number for Mechanical Measurements 1 is **512581861**. Please join the course QQ group as soon as possible. If you have any problem joining the QQ group, please contact me via QQ: 1782616120.

Looking forward to seeing you on campus! 👏

Dear students of MEMS1029,

Welcome to our course. The QQ group number for Mechanical Design 2 is **852605830**. Please join the course QQ group as soon as possible. If you have any problems when joining the QQ group, please contact me via QQ: 1782616120.

Looking forward to seeing you on campus! 👏

Dear Prof. Qi,

How are you?

Wish you a healthy, happy, and prosperous year in 2022!

The syllabus of ME design 2 I had before is attached to this email.

Please feel free to contact me if you need any other help. I can help to set up QQ group and manage it if you need. Good luck with your work. Looking forward to seeing you on the campus. Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I am so happy that I have received the offer for Ph.D. with Postgraduate Studentship from Graduate School. I have accepted the offer and finished the registeration. Many thanks for your patient help in my academic life! Have a wonderful weekend.

Best regards,

Liuchao Jin

Semester Set-up

Dear Prof. Fok,

How are you?

Wish you a healthy, happy, and prosperous year in 2022!

The semester will start in a week. If you need my help, I’m always ready. Last semester, you said that you planned to change all the homework in the course to quiz format. I also served as a teaching assistant during the online class in 2020, and I set up the exam on the BlackBoard at that time. So, I have experience with setting up quizzes on BlackBoard. And the task of setting up quizzes is quite heavy if there are a lot of quizzes. So, I’m happy to help you set up quizzes.

Also, I have established the QQ Group for Courses Mechanical Design 1 and Mechanical Vibration. The information is shown following:

* The QQ group number for 2022S MEMS1028 Mechanical Design 1 is: 681456135 and the QR code is also attached in attachment 01.
* The QQ group number for 2022S ME1020 Mechanical Vibration is: 825997894 and the QR code is also attached in attachment 02.

I have invited you to these two QQ groups. Please feel free to contact me if you need any help. Good luck with your work. Good night!

In addition, thanks for your help, I just received an offer from CUHK of Ph.D. with the full scholarship, which is the first offer I have received. The results of CUHK’s HKPFS will be announced in April. Hope all goes well.

Thank you for your patient help. Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thanks for your information and encouragement. I will arrive at campus on 17th Feb. I think the academic teacher should invite me in when the students are invited to enter the course on the BlackBoard. So, we can wait a few more days. I think your idea is very good - I will try my best to handle QQ Group.

Thank you and wish you enjoy your last holiday time!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I feel excited to hear from you. Meeting on Monday at 4.30 pm is fine for me.

Thank you and have a wonderful weekend too!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thanks for your information. Comparing the list of the form and the list of BB, I found that Mechanical Design 1 needs to be taught online. There are two students - Stream Wang (2018141522017) and Shiyi Bai (2019141520084) who can not return campus now. So, at the beginning of each class, I will help you open Tencent Meeting so they can take classes online.

Thanks and see you on campus!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have booked the meeting on Tencent Meeting. Here is the information:

Liuchao-Jin invites you to a meeting on Tencent MeetingMeeting Topic: Mechanical Design 1 Online ClassroomMeeting Time: 2022/02/23 08:15-11:00(GMT+08:00) China Standard Time - BeijingRecurrence: 2022/02/23-2022/04/06 08:15-11:00, Every week(s) on WednesdayClick the link to join the meeting or to add it to your meeting list:https://meeting.tencent.com/dm/9cvxFcaP3QFN#TencentMeeting：872-6802-5865One tap mobile+8675536550000,,87268025865# (Chinese mainland)+85230018898,,,2,87268025865# (Hong Kong, China)Dial by your location+8675536550000 (Chinese mainland)+85230018898 (Hong Kong, China)Copy this invitation and open in Tencent Meeting app (V2.13 or later) to join the meeting

If you think it’s ok, I will share this information with Stream Wang (2018141522017) and Shiyi Bai (2019141520084). And I will help you open Tencent Meeting before each class so they can take classes online. Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

No problem. It’s my pleasure. I will inform these two students. Have a good night!

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Tan,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from your lab website, I found that your research direction is similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I also worked on two other projects.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Ms. Kan,

Happy Chinese New Year of Tiger to you! Wishing you a sparkling New Year and bright happy New Year! May the season bring much pleasure to you.

Thank you for reminding me. These issues may indeed need to be highlighted. Here are my answers to these questions:

1. **Please confirm if there is any transcript issued by the University of Pittsburgh, USA. If yes, please provide a soft copy of the transcript of the University of Pittsburgh with the grading scheme.**There is no transcript issued by the University of Pittsburgh because I chose the 4+0 program for joint training, which means my undergraduate study is in China for all four years. The transcripts issued by the University of Pittsburgh are only given to students who choose the 2+2 or 3+1 program. In fact, before the pandemic started, I chose the 2+2 program. I also got an offer from an American university. But when the COVID-19 broke out, all the students’ study abroad plans were disrupted. In the end, I changed my mind and chose the 4+0 program. Another thing I want to point out is that students attending SCUPI follow a western curriculum (the curriculum of the Swanson School of Engineering at the University of Pittsburgh) and are taught by internationally recruited faculties. The official language of SCUPI is English, which means the courses offered by SCUPI are taught and assessed in English.
2. **Will you study abroad at the University of Pittsburgh, USA?**No, I will not study abroad at the University of Pittsburgh, USA, because I chose the 4+0 program.
3. **How many graduation certificate(s) that you will get upon your graduation?**After graduation, I will get an undergraduate diploma and bachelor’s degree certificate from Sichuan University and a certificate of study from the University of Pittsburgh. There will be no undergraduate diploma and bachelor’s degree certificate from the University of Pittsburgh.

Thank you again for informing me of that. Please feel free to contact me if you have any further questions. Have a nice weekend!

Best regards,

Liuchao Jin

Dear Ms. Kan,

Wow. Good! Many thanks for your help. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Happy Chinese New Year to you! I hope you have the happiest and most prosperous New Year. May your year be filled with abundance of smiles and laughter. Thank you for your help over the past year!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Happy New Year to you! I hope you have a most happy and prosperous New Year. May your year be filled with abundance of smiles and laughter. Thank you for your help over the past year!

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Spiers,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for University of Michigan. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I also worked on two other projects.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Kota,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the University of Michigan website, I found that your research direction is similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for University of Michigan. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I also worked on two other projects.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Tai,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the CalTech website, I found that your research direction is similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for CalTech. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controllers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAVs. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference – the 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Zhao,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the Stanford University website, I found that your research direction is very similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for Stanford. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I also worked on four other projects.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controllers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAVs. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference – the 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Bassiri-Gharb,

How are you?

Wish you a healthy, happy and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the Georgia Tech school website, I found that your research direction is very similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during Ph.D. study and research.

I have submitted the application and I got the feedback from Dr. Wayne Whiteman. He said: “If a Georgia Tech faculty member agrees to support you as a graduate research assistant in their research group, please ask that faculty member to notify me and we will further process your application for admission.”

Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I also worked on four other projects.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Grizzle,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the University of Michigan website, I found that your research direction is similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for University of Michigan and you are my #1 preferred supervisor. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controllers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAVs. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference – the 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Wood,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the Harvard University website, I found that your research direction is very similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for Harvard University and you are my #1 preferred supervisor. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controllers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAVs. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference – the 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Okamura,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the Stanford University website, I found that your research direction is very similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during my Ph.D. study and research.

I have submitted the application for Stanford and you are my #1 preferred supervisor. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controllers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAVs based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAVs. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference – the 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Lin,

How are you?

Wish you a healthy, happy, and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. Last time, I am writing to you to apply for TBSI’s summer camp. Later, I made it clear that my future development direction is to engage in academic research. TBSI’s training model is relatively inclined towards the corporate world. And if I want to go in the academic direction, studying abroad is the best choice. So, I gave up the opportunity of postgraduate recommendation in China and wanted to come to UCB for doctoral research. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during Ph.D. study and research.

I have submitted the application for UCB and you are my #1 preferred supervisor. Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Lin,

Thank you for your reply. I will wait for the admission results patiently. Looking forward to a fruitful result. Have a wonderful weekend!

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Qi,

How are you?

Wish you a healthy, happy and prosperous year 2022!

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the Georgia Tech school website, I found that your research direction is very similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during Ph.D. study and research.

I have submitted the application and I got the feedback from Dr. Wayne Whiteman. He said: “If a Georgia Tech faculty member agrees to support you as a graduate research assistant in their research group, please ask that faculty member to notify me and we will further process your application for admission.”

Here are some brief introductions to the research projects I have done. My latest CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I also worked on four other projects.

The first project I participated in during my undergraduate was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Sui,

I look forward to seeing you again someday in the future. Let’s see. I also don’t know which university I will end up going to. I will keep telling you the good news. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your comments and suggestions. I have reviewed it again. All is well. I just made some minor changes. The revised version of the research plan is attached to this email. Thank you for taking your busy time to help me revise my research plan. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thanks for your reminder. After receiving your email, I immediately modified my research plan, which is attached to this email. I replaced a lot of piezoelectric nanogenerators with its acronym - PENGs. I also deleted some unused references. Also, I modified some other parts. If it is available for you, could you please help me check it? Thanks again for your help. I was so impressed. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thanks for your revision! All changes look good. I feel honored to have your guidance. Hope our efforts will have wonderful results.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Feron,

I am Liuchao Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw your profile from the KAUST school website, I found that your research direction is very similar to my undergraduate research direction, and I am also very interested in this direction for my future study. I am writing to you to ask whether you will recruit Ph.D. students for Fall 2022. If so, I hope you could become my supervisor during Ph.D. study and research. Here are some brief introductions to the research projects I have done. My CV, transcript, and research proposal for senior project are attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

Right now, my ongoing project is about 6 DoF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual quaternion. We hope to design suitable feedback linearization trackers for tilt-rotor multi-rotor UAV based on unit dual quaternion. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

The last completed project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I also worked on three other projects.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

2020 fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases.

I have finished introducing the projects I have been involved in. Thank you for viewing them. I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Sui,

Thanks for your reply and greetings. Wish you a healthy, happy, and prosperous year in the United States! Also, scupi’s mailbox should not be used when you return to the United States, right? I would like to know do you have permanent contact details? For example, Facebook, Twitter, LinkedIn, and permanent email, I can tell you any news when I go to the United States in the future (if so).

Best regards,

Liuchao Jin

Dear Prof. Sui,

How are you?

I’m glad to inform you that I received feedback from my supervisor at CUHK that I have been on the list to be recommended by their selection committee to HK UGC. The final result of whether I can get the HKPFS scholarship will be known around April. Thank you for your help in my academic life. Wish you all the best on your trip to America.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thank you for your suggestions! Yes, I originally planned to conduct the senior project with the supervisor at CUHK and He also hoped that I could go to his lab to complete my senior project. However, the new roles for senior project in our institute require us to have the team work in our institute. So, my original plan failed. Maybe I can do some online project with my supervisor at CUHK next semester. Your suggestion helped me a lot. Wishing you good dreams and happy holidays.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I’m glad to inform you that I received feedback from my supervisor at CUHK that I have been on the list to be recommended by their selection committee to HK UGC. The final result of whether I can get the HKPFS scholarship will be known around April. Thank you for your help in my academic life. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I have finished revising the research plan by adding some milestones, which is attached to this email. If possible, I am really looking forward to your advice on the revised research plan and my future study about it, which will help me immensely.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Liuchao,

How are you?

Wish you a healthy, happy and prosperous year 2022!

I am pleased to inform you that you have been in the list to be recommended by our selection committee to HK UGC.

With the feedback/suggestion from our selection committee, please revise your Proposed Research Plan by adding ‘milestones’. As you will not be able to change it via the system now, please email me the revised MS doc file with ‘track change’ by/on 14 January 2022. I then will check it before forwarding it to our selection committee / Graduate School.

Besides, please email me the scanned copy of your 3rd National Scholarship certificate if you have obtained it. Please also let me know if you have any updated status regarding the submitted journal paper.

Look forward to receiving your reply.

Best regards,

W. H. Liao

Dear Prof. Liao,

Thank you for your New Year wishes. I also wish you 多喜樂長安寧 in the new year.

I was ecstatic to hear about the status of my application. Thank you very much for letting me know, and for acknowledging me from the selection committee. I will follow the feedback/suggestion of the selection committee to revise my research plan as soon as possible.

I’ve just finished a busy and fulfilling semester, and now I’m back home to start my winter break.

Last semester, our senior project got gratifying results. We can almost use the feedback linearization tracker designed based on unit dual quaternion to control the movement of the tilt-rotor multi-rotor UAV. What we are doing now is that we need to adjust the parameters of the rotor and arm rotor to achieve our goal. Final results are expected by the end of January. After the results come out, we are ready to go to sign up for a conference - 2022 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM). Hope our paper can be accepted successfully.

For national scholarship, generally speaking, the signing of the certificate is usually in December. However, the national scholarship certificate of the previous academic year can only be issued to the winners in April of the following year, probably because the certificate of the national scholarship is delegated to us from the Ministry of Education of the People’s Republic of China, there is some delay. Do you think the actual certification is important for my application? If so, I can ask my college to issue a certification to prove that I will receive my 3rd National Scholarship certification this April.

In addition, I have successfully certified the A-level Certificate in Comprehensive Quality of University Students in Sichuan Province. This certificate examines the overall quality of the applicant, including innovation & entrepreneurship, professional learning, skills & expertise, social practice, cultural & sports activities, and other aspects. I became the first person in our institute to successfully certify this certificate.

For the last paper I wrote under the guidance of Prof. Weicheng Cui, last time, the paper was submitted by Prof. Cui. So far, I have not received any messages from Prof. Cui, hope all goes well.

Thank you again from the bottom of my heart for giving me this opportunity. I will send the revised research plan via email as soon as possible. Have a good night!

Best regards,

Liuchao Jin

Confirmation for Winger Huang’s Final Exam Grade

Dear Prof. Fok,

I hope you are well during these days. I’m writing to you because Winger Huang (Student ID: 2019141520064) came to me. He thought there were some problems with this final exam grade. It shows that he only got 12 points in the final exam, which seems unreasonable. Could you be so kind to check his final exam grade again? Winger Huang has gone home, so he can not talk to you face to face.

In addition, as for Zhou Zijun, if her grade is calculated by grading criteria in lecture 14, her grade should be 90.425. But she got A- on BlackBoard. I asked her to come to you today for a further check.

Thank you for your help. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Wow. Many thanks. Zhou Zijun will be happy when she hears this.

Sorry about that. I went home the day before yesterday. Could you check Winger Huang’s final exam paper? If there are exactly 12 points on his paper, I will tell him that he got 12 points in the final exam exactly. He thought there is some discrepancy between the marks on paper and the marks on BlackBoard. Thank you for your help!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Wow. Good! Many thanks for your help. I will tell Winger Huang. Winger Huang will also be happy when he hears this. Have a good day. If you need any other help, don’t hesitate to come to me. I’m ready to help.

Best regards,

Liuchao Jin

Dear Ms. Yang,

The revised SoP for GaTech is attached to this email. Please go through it when it is available for you. Also, please take look at the short answer question I sent to you last time.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Ms. Aoxin,

I’m Liuchao Jin, the teaching assistant for ME2060 Numerical Methods. I’m writing an email to you because today is the weekend. I was wondering how I can check what the percentage of completion of the midterm survey for ME2060 was. Do you have the data for this?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Got it! Many thanks! Friday 9 am should be fantastic. Thank you very much.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thanks for your reply. For grading, I have midterm check for senior project on Friday afternoon from 2pm to 4pm. Sorry about that. Can I grade the paper in advance on Friday? For example, 12:30pm. I’ll come to your office to grade the papers. In this way, I should be able to grade my part before midterm check.

In addition, students asked whether 1. the equation for castiglianno’s theorem and also 2. the diagram for reading the value of (Notch-sensitivity curves for materials in reversed torsion) in Equation K\_f=1+q(K\_t+1) will be provided. See you this afternoon!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I’m writing to you because some students have questions about tomorrow’s final exam. The first question is: can they bring one A4 paper as a formula sheet or will all the formulas be provided during the exam? The second question is: is tomorrow’s mechanical design exam lasting 155 minutes (1:50 to 4:25 PM)?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Xu,

I am Liuchao from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you to send you the link to the website to display time during the exam because last time, you asked me during Prof Yang’s exam. Here is the link: <https://time.is/Beijing>. Please feel free to contact me if you have any further questions.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thank you for inviting us to lunch. I will come to your office at 10 o’clock tomorrow morning. Many thanks!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Many thanks for your help. I will tell him to pay attention to this issue and stop making this kind of mistake in the future.

Have a wonderful weekend!

Yours, faithfully.

Liuchao Jin

Dear Prof. Fok,

I am writing to you to tell you something that happened this Friday and hope you will be prepared.

This Friday, we held a meeting of members of the Communist Party of China (CPC) to discuss the application of 31 comrades including Cui Rongkai (Student ID: 2019141520101) to join the party. Our old party members need to make some comments and suggestions to 31 applicants including Cui Rongkai. But, Cui Rongkai is usually more introverted and rarely interacts with others. I don’t think any of the old party members at the meeting knew him. To help him, I gave him some comments and suggestions. Here are my comments and suggestions:

Comments: He does his homework very carefully and studies earnestly, so he is a very good applicant (This is based on my usual feelings of grading his homework).

Suggestions: He needs to pay more attention to academic integrity (This is based on the fact that his project and assignment 8 have some similar parts with other students).

I thought this suggestion was a very ordinary reminder. However, Dean Ivy Chen was very sensitive to this matter. She asked Cui Rongkai: What academic dishonesty do you have? Cui Rongkai faltered and said: I have never copied other people’s homework, I just provided my homework with other classmates to copy. Then, Dean Chen was very angry with Cui Rongkai. She believes that the person who copied the homework and the person who provided the homework had the same mistakes. She said: As an applicant who wants to join the CPC, you should play an exemplary role. You must pay attention to academic integrity and not touch the red line of academic integrity.

Then, after a while, we entered the voting session. Our old party members needed to vote on whether applicants can join the CPC. Cui Rongkai finally joined the CPC with 16 votes in favor, 9 votes against, and 1 abstention (more than half of the votes agreed).

However, he was not satisfied with the voting results. After the meeting, he came to Ms. Alex—the host of the meeting. He told Alex that he did not copy homework. After a period of quarrel, under the severe questioning of Ms. Alex, Cui Rongkai finally admitted to academic misconduct. Ms. Alex suggested that he needed deeply reflect on himself and try to avoid this kind of thing from happening again.

That’s the end of this story. I think that Cui Rongkai will come to the professor next Monday to explain the problem of homework and apologize to the professor. Could you be so kind to help him out of the shadow of academic misconduct? I also feel very sorry that Cui Rongkai was criticized by Dean Chen because of one of my words. Hope he will be well.

Thank you for reading this story and your help will be greatly appreciated. Enjoy your wonderful weekend.

Yours, faithfully.

Liuchao Jin

Dear Dean Chyu,

The application system shows that your submissions of recommendation letters for all universities were successful. Thank you for taking the time to write on my behalf for my graduate study application. I appreciate your support in my academic life. After finishing my graduate studies in the U.S., I hope to pursue post-doctoral research at top universities overseas. In the future, I hope to conduct academic research and work as a professor at a university or research institute, so my graduate studies in the U.S. will be extremely beneficial to my career development. I will keep you updated about the follow-up news. Thanks again for your assistance. Have a wonderful weekend.

Yours, faithfully.

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Chen,

I am Liuchao (Christopher) Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I heard that you will recruit some Ph.D. students for next year. I am very interested in it and I hope to be involved in bioelectronics in the future. Here are the details for these projects I have participated in. And my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I have finished grading of Mechanical Design 1 project. Please take look at them when it is available to you and please reconcile grades if there is no problem.

One problem occurred when I was grading the project. Some parts of the design for these two students are similar to each other, which are attached to this email. I think the scores of these two students need your decision.

In addition, I share the score sheet on Overleaf with you in another email. If you want to change scores for some students, you can change their scores and comments on Overleaf.

Thanks for your help and have a good night!

Best regards,

Liuchao JIN

Extension of Project Submission Deadline

Dear all,

Please be informed that the new **deadline** for project submission will be **extended** to this **Sunday midnight**. Please seize the time.

Dear Prof. Fok,

Received! Thanks. I’m grading now. Have a nice day!

Best regards,

Liuchao JIN

Dear Prof. Fok,

Got it!

Best regards,

Liuchao JIN

Dear Prof. Fok,

Received! Thank you for your help. I will pay special attention to the points you mentioned. Good night!

Best regards,

Liuchao JIN

Dear Prof. Qi,

The e-book for the Mechanical Design 2 course (9th & 10th edition) is attached to this email. Just FYI. It seems that there is already an 11th edition, but I don’t have an 11th edition e-book and we also used the 10th edition before for this course. Have a nice day!

Best regards,

Liuchao JIN

Dear Prof. Lu,

After my repeated thinking, I still want to become a teaching assistant in mechatronics. Because I want to consolidate my knowledge of mechatronics and strengthen my hands-on ability. So can I be honored to be a **teaching assistant** in **mechatronics** for **lab**? Thank you so much for your patient help. My latest CV is attached to this email and here is my information.

Name: Liuchao Jin  
Student ID：2018141521058  
Telephone：18258525750  
Email：[windbirdman@stu.scu.edu.cn](mailto:windbirdman@stu.scu.edu.cn)   
QQ：1782616120

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao JIN

Dear Prof. Fok,

Received! Thank you for your help. Have a nice day!

Best regards,

Liuchao JIN

Dear Prof. Fok,

There is no problem with this arrangement. Thanks for your help and have a nice day.

Best regards,

Liuchao JIN

Dear Prof. Liao,

Your amendment is of great help to me. Today I will carefully modify my Part G and H and then update them in my HKPFS application via the system. In addition, I have notified my referee and they will solve the problem as soon as possible. Thank you from the bottom of my heart.

Best regards,

Liuchao JIN

Dear Prof. Fok,

A word format of the letterhead from the admin office is attached to this email. Thank you for your patient help! Have a good day!

Best regards,

Liuchao JIN

Dear Prof. Fok,

I received feedback from CUHK. The method of submission of recommendation letters needs to be updated. If possible, could you please print out the letter on letterhead with signature (a scanned pdf file will be fine), and then, replace or add them via the system? If you cannot replace or add them via the system, you can be emailed to Ms. Joyce Wong ([mhwong@mae.cuhk.edu.hk](mailto:mhwong@mae.cuhk.edu.hk)) to replace/add.

Thank you for your help. Please feel free to contact me if you have any further questions. Take care and stay safe.

Best regards,

Liuchao JIN

Dear Prof. Sui,

Sorry to interrupt your busy work again. ヾ(◍°∇°◍)ﾉﾞI received feedback from CUHK. They said “It was mentioned in the form ‘refer to attachment’. However, no attachment is found.” If possible, could you please add the attachment of the recommendation letter via the system? If you cannot replace or add them via the system, you can be emailed to Ms. Joyce Wong ([mhwong@mae.cuhk.edu.hk](mailto:mhwong@mae.cuhk.edu.hk)) to replace/add.

Thank you for your help. Please feel free to contact me if you have any further questions. Take care and stay safe.

Best regards,

Liuchao JIN

Dear Prof. Liao,

Thank you for informing me of that. I think you are talking about Part G and H—Past Research Experience and Proposed Research Plan & Vision Statement. I attached the MS word document of these two parts to this email.

In addition, in the application system, I have deleted the September TOEFL score, and I have also uploaded the latest CV. For your quick check, I attached the latest CV to this email.

Finally, I will notify my referees to follow the steps you mentioned to complete the letter of recommendation as quickly as possible.

Please feel free to contact me if you have any further questions. Take care and stay safe.

Best regards,

Liuchao JIN

Dear Prof. Sui,

Wow. Many thanks to your patient help! In class, I heard that you stayed up all night because of traffic jams. Last night you posted a file in the QQ group at 3 o’clock in the morning. I can feel that you are very tired during class this morning. In this case, your help really touched me. Thank you for your help! In addition, I feel that my CUHK supervisor is quite nice. He spent a day yesterday helping me revise my application materials and making some suggestions. Very good. Anyway, I wish you a good sleep tonight.

Best regards,

Liuchao JIN

尊敬的Ms. Gardenia：

您好！

修改后的3个文书附在了这封邮件的附件中，红色部分标记出来的是需要修改的部分。另外，UCB的那几个需要回答的问题附在了UCB那个文件的最后一页。

此致

敬礼！

金刘超

2021年11月29日

尊敬的Ms. Gardenia：

您好！

修改后的3个文书附在了这封邮件的附件中。我在里面标注了需要改的部分。感谢您的帮助！祝您工作顺利！

此致

敬礼！

金刘超

2021年12月14日

尊敬的Ms. Gardenia：

您好！

Caltech和Harvard的文书稍微再修改了一点语法，这次改完了老师就可以帮忙上传啦。感谢您的帮助！祝您工作顺利！

此致

敬礼！

金刘超

2021年12月15日

尊敬的Ms. Gardenia：

您好！

MIT的文书稍微再修改了一点语法。Caltech和Harvard的文书已经没问题啦。这次改完了老师就可以帮忙上传啦。感谢您的帮助！祝您工作顺利！

此致

敬礼！

金刘超

2021年12月15日

Dear Prof. Sui,

Wow! Received. I am glad to have your help in my academic life. Thank you and have a good night!

Best regards,

Liuchao Jin

Dear Prof. Sui,

Thank you professor. I see from the website that all the recommendation letters have been submitted. You works so hard, so touching. Anyway, please take good care of yourself and take a moderate rest. I will keep updating the latest progress with you. Thanks!

Best regards,

Liuchao Jin

Dear Prof. Qi,

I feel honored to receive your reply. Thank you for informing me of that. I am very interested in being a teaching assistant for Mechanical Design 2. I have completed Statics and Mechanics of materials 1, 2 and I will finish studying Mechanical Design 2 this semester. If I have the opportunity to be your assistant in Mechanical Design 2, I feel very honored.

In addition, I would like to ask what is the role of the teaching assistant in Mechanical Design 2. Do I need to follow the class? Shall I grade students’ design projects or just homework?

Thank you and have a good night!

Best regards,

Liuchao Jin

Dear Prof. Qi,

I’m in China now. I originally planned to transfer to the U.S. during my third and fourth year of college but eventually, I gave up going to the U.S. due to COVID-19 so I have the pitt account. I was wondering when it is available to you so that we can have a further discussion. Today I am free except from 3 to 4 in the afternoon. Thank you so much for your patient help!

Best regards,

Liuchao Jin

Dear Prof. Qi,

OK, got it. I will visit you in your office at 11:10.

Best regards,

Liuchao Jin

Dear Prof. Sui,

Here is a reminder about the approaching of submission deadline of academic references. The deadline for submission of recommendation letters for the following three universities is Dec. 1st, which means it is best to complete the recommendation letters before next Tuesday.

* Stanford University
* University of California – Berkeley
* University of Michigan-Ann Arbor

Thank you for taking the time to write a recommendation letter for me. Have a nice week!

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Here is a reminder about the approaching of submission deadline of academic references. The deadline for submission of recommendation letters for the following three universities is Dec. 1st, which means it is best to complete the recommendation letters before next Tuesday.

* Stanford University
* University of California – Berkeley

Thank you for taking the time to write a recommendation letter for me. Have a nice week!

Best regards,

Liuchao Jin

老师您好！以下三所大学提交推荐信的截止日期是12月1日，这意味着邱院长如果方便，在下周二之前完成推荐信是非常合适的。

* Stanford University
* University of California – Berkeley
* University of Michigan – Ann Arbor

谢谢老师的帮助！

Academic Consult for Unit Dual Quaternion-Based Feedback Linearization Tracking

Dear Prof. Yu and Prof. Wang,

I am Liuchao Jin from Sichuan University-Pittsburgh Institute, Chengdu, China. I am writing to you because I was wondering whether you could be so kind to provide me with simulation files in your essay—*Unit dual quaternion-based feedback linearization tracking problem for attitude and position dynamics*.

I am now conducting my research with my supervisor Prof. Qi Lu about the application of unit dual quaternion-based feedback linearization tracking. We expect to publish several papers on this topic in the future. Your simulation files will be greatly helpful to our research.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Recent Situation of Regis Song

Dear Prof. Fok,

Ms. Alex came to me because she wanted to know about Regis Song’s recent learning situation. Did Song attend the class? Song complained to Alex that the homework was too difficult to do, that the homework could not be submitted late, and that there was no time to do the homework.

In addition, I was wondering what class you will teach next semester. Do you know now? If possible, I want to continue to be your TA in the next semester.

Looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thank you for telling me this. I will tell Ms. Alex about this. Mechanical Vibration sounds very good, and also I can follow the class. I am honored to be your teaching assistant. Thank you again for your help. Have a good night!

Best regards,

Liuchao Jin

Dear Prof. Qi,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you because I was wondering whether you need a teaching assistant next semester and what class you will teach next semester.

My latest CV is attached to this email. If possible, I want to be your TA in the next semester.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Dean Chyu,

Here is the link to submit a recommendation letter for the Massachusetts Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of MIT is Dec. 15th.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Here is the link to submit a recommendation letter for the Massachusetts Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of MIT is Dec. 15th.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Sui,

Here is the link to submit a recommendation letter for the Massachusetts Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of MIT is Dec. 15th.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Here is the link to submit a recommendation letter for the Massachusetts Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of MIT is Dec. 15th.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Ms. Wong,

Thank you for informing me of that. Sorry for the low resolution of the document in application materials due to the maximum file size limit. I put the scan of all my certificates in the .zip files in the attachment. Please feel free to contact me if you have any further questions.

Take care and stay safe!

Best regards,

Liuchao JIN

Dear Ms. Wong,

Thank you for informing me of that. Sorry for the low resolution of the document in application materials due to the maximum file size limit. I put the scan of all my certificates in the .zip files in the attachment. Please feel free to contact me if you have any further questions.

Take care and stay safe!

Best regards,

Liuchao JIN

Dear Prof. Cunningham,

I feel honored to receive your reply. Thank you for informing me of that. The major I choose in graduate is Mechanical Engineering, which is the same as my undergraduate major. The reason why I choose this major is that whenever I make a real object, whether it is a processed mechanical part or a connected circuit, I feel a great sense of accomplishment. In addition, in the future, I hope to learn more about robotics and control theory. I aim to study and conduct research in the United States in order to establish a solid theoretical and practical foundation for my future scientific research. After finishing my Ph.D . studies in the United States, I hope to pursue post-doctoral research. In the future, I hope to conduct academic research and work as a professor at a university or research institute in Mainland China or Hong Kong, so my Ph.D. studies in the United States will be extremely beneficial to my future development.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Good morning. In addition, would you mind giving me the following information about you, which is required by the application system?

* Phone Number
* Title or Position
* Field/Discipline

Thank you again for your patient help! Have a nice weekend.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Many thanks! I have sent you the link for the submission of recommendation letters from Stanford University, Harvard University, and the University of California - Berkeley just now. Thank you again for your patient help.

Best regards,

Liuchao Jin

Dear Prof. Sui,

I feel honored to receive your reply. I will remind you once before each university submits the application deadline.

Thank you again for your patient help! Have a nice weekend.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I feel honored to receive your reply. I will remind you once before each university submits the application deadline.

Thank you again for your patient help! Have a nice weekend.

Best regards,

Liuchao Jin

Dear Dean Chyu,

Here is the link to submit a recommendation letter for the University of California - Berkeley. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of UCB is Dec. 1st.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Here is the link to submit a recommendation letter for the University of California - Berkeley. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of UCB is Dec. 1st.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Sui,

Here is the link to submit a recommendation letter for the University of California - Berkeley. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of UCB is Dec. 1st.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Here is the link to submit a recommendation letter for the University of California - Berkeley. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of UCB is Dec. 1st.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Dean Chyu,

Here is the link to submit a recommendation letter for the Georgia Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of Georgia Tech. is Jan. 10th.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Here is the link to submit a recommendation letter for the Georgia Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of Georgia Tech. is Jan. 10th.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Sui,

Here is the link to submit a recommendation letter for the Georgia Institute of Technology. Thank you for taking the time to write a recommendation letter for me. The deadline for application submission of Georgia Tech. is Jan. 10th.

Take care and stay safe!

Best regards,

Liuchao Jin

Some Materials of Liuchao JIN for Academic Reference

Dear Ms. Mou,

My latest CV, SOP, and transcripts are attached to this email. Many thanks for your help!

Take care and stay safe!

Best regards,

Liuchao Jin

Invitation of Writing Academic Reference from SCUPI 2018

Dear Prof. Fok,

I am Liuchao (Christopher) Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to invite you to help me complete the academic reference because I am going to apply for universities in the United States.

Here are my intended universities: Massachusetts Institute of Technology (Dec. 15th), Harvard University (Dec. 15th), Stanford University (Dec. 1st), University of California – Berkeley (Dec. 1st), University of Michigan - Ann Arbor (Dec. 1st), California Institute of Technology (Dec. 15th), and Georgia Institute of Technology (Jan. 10th). The date in brackets for each university is the deadline for application submission. Every university requires at least three letters of recommendation. If you could become one of them, I would be very honored.

My latest CV is attached to this email. If you could be so kind to be willing to help, I will send you the academic reference submission links one after another.

By the way, let me update you on my recent progress. My TOEFL score on the test last week came out. It was 105, which is enough for the Ph.D. application in the United States.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Invitation of Writing Academic Reference from SCUPI 2018

Dear Prof. Cunningham,

I am Liuchao (Christopher) Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to invite you to help me complete the academic reference because I am going to apply for universities in the United States.

Here are my intended universities: Massachusetts Institute of Technology (Dec. 15th), Harvard University (Dec. 15th), Stanford University (Dec. 1st), University of California – Berkeley (Dec. 1st), University of Michigan - Ann Arbor (Dec. 1st), California Institute of Technology (Dec. 15th), and Georgia Institute of Technology (Jan. 10th). The date in brackets for each university is the deadline for application submission. Every university requires at least three letters of recommendation. If you could become one of them, I would be very honored.

My latest CV is attached to this email. If you could be so kind to be willing to help, I will send you the academic reference submission links one after another.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my academic life. Hope I can get your support this time. Your strong recommendation is very important to my success.

By the way, let me update you on my recent progress. My TOEFL score on the test last week came out. It was 105, which is enough for the Ph.D. application in the United States.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Sui,

Many thanks for your help. I have also heard many people say that Harvard University is not very good in the field of engineering. However, I browsed their faculty, they are all very nice professors, and their academic achievements are very outstanding. In addition, I also see that Harvard University is also among the best in the QS ranking of mechanical engineering. So I was wondering why people think that Harvard’s engineering is not very good.

I have sent you the link to submit letters of recommendation from Harvard University and the University of California, Berkeley. I am now trying to fill in these university online application systems, which is really a huge project. Thank you for taking the time to write a recommendation letter for me. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Sui,

By the way, last time you said that you especially want to see the color change process of autumn leaves. Chengdu recently released the park city ginkgo leaf viewing index, as this link says: <https://baijiahao.baidu.com/s?id=1716121461469586962&wfr=spider&for=pc>. You can go to see the colorful fallen leaves on weekends.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Lisa contacted me and said that he still needs to be quarantined for another week, so I will help him proctor the exam of Statics II on Tuesday.

In addition, I have sent you the link for the submission of recommendation letters from Stanford University, University of Michigan, California Institute of Technology, and Georgia Institute of Technology the day before yesterday. Thank you again for your patient help. Have a nice weekend evening!

Best regards,

Liuchao Jin

Dear Prof. Sui,

Thank you so much for your help! The pandemic is getting more and more serious, so take care to protect yourself. Hope the pandemic will end soon.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Prof. Sui,

Wow. I am very grateful because you finished it so quickly. I will keep you updated on my latest progress.

By the way, the box office of “Changjin Lake” is now less than 100 million yuan from the box office champion of Chinese film history. This is very shocking.

Thank you again for your patient help! Enjoy the sunshine worth cherishing in Chengdu today.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Here is a student from Course - Dynamic System, who has some problems with lab 02. I think he made a mistake to recogonize me as the teaching assistant for Dynamic System. Please take look at his email. Thank you so much for your help!

Best regards,

Liuchao Jin

Dear Prof. Fok and Mr. Sha,

In this case, can I seek help from Euphy as soon as possible? I hope to find a suitable candidate to help me supervise the exam. Thank you Mr. Sha for help. Take good care of yourself. Hope everything is okay.You don’t have to worry about the matter here, I will take care of it.

Take care and stay safe!

Best regards,

Liuchao Jin

关于家教人选

尊敬的陈院长：

您好！

我是匹兹堡学院2018级的金刘超。上次听闻您想找一个家教，我咨询了我认识的几个朋友，但是他们好像都忙于学习，很少能够抽出空来。然后我就问了问凌阅微同学，她有一个很合适的人选，以下是她的朋友的信息，望院长有空的时候可以找她聊聊具体事宜。

张琳媛  
【手机/微信】18801147266  
【QQ】876085249  
【一些其他信息】四川大学文学与新闻学院2019级汉语言文学专业。担任**年级长**，获校级综合二等奖学金等。父母是四川省广安市的**初中老师**，具体的授课科目没有问过。她曾经考入北京邮电大学计算机专业，后来对文学产生了浓厚的兴趣，在大三的时候自己退学重新高考，考入川大文新学院。

祝令嫒学有所成！

此致

敬礼！

金刘超

2021年11月8日

Invitation of Writing Academic Reference from SCUPI 2018

Dear Dean Chyu,

I am Liuchao (Christopher) Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to invite you to help me complete the academic reference because I am going to apply for universities in the United States.

Here are my intended universities: MIT (Dec. 15th), Harvard University (Dec. 15th), Stanford University (Dec. 1st), University of California – Berkeley (Dec. 1st), and University of Michigan - Ann Arbor (Dec. 1st). The date in brackets for each university is the deadline for application submission. Every university requires at least three letters of recommendation. If you could become one of them, I would be very honored.

My latest CV is attached to this email. If you could be so kind to be willing to help, I will send you the academic reference submission links one after another.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my academic life. Hope I can get your support this time. Your strong recommendation is very important to my success. Thank you!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Dean Chyu,

I feel honored to receive your email. Thank you for informing me of that. I will follow up the progress of recommendation letter with Ms. Mou.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Sir/Madam,

I am Liuchao (Christopher) Jin from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. My Travel Photo Collection is attached to this email.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Akbarzadeh,

Thank you very much for your notification. I think about it again and again, and I always feel very guilty and still very entangled in my heart. I worked hard to prepare for the TOEFL during the summer vacation because I wanted to go to Switzerland or Sweden to study and research in the direction of precision manufacturing. I very much appreciate and admire professor’s enthusiasm in the field of bio-inspired hierarchical multifunctional metamaterials. I also hope that I can continue to communicate with you during the graduate study, and ask you for advice on related academic issues. I am very sorry for the trouble to you. Please forgive me. I wish you good health and success!

Best regards,

Liuchao Jin

Invitation of Writing Academic Reference from SCUPI 2018

Dear Prof. Sui,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to invite you to help me complete the academic reference.

Now I am applying for PhD study in the Chinese University of Hong Kong and also I want to apply for Hong Kong PhD Fellowship Scheme (HKPFS). Here is an introduction to HKPFS.

Hong Kong PhD Fellowship Scheme

* Established by the Hong Kong Research Grants Council (RGC) in 2009.
* Aims to attract the best and brightest students in the world to pursue their PhD programmes in Hong Kong’s universities.
* Provides a **monthly stipend** of HK$26,900 (approx. US$3,450) and a **conference travel allowance** of HK$13,500 (approx. US$1,730) per year during the normative study period for up to three years.

The application requires us to have academic references from two professors. I was wondering whether you could do me a favor because I really hope to get your academic reference. If possible, I will send you an invitation link so that you can fill out the form in that link. If you want to know more about me, I have attached my latest CV in the attachment.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my past academic life. Hope I can get your support this time as well. Thank you!

By the way, let me update you on my recent progress. My TOEFL score on the test last week came out. It was 99, which is one point short of the target of 100, so I will continue to work hard to take the test well.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Sui,

From the system display as shown in attachment, CUHK should send you an email manually, because there is a column named Invitation Sent Date, and this column is still empty. Therefore, in the near future you may receive a submission link for academic reference, so there is still plenty of time. In addition, the Submission Due Date is December 15th. Thank you again for your help.

Best regards,

Liuchao Jin

Dear Prof. Sui,

Thank you. The system shows that CUHK has sent you a link to fill out the academic reference. Thank you for your help.

By the way, could you be so kind to do me a favor to glance at my in-class work last week? The only difference between my answer and the solution posted on BlackBoard is the data read from graph. But in the class, you told us the data is approximately 2. So, I use 2 for calculation but this in-class work was deducted 30 points off.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Invitation of Writing Academic Reference from SCUPI 2018

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to invite you to help me complete the academic reference.

Now I am applying for PhD study in the Chinese University of Hong Kong and also I want to apply for Hong Kong PhD Fellowship Scheme (HKPFS). Here is an introduction to HKPFS.

Hong Kong PhD Fellowship Scheme

* Established by the Hong Kong Research Grants Council (RGC) in 2009.
* Aims to attract the best and brightest students in the world to pursue their PhD programmes in Hong Kong’s universities.
* Provides a **monthly stipend** of HK$26,900 (approx. US$3,450) and a **conference travel allowance** of HK$13,500 (approx. US$1,730) per year during the normative study period for up to three years.

The application requires us to have academic references from two professors. I was wondering whether you could do me a favor because I really hope to get your academic reference. If possible, I will send you an invitation link so that you can fill out the form in that link. If you want to know more about me, I have attached my latest CV in the attachment.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my past academic life. Hope I can get your support this time as well. Thank you!

By the way, let me update you on my recent progress. My TOEFL score on the test last week came out. It was 99, which is one point short of the target of 100, so I will continue to work hard to take the test well.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

From the system display as shown in attachment, CUHK should send you an email manually, because there is a column named Invitation Sent Date, and this column is still empty. Therefore, in the near future you may receive a submission link for academic reference, so there is still plenty of time. In addition, the Submission Due Date is December 15th. Thank you again for your help.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’m writing to report to you the latest progress.

For the application, I have submitted HKPFS Supplement on the CUHK Postgraduate Application Website yesterday. The only thing I haven’t completed was the submission of the academic reference. My referee is helping to write the recommendation letter for me. I was wondering whether the recommendation letter needs to be submitted before Nov. 10th. Because the system shows that the submission due date of the recommendation letter is December 15th.

For the TOEFL test, I got a total score of 99 on the TOEFL test on Oct. 24th. In any case, it is one point better than the previous TOEFL test. In addition, I took a TOFEL iBT Home Edition test the day before yesterday (Nov. 3rd), and points should be awarded around Nov. 10th.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’m writing to report to you the latest progress.

I scored 105 on the TOEFL test on November 3rd. Happy! I also updated this result on the application system. Thank you for your continued attention.

Take care and stay safe!

Best regards,

Liuchao Jin

Dear Jen,

I started my application recently, and now I need a document-a certificate of teaching in English （全英文授课证明） so that I don’t need language scores when applying to schools in Singapore. My current language score is basically no problem when I apply for a school in the United States, but Singapore requires GRE. Of course, the language score can also be replaced by a certificate of teaching in English in Singapore. My information is shown below:

①基本信息（姓名、性别、学号、专业等）；金刘超-男-2018141521058-机械设计制造及其自动化（国际合作）

②需要开具文件的版本（中文or英文）及原件的份数；全英文授课证明（英文）原件1份

③返回原件or扫描件的deadline；2021年11月10日

④拟申请的学校要求出具成绩排名的相关证明或截图：It’s attached to the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Chen,

I am Liuchao (Christopher) Jin, a senior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I heard that you will recruit some Ph.D. students for next year. I am very interested in it and I hope to be involved in bioelectronics in the future. Here are the details for these projects I have participated in. And my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I conducted a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I developed an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui Weicheng from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear 老师,

Here are some university I am interested in:

麻省理工学院

斯坦福大学

剑桥大学

哈佛大学

南洋理工大学

加州大学伯克利分校

代尔夫特理工大学

帝国理工学院

新加坡国立大学

牛津大学

密歇根大学

苏黎世联邦理工大学

瑞士联邦理工学院

治亚理工学院

米兰理工大学

洛桑联邦理工学院

加州理工大学

瑞典皇家理工学院

And my intended majors is attached below:

专业：ME (Robotics, AI, Mechanical Design, Thermo and Fluid), EE（It’s not realistic to go to the U.S. to major in EE）I appreciate your help very much. Take care and stay safe.

Best regards,

Liuchao Jin

尊敬的老师：

您好！

我是2018级机械设计制造及自动化的金刘超。我的国奖1500字个人事迹附在了这封邮件中。感谢您的帮助！祝您工作顺利！

此致

敬礼！

金刘超

2021年10月11日

尊敬的老师：

您好！

我是匹兹堡学院2018级机械设计制造及自动化的金刘超。我的党的十九大精神学生宣讲员申请表附在了这封邮件中。感谢您的帮助！祝您工作顺利！

此致

敬礼！

金刘超

2021年10月18日

Dear Prof. Fok,

How was your holiday? Some students asked about the Lecture 5 exercise key, which hidden from students on BlackBoard. Can I release this item to students? I appreciate your help very much. Take care and stay safe.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thank you for your help!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Thank you for informing me of that! I have reminded the students about quiz on QQ group and also reminded Lisa about the exam next week. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

I was wondering that could you provide me with the course student list so that I can make the sign up sheet for next Wednesday’s exam.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Here is the midterm signup sheet. It should be brought during the exam. And also the Examination Site Record in the attachment should also be brought during the exam. Thank you so much for your help and reminder. Have a nice weekend!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Some students asked about the Formative exercise 3 key, which hidden from students on BlackBoard. Can I release this item to students? I appreciate your help very much. Take care and stay safe.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Unconsciously, it has entered October. How have you been? I have a lot of things I want to tell you recently.

The first thing is about the **senior project**. Unfortunately, this year our institute wants to strictly abide by the relevant regulations of the Accreditation Board for Engineering and Technology (ABET), which means that the senior project must involve **teamwork**. Therefore, I must have a team in our institute. This is a sudden change this year. In the past few years, senior projects can still be done individually. So I regret that I can’t come to CUHK to complete the senior project. I finally decided to do a project about 6 DOF unified tracking controller for tilt-rotor multi-rotor UAV based on unit dual-quaternion, which is also quite interesting.

The second thing is about my **TOEFL** score. I took the TOEFL test on September 19, and the final score was **98**. Unfortunately, it was two points short of 100. But I will continue to work hard. I have registered for the TOEFL test in Chongqing on October 24th. Hope I can score 100 points smoothly.

The last thing is about the **national scholarship**. Not only did I successfully get the national scholarship again, but I also won other **four** awards, including Outstanding Graduate of Sichuan Province, Outstanding Graduate of Sichuan University, 2020-2021 Academic Year Outstanding Student of Sichuan University, and 2020-2021 Academic Year Sichuan University-Pittsburgh Institute Best Academic Achiever Award (¥60,000).

This is my recent situation. I will prepare for the TOEFL and also pay attention to the CUHK application recently. I will submit the application materials as soon as the TOEFL score comes out. I appreciate your help very much. Take care and stay safe.

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thanks for your reminder. I will update you on the latest progress in time and submit the application before November 10th. Have a nice day!

Best regards,

Liuchao Jin

尊敬的老师：

您好！

非常感谢您的告知。学生在参加上海交通大学密西根学院夏令营之前还参加了港中大的summer workshop，前两天才拿到了港中大全奖PhD的offer，并且有希望在今年12月份申请到港府奖学金。学生思考再三，还是很纠结。学生思来想去，总感觉内心非常的愧疚。但是学生已经放弃了我们学院的保研名额。因为学生将来想进入高校担任教职，所以有个不错的海外学习经历对学生来说非常重要。学生在阔别密西根学院以后就在努力准备托福，学生想去瑞士或者瑞典从事精密制造方向的学习和研究。学生身边的很多同学都不想去制造领域，有些人去了控制，有些人转了CS，但是学生觉得制造才是兴国之本。若学生能从瑞士或瑞典学成回国，希望将来能够精密制造领域做出对祖国有贡献的成果。学生非常欣赏和崇拜黄教授您在精密测量领域的成果，也很希望能在研究生阶段继续和您保持交流，在相关学术问题上向您请教，也请教授不吝赐教。十分抱歉给教授您带来了麻烦，还请教授谅解，祝教授身体健康，万事胜意！

此致

敬礼！

金刘超

2021年9月24日

Dear Prof. Fok,

Received! Thank you for your help and have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Received! Thank you for your help. I have talked to Mr. Sha. He was so gentleman that he agreed to my request. I will arrange with Sha when the midterm is approaching.

Thank you again and have a good day!

Best regards,

Liuchao Jin

Question for in-class work and Suggestion for exam from MEMS1029 Mechanical Design 2

Dear Prof. Sui,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: MEMS1029 Mechanical Design 2). I am writing to you because I was wondering whether you could be so kind to take a look at my first in-class work again.

After submitting the first in-class work, I checked the answer with Ian Li. It seemed that we got the same answer. But our grade seems to be totally different. He got 90 but I got 75. And after viewing the solution pulished on BlackBoard, I found my solution was almost the same as the solution provided. So, I was confused why I got so low score.

Another thing I want to mention is regarding to the allowance to use electronic equipment. I think this is very unfair and it is likely to lead to cheating. In the time period of online classes in 2020, our college actually has many cases of cheating on exams due to online exams. Do you know a website called Chegg? On this website, you can find answers to almost all questions. In addition, cheating through QQ communication is also a disadvantage of allowing the use of electronic devices during the exam. It is impossible for you and the teaching assistant to stare at everyone’s computer screens all the time. I think there will be a lot of cheating in the exam in this case. Since you cannot guarantee that cheating will not happen, I think it is better not to allow the use of electronic devices in the exam. After all, in our institute, it is not difficult for students to print out all the materials they need.

Thank you for your help and have a good day!

Best regards,

Liuchao Jin

Dear Prof. Sui,

I am very grateful for your help during the holidays. I wish you a good time in the remaining half of the holiday!

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Wu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I heard that you will recruit some Ph.D. students for next year. I am very interested in it and I hope to be involved in this direction in the future. Here is my self-introduction. And my CV, academic transcript, and research paper are also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

就2018级和2019级国家奖学金分配方式差异上学院书

尊敬的老师：

您好！

我是来自四川大学匹兹堡学院2018级的金刘超。我写信给您是因为我对2018级和2019级两个年段的奖学金名单存在疑义。

首先，我来阐述一下存在疑义的关键。在2019级的奖学金名单中国家奖学金的名额是根据三个专业平均分配的（IE，MSE，ME各一个），但是2018级的奖学金名单中国家奖学金是按照综合成绩排名高低来确定的。

按照我们过往的经验，国家奖学金一直以来都是根据综合成绩排名高低。我能理解2019级的国家奖学金的分配理由，因为今年的奖学金加分细则（附件）上写着“本科生学年综合成绩按专业分别进行计算”。但是我翻看了去年的奖学金加分细则（附件），也同样写着“本科生学年综合成绩按专业分别进行计算”，去年，同样是大二学年奖学金的2018级，就没有按照按三个专业分配名额。我可以理解为：本科生学年综合成绩按专业分别进行计算，计算归计算，最终国奖还是按照综合成绩排名来分配。

所以，我很好奇，按照同一个细则来评定奖学金，为什么大二学年的2019级（今年）和同样是大二学年的2018级（去年），国家奖学金的分配方式发生了巨大改变？按照同一个细则、并且在同一个时间来评定奖学金，为什么今年2018级和2019级两个年段分配奖学金的方式又是截然不同的呢？

如果前几年是没有因为疏忽导致的奖学金分配有问题，我们已然无法改变。但是我觉得今年的2018级和2019级两个年段的分配方式至少应该**统一**，不管是都是按照综合成绩排名依次分配还是按照专业平均分配，我觉得都可以，都是有充分的理由的。

我深知老师们检查和审阅奖学金加分材料和保研材料时的辛苦，同时我也希望两个年段国家奖学金分配方式的区别能在公示期间得到合理有效的解决，能给学院的同学一个公平公正公开的交代。

祝老师们中秋节快乐，花好月圆，日子甜甜！

此致

敬礼！

金刘超

2021年9月18日

Dear Prof. Qi,

Well, there is no problem with email system of BB. Sometimes BB’s email will be a bit delayed. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Glad to hear that. I will read some literature about the application of 4D printing to soft robots, exoskeletons, and energy harvesting these days, and then determine the subject of my senior project. Thank you for your patient help!

Kind regards,

Liuchao Jin

Dear Prof. Lu,

I feel honored to receive your reply. See you Monday!

Best regards,

Liuchao Jin

Dear Prof. Liao,

How time flies. I am writing to you to ask for some suggestions for the topic of my senior project.

I was wondering whether you have some recommendations about my senior project regarding to my future research in your lab. In the next semester (2022 Spring), If you have a recommendation, this semester I will mainly engage in literature review and project planning. And I will have no courses. So I can devote myself to the senior project. If I have the opportunity, I can even come to Hong Kong to conduct experiments, which is allowed in my institute.

Besides, I also have some options of senior projects in our institute, such as dual quaternion control of tiltrotor aerial vehicle, design of soft surgical robot for lumbar laminectomy. If I do not have the opportunity to complete my senior project in Hong Kong, these two projects are also good choices, but they may not be the same as the direction of my future research.

Your assistant will be greatly appreciated. Enjoy your weekend and looking forward to your reply.

Best regards,

Liuchao Jin

Apply for Teaching Assistant Next Semester for Intro to Mechanical Behavior of Fiber Reinforced Composites

Dear Prof. Qi,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you because I was wondering whether you need teaching assistant this semester for Intro to Mechanical Behavior of Fiber Reinforced Composites. I saw in the TA list that you need a TA. But I was wondering whether that TA need to have some knowledge about the mechanical behavior of fiber reinforced composites because in our institute, there is no one who has learned the mechanical behavior of fiber reinforced composites. And because I enjoy exposing myself to new things, I was wondering whether I can be a TA for mechanical behavior of fiber reinforced composites. If it is possible, I also want to know what TA should do for this course.

Here is my self-introduction and my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have a wonderful academic performance during my undergraduate study. My current GPA is 4.0 and the weighted average mark is 96.43. I also have an engineering background and the capability of implementing both numerical and experimental techniques. I am proficient in the use and operation of CATIA, Inventor, ANSYS, SolidWorks, MATLAB, and LabVIEW.

Up to now, I have been a teaching assistant for five courses and seven classes. I also have participated in four projects so far.

The first project is the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Company Limited. which is a school-enterprise cooperation project. The phenomenon of partial discharge is an important factor that accelerates the electrical aging for the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency sensor with high gain and broadband characteristics, combined with ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module and a rotation module to control the advancement and 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is huge—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials.

The second project is the design of a post-disaster scrubber air cleaning system directed by Prof. Shoji from Tohoku University. Today’s air purification systems have not yet targeted high-density shelters after disasters, but the clean air supply is vital to these shelters. Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the model design of the air purification system. I also perform CFD analysis of the air fluid based on the designed model. Currently, this project is still in the material procurement stage. We hope to determine and optimize various parameters in more detail on the basis of experiments. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems in Canada. I have been matched with Prof. Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid plastics composed with electrically conducting particles by 3D printing and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to be your TA. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Qi,

I feel honored to receive your reply. Thank you for informing me of that. I’m happy to try in the future.

Best regard,

Liuchao Jin

Dear Prof. Dan,

I feel honored to receive your reply. The degree I’m planning to pursue is a PhD because in the future I want to go academic direction. I will tell you when I submit my application. Have a nice day and thank you for your patient help!

Best regards,

Liuchao Jin

Make an appointment for next week meeting

Dear Dean Chen,

I’m Liuchao (Christopher) Jin from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to make an appointment for next week’s meeting for the transformation to a full party member.

I will be free next week except for Monday afternoon, Wednesday morning, and Thursday morning. I was wondering which time is available for you next week so that we can further discuss my current status in learning and life.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Dan,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I heard that you will recruit some Ph.D. students this year. I am very interested in it and I hope to be involved in this direction in the future. Here is my self-introduction. And my CV, academic transcript, and research paper are also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Huang,

Got it! Thank you and see you then.

Kind regards,

Liuchao Jin

Dear Sir/Madam,

I feel honored to receive your email. Thank you for informing me of that. My reply acceptance form is attached to this email. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Wow. Thank you and I have received these files. I will keep updating the mistakes in these files during the semester and grade the assignments with a red pen within a week after submission. Thank you for informing me of that. Cheers!

Best regards,

Liuchao Jin

Dear Prof. Huang,

I feel honored to receive your email again. I have time this (24th Aug.) afternoon and tomorrow (25th Aug.) afternoon. You can decide our meeting time according to your free time and also your convenient meeting software. Hope to meet you again.

I also take this opportunity to report to you the latest progress. Last semester, I successfully got the first place in ranking again, which was almost guaranteed to successfully apply for the national scholarship in September. Recently, I have finished my internship at Westlake University and submitted a paper to *Ships and Offshore Structures* as the first author.

Take care and stay safe.

Best regards,

Liuchao Jin

金刘超+四川大学

尊敬的老师：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加2021年清华大学电子工程系“清华-约翰霍普金斯”双硕士项目夏令营。我的申请材料已附在这封邮件中。感谢您在百忙之中查阅我的申请材料。

此致

敬礼！

金刘超

2021年8月23日

“百佳”学生申请材料-金刘超

尊敬的杨老师：

您好！

我是四川大学匹兹堡学院2018级的金刘超。我希望申请四川大学“百佳”学生个人。我的申请材料已附在这封邮件中。感谢您在百忙之中查阅我的申请材料。祝您工作顺利！

此致

敬礼！

金刘超

2022年5月5日

Dear Jen,

I’m applying for the summer camp of Tsinghua-Johns Hopkins University Dual Degree Master Program. I need the ranking certification of my grades for **six semesters**. My information is shown below:

①基本信息（姓名、性别、学号、专业等）；金刘超-男-2018141521058-机械设计制造及其自动化（国际合作）

②需要开具排名的版本（中文or英文）及原件的份数；如果需要纸质版材料，需备注是否需要密封；三个学年排名中英文各一封电子版。

③返回原件or扫描件的deadline；2021年8月27日

④拟申请的学校要求出具成绩排名的相关证明或截图：It’s attached in the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Make updates for new semester work

Dear Prof. Fok,

How is going? How is your summer holiday? I am writing to ask what I need to do anything before school starts. If this course needs a QQ Group, I have established a QQ Group, whose ID number is 796195909 and QR code is attached to is email.

For my future study, I have got the offers from CUHK and Westlake University. I have very excellent supervisors in these two university. In this summer, I have written a paper with Prof. Cui at Westlake University and submitted it to *Ships and Offshore Structures*. I think my journey at Westlake University is pretty wonderful. I love this university. It have not only the awesome supervisors but also the outstanding students. Among 2021 freshmen of Westlake University, one fifth of them are from top universities in the world like Imperial College, UCL, UC Berkeley, UCLA, UIUC, NTU, NUS, and so on. This is roughly impossible in other universities in China.

Thank you for your previous help. If you need me to do anything before school starts, please tell me. Enjoy your holiday time!

Best regards,

Liuchao Jin

Dear Prof. Fok,

Very honored to receive your reply and know you are well. I have already make an announcement on BlackBoard about the QQ Group number.

Hope to see you on SCU campus at the end of this month!

Best regards,

Liuchao Jin

Apply for Teaching Assistant Next Semester for Nemerical Methods

Dear Prof. Cunningham,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to you because I was wondering whether you need teaching assistant next semester for Nemerical Methods. I saw in the TA list that you need a TA who is proficient in MATLAB. But I was wondering whether that TA need to have some knowledge about Nemerical Methods because in our institute, there is no one who has learned Nemerical Methods. If it is possible, I also want to know what TA should do for this course.

Here is my self-introduction and my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have a wonderful academic performance during my undergraduate study. My current GPA is 4.0 and the weighted average mark is 96.43. I also have an engineering background and the capability of implementing both numerical and experimental techniques. I am proficient in the use and operation of CATIA, Inventor, ANSYS, SolidWorks, MATLAB, and LabVIEW.

Up to now, I have been a teaching assistant for five courses and seven classes. I also have participated in four projects so far.

The first project is the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Company Limited. which is a school-enterprise cooperation project. The phenomenon of partial discharge is an important factor that accelerates the electrical aging for the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency sensor with high gain and broadband characteristics, combined with ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module and a rotation module to control the advancement and 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is huge—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials.

The second project is the design of a post-disaster scrubber air cleaning system directed by Prof. Shoji from Tohoku University. Today’s air purification systems have not yet targeted high-density shelters after disasters, but the clean air supply is vital to these shelters. Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the model design of the air purification system. I also perform CFD analysis of the air fluid based on the designed model. Currently, this project is still in the material procurement stage. We hope to determine and optimize various parameters in more detail on the basis of experiments. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems in Canada. I have been matched with Prof. Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid plastics composed with electrically conducting particles by 3D printing and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to be your TA. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Cunningham,

I feel honored to receive your reply. Thank you for your concern. I have been a teaching assistant for Ping-Chun Sui for MATLAB courses last Fall. So, there is no problem with MATLAB skill. And I think I enjoy exposing myself to new things. For example, I did research about the ocean engineering this summer at Westlake University which I have never involved before. But I conducted relevant experiment and wrote a paper as the first writer about underwater charging of robotic fish using marine renewable energy within almost one month. So I think, I will be comfortable being the TA for a course that you have not taken as a student. And I will be pleasure to attend each class so that I am ready to answer questions by other students, because I also want to learn more knowledge about Numerical Methods, which is very useful for me. You can see from Users of this course on BlackBoard, I am also in the user list of Numerical Methods. If I am fortunate to be your TA for this course, I will drop this course because the credits I earned are already enough for me to graduate.

Besides, last spring, Prof. TZ Mai did offer this course. However, only junior and senior can register for this course but I was sopheremore at that time. Now, I am the senior, and the students who took Prof. TZ Mai’s classes have already graduated. So, I said there is no one who has learned Numerical Methods in our institute.

Thank you again for your help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Another thing I want to point out is that I think we need to change the classroom. The current classroom is 3-310. There is no desk and it is very crowd in this classroom. Many students complained about this classroom for the past semesters. So, if our classroom is really in 3-310 because I see in my course schedule, the classroom is 3-104, but in the TA list, it is in 3-310, I think it’s better to tell academic affair teacher to change our classroom.

Take care and stay safe.

Best regards,

Liuchao Jin

Hi Liuchao,

I hope you are doing well.

If you are comfortable sitting in the class each week then I think we can make it work for you to be the TA for the class. Most of all I will need lots of assistance with MATLAB as I have not used this software before but I understand that it is preferred at SCUPI.

Do you know who we contact to make you the TA?

Thanks,

Robin Cunningham

Dear Prof. Cunningham,

Thank you for informing me that. Miss. Aoxin is in charge with management of TAs. Her email is [aoxin.qi@scupi.cn](mailto:aoxin.qi@scupi.cn). Could you please be so kind to check our classroom for this course with her? Because as shown in files attached to this email, different lists show different classroom for this course. And if the classroom is 3-310, I strongly suggest that we need to change classroom because there are only chairs and no tables.

Thank you so much your patient help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

I was wondering whether students need to use computer in the class for this course. Unfortunately, all classrooms on the third floor of Zone 3 have no desks. That is, the 3-311 classroom also has no desks. Because the classroom on the third floor of Zone 3 does not even have a charging port.

Thank you so much your patient help and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Cunningham,

Glad to hear that. I have added your WeChat. Hope we will have a pleasant coorpation! See you on the SCU campus.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I am writing to report to you the latest progress. Last semester, I successfully got the first place in ranking again, which was almost guaranteed to successfully apply for the national scholarship in September. Recently, I have finished my internship at Westlake University and submitted a paper to *Ships and Offshore Structures* as the first author. In addition, I have registed TOEFL test on 19th Sept. and GRE on 10th Oct. Hope they are going well.

Enjoy your summer holiday! Take care and stay safe.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Cheng,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I heard that you will recruit some Ph.D. students this year. I am very interested in it and I hope to be involved in this direction in the future. Here is my self-introduction. And my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted it to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Chen,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I heard that you will recruit one Ph.D. student this year. I am very interested in it and I hope to be involved in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction. And my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Chen,

I feel honored to receive your reply. I know my TOEFL and GRE cannot meet the requirements for admission with scholarships. So, I will take another TOEFL test in September and also GRE in October. Hope I will have these scores for other application. Anyway, thank you so much for your patient help. Have a nice day!

Best regards,

Liuchao Jin

Dear Liuchao Jin,

This is Wendong Wang, an associate professor at JI. You have participated in the summer camp at JI a few weeks ago. I am wondering if you have chosen your graduate advisor already. If not, would you be interested in joining my lab? We could talk via Tencent meeting if you are interested. Please let me know.

Best wishes,

Wendong Wang

Dear Prof. Wang,

I feel honored to hear from you. Yeah, I am really interested in your research direction. Maybe we can have a meeting at any time which is available for you. Actually, these days, I contacted Dean Huang, asking him whether I can join his lab but maybe because Prof. Huang is busy during these days, he replied my once a week. So, we didn’t have a meeting yet as planned. Anyway, I am glad to receive your email. I was wondering when it is available for you so that we can have a meeting on Tencent meeting. Thank you so much for your help. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Wang,

Sorry, I saw the email just now. And there are ten minutes left to 3:30. I think it’s a good choice to meet tomorrow. Sorry for late response again. Looking forward to receiving your free time schedule tomorrow.

Best regards,

Liuchao Jin

Dear Essenpreis,

Thank you very much for your patient guidance. It’s really helpful. I think I will successfully get the permission for the figures I want. Have a nice day!

Best regards,

Liuchao Jin

尊敬的徐教授：

您好！

我是四川大学匹兹堡学院的金刘超。我在清华大学机械工程系的官网上看到教授的主要研究方向为生物3D打印，我对此非常感兴趣，我很希望在预推免阶段填报您成为我博士阶段的导师。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

今年夏天，我在西湖大学做暑期科研实习。我在“蛟龙号”的副总设计师崔维成教授的指导下从事利用海洋可再生能源的仿生鱼水下充电系统的设计和研究并且写了一篇review paper。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年8月14日

Dear Prof. Xu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw on the official website of the Department of Mechanical Engineering of Tsinghua University that the your main research direction is the bio 3D printing. I am very interested in it and I hope to be involved in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction. And my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and submitted to *Ships and Offshore Structures*.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Permission to Reuse the Figures in *Springer Handbook of Ocean Engineering*

Dear Sir/Madam,

I am Liuchao Jin from Key Laboratory of Coastal Environment and Resources of Zhejiang Province (KLaCER), School of Engineering, Westlake University, Hangzhou, China. I am writing to you because I was wondering whether you could be so kind to give permission to reuse three figures in the *Springer Handbook of Ocean Engineering*.

I am now writing a review paper about underwater charging of robotic fish and I need three figures about the marine renewable energy and underwater the docking system of AUV, which are Fig. 45.2 on Page 1119, Fig. 16.1 on Page 389, and Fig. 16.5a–c on Page 397.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Application for Permission to Reuse the Figures in Emerging Works on Wireless Inductive Power Transfer: AUV Charging from Constant Current Distribution and Analysis of Controls in EV Dynamic Charging

Dear Bagchi,

I am Liuchao Jin from Key Laboratory of Coastal Environment and Resources of Zhejiang Province (KLaCER), School of Engineering, Westlake University, Hangzhou, China. I am writing to you because I was wondering whether you could be so kind to give permission to reuse one figure in the *Emerging Works on Wireless Inductive Power Transfer: AUV Charging from Constant Current Distribution and Analysis of Controls in EV Dynamic Charging*.

I am now writing a review paper about underwater charging of robotic fish and I need one figure about the IPT system, which is Fig. 1.2 on Page 3.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Application for Permission to Reuse the Figures in *Mechatronic design and manufacturing of the intelligent robotic fish for bio-inspired swimming modes*

Dear Sir/Madam,

I am Liuchao Jin from Key Laboratory of Coastal Environment and Resources of Zhejiang Province (KLaCER), School of Engineering, Westlake University, Hangzhou, China. I am writing to you because I was wondering whether you could be so kind to give permission to reuse one figure in the *Mechatronic design and manufacturing of the intelligent robotic fish for bio-inspired swimming modes*.

I am now writing a review paper with my supervisor Prof. Weicheng Cui about underwater charging of robotic fish and I need one figure about the multi-joint robotic fish, which is Fig. 3 on Page 5 as shown in the attachment.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Prof. Huang,

I feel honored to receive your reply. I am free at any time these days. Maybe we can arrange our meeting according to your free time. Thank you so much for your help. Have a nice day!

Best regards,

Liuchao Jin

攻读博士学位+金刘超

尊敬的赵教授：

您好！

我是四川大学匹兹堡学院的金刘超。我在清华大学机械工程系的官网上看到教授的主要研究方向为金属增材制造关键机理的研究，我对此非常感兴趣，我很希望在预推免阶段填报您成为我博士阶段的导师。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

今年夏天，我在西湖大学做暑期科研实习。我在“蛟龙号”的副总设计师崔维成教授的指导下从事利用海洋可再生能源的仿生鱼水下充电系统的设计和研究并且写了一篇review paper。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年8月11日

Dear Prof. Zhao,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I saw on the official website of the Department of Mechanical Engineering of Tsinghua University that the your main research direction is the study of the key mechanism of metal additive manufacturing. I am very interested in it and I hope to be involved in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction. And my CV is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy. I have completed a review paper about this topic and hope to publish it.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Huang,

How is going? I am writing to you because I was wondering what your plan to recruit doctoral students is. Several friends around me have already received JI’s offer, so I was curious about my offer from JI. If there is a chance, we can have a video chat.

Best regards,

Liuchao Jin

Dear Sir/Madam,

Here are my materials for application. Thank you so much for your patient help!

Best regards,

Liuchao Jin

Thanks and Future Planning from Liuchao Jin

Dear Prof. Hung,

I am Liuchao Jin from Sichuan University-Pittsburgh Institute. Last time, we have a meeting for a one-on-one interview. I am writing to give my many thanks to you for your patient help and kindness.

I heard from my friend that he got the pre-admission offer from JI last night and the confirmation deadline was 10 am 30th July, but there is nothing in my inbox. It seems that I don’t meet the requirement for entering JI. I think due to its research and study environment, JI is the only institute that meets my standard to study PhD in China if I want to involve in academic research. So, I am considering going abroad for future study now. I have already gotten a PhD offer from CUHK and I am planning to apply for a master degree in ETH Zürich because I have been following it and preparing for it for a long time. From our last discussion, I have benefitted a lot about how to select the school and the supervisor for future research and study. I will try my best in the following year to prepare for my future. Hope we can keep in touch. Have a nice day!

Thank you again for your suggestion and help in the last meeting!

Best regards,

Liuchao Jin

Dear Dennis,

I feel honored to receive your reply. I am from SCUPI and majoring in mechanical engineering. I really need this account. Thank you so much for you patient help. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I’m glad to tell you that I have received the provisional offer from MAEG. Thank you so much for your patient help! I’m planning to take the TOEFL again in September, because my other TOEFL score expired in October this year. Hope we can meet at CUHK campus next year!

Best regards,

Liuchao Jin

Dear Prof. Liao,

Thank you for your concern! I will try my best in the TOEFL test. I will keep on updating the information with you when I make some progress. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Zhang,

I feel honored to receive your email. Thank you for informing me that. My reply acceptance form is attached to this email. Have a good day!

Best regards,

Liuchao Jin

Some materials of Liuchao Jin

Dear Prof. Huang,

I am Liuchao Jin. My CV and some of my project reports are attached to this email. Also, the video through which I got an award is attached in this link: <https://mp.weixin.qq.com/s?__biz=MzI5MjA3NDAwMw==&mid=2651773663&idx=1&sn=e6081fd34b119910330c884c1808b9c8&chksm=f7fc9da3c08b14b59f6e1c5843bd991db4f8582931c0663ab3086d3e8ad73502478618424bd2&mpshare=1&scene=23&srcid=0718LlhsSiszS298dCXrefZh&sharer_sharetime=1626577267768&sharer_shareid=6110180b4378b65a66999f2ff16b6fa1#rd>.

I enjoy chatting with you today. Thank you so much for your patient help!

Best regards,

Liuchao Jin

尊敬的郝老师：

您好！

很荣幸收到您的来信，我会准时参会。祝您生活愉快！

此致

敬礼！

金刘超

2021年7月15日

尊敬的郝老师：

您好！

很荣幸收到您的来信，我会准时参会。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月17日

尊敬的胡老师：

您好！

很荣幸收到您的来信，我会准时参会。祝您生活愉快！

此致

敬礼！

金刘超

2021年7月15日

尊敬的程老师：

您好！

很荣幸收到您的来信，我会准时参会。祝您生活愉快！

此致

敬礼！

金刘超

2021年7月16日

一对一面试咨询

尊敬的石老师：

您好！

我是来自四川大学的金刘超，我在前天预约了和孔令逊教授的一对一面试，我想问一下什么时候可以得到回复。谢谢老师的帮助，祝老师工作顺利生活愉快！

此致

敬礼！

金刘超

2021年7月17日

尊敬的石老师：

您好！

很荣幸收到您的来信，我会准时参会。祝您生活愉快！

此致

敬礼！

金刘超

2021年7月17日

尊敬的夏老师：

您好！

很荣幸收到您的来信。我想问一下张教授还有其他时间段是available的吗？这个时间段我需要参加一场会议。祝老师工作顺利！

此致

敬礼！

金刘超

2021年7月17日

Dear Mr. Xia,

So sorry. I’m afraid that I cannot attend the meeting at 2:30. How about 3:30?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Mr. Xia,

4pm sounds good! Thank you for your patient help! Have a nice day!

Best regards,

Liuchao Jin

尊敬的王老师：

您好！

我是来自四川大学的金刘超。刚刚我和张峻老师聊了一会儿，他建议我可以联系一下李冕老师。但是李冕老师现在不在学校，可以方便加一下李冕老师的微信或者飞书吗？

此致

敬礼！

金刘超

2021年7月18日

Make an appointment for recent meeting

Dear Prof. Jiang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether I can make an appointment with you tomorrow afternoon after 2pm or the day after tomorrow.

Due to the lab visiting activities for the major electronic engineering, I didn’t have opportunity to go to your office. But I am still longing for visiting you because my current research is about using origami metamaterial for energy harvesting. I want to figure out the structure or system of origami metamaterial with highest efficiency for energy harvesting. Therefore, your opinion may inspire me and give me a fantastic direction for future research. I was wondering whether it is available for your during these time periods.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Jiang,

I feel honored to receive your reply. 4 pm tomorrow is ok for me. Thank you very much for your patient help. See you then!

Best regards,

Liuchao Jin

Dear Prof. Reed,

How are you doing? I have arrived at Westlake University for summer camp and I will have an interview this afternoon. I was wondering which time is available for you tomorrow so that I can pay a visit to you. I will also work as a summer research internship at Westlake University for a whole month starting on 19th July. Hope we will meet at the campus. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Reed,

I feel honored to receive your reply. 3 pm tomorrow is ok for me. Thank you very much for squeezing time out of your busy schedule. See you then!

Best regards,

Liuchao Jin

Dear Prof. Babinsky,

I feel honored to receive your reply. Thank you very much for your concern.

Best regards,

Liuchao Jin

Dear Prof. Xu,

I feel honored to receive your reply. My transcript is attached to this email. Thank you very much for your concern.

Best regards,

Liuchao Jin

Dear Prof. Stone,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have a DPhil position available for 2022. If yes, I want to apply for it.

Fluid mechanics-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the University of Oxford and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of a DPhil in University of Oxford. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project is about 3D printing and multiscale modelling of lattice structures, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Babinsky,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have a Ph.D. position available for 2022. If yes, I want to apply for it.

Aerodynamics-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the University of Cambridge and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of a Ph.D. in University of Cambridge. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project is about 3D printing and multiscale modelling of lattice structures, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Chao,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have a Ph.D. position available for 2022. If yes, I want to apply for it.

Thermal and environmental engineering -one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the HKU and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in HKU. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project is about 3D printing and multiscale modelling of lattice structures, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Lee,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have a Ph.D. position available for 2022. If yes, I want to apply for it.

MEMS-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the NUS and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in NUS. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project is about 3D printing and multiscale modelling of lattice structures, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Xu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have a Ph.D. position available for 2022. If yes, I want to apply for it.

Computational fluid dynamics-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the HKUST and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in HKUST. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project is about 3D printing and multiscale modelling of lattice structures, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Mr Gil Opina Jr,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have a Ph.D. position available for 2022. If yes, I want to apply for it.

Autonomous vehicles-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the NTU and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in NTU. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project is about 3D printing and multiscale modelling of lattice structures, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

The last project is about underwater charging of robotic fish using renewable energies from the ocean guided by Prof. Cui from Westlake University, who is deputy chief designer of the Jiaolong- one of the deepest manned submersibles in China. In this project, we hope to design a complete set of robotic fish underwater charging methods and systems using marine renewable energy.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Liao,

I just attended the interview and feel good. I hope to be able to engage in research under your guidance in the future. Have a good day!

Best regards,

Liuchao Jin

尊敬的聂教授：

您好！

很遗憾的告诉教授，我在车辆与运载学院的夏令营中未获得优秀营员。我知道我离进入车辆与运载学院还有一定的距离。但是我不会气馁，继续努力。谢谢教授的帮助。

此致

敬礼！

金刘超

2021年7月9日

Ask Question about the Chinese Tail English Talk

Dear Prof. McDougall,

I am Christopher Jin from SCUPI 2018 (Student ID: 2018141521058). I am writing to ask when the results of the Chinese Tail English Talk will be published because the deadline for this activity has passed almost three months.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

尊敬的老师：

您好！

在您提供给我们的信息里面：本次夏令营往返交通、食宿均自理。夏令营活动补助总金额300元/人（不含交大本科在校学生），外校学生请点击链接（http://lxi.me/9nlv）填写相关报销信息（截止时间：2021年7月8日上午10点）。http://lxi.me/9nlv这个链接好像有问题，我点进去跳转出来的是“公益英汉小词典”，不清楚是为什么。感谢您的帮助！祝您工作顺利！

此致

敬礼！

金刘超

2021年7月7日

尊敬的上海交通大学密西根学院：

您好！

很荣幸收到您的来信。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月7日

Dear Professor Cui,

I am honored to hear from you. I will prepare for the interview seriously and strive to be accepted in this direction. If possible, I look forward to doing research under your guidance in the future. Thank you!

Best regards,

Liuchao Jin

Dear Prof. Cui,

I have been successfully enrolled in the summer camp and also the summer research internship at Westlake University. Thank you so much for your kind help. I cannot wait to see you at Westlake University! I will keep on updating the information with you.

Best regards,

Liuchao Jin

Dear Prof. Reed,

I have been successfully enrolled in the summer camp and also the summer research internship at Westlake University. Thank you so much for your academic reference. I cannot wait to see you at Westlake University! I will keep on updating the information with you.

Best regards,

Liuchao Jin

Dear Prof. Sui,

I have been successfully enrolled in the summer camp of Westlake University & TBSI, and also the summer research internship at Westlake University. Thank you so much for your academic reference. I will keep on updating the information with you.

Best regards,

Liuchao Jin

Dear Sir/Madam,

My slides for academic background and scientific research plan is attached to this email. Thank you so much for your help! Have a nice day!

Best regards,

Liuchao Jin

金刘超+收到

尊敬的清华大学车辆与运载学院：

您好！

很荣幸收到您的来信。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月5日

尊敬的老师：

您好！

很荣幸收到您的来信。我是四川大学的金刘超，不知道为什么我在您提供给我的面试时间安排的链接（https://cloud.tsinghua.edu.cn/f/f7dc7d3b8dfb44568cc9/）中没有找到我的名字，截图附在了这封邮件中。感谢您的帮助。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月5日

尊敬的张教授：

您好！

很荣幸收到您的来信，谢谢教授的提醒。我本来以为特种动力属于特种车辆方向的。在本科的流体课程中，我对航空发动机有了初步了解，很希望在这个方向发展。我会认真准备面试，努力争取被这个方向录取。这几天我会研究相关方向的论文，有问题的话希望能够得到老师的解答。如果有可能，期待未来在您的指导下从事研究工作。祝您周末愉快！

此致

敬礼！

金刘超

2021年7月3日

尊敬的聂教授：

您好！

很荣幸收到您的来信。我会认真准备面试，努力争取被这个方向录取。这几天我会研究相关方向的论文，有问题的话希望能够得到老师的解答。如果有可能，期待未来在您的指导下从事研究工作。祝您周末愉快！

此致

敬礼！

金刘超

2021年7月3日

尊敬的刘教授：

您好！

我是四川大学匹兹堡学院机械设计制造及自动化专业的金刘超。上次我听了您的宣讲会，对智慧交通有了进一步的了解，很希望在这个方向发展。我现在进入了夏令营面试环节了，需要在明天中午之前填报志愿，我很希望您成为我博士阶段的导师。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月3日

Dear Prof. Liu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. After listening to your presentation last time, I have a better understanding of autonomous driving, and I hope to develop in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction, and my CVs are also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

尊敬的张教授：

您好！

我是四川大学匹兹堡学院机械设计制造及自动化专业的金刘超。上次我听了吕振华教授的宣讲会，对特种车辆有了进一步的了解，很希望在这个方向发展。我现在进入了夏令营面试环节了，需要在明天中午之前填报志愿，我很希望您成为我博士阶段的导师。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月3日

Dear Prof. Zhang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. After listening to  the presentation delivered by Prof. Zhenhua Lv last time, I have a better understanding of special vehicles, and I hope to develop in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction. And my is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Ju,

Thank you for your concern. I feel very sorry to tell you I have found another doctoral supervisor. Actually, I do have the interest in fundamental mechanics of metamaterials. Hope we will have further cooperation after I enter UM-SJTU. Thank you again for you patient help. Have a nice day!

Best regards,

Liuchao Jin

尊敬的李教授：

您好！

我是四川大学匹兹堡学院的金刘超。上次我听了您的宣讲会，对智能驾驶有了进一步的了解，很希望在这个方向发展。我现在进入了夏令营面试环节了，需要在明天中午之前填报志愿，我很希望您成为我博士阶段的导师。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月3日

Dear Prof. Li,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. After listening to your presentation last time, I have a better understanding of smart driving, and I hope to develop in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction. And my is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

尊敬的聂教授：

您好！

我是四川大学匹兹堡学院的金刘超。上次听了您的宣讲会，对汽车安全有了进一步的了解，我很希望在这个方向发展。我现在进入了夏令营面试环节了，需要在明天中午之前填报志愿，我很希望您成为我博士阶段的导师。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年7月3日

Dear Prof. Nie,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. After listening to your presentation last time, I have a better understanding of automobile safety, and I hope to develop in this direction in the future. I hope you will become my doctoral supervisor. Here is my self-introduction. And my is also attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my material.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Lu,

I am Liuchao Jin from SCUPI 2018 (Student ID: 2018141521058) (Course: Mechatronics, Group: Tu\_8:30\_G1). I am writing to discuss Studio 12 with you.

In Studio 12 as shown in the figure below, the data is read directly from the figure, so there is no calculating step. So, I think 20 points should not be deducted from our grade.

Your assistant will be greatly appreciated and looking forward to your reply.

Best regards,

Liuchao Jin

Dear Jun,

How is going? I read the news on the Internet that there was high temperature weather in western Canada, and then I went to check the weather in Montreal. I saw that the highest temperature in Montreal is only 24 degrees, which is really comfortable. Chengdu has been really hot in recent days. I stayed in the air-conditioned room all day and didn’t want to go out. I hope this hot weather will pass sooner. I have already researched some papers about material and manufacturing of piezoelectric origami metamaterial. But there are still 35 papers left about magnetic, shape memory. So, I was wondering whether we can meet on this Friday morning or evening in Montreal time for further discussion. Thank you so much for your patient help.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Jun,

Thank you for your reply. After finishing the report, I will send both meeting link and report to you. Have a nice day and see you then!

Best regards,

Liuchao Jin

Dear Jun,

Here is my slides for the report. Thank you so much for reviewing. Have a good dream!

Best regards,

Liuchao Jin

Dear Prof. Spiers,

It shows online that the Ph.D. should begin by 1st October 2021 at the latest. But I feel sorry to tell you that I still have one year to finish my undergraduate study. So I was wondering whether you have any positions next year. Thank you for your patient help!

Best regards,

Liuchao Jin

Dear Prof. Spiers,

I am very interested in your research direction, so I will contact you again in 6 months. In these six months, I will finish writing a paper about the underwater charging of robotic fish. I hope I can meet your requirements by then. Thank you so much for your help. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Spiers,

I feel honored to receive your reply. Thank you so much for informing me of that. I will apply via jobs.ac.uk. Have a nice week!

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Spiers,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to apply for Ph.D. in the Manipulation and Touch Lab (MTL).

Mechatronics -one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the Imperial College and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in the Imperial College. My CV and transcript are attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

My MATLAB files are attached to this email. Sorry for missing it. I originally thought that the codes in the appendix are ok. Have a good day!

Best regards,

Liuchao Jin

金刘超+收到

尊敬的清华大学车辆与运载学院：

您好！

很荣幸收到您的来信。祝您工作顺利！

此致

敬礼！

金刘超

2021年6月24日

Dear Prof. Chen,

I feel honored and glad to receive your reply. Thank you for informing me of that. Unfortunate to hear that. But it doesn’t matter. Hope we can meet on the campus of CUHK in the future. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Ren,

I feel honored to receive your reply. Thank you for your patient help. Hope we will have a pleasant conversation! See you then.

Best regards,

Liuchao Jin

Dear Prof. Huang,

I feel honored and grateful to receive your reply. Thank you for your patient help. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Liao,

I feel honored to receive your reply. Thank you for your patient help. It is available for me at 3 pm on 5 July. Hope we will have a pleasant conversation! I will view related research work from your group carefully. See you then.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Huang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Control theory and applications—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about control, and also, I can further explore my future specific research direction in robotics. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Chen,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Autonomous Unmanned Systems—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about control, and also, I can further explore my future specific research direction in autonomous unmanned systems. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Chen,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. Sorry to bother you again. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Precision engineering—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about optics, and also, I can further explore my future specific research direction. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Au,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. Sorry to bother you again. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Robotics—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about control, and also, I can further explore my future specific research direction in robotics. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Liao,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. Sorry to bother you again. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Smart Materials and Structures and Energy Harvesting and Vibration Control—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. **The project I am currently working for is about energy harvesting and vibration control using origami metamaterial.** From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about energy harvesting, and also, I can further explore my future specific research direction. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Liu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Robotics—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about control, and also, I can further explore my future specific research direction in robotics. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Ren,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you could be my supervisor during my Ph.D. study at CUHK.

Combustion—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of CUHK and looking forward to learning there.

Now, I am participating in CUHK Engineering Ph.D. summer workshop 2021. I think that during academic discussions with my mentors and peers during the summer workshop, I can gain more knowledge about microelectromechanical systems, and also, I can further explore my future specific research direction in heat and fluid. My current fluid professor—Kin-Pang Cheong worked as a postdoc in your laboratory. I learned some information about your laboratory from him. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Ask for a Leave of Absence on Friday

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I would like to know if I could ask for a leave of absence from your class on Friday.

I will attend a test for School of Vehicles and Transportation at Tsinghua University Friday morning. Guilty about my absence, I assure you that I will make every effort to compensate the missing lesson. I will ask the Owen about the content of final exam.

I’d appreciate it if my request could meet with your approval.

Yours sincerely

Liuchao Jin

Dear Prof. Fok,

Thank you so much for your approval. Have a good day!

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi,

Thank you professor. I will devote more time to the project. Have a good day!

Best regards,

Liuchao Jin

Dear Dean Chyu,

I have been successfully enrolled in the summer camp of School of Vehicles and Transportation at Tsinghua University. Thank you so much for your academic reference. I will keep on updating the information with you.

Best regards,

Liuchao Jin

Dear Jun,

Thank you Jun. I believe I will pass my final exam smoothly. I will also devote more time to the project. Good dream!

Best regards,

Liuchao Jin

Dear Jun,

Many thanks for your careful help. I think your suggestion is really useful. After I make some progress, I will inform you and plan to have next meeting. I have two exams this week. Next Thursday, I will take the last exam this semester. So happy. Hope I will go through well. Have a good day!

Best regards,

Liuchao Jin

Application for Summer Camp and Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Wang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of SIGS and also TBSI.

MEMS—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of SIGS and TBSI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about microelectromechanical systems, and also, I can further explore my future specific research direction in manufacturing science and engineering. I am very interested in the direct entry for the doctorate course program of TBSI and also SIGS. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, I was longing for future study in TBSI or SIGS. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

尊敬的王教授：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加清华大学深研院2021年先进制造学部优秀大学生夏令营和清华-伯克利深圳学院2021年暑期夏令营，并且在博士研究生阶段进入您的项目组。

微电子机械系统是您的研究方向之一，也是我非常感兴趣的领域，是我一直在努力研究和探索的方向。一直以来，我非常向往清华深研院和清华-伯克利的学习和研究环境，并期待在那里学习。目前我报名了清华-伯克利的传感器与微系统的博士研究方向和清华深研院先进制造部的机械（智能制造）。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年6月21日

Dear Prof. Shafaroudi,

This is the paper for triangulated cylinder (TC) origami-based piezoelectric/triboelectric hybrid generator (TCO-HG). Thank you for your patient help! Really enjoy chatting with you.

Best regards,

Liuchao Jin

Dear Prof. Shen,

Yeah, now I’ve understood. My apology for misunderstanding. I also feel honored to join your group meeting. See you later.

Best regards,

Liuchao Jin

Dear Prof. Zhang,

I feel honored to receive your reply. Thank you for your patient help. Hope we will have a pleasant conversation during the summer camp!

Best regards,

Liuchao Jin

Dear Prof. Shen,

Hope you are well and safe during this unusual year.

I presume there is a slight deviation in our communication. We originally planned to have a meeting at 9:15 tonight. Maybe we can make another appointment so that we can meet each other. How about tomorrow morning or evening? I was wondering whether it is available for you.

I am really grateful for your patient help!

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi,

My revised slides are attached to this email. Looking forward to our meeting this evening. Thanks Jun for the suggestions.

Best regards,

Liuchao Jin

Dear Prof. Wei,

I feel honored to receive your reply. Thank you for informing that. Hope we will have a pleasant conversation during the summer camp!

Best regards,

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Ju,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for the summer camp of UM-SJTU JI.

Metamaterials—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. I have done some research about origami metamaterials. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about metamaterials, and also I can further explore my future specific research direction. My CV is also attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Shao,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for the summer camp of UM-SJTU JI.

MEMS—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. I have done some research about soft robot and its sensor and written a research plan about this topic, which is attached to this email. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about MEMS, and also I can further explore my future specific research direction. My CV is also attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

尊敬的谭院士：

您好！

很荣幸收到您的回信，我会按照程序报名。祝您周末愉快！

此致

敬礼！

金刘超

2021年6月20日

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Wei,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for the summer camp of UM-SJTU JI.

CAD&CAE—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about computational aided engineering, and also I can further explore my future specific research direction. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Shen,

I feel very honored to receive your reply. It is available for me after 9:00 this evening. If it’s too late for you, How about tomorrow morning and evening? Both of these are OK for me. I am looking forward to talking with you.

Best regards,

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Zhang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for the summer camp of UM-SJTU JI.

Automatic control—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about automatic control, and also I can further explore my future specific research direction. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

浙大博士研究生申请

尊敬的谭院士：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加浙江大学机械工程学院2021年全国优秀大学生暑期学术夏令营，并且在博士研究生阶段进入您的项目组。

计算机辅助设计是您的研究方向之一，也是我非常感兴趣的领域，是我一直在努力研究和探索的方向。一直以来，我非常向往浙江大学的学习和研究环境，并期待在那里学习。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物，包括尘土颗粒，有毒气体和烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年6月20日

浙大博士研究生申请

尊敬的刘教授：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加浙江大学机械工程学院2021年全国优秀大学生暑期学术夏令营，并且在博士研究生阶段进入您的项目组。

穿戴式传感技术是您的研究方向之一，也是我非常感兴趣的领域，是我一直在努力研究和探索的方向。一直以来，我非常向往浙江大学的学习和研究环境，并期待在那里学习。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物/污染物，包括尘土颗粒，有毒气体和烟雾/烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习。祝您工作顺利！

此致

敬礼！

金刘超

2021年6月20日

尊敬的傅教授：

您好！

很荣幸收到您的回信，谢谢您告诉我这些信息，我去找找其他导师。祝您周末愉快！

此致

敬礼！

金刘超

2021年6月20日

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Shen,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of UM-SJTU JI.

Computational mechanics—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about computational mechanics, and also I can further explore my future specific research direction. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

尊敬的火苗学姐：

您好！

我是来自四川大学匹兹堡学院的金刘超。我希望参加上海交通大学密西根学院2022年研究生招生夏令营。刚刚在宣讲会了解到您是来自四川大学，感到非常兴奋。可以方便加个微信了解一下吗？我的微信是18258525750。我将我的简历附在了这封邮件中。谢谢学姐！

此致

敬礼！

金刘超

2021年6月19日

尊敬的魏教授：

您好！

我是来自四川大学匹兹堡学院机械设计制造及自动化专业的金刘超。四川大学匹兹堡学院是美国匹兹堡大学与四川大学于2014年7月合作成立的最新美中联合办学的学院之一。匹兹堡学院的学术体系与浙江大学-伊利诺伊学院、上海交通-密歇根联合学院等同类学院相似，大约90%的毕业生进入了中国的高校和麻省理工学院、斯坦福大学等世界各地的精英大学。我希望参加浙江大学机械工程学院2021年全国优秀大学生暑期学术夏令营，并且在博士研究生阶段进入您的项目组。

智能制造是您的研究方向之一，也是我非常感兴趣的领域，是我一直在努力研究和探索的方向。一直以来，我非常向往浙江大学的学习和研究环境，并期待在那里学习。下面请允许我做一个简单的自我介绍，并且我将我的简历附在了这封邮件中，非常感谢您能在百忙之中阅读我的自荐信。

我出生在浙江的一个叫店口（原**阮市镇**）的制造业小镇。我父亲主要从事自动化机器的电路设计和编程。在我读小学的时候，我爸爸给每台自动化机器使用的控制单元是PLC，它是从深圳的一家公司采购的仿制三菱PLC，成本大概在800元左右。在那时，PLC是我爸爸出售的自动化机器控制系统的最大成本之一。但是，到我在读初中的时候，我爸爸学会了单片机的编程和使用。于是，他便用单片机替代了原先使用的PLC作为我们出售的控制系统的大脑。这真的是很大的一次转变。从此，我们出售的控制系统的控制单元的成本从800元降到了15元左右，大大提高了利润。当时的我非常吃惊于如此小小的成本低廉的单片机，却能控制着很多巨大的机器。由此，我便对智能制造和自动化控制产生了好奇与兴趣。

正是受到小时候的熏陶，大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了许多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

学业上，大学期间，我就读的专业为机械设计制造及自动化，是是匹兹堡大学的优势学科，以力学、机械设计和自动化控制为基础，共修学课程54门，学分绩点为4.0，专业综合排名为1/78(前五学期)，在本科学习期间，我对于智能制造产生了十分浓厚的研究兴趣，便励志攻读此方向的博士研究生。大学期间我学习过机电一体化、自动化控制、机械振动等智能制造相关课程。这些课程的学习不仅让我打下扎实的控制理论基础，而且让我对于智能制造的研究兴趣更加浓烈。

科研实践上，我对学术研究有极高的热情，本科期间参加过很多科研项目和实习，有着丰富的科研经验和实习经历。目前，我正在参与“蛟龙号”的副总设计师崔维成教授指导的利用海洋可再生能源给仿生鱼完成水下充电的装置设计项目，该项目旨在研究现有的仿生鱼水下充电技术，设计出一套完整的利用海洋可再生能源的仿生鱼水下充电方法和系统。去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对，并参加了他指导的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料和系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。另外，我还参加了由日本东北大学Tetsuo Shoji教授指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所和疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物/污染物，包括尘土颗粒，有毒气体和烟雾/烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。此外，我还参加了东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

到目前为止，我总共当过5门课7个班的助教，教学内容涵盖数学，物理以及编程。最让我印象深刻的是在疫情期间当助教的经历，当时整个教学秩序都是未知的，等待着我们去探索。幸好我们学院在建立之初就引入了BlackBoard教学系统。所以，大部分教学活动都是在BlackBoard上开展，包括在线授课，在线布置作业，在线小测验，在线考试。另外，为了降低作弊发生的风险，我还成功在BlackBoard上建立题库，同学们做到的题都是从题库里面随机抽题。这大大提高了这门课考核的公平性。另外，我提前学习了微分方程课程，所以我有机会成为同级同学们的微分方程助教。每次我在习题课给同学们讲课，同学们都觉得亲切和热情，因为我是他们的同学。所以，他们在习题课上也问了我很多关于微分方程的问题，我尽力帮助他们解决困惑，这真是一次美妙的经历。

以上是我的自我介绍，我非常希望进入您的实验室深造学习，为我国智能制造的发展贡献自己的一份力量。最后，再次感谢您在百忙之中阅读我的自荐信！祝您工作顺利！

此致

敬礼！

金刘超

2021年6月19日

Dear Jun,

Good evening! It’s OK. Don’t be rush after class. My email is always notified. So you can tell me once you find a suitable place for the meeting.

Best regards,

Liuchao Jin

Dear Jun,

Thank you for letting me know. I have arranged our meeting in Zoom. Hope we will have a pleasant conversation. Looking forward to our meeting.

Best regards,

Liuchao Jin

Dear Jun,

Hope you are well and safe during this unusual year.

I presume there is a slight deviation in our communication. Today we originally planned to have a meeting to discuss my first phase of work and seek your suggestions about my future research. Can we make another appointment so that we can revise my report before next Monday.

I am really grateful for your patient help!

Best regards,

Liuchao Jin

Dear Wolpert,

Thank you for your email. Everything is going very smoothly. For the first month of the internship, I read some literature to learn more about the knowledge related to my project.

Because the time lap between Montreal and Chengdu where I am living in is exactly 12 hours, it is very easy to convert time between the professor and me. So, there is no problem with managing the virtual element.

The only thing I was curious about is that I was wondering whether I can be so lucky enough to have an email account of McGill University. Because when I was doing my research, I found there are some journal databases I cannot access using my own university account. It seems that McGill University has more database subscriptions than my university. If it is not possible to get the email account of McGill University, that’s okay hahaha.

I was so surprised that you have so much knowledge about where I was born and where I am studying. Thank you for your carefulness. Actually, I have never drunk 黄酒, although I was born in the motherland of 黄酒. Haha don’t blame me. Now, I am in Chengdu because this semester will end one month later. I miss Hangzhou so much. Yesterday, I went to a Hangzhou restaurant called Greentea. Many of the dishes in it are very authentic, and I have the feeling of the taste in my hometown. Here are some pictures I took when eating. If you come to China again, I will take you to taste these Hangzhou delicacies.

For workload, aha, I think everyone around me almost has the same workload as me. In China, this phenomenon is called “卷”, which means in certain fields, there are too many people than the jobs society provides so these people must be more perfect than others in order to get that position. So, I think the workload in China may be a little higher than that in Canada.

Because I am alreadysenior—I need to apply for master or PhD study during this summer vacation, I will also be busy during these days. Your greetings gave me some comfort in my busy schedule. Thank you again for your patient help!

Wish you all the best.

Yours,

Liuchao Jin

Dear Prof. Ho,

I feel honored to receive your reply. Thank you for informing that.

Best regards,

Liuchao Jin

浙大博士研究生申请

尊敬的傅教授：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加浙江大学机械工程学院2021年全国优秀大学生暑期学术夏令营，并且在博士研究生阶段进入您的项目组。

智能制造是您的研究方向之一，也是我非常感兴趣的领域，是我一直在努力研究和探索的方向。一直以来，我非常向往浙江大学的学习和研究环境，并期待在那里学习。以下是我的自我介绍，并且我将我的简历附在了这封邮件中，感谢您在百忙之中查阅我的申请材料。

大学期间，我一直保持着优异的成绩和积极进取的状态，并且获得了很多奖励和奖项。我还参加了很多科研项目和实习，有着丰富的科研经验和实习经历。另外，我当过5门课7个班的助教，教学内容涵盖数学，物理及编程。

我参加的第一个项目是在东方电机有限公司的定子绕组绝缘缺陷表征方法的研究。局部放电现象是加速电气设备绝缘系统电老化的重要因素，局放测试是发现绝缘系统潜在绝缘缺陷的重要手段。这个项目为提高测试灵敏度，采用具有高增益、宽频带特性的特高频（UHF）传感器，联合特高频与超声波局放测试技术，优势互补，结合三维机械扫描，可较好应用于高压设备的局部放电定位测量，及时有效发现潜在绝缘缺陷。这是一个校企合作项目。在这个项目里，我主要负责机械部分的设计。我使用直线模组控制传感器在定子中的前进，使用旋转模组控制传感器在定子中的360度的旋转。并且，因为我们的定子体积庞大，长度有八米左右。我还对我设计的机械部件进行了有限元分析，确定适合的尺寸和材料。另外，为了实现我们的探测装置的易拆装，我还设计了探测装置和支架的连接方式。

另外，我还参加了由日本东北大学教授Tetsuo Shoji指导的设计灾后洗涤器空气净化系统。灾后环境管理对于最大程度地减少灾难造成的损害至关重要。 在高密度的避难所/疏散中心，清洁空气的供应至关重要，这不仅对于人类，而且对于应急设施（例如用于应急电源的柴油发电机）的运行也至关重要。 空气净化系统需要设计成去除几种潜在的污染物/污染物，包括尘土颗粒，有毒气体和烟雾/烟雾，甚至是空气传播的病毒。在这个项目里，我主要负责空气净化系统最初的模型设计。我还根据设计的模型对空气流体进行CFD分析。目前这个项目还处于材料的采购阶段。我根据实际情况，计算我们需要材料的规格和数量，联系厂商确定价格。在接下来的实验中，我们将研究不同孔径的进气口对净化速率和净化效率的影响，从而设计出一套针对灾后空气的净化系统。

去年秋季，我成功申请上了国家留学金管理委员会与加拿大信息技术与综合系统数学组织（Mitacs）合作开展的本科生实习项目。我和麦吉尔大学的Abdolhamid Akbarzadeh Shafaroudi教授配对。我参加了他指导的最近才开始的关于晶格结构的 3D 打印和多尺度建模的项目。对于这个项目，我正在对从浪费的能源中收集能量的替代智能材料/系统进行文献综述，以确定将浪费的能源转化为电能的效率最高的系统。此外，我将开发一种由用作振动能量收集器的智能材料支柱制成的高效蜂窝结构，并实施多尺度有限元分析（数值均质化技术）以预测本研究中开发的新型轻型能量收集器的有效多物理场特性。有效属性用于估计在多种负载情况下蜂窝能量收集器的振动、温度变化和弹性变形产生的电量。在此基础上，我将通过 3D 打印、增材制造和激光切割，使用由导电粒子组成的 PLA/ABS 塑料制作智能能量收集器原型，并对原型样品进行实验测试和成像，以识别智能细胞固体的多物理特性，并验证理论/计算预测。通过扫描电子显微镜成像，数值/理论预测与实验结果的差异与制造缺陷有关。最后，我将使用多目标和拓扑优化技术，通过整个能量收集器中细胞拓扑、相对密度和材料成分的变化来优化智能细胞结构的能量收集和结构性能。

以上是我的科研经历，我非常希望进入您的实验室深造学习，为我国智能制造的发展贡献自己的一份力量。祝您工作顺利！

此致

敬礼！

金刘超

2021年6月16日

Dear Prof. Mohammad,

For more information about my institute, please refer to https://www.engineering.pitt.edu/SCUPI/.

Best Regards,

Liuchao Jin

Application for Ph.D. from Sichuan University-Pittsburgh Institute

Dear Prof. Katzschmann,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI) in China, majoring in Mechanical Engineering. I’m writing to ask whether you have Ph.D. position for 2022.

Soft robot-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the ETH Zürich and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in the ETH Zürich. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Ph.D. from Sichuan University-Pittsburgh Institute

Dear Prof. Frazzoli,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have Ph.D. position for 2022.

Automatic control-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the ETH Zürich and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in the ETH Zürich. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Ph.D. from Sichuan University-Pittsburgh Institute

Dear Prof. Macauley and Scagnoli,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for Ph.D. in the project- 3D Magneto-mechanical Artificial Spin Systems.

From the narration of my friends and my personal searching, I am very longing for the study and research environment of the ETH Zürich and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in the ETH Zürich. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Christopher,

Thanks for the update on your progress. Please let me know your time zone in China and how much the time laps exist between your location and Montreal and I will then arrange a meeting with you.

I first suggest you to meet with Jun and present your findings to him for his comments and suggestion. When revised, please send me your report in the form of PowerPoint presentation to me by the end of this week. In addition to finding the fabrication and 3D printing methods for origami, please try to find classicisation of different types of origami/kirigami in 2D and 3D and also find general principals to be used for systematic designing new origami/kirigami instead of being intuitive.

Best Regards,

Prof. Akbarzadeh

Dear Prof. Shafaroudi,

I feel honored to receive your reply. My time zone is Beijing Time (UTC +8), which is exactly 12 hours away from you. I will make an appointment with Jun and present to him first for his advice. Once finishing revise, I will send you my report. Thank you so much for your patient help! Besides, happy Dragon Boat Festival to you and Jun!

Best regards,

Liuchao Jin

Dear Jun,

I am very glad to have a good senior like you. My current PPT report is attached in this email. My available time is shown below:

Tuesday 8-10 o’clock in the morning, 7-10 o’clock in the evening

Wednesday 8-10 o’clock in the morning, 7-10 o’clock in the evening

Thursday 8-10 o’clock in the morning

Friday 8-10 o’clock in the morning, 7-10 o’clock in the evening

They are all in **Montreal time**. I was wondering which time is available for you.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi,

June 21 at 8:00am (Beijing time) is factastic for me for our meeting. You can call me any one, Christopher is a good choice for convenience.

Best regards,

Liuchao Jin

Dear Jun,

Good! Wish us a pleasant conversation.

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi,

I recently read the related literature on the fabrication of origami metamaterials and the classification of origami configurations. I was wondering which time is available for you so that I will report to you the recent research progress.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Sui,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I feel so sorry to bother you again. I am writing to invite you to help me complete the academic reference to the Tsinghua-Berkeley Shenzhen Institute (TBSI).

Now I am applying for summer camp of TBSI, which requires me to have a paper academic reference signed by the professor in person or electronically signed by the professor because I need to mail a hard copy of all the materials by express delivery. The recipient of the academic reference is “To whom it may concern”, which is the same as UM-SJTU JI. The deadline for this academic reference is June 22, so you can start writing after the Dragon Boat Festival. The research direction I intend to choose is Sensors and Microsystems. My intended mentor is Liwei Lin. He is the Co-Director of TBSI, and his main research direction is MEMS. By the way, I plan to take two courses taught by you—ME design 2 and MATLAB next semester. Thank you so much for your patient help! Enjoy your holiday!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I feel so sorry to bother you again. I am writing to invite you to help me complete the academic reference to the Tsinghua-Berkeley Shenzhen Institute (TBSI).

Now I am applying for summer camp of TBSI, which requires me to have a paper academic reference signed by the professor in person or electronically signed by the professor because I need to mail a hard copy of all the materials by express delivery. The recipient of the academic reference is “To whom it may concern”, which is the same as UM-SJTU JI. The deadline for this academic reference is June 22, so you can start writing after the Dragon Boat Festival. The research direction I intend to choose is Sensors and Microsystems. My intended mentor is Liwei Lin. He is the Co-Director of TBSI, and his main research direction is MEMS. Thank you so much for your patient help! Enjoy your holiday!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

尊敬的老师：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加上海交通大学密西根学院2022年研究生招生夏令营。我的申请材料已附在这封邮件中。感谢您在百忙之中查阅我的申请材料。

此致

敬礼！

金刘超

2021年6月11日

Dear Prof. Sui,

Received. Thank you very much for squeezing time out of your busy schedule to help my academic reference. I will share the follow-up news with you. Wish you a wonderful week. Thank you again for your patient help.

Best regards,

Liuchao Jin

尊敬的老师：

您好！

我是四川大学匹兹堡学院的金刘超，我希望参加清华大学航天航空学院2021年全国优秀大学生夏令营。我的申请材料已附在这封邮件中。感谢您在百忙之中查阅我的申请资料。

此致

敬礼

金刘超

2021年6月11日

Dear Prof. Mohammad,

12:00 - 12:30 PM UK time is OK for me. I was wondering what chat platform do we use so I can prepare in advance. Hope we will have a pleasant communication. Thank you for your selfless help.

Best Regards,

Liuchao Jin

Dear Prof. Fok,

In the last email, you asked me how things are going on in summer camp application. The deadline for most applications for summer camps has not yet ended, so the results have not yet been announced. This morning I received an offer from Summer Workshop held by the Faculty of Engineering, The Chinese University of Hong Kong (CUHK) that I applied for a long time ago. I plan to attend their online workshop, which is from July 5 to 9, 2021. If there is any news about the summer camp application of other universities, I will tell you as soon as possible. Thank you for your selfless help.

Best Regards,

Liuchao Jin

Dear Prof. Huang,

I’m writing to tell you that I have successfully applied for the HK PhD Fellowship Summer Workshop held by the Faculty of Engineering, CUHK. I am really interested in your research area and current projects. Hope we can have a pleasant communication during the workshop.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best Regards,

Liuchao Jin

Dear Prof. Fok,

I feel honored to be your teaching assistant. Here is my information you may need to submit to academic affair teacher:

姓名：金刘超

学号：2018141521058

电话：18258525750

邮箱：[windbirdman@stu.scu.edu.cn](mailto:windbirdman@stu.scu.edu.cn)

Thank you so much for offering me the opportunity.

Best Regards,

Liuchao Jin

OFFICIAL UNDERGRADUATE TRANSCRIPT OF SICHUAN UNIVERSITY

Dear Prof. Mohammad,

I am honored to receive your reply. My official academic transcript is attached to this email. I am still studying in China now, so I don’t have pre-unversity studies. Hope this is OK. Have a nice day!

Thank you so much and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Hi

I thought you will be going to USA after this semester. It will be great if you are able to help me. In the next semester, I need a TA for Mechanical Design 1. The class will be on Wednesday 8.15 to 11 am. Will you be interested? I think you will be able to do a great job. Please let me know. What are your plans? Did you get any reply for the summer research applications?

Regards

SC

Dear Prof. Fok,

I’m glad to receive your reply. I have some concerns about the TA of Mechanical Design 1. I have a class on Mechanical Design 2 from 8.15 to 11 am on Wednesday next semester, so I was wondering whether TA needs to attend the lecture. I noticed that most of your TAs are required to attend the class, so I took this issue into consideration when I applied.

Thank you so much and looking forward to your earliest reply.

Best Regards,

Liuchao Jin

Dear Prof. Huang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to you because I was wondering whether I have the opportunity to apply for ZHIYUAN Honors Program as shown in the link: <https://yzb.sjtu.edu.cn/info/1004/3241.htm>.

ZHIYUAN Honors Program can provide me with more capability of international perspective, which is indeed what I am after. This is also the reason why I want to apply to UM-SJTU JI instead of other colleges in SJTU. A broader international perspective allows me to clearly explore where the world’s advanced technology is developing. Yesterday, Shaolong Sui, an alumnus of UM-SJTU JI, came to our institute to give a lecture. He said that he learned two things in his undergraduate studies at UM-SJTU JI. One is the importance of foreseeing future development, and the other is believing that nothing is impossible. Later he went to Stanford University to study for a master’s degree. To be honest, I have always believed in these two truths and ZHIYUAN Honors Program is exactly what I am longing for.

If you feel that I do not have this opportunity to apply for the ZHIYUAN Honors Program, I will not be discouraged. I will continue to apply for the direct entry for the doctorate course of UM-SJTU JI and look forward to joining your laboratory. If you think I have the possibility in applying for this program, I will try my best to write my research plan and discuss my future research direction with you.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best Regards,

Liuchao Jin

Apply for Teaching Assistant Next Semester for Statics 2

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I am writing to you because I was wondering whether you need teaching assistant next semester for Statics 2. In the next semester, I plan to stay in China and apply for a Ph.D. I am very grateful that you have helped me a lot in my past academic life, so I really want to be your teaching assistant.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Ask Question about Summer Camp at TBSI

Dear Sir/Madam,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to you because I was wonder why there is no major of “Sensors and Microsystems” for Ph.D. in the web application system as shown in attachment 1 and 2, which is different from notice for summer camp. I found that many Ph.D. programs on the notice are not on the application system, but all majors of master are available on the application system, which makes me feel very confused.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Ph.D. from Sichuan University-Pittsburgh Institute

Dear Prof. Axinte,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for Ph.D. in the project- mechatronics system for hybrid manufacturing processing.

Mechatronics -one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of the University of Nottingham and looking forward to learning there. I was wondering whether you could be so kind to provide me with the opportunity of Ph.D. in the University of Nottingham. My CV is attached to this email.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Sui,

Yes, you are right. I need to upload the scanned version of the academic reference to the application system first, and then when I am admitted on the web system, I need to send a hard copy of all the materials by express delivery. The beginning of the recommendation letter can be written like this:

To:

Whom it may concern

University of Michigan – Shanghai Jiao Tong University Joint Institute

Dear Sir/Madam,

Re: Support for Mr. Liuchao Jin in his application for 2021 UM-SJTU JI summer camp

Text content

Thank you for your help!

All the best~

Liuchao Jin

Dear Prof. Sui,

Thank you for your careful concern. Yes, there are two schools I am applying for. I think the academic reference for Westlake University is for both summer camp and PhD. Because in China, the summer camp is the first step to apply for PhD, which is designed for tutors to select outstanding students from the participants to be admitted without examination. In the application system for summer camp, it requires me for academic reference and to decide the major I want to study for PhD, for which I chose Electronic Science and Technology.

Actually, I have contacted Prof. Cui in the Westlake University and we have a pleasant conversation about future cooperation. He said he would do his best to let me in for summer research (but still need to apply through official channels) and he was sure we can work out some fruitful results through this cooperation period. Please note that summer research and summer camp are two totally different programs. Summer research is designed just for research. According to his notification, the admission quota for Westlake University’s summer camp is determined by the committee. However, the admission quota for summer scientific research is decided by the tutor himself. So, I have already worked for the summer internship with Prof. Cui. I am now working for a review paper for publication guided by him and about to submit the application material for his summer research in next few days.

Here are the details for the projects I have participated in, which may be used as information for you to write my reference letter.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

If you have any other confusion, I will try my best to inform you. Thank you very much for squeezing time out of your busy schedule to help me for future study.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Li,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp and the direct entry for the doctorate course at Harbin Institute of Technology, Shenzhen.

Robotics-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of Harbin Institute of Technology, Shenzhen and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about robotics, and also I can further explore my future specific research direction. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, the direct entry for the doctorate course.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Li,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of School of Vehicle and Mobility Tsinghua University.

Autonomous driving and intelligent cars-one of your research interests-is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of Tsinghua University and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about autonomous driving, and also I can further explore my future specific research direction. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, the direct entry for the doctorate course.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University.

Here are the details for these projects I have participated in.

The first project I participated in was the research on the characterization method of the stator winding insulation defects in Dongfang Electric Machinery Co., Ltd. The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment, and the partial discharge test is an important method to discover the potential insulation defects of the insulation system. In order to improve the test sensitivity, this project uses an Ultra High Frequency (UHF) sensor with high gain and broadband characteristics, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to the partial discharge location measurement of high-voltage equipment to find potential insulation defects in a timely and effective manner. This is a school-enterprise cooperation project. In this project, I was mainly responsible for the design of the mechanical part. I used a linear module to control the advancement of the sensor in the stator, and a rotation module to control the 360-degree rotation of the sensor in the stator. And, because the stator that needs our test is bulky—the length is about eight meters. I also performed finite element analysis on the mechanical parts I designed to determine the appropriate size and materials. In addition, in order to realize the easy disassembly and assembly of our detection device, I also designed the connection method of the detection device and the bracket.

The second project I participated in was the design of a post-disaster scrubber air cleaning system directed by Tetsuo Shoji—a professor at Tohoku University. Post-disaster environmental management is essential to minimize the damage caused by the disaster. In high-density shelters and evacuation centers, the supply of clean air is critical, not only for humans, but also for the operation of emergency facilities (such as diesel generators for emergency power). Therefore, the post-disaster scrubber air cleaning system is designed to remove several potential pollutants, including dust particles—PM2.5 and PM10, toxic gases and smoke, and even airborne viruses. In this project, I am mainly responsible for the initial model design of the air purification system. I also perform CFD analysis of the air-fluid based on the designed model. Currently, this project is still in the material procurement stage. According to the actual situation, I calculate the specifications and quantity of the materials we need, and contact the manufacturer to determine the price. In the following experiment, we will study the influence of air inlets with different apertures on the purification rate and purification efficiency, so as to design a set of purification systems for post-disaster air.

Last fall, I successfully applied for an undergraduate internship program jointly launched by the China Scholarship Council and Mathematics of Information Technology and Complex Systems (Mitacs) in Canada. I have been matched with Prof. Abdolhamid Akbarzadeh Shafaroudi from McGill University and participated in his project on 3D printing and multiscale modelling of lattice structures, which has just started. For this project, I am conducting a literature review on alternative smart materials and systems for harvesting energy from the wasted energy resources to identify systems with the highest efficiency for converting the wasted energy to electricity. Also, I will develop an efficient cellular structure made of struts of smart materials used as vibrating energy harvesters and implement a multiscale finite element analysis—numerical homogenization technique—to predict the effective multiphysics properties of the novel lightweight energy harvester developed in this research. The effective properties are employed to estimate the amount of electricity generated from vibration, temperature change, and elastic deformation of cellular energy harvesters under multiple load cases. Based on this, I will prototype smart energy harvesters using Polylactic Acid (PLA) and Acrylonitrile Butadiene Styrene (ABS) plastics composed with electrically conducting particles by 3D printing, additive manufacturing, and laser cutting and conduct experimental testing and imaging on the prototyped samples to identify multiphysics properties of smart cellular solids and to validate the theoretical and computational predictions. The discrepancy of the numerical and theoretical predictions with respect to experimental results is correlated to the manufacturing defects via scanning electron microscope imaging. Finally, I will optimize the energy harvesting and structural performance of smart cellular structures through the variation of cell topology, relative density, and material constituents throughout the energy harvesters using multi-objective and topology optimization techniques.

I would be grateful if offered the chance to enter your lab. Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Jen,

I am Liuchao Jin from SCUPI 2018. This is the forward email of invitation for academic reference towards Dean Chyu. I have talked to Dean Chyu about the academic reference and he wanted your help to coordinate the deadline. The deadline for these two reference letters is June 10th. Besides, Xin (Ian) Li also wants to apply these two institutes. Later, he will also send you the invitation. Thank you for your kindness.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Yu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of School of Vehicle and Mobilty Tsinghua University.

Mechatronics and mechanical vibration-one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of Tsinghua University and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about mechatrons and vibration, and also I can further explore my future specific research direction. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, the direct entry for the doctorate course.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. I am responsible for work related to mechanical design in these three projects. For details, please refer to my CV in the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Zhang,

I am Liuchao (Christopher) Jin from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1071 Applied Fluid Mechanics). I am writing to invite you to help me complete the academic reference to the summer camps of the School of Aeronautics and Astronautics and School of Vehicles and Transportation at Tsinghua University.

Now I am applying for summer camp of for these two institutes in Tsinghua University, both of which require me to have a scanned paper version academic reference signed by the professor in person using the model it provided, which is in the attachment 1 and 2. There is a little bit of difference of these two files, but the main contents are the same. The deadline for these academic reference is June 10th. And my CV is in the attachment.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my academic life. Hope I can get your support this time. Thank you!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Invitation of Write Academic Reference from SCUPI 2018

Dear Dean Chyu,

I am Liuchao (Christopher) Jin from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to invite you to help me complete the academic reference to the summer camps of the School of Aeronautics and Astronautics and School of Vehicles and Transportation at Tsinghua University.

Now I am applying for summer camp of for two institutes in Tsinghua University, both of which require me to have a scanned paper version academic reference signed by the professor in person using the model it provided, which is in the attachment 1 and 3. There is a little bit of difference of these two files, but the main contents are the same. In order for you to better understand the contents of these two files (because they are in Chinese), I have translated them all. The attachment 2 and 4 are the translation of 1 and 3, respectively. The deadline for these academic reference is June 10th (Beijing Time). And my CV is attached to this email.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my academic life. Hope I can get your support this time. Thank you!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I feel so sorry to bother you again. I am writing to invite you to help me complete the academic reference to the School of Aeronautics and Astronautics and School of Vehicles and Transportation at Tsinghua University.

Now I am applying for summer camp of for two institutes in Tsinghua University, both of which requires me to have a paper academic reference signed by the professor in person using the model it provided, which is in the attachment 1 and 3. There is a little bit of difference of these two files, but the main contents are the same. In order for you to better understand the contents of these two files (because they are in Chinese), I have translated them all. The attachment 2 and 4 are the translation of 1 and 3, respectively. Thank you so much for your patient help!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Reed,

The application system shows that you have successfully submitted the academic reference. Thank you for your kindness. I will share the follow-up news with you. Wish you a wonderful week.

All the best~

Liuchao Jin

Dear Prof. Reed,

I feel very honored and grateful to receive your help for my future study and research. The approximate deadline for application is 14th June. So, there is still a lot of time. While sending you this email, I have already filled in your information on the application system for the Westlake University Summer Camp. It should send you an email soon asking you to fill in the academic reference. I miss you so much and hope to see you at Westlake University. Thank you again for giving me this opportunity. Have a nice day~

All the best~

Liuchao Jin

Dear Sir/Madam,

I am honored to receive your reply and thank you for informing me of that. Hope that there will be opportunities for entering TBSI in the future. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi,

I am honored to receive your reply and thank you for informing me of that. Hope that there will be opportunities for entering your lab in the future. Have a nice day!

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi,

I will start the literature review tomorrow. From the information I receive, I notice that the final goal of our project is to write a report. I was wondering whether we can write a paper for our project, because this would be very useful for my future. Thank you again for your patient help. Wish you a wonderful week.

Best regards,

Liuchao Jin

Dear Prof. Fok,

Received. Thank you very much for squeezing time out of your busy schedule to help my academic reference. I will share the follow-up news with you. Wish you a wonderful week. Thank you again for your patient help.

Best regards,

Liuchao Jin

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I am writing to invite you to help me complete the academic reference to the University of Michigan-Shanghai Jiao Tong University Joint Institute (UM-SJTU JI).

Now I am applying for summer camp of UM-SJTU JI, which requires me to have a paper academic reference signed by the professor in person or electronically signed by the professor, which is the same as Owen. The recipient of the academic reference is “To whom it may concern”. The major I intend to choose is mechanical engineering, which is the same as my major now. My intended mentor is Peisen Huang. He is the dean of UM-SJTU JI, and his main research direction is Precision Engineering and Mechatronics. Thank you so much for your patient help!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Invitation of Write Academic Reference from SCUPI 2018

Dear Prof. Reed,

I am Christopher (Liuchao) Jin from SCUPI 2018. I was in your course—Introduction to Engineering Analysis in the fall of 2018. Now I am applying for the summer camp at Westlake University. I am writing to ask if you could please do a huge favor for me. Could you please be so kind to write a reference letter for me to support my application for the summer camp and Ph.D. study in Westlake University？My CV is attached to this email.

After the summer camp, I plan to involve in summer research at Westlake University. Here are the projects I am applying to for summer research：a device design for underwater charging of robotic fish using renewable energy from the ocean lead by Prof. Weicheng Cui from the School of Engineering. I have already contacted Prof. Cui in April. We all look forward to having pleasant cooperation in the summer vacation. I have been studying underwater charging of robotic fish using renewable energy from the ocean under the guidance of Professor Cui. This September, I target to apply for Ph.D. study in Westlake University, so these two events are really significant for my success.

If you could help me, would you mind giving me your cell phone number, which is required by the application system? After I have filled in your information, Westlake University will send you an email to ask you to fill in the academic reference.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my past academic life. Hope I can get your support this time as well. Thank you!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Ask Question about Summer Camp at TBSI

Dear Sir/Madam,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether TBSI has summer camp this year.

I saw from the official website of TBSI that the 2020 summer camp notice was released on April 10th, and the 2019 summer camp notice was released on April 22nd. But today is May 29th, and the notice of this year’s summer camp has not been released yet. I have been always following the admissions information of TBSI. **Can you tell me the approximate time when the notice of this year’s summer camp will be released?** From the narration of my friends and my personal searching, I am very longing for the study and research environment of TBSI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about TBSI, and also, I can further explore my future specific research direction.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Mia,

I am Liuchao Jin from SCUPI 2018. I am writing to ask whether the paper version of my certificate of achievement ranking（成绩排名证明）is still there.

I am now applying for University of Michigan-Shanghai Jiao Tong University Joint Institute (UM-SJTU JI). It requires me to mail the paper version of my certificate of achievement ranking to their office. So, I was wondering whether you could be so kind to help me get the paper version. Thank you so much for you patient help!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Wang,

I don’t know why I cannot use UTF8 in my original English CV. But, I have successfully modified another English CV model into Chinese using UTF8, which was mentioned by you. And I have already finished it, which is attached in this email. So happy! Thank you so much for you patient help! Have a nice day~

Best regards,

Liuchao Jin

Dear Prof. Cui,

Thank you for your comments and suggestions! I will continue working for the paper and be careful about my reference cite. Have a nice day~

Best regards,

Liuchao Jin

Dear Prof.Fernande,

Thank you for your comments and suggestions and I have successfully download Zetero! Looking forward to meeting with you on June 2nd.

Best,

Ling Yuewei

Dear Prof. Cui,

I am writing to send you the first part (introduction) of the review paper, which is attached in this email. As for the introduction, I explored the outstanding performance of robotic fish and came up with the problem faced by the school of robotic fish—charging. I will continue reading more literature and working on the second part. If possible, I look forward to your comments and suggestions for my introduction.

Thank you and looking forward to your reply!

Best regards,

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Huang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of UM-SJTU JI.

Mechanical measurement—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about manufacturing science and engineering, and also I can further explore my future specific research direction in mechanical measurement. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, the direct entry for the doctorate course.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. I am responsible for work related to mechanical design in these three projects. For details, please refer to my CV in the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Jeffrey,

I am honored to receive your reply and thank you for your patient help. Have a nice day!.

Best Regards,

Liuchao Jin

Dear Kirchhof,

I am honored to receive your reply and thank you for informing me that. Have a nice day!.

Best Regards,

Liuchao Jin

Dear Sir/Madam,

I am honored to receive your reply and thank you for your patient help. Have a nice day!.

Best Regards,

Liuchao Jin

Dear Prof. Jeffrey,

I am Liuchao (Christopher) Jin from SCUPI 2018, majoring in Mechanical Engineering. I’m writing to make an appointment for writing center because it seems that the appointment link on the writing.scupi.cn cannot work.

I am now working for a review paper for publication about the underwater charging for a school of robotic fishes through renewable energy. Till now, I just finish the introduction part of this essay. But I need to send it to my mentor for some adivse. So, could you be so kind to help me revise the introduction before sending it to him? This is really important to me. Do you have free time this Wednesday? If so, can I make an appointment with you?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Fok,

The application system shows that your submission was successful. Thank you for your kindness. I will share the follow-up news with you. Wish you a wonderful week.

All the best~

Liuchao Jin

Dear Prof. Fok,

Yes, you are right. But please note that the official summer research starts at 19th July. So, Prof. Cui and I just write the review paper in advance by ourselves. Thank you for spending so much time helping me write an academic reference. Have a nice day!

Best Regards,

Liuchao Jin

Dear Prof. Lin,

I am honored to receive your reply and I will apply for TBSI summer camp. Thank you for your patient help. Have a nice day!.

Best Regards,

Liuchao Jin

Hi

I am a bit confused on the objective while writing the ref. letter. Westlake requests a letter for your application to the PhD program. However, your request is for a letter to support your summer camp application. In your CV you put down summer research intern at Westlake. Does it mean that you are already accepted for the summer camp (and the ref. letter is for your PhD application)? Please kindly clarify.

Can you also send me the name of the mentor at McGill University and the program that is supporting the project? I will continue with the writing on Monday after I have the info.

Thanks

Regards

SC

Dear Prof. Fok,

Thank you for your careful concern. Actually, I have contacted Prof. Cui in the Westlake University and we have a pleasant conversation about future cooperation. He said he would do his best to let me in (but still need to apply through official channels) and he was sure we can work out some fruitful results through this cooperation period. According to his notification, the admission quota for West Lake University’s summer camp is determined by the committee. However, the admission quota for summer scientific research is decided by the tutor himself. So, I have already worked for the summer internship with Prof. Cui. I am now working for a review paper for publication guided by him and about to submit the application material for his summer research in next few days.

I think this academic reference is for both summer camp and PhD. Because in China, the summer camp is the first step to apply for PhD. Please note that summer research and summer camp are two totally different programs. Summer research is designed just for research, but summer camp is for tutors to select outstanding students from the participants to be admitted without examination. In the application system for summer camp, it requires me for academic reference and to decide the major I want to study for PhD, for which I chose Electronic Science and Technology but for summer research, it doesn’t.

For Canadian project, I am guided by Prof. Abdolhamid Akbarzadeh Shafaroudi, who is an Assistant Professor in Machine Design in the Bioresource Engineering Department and an Associate Member in the Mechanical Engineering Department of McGill University. He is also an Honorary Research Associate in the Mechanical Engineering Department of the University of New Brunswick. Besides, the program I am participating in is Mitacs, which is a non-profit institution driving collaborations at home and abroad to develop projects which solve business challenges, and develop the nation’s innovation capacity.

If you have any other confusion, I will try my best to inform you. Thank you very much for squeezing time out of your busy schedule to help me for future study.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Camp and Future Study from Sichuan University-Pittsburgh Institute

Dear Prof. Lin,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of TBSI.

MEMS—one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of TBSI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about microelectromechanical systems, and also, I can further explore my future specific research direction in manufacturing science and engineering. I am very interested in the direct entry for the doctorate course program of TBSI. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, I was longing for future study in TBSI.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. I am responsible for work related to mechanical design in these three projects. For details, please refer to my CV in the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Sui,

Just a reminder after you finish my academic reference, it is a very good choice to copy and save it. Because if I want to apply to another university later, there is no need to bother you to write a new one again. In China, many universities will hold summer camps during the summer vacation. Therefore, many juniors generally participate in summer camps at several universities. In fact, I also like the University of Michigan-Shanghai Jiao Tong University Joint Institute, and I am preparing to apply. Thank you again for your patient help! Have a nice weekend!

All the best~

Liuchao Jin

Dear Prof. Fok,

Just a reminder after you finish my academic reference, it is a very good choice to copy and save it. Because if I want to apply to another university later, there is no need to bother you to write a new one again. In China, many universities will hold summer camps during the summer vacation. Therefore, many juniors generally participate in summer camps at several universities. In fact, I also like the University of Michigan-Shanghai Jiao Tong University Joint Institute, and I am preparing to apply. Thank you again for your patient help! Have a nice weekend!

All the best~

Liuchao Jin

Application for Summer Camp and Direct Entry for the Doctorate Course from Sichuan University-Pittsburgh Institute

Dear Prof. Ni,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of UM-SJTU JI.

Manufacturing science and engineering-one of your research interests is the field that I am very interested in, and it is also a direction that I have been working hard to research and explore. From the narration of my friends and my personal searching, I am very longing for the study and research environment of UM-SJTU JI and looking forward to learning there. If I am lucky enough to participate in the summer camp, I think that during academic discussions with my mentors and peers, I can gain more knowledge about manufacturing science and engineering, and also I can further explore my future specific research direction in manufacturing science and engineering. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, the direct entry for the doctorate course.

I have participated in many projects so far. I am currently working on three projects. One is about underwater charging of robotic fish schools using renewable energies from the ocean guided by Prof. Weicheng Cui from Westlake University. Another is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). The last project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. I am responsible for work related to mechanical design in these three projects. For details, please refer to my CV in the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

I am very interested in manufacturing science and engineering, which is one of your research interests. So I want to find an opportunity to participate in the summer camp. At the beginning of the establishment of UM-SJTU JI, I was full of yearning and expectation for it. In my eyes, UM-SJTU JI is a place with great vitality and potential. I have always believed that UM-SJTU JI is a good place to study and research. Therefore, attending the summer camp of UM-SJTU JI can help me expose myself to what I will do in the future—manufacturing science and engineering. I was wondering whether you could be so kind to provide me with the opportunity of summer camp and, if possible, the direct entry for the doctorate course.

Dear Heather L,

I am Christopher (Liuchao) Jin from SCUPI 2018. I am writing to ask you some questions about course registration next semester.

I heard from other classmates that we can already register in class for next semester. But when I entered the website of PeopleSoft, I found that I cannot register class. It said “Error: You have a hold on your record. The hold on your record must be removed before this transaction can be processed.” I was wondering whether you could be so kind to help me solve this problem. By the way, my Pitt account is LIJ33.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Wolpert,

I have complete the form you provided me. Hope you are well and safe during this unusual year. Have a good day~

All the best~

Liuchao Jin

Dear Prof. Sui,

I feel very honored and grateful to receive your help for my future study and research. The approximate deadline for application is 14th June. So, there is still a lot of time. While sending you this email, I have already filled in your information on the application system of the Westlake University Summer Camp. It should send you an email soon asking you to fill in the academic reference. Thank you again for giving me this opportunity. Have a nice day~

All the best~

Liuchao Jin

Dear Prof. Fok,

I feel very honored and grateful to receive your help for my future study and research. The approximate deadline for application is 14th June. So, there is still a lot of time. While sending you this email, I have already filled in your information on the application system of the Westlake University Summer Camp. It should send you an email soon asking you to fill in the academic reference. Thank you again for giving me this opportunity. Have a nice day~

All the best~

Liuchao Jin

Invitation of Write Academic Reference from SCUPI 2018

Dear Prof. Sui,

I am Christopher (Liuchao) Jin from SCUPI 2018. I am writing to invite you to help me complete the academic reference.

Now I am applying for summer camp of Westlake University. Westlake University has many highly respected professors, and I have been interested in it since its inception. The introduction of Westlake University is in the attachment 01. I am writing to ask if you could please do a huge favor for me. Could you please be so kind to write a reference letter for me to support my application for the summer camp？My CV is in the attachment 03.

After the seven-day summer camp, I plan to involve in one-month summer research in Westlake University. Here are the projects I am applying to for summer research：a device design for underwater charging of robotic fish using renewable energy from the ocean lead by Prof. Cui, whose introduction is in the attachment 02. This September, I target to apply for PhD study in Westlake University, so these two events are really significant for my success.

If you could help me, would you mind giving me your cell phone number, which is required by the application system as shown in attachment 04? After I have filled in your information, Westlake University will send you an email to ask you to fill in the academic reference.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my past academic life. Hope I can get your support this time as well. Thank you!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Invitation of Write Academic Reference from SCUPI 2018

Dear Prof. Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I am writing to invite you to help me complete the academic reference.

Now I am applying for summer camp of Westlake University. Westlake University has many highly respected professors, and I have been interested in it since its inception. The introduction of Westlake University is in the attachment 01. I am writing to ask if you could please do a huge favor for me. Could you please be so kind to write a reference letter for me to support my application for the summer camp？My CV is in the attachment 03.

After the seven-day summer camp, I plan to involve in one-month summer research in Westlake University. Here are the projects I am applying to for summer research：a device design for underwater charging of robotic fish using renewable energy from the ocean lead by Prof. Cui, whose introduction is in the attachment 02. This September, I target to apply for PhD study in Westlake University, so these two events are really significant for my success.

If you could help me, would you mind giving me your cell phone number, which is required by the application system as shown in attachment 04? After I have filled in your information, Westlake University will send you an email to ask you to fill in the academic reference.

I completely understand that you are very busy during these days. And my request may add some additional work on you. I am glad to have your help in my past academic life. Hope I can get your support this time as well. Thank you!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Cui,

I plan to start filling in and uploading the application materials since the application system of summer scientific research in Westlake University has just been opened recently. I will apply for your project—a device design for underwater charging of robotic fish using renewable energy from the ocean. In the previous few days, I read some literature about robotic fish in the future in the introduction section. Because my intensive mid-term exams are over today, I will spend more time on this paper. Thank you again for giving me this opportunity. I cannot wait to see you at Westlake University! Wish us a pleasant cooperation.

Best regards,

Liuchao Jin

Dear Prof. Wang,

1:30 p.m. sounds good. Thank you again for your patient help! Have a nice day!

All the best~

Liuchao Jin

Dear Wolpert,

How is going? Nice to meet you! I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. Wish us a pleasant cooperation.

All the best~

Liuchao Jin

Dear Prof. Wang,

I am honored to receive your reply. But I feel sorry that I have an exam at that time. What about Thursday during your office hour?

All the best~

Liuchao Jin

Dear Prof. Wang,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to ask you some questions about LaTeX.

I am now writing my CV but I cannot find a wonderful Chinese CV model. Therefore, I was considering to modify my English CV into Chinese. I have almost tried the method like CJK I searched online but failed. I heard that you are very proficient at LaTeX so I send an email to ask you. My CV file is attached in this email. If possible, can I make an appointment with you or come to your office hour for further consulting?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Shafaroudi and Jun,

Many thanks for informing me that. It’s really helpful. During the internship, I will try my best to have a deeper understanding about origami metamaterials with more exposure to related literature and patents as Jun told me. Wish us a pleasant cooperation.

Best regards,

Liuchao Jin

Dear Liuchao,

It is very good for you to act so quickly on the problem and if you are interested, I am happy to supervise you to work out a small paper for publication.

In order for publication, the novelty of the topic and the title of the paper is very important. AUV is relatively old compared with robotic fish. Furthermore, AUVs are working individually while fishes are working in a school and thus the underwater charging problem is more important for AUV. However, all the problems related to AUVs are also covered in Robotic fishes. So I suggest our paper is focused on the Robotic fishes rather than AUVs.

Second, since it is beginning for us to look at that new direction, it is basically an overview paper. Please read some papers on how to write a good review paper.

Based on the category of “Hard questions for soft robotics” we should make Level 2 (contribution to robotics and engineering more broadly) paper. See the attachment.

The title and the main contents of this paper are recommended:

Underwater charging for a school of robotic fishes through renewable energy: overview and potential solutions

1 Introduction

Why a school of robotic fishes is the future direction of the working mode of underwater vehicles.

How to utilize the ocean renewable energy to charge the school of robotic fishes is an important problem.

In order to develop the engineering system, many problems need to be solved and the purpose of this paper is to identify these problems based on a comprehensive literature review and in many places, propose our preliminary solutions to these problems. It is hope that this paper would be a valuable reference for those working on the design and development of underwater vehicles.

2 Why renewable energy?

3 Technical issues in the development of robotic fishes

4 Technical issues in the docking

5 Technical issues in the charging

6 Some considerations for the solutions to docking and charging

7 Summary and conclusions.

A suggestion, for writing the review paper where references are quite a lot, please use the format (Smith, 2021) rather than numbering [1], [2]. This will be much easy for the modification in the revision process.

Best regards,

Weicheng

Dear Prof. Cui,

I feel very honored and grateful to receive your suggestions for my future research. I tried to use LaTeX to write a reference by APA format today and it succeeded. In the next few days, I will follow your suggestion to carry out research on our new direction—robotic fishes and wave energy buoy. I will email you as soon as there is any progress. Thank you again for giving me this opportunity. Have a nice day~

Best regards,

Liuchao Jin

Dear Mia,

Received. Many thanks for helping me. Have a nice day!

Best regards,

Liuchao Jin

Der Liuchao,

 Thanks for your email. Could you please confirm when you will start your internship.

 Your internship and contribution will be supervised by me and mentored by my PhD student (Jun Cai), cc ed in this email. You will receive part of your task by mid next week. We can then arrange a meeting with me and then more regularly with Jun.

Regards,

 Prof. Akbarzadeh

Dear Professor Shafaroudi,

As we discussed before, the internship will start at June 1st and be last for three months, which means it will end at September 1st. It sounds nice that I will be mentored by your PhD students. I’ll keep in touch with Jun Cai. Wish us a pleasant cooperation.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, faithfully.

Liuchao Jin

Dear Liuchao,

Great and I am pleased to know that you are working on the direction, you can reading the existing literature and carry out some comparative and design study, during your visit, you may finish a small paper for publication under my guidance. That would be very useful for your future. I wish you could pass the requirement and in my assessment part, I would like you to visit my lab.

Best regards,

Weicheng

Dear Prof. Cui,

How was your vacation? I have been studying the technology of AUV docking under water these days, because I thought that before charging, the AUV must be docked with the charging device. This step is also quite complicated and worth studying. So, I searched some English literature carefully and read six papers in detail related to AUV docking technology. My memo for the AUV docking technology is in the attachment named “AUV\_Docking\_Technology.pdf”. I very much hope to finish a small paper for publication about this topic under your guidance. I would be grateful if offered the chance.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Charlie,

Congratulations on your graduation. Thank you for your concern for me this year. It’s a pity that we can’t meet each other. I am now preparing for OIS, hoping to apply for a visa to the United States so that I can come to the University of Pittsburgh to study offline next semester. Thank you again for your patient help.

Best Regards,

Liuchao Jin

Dear Professor Shafaroudi,

How time flies! May is here in a blink of an eye, only one month before the internship start. In your previous email, you mentioned that you could provide me with more specific details about my task on May 1st. I think it’s time I need to prepare something for my internship like installing the required software on my computer in advance. Before the internship, I will try my best to have a deeper understanding about this project with more exposure to related literature and patents. Also, if possible, I am really looking forward to your advice my future study about it.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, faithfully.

Liuchao Jin

Dear Prof. Cui,

Today, after reading some literature and patents, I thought of two possible ways to solve the problem of AUV charging under water—wet plug and , which is in the attachment named “Design\_of\_Charging\_for\_AUV-20210428.pdf”. The other attachment is about inductively coupled power transfer, which has been mentioned in the memo. In the next few days, I will read more literatures and explore AUV charging under water in more depth. If there are any points I need pay attention to in today’s memo and future’s research, could you be so kind to point them out? I will try my best to correct the mistakes and improve the solutions in my research under your guidance.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Dear Prof. Cui,

My thoughts about solving AUV charging under water today are in the attachment named “Design\_of\_Charging\_for\_AUV-20210428.pdf”. After reading some literature and patents, I mainly thought of two possible ways—wet plug and inductively coupled power transfer. The second idea comes from a master’s thesis of Zhejiang University, which is attached as well.

In the next few days, I will try my best to have a deeper understanding about it with more exposure to related literature and patents. Also, if possible, I am really looking forward to your advice on the memo and my future study about it.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Best regards,

Liuchao Jin

Liuchao, 你好！

    我今天也正好接到了学校关于暑期学生实习的需求表，每个实验室只有2个名额，如果我录取你，我计划让你做第一个项目，即利用一个现有的波浪能发电浮标，请你重点解决AUV或仿生鱼在水下充电的问题。

   你如有空，可以开始收集相关资料，并提出自己的解决方案。

  祝好，

  崔维成

Dear Prof. Cui,

Many thanks for informing me that. I have also been following the information about the summer scientific research of Westlake University. I am very interested in the project you provided. I will immediately start collecting relevant knowledge and essays and give you my solution as soon as possible.

Best regards,

Liuchao Jin

Dear Prof. Cui,

Thank you very much for squeezing time out of your busy schedule to look through my CV. I will submit the application materials to choose Electronic Science and Technology in the School of Engineering as my major on web application system. If I have the opportunity to enter your laboratory, I will work hard and complete every task carefully. Thank you again for your patient help.

All the best~

Liuchao Jin

Dear Jen,

I’m applying for the summer camp of Westlake University. I need the ranking certification of my grades. My information is shown below:

①基本信息（姓名、性别、学号、专业等）；金刘超-男-2018141521058-机械设计制造及其自动化（国际合作）

②需要开具排名的版本（中文or英文）及原件的份数；如果需要纸质版材料，需备注是否需要密封；中英文各一封。

③返回原件or扫描件的deadline；2021年6月14日

④拟申请的学校要求出具成绩排名的相关证明或截图：It’s attached in the attachment.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Liuchao,

Welcome you for the interest to come to my lab for the summer camp. I have consulted the person in charge in my school and she told me that you need to make the application to the web system and the school administration will decide whose application can be granted based on the requirements from PI’s labs. So it is not me to decide whether I can take you.

Best regards,

Cui Weicheng

Dear Prof. Cui,

I am honored to receive your reply and thank you for informing me that. I will make the application to the web system. Hope that there will be opportunities for entering your lab in the future.

Best regards,

Liuchao Jin

Application for Summer Camp from Sichuan University-Pittsburgh Institute

Dear Prof. Cui,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to apply for summer camp of Westlake University.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the summer camp. At the beginning of the establishment of Westlake University, I was full of yearning and expectation for it. In my eyes, Westlake University is a university with great vitality and potential. I have always believed that Westlake University is a good place to study and research. I am very interested in robotic, mechatronics and automatic control, which is one of your research interests. I was wondering whether you could be so kind to provide me with the opportunity of summer camp.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Ms. Jia,

I am very honored to receive your interview invitation. I just consulted my counselor. She suggested me starting the internship after graduation. Otherwise it will be very troublesome. I feel sorry about that. Thank you again for your sincere invitation, and hope that there will be opportunities for cooperation in the future.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Sir/Madam,

I am Liuchao Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I am writing to you to apply for an internship at BMW.

I saw your recruitment information in the WeChat Public Account. But I didn’t find out what should I do during the internship. My interest is in automation control, mechatronics, and 3D modelling. And my CV is attached to this email. Thank you very much for squeezing time out of your busy schedule to look through my application materials.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Li,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in fluid mechanics, which is your research interests, that’s why I write this email to you. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Dear Prof. Huang,

I am honored to receive your reply and thank you for informing me that.

Regards,

Liuchao Jin

Application for Summer Scientific Research from Sichuan University-Pittsburgh Institute

Dear Prof. Cai,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in mechatronics and automatic control, which is your research interests. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Scientific Research from Sichuan University-Pittsburgh Institute

Dear Prof. Huang,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in automatic control, which is your research interests. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Scientific Research from Sichuan University-Pittsburgh Institute

Dear Prof. Liao,

I am Liuchao Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in 3D printing, which is the direction your laboratory is engaged in, that’s why I write an email to you. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Scientific Research from Sichuan University-Pittsburgh Institute

Dear Prof. Xu,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

Long time no see. The reason why I say long time no see is because we have met before. You may not know me, but I can still remember you clearly. Three years ago, you gave an admissions speech of the Chinese University of Hong Kong (Shenzhen) in Zhejiang Xuejun Middle School, which impressed me. What moved me even more was that I received your book “The Ferryman” 《摆渡人》 and a letter in August of that year. So far, your book and this letter have been cherished on the shelf in my dormitory. In my spare time, I will read your book and your letters continue to inspire me. That’s why when I see your introduction on the official website of the Chinese University of Hong Kong, I will be so excited and email you.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in automatic control, which is your research interests. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Scientific Research from Sichuan University-Pittsburgh Institute

Dear Prof. Chao,

I am Liuchao (Christopher) Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in heat transfer and fluid mechanics, which is your research interests, that’s why I write this email to you. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Application for Summer Scientific Research from Sichuan University-Pittsburgh Institute

Dear Prof. Man,

I am Liuchao Jin, a junior from Sichuan University-Pittsburgh Institute (SCUPI), majoring in Mechanical Engineering. I’m writing to ask whether you have any projects for me to participate in during the summer vacation.

I have participated in many projects so far. I am currently working on two projects. One is to design a post-disaster scrubber air cleaning system with Prof. Tetsuo Shoji in the Sichuan University-The Hong Kong Polytechnic University Institute for Disaster Management and Reconstruction (IDMR). In this project, I am mainly responsible for the design and manufacture of the mechanical part. Another project about 3D printing and multiscale modelling of lattice structures has just started, which is led by Professor Abdolhamid Akbarzadeh Shafaroudi from McGill University. For details, please refer to my CV in the attachment.

In this summer vacation, I will have a lot of time to spare, so I want to find an opportunity to participate in the project. The pandemic in Hong Kong is now very safe compared to foreign countries, and visas to Hong Kong are now easier to obtain than that to American or Europe, so I consider coming to Hong Kong for research during the summer vacation. I am very interested in 3D printing, which is the direction your laboratory is engaged in, that’s why I write an email to you. I was wondering whether you could be so kind to provide me with the opportunity of summer scientific research.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Liuchao Jin

Consultation about Available Projects from SCUPI 2018

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I am writing to ask whether you have any projects that I can participate in.

This semester, I have few courses, which makes me have a lot of time to spare. And based on the current situation of the pandemic, I think there is a very small chance that I can go to the U.S. to take classes offline next semester. What’s more serious is that there are more and more anti-Asian hate crimes in the United States recently, which will make me feel dangerous. Therefore, I want to use my extra time to participate in a project or write a paper. I am currently following up on one project directed by Prof. Tetsuo Shoji, which is about the scrubber air purification system. I am now very interested in the direction of automatic control. I want to learn the relevant knowledge of single-chip microcomputer. Do you have any related projects? Projects about other knowledge are also OK.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Christopher Jin

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: ME1020 Mechanical Vibration). I am writing to ask whether you need to recruit students to write papers recently.

How are you doing? Do you still have difficulty searching the literature and journals? I have few courses this semester, which makes me have a lot of time to spare. I want to find projects and write papers. I am currently following up on one project directed by Tetsuo Shoji, which is about the scrubber air purification system.

Dear Christopher,

 Thank you for your email and congratulations for being selected for the Mitacs internship to collaborate with me and my team. Are you going to start your Master in Pittsburg University?

 My suggestion is to start the Mitacs from Jun 1. You can send me an email in May 1 to get more specific details about your task. All internship will be virtual. For the time being, I have submitted your tasks online through Mitacs and I have attached the information in this email.

 Thank you.

 Best Regards,

 Hamid Akbarzadeh, PhD

Dear Professor Shafaroudi,

I am honored to receive your reply and so appreciated that you have submitted my tasks online through Mitacs and told me the start date. This fall, I will go to the University of Pittsburgh because I participated in the joint training program of University of Pittsburgh and Sichuan University. I will complete the last year of my undergraduate studies at the University of Pittsburgh, and then receive a bachelor’s degree from both the University of Pittsburgh and Sichuan University. For MSc study, my current idea is that I will not apply for a master’s degree from the University of Pittsburgh. I am very interested in your laboratory. I think working in your laboratory will be very helpful for my future development.

Yours, faithfully.

Christopher

Dear Professor Shafaroudi,

How are you doing? Today I received an email from Mitacs, telling me that we need to discuss the **specific start time of the internship** before **next Monday, March 22, 2021 at 1 p.m. PT**. This date must be accurate; it is not acceptable to provide a placeholder date. As discussed before, I have time to start our project at **the end of May or the beginning of June**. So, any date during this period is preferred. By the way, in early September, I will **go to the University of Pittsburgh to study**. But as usual, the beginning of each semester is extremely free. Therefore, if this internship is arranged online, it means that I still have time to complete our project in early September. In general, I will follow your schedule of the start time.

Regarding the preparation before the internship, the air purifier project I am involving recently also uses 3D modeling and finite element analysis many times. In addition, I register for a course that teaches how to use Autodesk Inventor this semester. I am already proficient in the use of CAITA, CAD and SolidWorks, so I want to consolidate it a little bit more and prepare to take the Autodesk Certification exam after finishing this course.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

All the best~

Christopher Jin

Hi Christopher, great to hear from you! I look forward to seeing you around SCUPI this semester. I hope that you had a good break, and that your transition back to campus has been smooth.

That’s funny about the professor from Fudan. People can read into it whatever they want, of course. For me, the emphasis of those sections was the extreme strangeness of this year, to be a foreigner in China. And especially after having been a teacher here in the 1990s. Most foreigners at that time assumed that there would be a major political change, and that the study of Marxism and such things would disappear. So it is fascinating to be back and see the system so strong.

Some foreigners of course have an interest in changing or reforming China, but that has never been my perspective. I am an observer here, and I find it fascinating to see the things that change dramatically and the things that don’t change at all. My job is to try to document it. At the same time, it is amazing to me that the disease could begin in Wuhan, and look so terrible for that first month in China—and then quickly reach the point where it is no longer spreading here. And meanwhile the U.S. has been crippled by it for a year now. As a foreigner, it is such an intense and such a strange experience to witness these things away from home.

So that’s really it. I honestly don’t mind if people criticize things or get upset. I write as accurately as I can, and I accept that some people are always unhappy. Actually, I get attacked more by people in the West, who think that I don’t criticize China enough. I can’t listen to any of it; I’ll just continue to do my work.

We should figure out a chance to catch up in the coming weeks. Are you planning to go abroad in the fall, or will you stay here? It must be a stressful time for such decisions. Please give my best to Coral. It was so great to have you both in my class last semester—that was the strongest group of SCUPI students that I’ve had so far.

All the best—

Peter

Dear Professor Hessler,

I feel very honored and excited to receive your reply. I admire your persistence and dedication in your career. I plan to study in the United States this fall, but everything is full of unknowns. I don’t know whether the visa to the United States is open in the fall. If not, I still have to take American online courses in China. In addition, I am very confused about my application for master’s degree. I don’t know if I should stay in China or go to Germany/the United States/Canada for a master’s degree. All I can do now is prepare in several directions.

Regards,

Christopher

Dear Christopher,

Thank you for your email and informing me. If the internship will be online, then we will have regular weekly meeting where I introduce some topics that you need to investigate individually or in group by reviewing the literature, analytical/numerical simulation, and designing new materials/structures.

When we are closer to the initiation of the project, we can finalize the starting date of the internship.

Regards,

AHA

Dear Professor Shafaroudi,

Thank you for your reply. Looking forward to the internship in this project

Regards,

Christopher Jin

Dear student,

Thank you for your patience while we work hard to plan for this summer’s Globalink Research Internship (GRI) program.

 In consultation with our key stakeholders, **Mitacs has decided to move forward with offering this summer’s GRI program in a virtual format.** We are in the process of putting our systems and documentation in place and we will be in touch by the first week of March with detailed information, which will help answer your questions.

 We continue to be committed to providing high-quality programming, and the virtual GRI program this summer will include items such as:

* programmatic supports to foster meaningful outcomes for participants, including online training, professional development, networking opportunities, and access to online engagement opportunities with industry partners across Canada
* a virtual mentor program that connects interns with local students to provide guidance and assistance, and to support social exchanges between interns
* an adjusted award amount to reflect the absence of travel-related expenses, and to contribute to a living stipend, internet costs, and student fees
* flexibility and accommodation to ensure that project goals are reasonably met
* guidelines on what is expected from professors and students in order for virtual interactions to be successful.

 If you have already received an email from Mitacs confirming a match, please feel free to discuss with your host professor the implications of being able to move to a virtual environment. However, we ask that you refrain from withdrawing or making any status changes until our detailed communication in two weeks.

 If you were a candidate under consideration or have been interviewed but have not yet received a confirmed offer, you will receive a notification regarding the status of your application by the end of next week. **Please note that only Mitacs can formally confirm an internship match**.

 In the next two weeks, we will be providing guidelines for what is involved in a virtual project and what the expectation are of professors and interns. We will also be sending detailed instructions on next steps and alternatives. While we will strive to provide support to all projects; we recognize that some projects will not be possible in an online format.

 We will continue to keep everyone updated frequently over the next few weeks. Thank you for your patience and continued support of Mitacs Globalink Research Internships.

 Sincerely,

Dear Professor Shafaroudi,

I received an email from Mitacs, telling me that Mitacs has decided to move forward with offering this summer’s GRI program in a virtual format. As I mentioned before, I strongly hope the summer intern is in-person internships. But the pandemic has made offline internships impossible. I accept reality. So, I was wondering what can be done online in this project, such as modeling, ANSYS analysis, and so on. In addition, regarding the starting time, if it is not an offline internship, I can start the internship anytime.

Thank you very much for your patient help and guidance.

Yours, sincerely

Christopher Jin

Dear Christipher,

Thank you. Could you please let me know when you will be graduated?

Regarding courses, any topic related to solid mechanics, advanced mechanics of materials, 3D printing, finite element modelling will be desirable.

Best Regards,

Prof. Akbarzadeh

Dear Professor Shafaroudi,

Thank you for your careful consideration. I am expected to graduate in June 2022. Before entering your laboratory, I will consolidate my knowledge you have mentioned.

Thank you very much for your help and guidance.

Yours, sincerely

Christopher Jin

Dear Christopher,

 Thanks for your email. The starting date of the internship can be early June and there is no specific requirements; if you have experience on CAD design and FEM modelling with ANSYS/COMSOL, it will be desirable.

 Pleases send me your CV. Please also let me know if you are interested in MSc study in my lab after your BSc graduation.

 Regards,

 Prof. Akbarzadeh

Dear Professor Shafaroudi,

I feel very honored and excited to receive your reply. My CV is attached to this e-mail. Thank you for allowing me to travel to Canada in late May or early June.

I am proficient in the use and operation of CATIA, CAD, and FEM modeling with ANSYS. I have done many projects with these software. For example, I used CATIA to model a mouse and then went to the 3D printing room to print it out as shown in the figure below.

For ANSYS, I did a project about exploring the influence of moving load on suspend bridge. After viewing the analysis result from ANSYS, I found that the moving load will cause the suspension bridge to fluctuate. When the vehicle load passes through the bridge at high speed, its acting position and the magnitude of the load change over time, which in turn causes the bridge structure to vibrate. The result is shown in the .gif file in the attachment. In this .gif file, the moving load is from left to right. You can clearly see that the bridge is fluctuating.

I am very interested in your laboratory. If offered the opportunity, I hope to become a member of your lab in MSc study.

Before entering to your lab in May or June for internship, I have taken the courses in the attachment and the following courses for the next semester:

* Applied Fluid Mechanics
* Dynamic Systems
* Mechanical Design 2
* Mechanical Measurements 1
* Mechanical Vibration
* Mechatronics

I was wondering what other kinds of knowledge I need to master before entering your lab is. Could you be so kind to inform me any recommended books or essays?

Again, thanks for your respectable help and have a good day!

Best,

Christopher Jin

The Courses I Have Taken Before 01/10/2021

Dear Professor Shafaroudi,

Nice to meet you. I’m Liuchao Jin (English name: Christopher). I feel very honored to be selected for a 2021 Globalink Research Internship and be matched with your project. I am writing to discuss my internship start date with you.

I have confirmed with my academic affairs teacher. She told me that I could end the course with the seniors next semester. Because seniors are going to graduate at the end of May, they will end the course one month earlier than ordinary students. However, the academic affairs teacher did not know when the senior students will end the class next semester. It is likely to be the third or fourth week of May, which means I can travel to Canada at the end of May. So, I want to know **what specific requirements you have regarding the internship start date**. The deadline to confirm this date is March 1, 2021. But I was also wondering **whether our project site will be open during the summer due to public health restrictions**. This question does not seem appropriate, because the future cannot be expected. But I strongly hope it is in-person internships. I cannot wait to see you at McGill University!

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, faithfully.

Christopher Jin

Liuchao (Christopher) Jin 金刘超

Sichuan University-Pittsburgh Institute

Mobile: (+86)18258525750 | WeChat ID: 18258525750 | QQ: 1782616120

E-mail: windbirdman@gmail.com | windbirdman@outlook.com | LIJ33@pitt.edu

Zone 3, Liberal Arts Building, Sichuan University Jiang’an Campus, Shuangliu District, Chengdu, Sichuan, 610207, China

Dear Amy

   Thank you for reading my reply. I am writing to check the letter you sent to me. I have attended the 151-class last week. Last week, our group containing six people all attended the 151 class.

   Having a good day.

Yours

Christopher

Dear John

  I am Christopher (Student ID:2018141521058). I am writing to ask you for a favor. I have some difficulty in write the beginning and the end of the article.

  I think I couldn’t extend many sentences from one subject. It’s too difficult for me to write concluding sentences. That is to say, I know what the theme of essay is, but I don’t know how to express with some official sentences.

  It would be good if you give me some practical suggestions on how to write concluding sentences. Your early reply will be greatly appreciated.

Yours

Christopher

Dear John

I am so touch that you wrote me so much feedback to me and I am very honored to receive your letter.

After reading your letter, my mind opened up. I think I can switch theme, which may be the best way to correct my essay. So I think the main theme of my essay should be the responsibility. Cooper was able to give up his life to save the people on the earth. That is a really duty. And the content of the essay is to write the protagonist’s emotional struggle to decide to stay and let himself drown into the black hole. All what he have done is the responsibility.

Besides, if it’s convenient for you, could we have a meeting after 3;50 pm tomorrow?

Yours

Christopher

Dear Professor Ho

I am Christopher (Student ID:2018141521058, Class Section 1). I’m writing to talk about my study problem in Calculus.

First, I have some difficulty in understanding what the question means, even if I translate it into Chinese with translation software. So, could you be so kind to give me some practical suggestions on how to cope with this kind of problem. Second, I find that I spend too little time on math now, mostly because I learned all these stuff in high school so that I would think the speed in the class is too slow. But I really enjoy learning math. In the senior school, I learned Mathematic Olympics for two years and won the third prize in the National Mathematic Olympics. So, I want to continue to take part in a math competition. But I don’t know if there is such a platform. Could you please offer me some useful guidance so that I am able to enjoy the fantastic feeling of learning mathematic.

Your assistance will be appreciated and look forward to your early reply.

Yours

Christopher

Dear Professor McDougall

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I’m reaching out to see if you could kindly do me a favor.

I have some difficulty in understanding what the math question means, even if I translate it into Chinese with translation software. So, could you be so kind to give me some practical suggestions on how to cope with this kind of problem.

I will be free from 8:00 to 9:00 am tomorrow or on the morning next Monday. If it’s convenient for you, could we have a meeting on that time?

Yours

Christopher

Dear Professor McDougall

I am very honor to receive your reply. Monday should be fine. I will be free on the morning next Monday. If it’s convenient for you, could we have a meeting on the morning next Monday?

Your assistance will be appreciated and look forward to your early reply.

Yours

Christopher

Dear Professor Quan

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I have some problems about the periodic table of the elements.

Why are lanthanides and actinides in 4B group, rather than in group 3B? Why do we need to put an electron on the 5d and 6d orbital first, and then put electrons on 4f and 5f orbital?

Your assistance will be appreciated and look forward to your early reply.

Yours

Christopher

Dear Professor Ho

I am Christopher (Student ID:2018141521058, Class Section 1). I’m writing to complain about the decision that we can’t use calculators in the exam.

First of all, the invention of calculators is to liberate peoples’ hands. We have such good things to help us, why do we need to use our hands to calculate? Second, I think using calculator can better cultivate our sense of thinking. When using the function of the table in the calculator, we can synthesize some discrete points in the points in the brain into a curve. But when we use hands to calculate, it’s hardly possible for us to image the curve very well. All in all, calculators are our friends, calculators help us a lot, we can’t imagine a day that we leave the calculators.

I would be appreciated it if you could consider my proposal.

Yours

Christopher King

Dear Mr. Gao Yu

I am Christopher (ME, Student ID:2018141521058, Class Section 1) in Studio M11. I’m writing to send you our studio 01 to you.

I’m very sorry that we submitted the homework wrongly. I apologize for the inconvenience for you. I sincerely hope that our scores can be added back.

Your earliest reply will be appreciated.

Yours

Christopher King

Dear Professor Quan

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I am writing to ask you some questions about the electronegativity.

First, I know why the electronegativity of Zinc, Cadmium and Mercury is lower than Cooper, Silver and Gold. That’s mainly because the d orbitals of Zinc, Cadmium and Mercury are full, and the d orbitals of Cooper, Silver and Gold just have nine electrons, so Cooper, Silver and Gold are easier to get the electrons. So, the electronegativity of Cooper, Silver and Gold is higher. However, why is the electronegativity of Silver lower than the electronegativity of Palladium but the electronegativity of Gold higher than the electronegativity of Platinum.

Second, you know the noble gas is very stable, but why is the electronegativity of the Krypton and Xenon positive while the electronegativity of the other noble gas is equal to zero.

Last, why is the electronegativity in the second and third periods except Sulfur and Chlorine so regular (Look at the second period, for example, the electronegativity in the second period is 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0)? I can understand why the electronegativity of Boron, Carbon and Nitrogen is regular. But I can’t understand the other elements. Is this coincidence or is it carefully planned by the God?

Your assistance will be appreciated and looking forward to your early reply.

Yours

Christopher King

Dear Professor Quan

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I am writing to ask you some questions about the Electronic form.

You know I have already known how to draw the Electronic form of the main group. However, I don’t know how to draw the Electronic form of the transition element. For example, if I want to draw the Electronic form of Copper, should I draw two electrons (4s orbital) or nine electrons (3d orbital) near the Cu? If the answer is two, there are two dots in all the Electronic form of the transition electron. And if the answer is nine, how can I draw it?

Your assistance will be appreciated and looking forward to your early reply.

Yours

Christopher King

Dear John

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 6). I would like to know if I could ask for a leave of absence from your class on Wednesday on account of a personal reason.

I will attend a lesson of Mathematical Contest In Modeling on Wednesday afternoon holding at Wangjiang. Guilty about my absence, I assure you that I will make every effort to compensate the missing lesson. If it is convenient, If it’s convenient for you, could we have a meeting this morning or on the Wednesday morning from 10:00 to 11:55 to talk about what will be told on the class and could you be so kind to give me some suggestions about my essay 2?

I think in essay 2, I couldn’t find many mise-en-scene in the scene I choose. I focus much on the cinematography and the sound. And I also think the word using in my essay is not so appropriate.

I’d appreciate it if my request could meet with your approval.

Yours sincerely

Christopher King

Dear John

I am Christopher (Student ID:2018141521058) from SSC. I am writing to invite you to make a video for Thanksgiving with us (Fitz, Sky and me) tomorrow.

We will be free from 8:00 to 9:40 on tomorrow morning and from 13:00 to 15;00 on tomorrow afternoon. If you could accept our invitation, tell me which time is available for you. we’ll come to your office and shoot video. The only thing you should prepare is thinking what you want to say to your students us before the Thanksgiving.

We will be really glad If you can accept our invitation. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Amy

I am very honor to receive your reply. Friday should be fine. We will be free in the morning from 8:00 to 9:55 and in the afternoon from 15:40 to 5:30. If it’s convenient for you, could we have a meeting?

We will be really glad If you can accept our invitation. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear John

I am Christopher (Student ID:2018141521058) from SSC. I am writing to invite you to make a video for Thanksgiving with us (Fitz, Sky and me) tomorrow.

We will be free from 8:00 to 9;55 on tomorrow morning and from 15:40 to 17:30 in the afternoon. If you could accept our invitation, tell me which time is available for you. we’ll come to your office and shoot video. The only thing you should prepare is thinking what you want to say to your students us before the Thanksgiving.

We will be really glad If you can accept our invitation. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Dean Chen:

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I’m writing to ask some advice from you about my future.

I don’t know whether I want 2+2 to go to other American university other than the university of Pittsburgh, like University of Southern California, or 3+1 to go to the university of Pittsburgh. If I went to another university, I would basically go to the United States for three years of undergraduate study. I wonder if it’s worth that I spend extra one year and money.

So, could you be so kind to give me opportunity to talk to you face to face? I will be free tomorrow except from 10:15 to 11:55 and Friday is also OK, I will be free from 8:00 to 10:00 and from 15:30 to 17: 00.

I will be really glad If you can accept my request. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor Quan

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I’m writing to ask some advice from you about my future.

I don’t think I could fully express my thought in this email and I will be free from 10:00 to 11:00 and from 13:00 to 14:00 and from 16:00 to 17:00 tomorrow. so could you be so kind to give me opportunity to talk to you face to face tomorrow?

I will be really glad If you can accept my request. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor John

  I am Christopher (Student ID:2018141521058, Class Section 6). I am writing to make an appointment with you about my essay 1.

After meeting with Professor Amy and David, I have found many things that can be improved in my essay 1 and I have modified them. So, could you be so kind to revise my essay 1? I will be free tomorrow except from 10:15 to 11:55 and weekend is also OK.

I will be really glad If you can accept my request. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor Reed

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I’m writing to ask some advice from you about my future.

I don’t think I could fully express my thought in this email and I will be free from 10:00 to 11:00 and from 13:00 to 14:00 and from 16:00 to 17:00 tomorrow. so could you be so kind to give me opportunity to talk to you face to face tomorrow?

I will be really glad If you can accept my request. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor Quan

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I am writing to ask you some questions about the volumetric flask.

In high school, I have learned that the solute to be dissolved must not be dissolved directly in a volumetric flask, but must first be dissolved in a beaker. But in P346 of the textbook, potassium permanganate is dissolved directly in a volumetric flask. So, I think for the different solutes, we’re going to think about them separately. For the solute that won’t give off a lot of heat when dissolved, we can dissolve it directly in a volumetric flask, and for the solute that will give off a lot of heat when dissolved, we must dissolve it in a beaker. Is this true? And in the final step for preparing a solution, the picture in the textbook shows that the hand extrudes distilled water directly from the still water bottle instead of using a colloid dropper to bring the level of solution exactly to the volume mark. Is that the right thing to do?

Your assistance will be appreciated and looking forward to your early reply.

Yours

Christopher King

Dear Professor Zhang

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I’m writing to report students’ current passion for mathematical modeling.

I talked about mathematical modeling among my classmates, and it turned out that 56 people were willing to take part in the mathematical modeling contest. The number was staggering. So, I think we could organize a quiz to give students a taste of what mathematical modeling is like. If they think mathematical modeling suits them, they can stay. Otherwise, quit. The reason why I do this is that I think mathematical modeling should not only rely on imagination and down-to-earth struggle, but also a sincere love for mathematics.

That’s the way it is now. What do you think I should do next? Your assistance will be appreciated and looking forward to your early reply.

Yours

Christopher King

Dear Professor McDougall

On behalf of all the members of our group, I would like to apologize to you for being late for the appointment this Friday. Could you give us another chance? If possible, could you be so kind to let us film your views on deglobalization at around 12:10 pm tomorrow (March 25)?

We will be really glad If you can accept our invitation. Looking forward to your reply.

Yours, sincerely

Christopher

Dear Professor Rhym

I am Christopher (Student ID:2018141521058, Class Section 4). I’m sorry I disturbed your holiday. I am writing to point out some mistakes of the citation in MLA style in my synthesis paper and proposal paper.

I had always thought that citation was the same for a book, a journal or an anthology. Therefore, I used the wrong citation for synthesis paper and proposal paper because I used the journal citation format in all citation. I didn’t realize my mistake until the synthesis paper having been graded was handed to me, but it was too late because my proposal paper had been submitted. I realized the seriousness of the error, so I send this email to confirm whether the citations which are corrected by me are correct, so that I could write the research paper citation smoothly.

I also encountered a problem when correcting citation, that is, *The Handbook of Global Online Journalism* seems to be only in electronic version, not in paper version, so I used the citation format of e-book, I don’t know whether it is correct or not.

I would be appreciated it if you could point out the citation error in my two paper. Have a good holiday!

Yours, sincerely

Christopher King

Dear Professor

I feel honored and excited to receive your email. I’m just looking for a way to improve my grammar, speaking, and listening. And Thursday from 10:15 to 11:00 should be fine for me.

Thank you very much for holding this workshop

Yours, sincerely

Christopher King

Dear Professor Ho

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I would like to know if I could ask for a leave of absence from your class on Thursday because I’m going Wangjiang Campus to shoot a promotional video for college entrance examination of our university on Thursday morning.

Guilty about my absence, I assure you that I will make every effort to compensate the missing lesson.

I’d appreciate it if my request could meet with your approval.

Yours sincerely

Christopher King

Dear Professor Ho

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class Section 1). I am writing to you because I was wondering whether you need a teaching assistant next semester.

If you need an assistant, that’s great. Could you be so kind to read my personal statement in the attachment? If not, I feel very sorry to disturb you.

Looking forward to your reply.

Your, sincerely

Christopher King

Dear Professor Rhym

I am Christopher (Student ID:2018141521058, Class of 2018). I am writing to ask you for a favor.

I’d appreciate it if you could offer me help. Looking forward to your earliest reply. Yours, sincerely

Christopher King

Dear Professor Quan:

Thank you very much for squeezing time out of your busy schedule to look through my self-recommendation materials. I hope this will be the beginning of my success.

First of all, I have to apologize to you. I feel so sorry. On Sunday evening, I was having fun with my friends, you know, this is the last night of the summer vacation. So, I carelessly overlooked your message in QQ when I saw it, because the next day BB has been repaired.

OK, next, I am very happy to introduce myself to you.

I am Jin Liuchao, and my English name is Christopher King. I am really eager to take the opportunity to apply for the qualification to be your teaching assistant.

A year has passed since the fantastic life of the university. Summarize the past ten months of study and life: busy but meaningful, enriched and happy.

First of all, I have made great achievements in my study. I don’t want to go into too much detail on that. In a word, I learned a lot.

Secondly, I work very hard in the Student Television Station of Sichuan University. My workload is always in the top three in the whole television station. And I’m the leader of a news team. Our group is well-known in television station for its high yield and high quality. When other groups say there is too much work, our group always takes the bull by the horns and accepts various tasks. Every time I can arrange my team members very well. The prosperity of the group is inseparable from the tacit cooperation of team members and the unified command of the group leader. And because of this, this semester I became the deputy director of the television channel.

Third, leadership is only a small part of my ability. I think that the characteristic that I like to help my classmates is another important feature of me. My classmates always come to ask me questions through QQ, I often patiently answer their questions. I will also help my classmates sort out some outlines before each exam. I will find some fun in helping my classmates. I think this is a necessary characteristic of TA.

More importantly, there are very few people in this world who can make their all words and promises come true. But if anyone can do that, I’m sure they can do everything well. What could stand in the way of his triumphalism and tenacity? That’s who I am. I can do a lot to fulfill the words and promises he has made to others. I have an ardent heart, that’s exactly why I hope to be your teaching assistant. I would be grateful if offered the chance.

Yours, sincerely

Christopher King

Dear Professor Jeong:

I am Christopher (Student ID:2018141521058, Class of 2018). I am writing to ask you for a favor in the course Introduction to Korean Culture and Civilization.

I find I have some difficulties in reading the essay required for this course. I need to spend the whole day to read one essay. Like Eun-Young Jung’s essay, I read it from today’s morning 7:00 A.M. to now 16:00 P.M. I don’t know why I need to spend so much time. Because when I read the physics or mathematic or chemistry textbook or TOEFL reading, I read much faster than other students. Could you be so kind to help me solve this problem?

I’d appreciate it if you could offer me help. Looking forward to your earliest reply. Yours, sincerely

Christopher King

Oh, professor, I forget to say one more thing. Maybe I can help you to learn how to make the PDF more beautiful and comfortable to read. And the attachments are optimized visions of the essays you gave to us. If you are willing to learn, I’m ready to help you!

Dear Professor Rhym

I am Christopher (Student ID:2018141521058, Class of 2018). I’m writing to you to find out whether it is available for you on this Friday afternoon except from 13:50 to 15:30 to meet our group (some other members are from other institutes) to discuss some details about the movie we wanna shoot.

The first thing we want to add into the movie is a lead-in beginning which is a sense that a boy plays a small elastic ball, and then the ball falls onto the ground. When shooting, we let the lens follow with the ball until the feet of the gentleman appear. Besides, another argument we have is whether we need to let the wallet of B appear before B finds his wallet disappear. If not, at the end of the movie, the audience may not know what B is finding.

I would be really glad If you can accept my request. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor Glenn

I am Richard (Student ID:2018141521058, Class of 2018). I’m writing to you to find out whether it is available for you on this Friday afternoon except from 13:50 to 15:30 to meet our group (some other members are from other institutes) to discuss some details about the movie we wanna shoot.

The first thing we want to add into the movie is a lead-in beginning which is a sense that a boy plays a small elastic ball, and then the ball falls onto the ground. When shooting, we let the lens follow with the ball until the feet of the gentleman appear. Besides, another argument we have is whether we need to let the wallet of B appear before B finds his wallet disappear. If not, at the end of the movie, the audience may not know what B is finding.

I would be really glad If you can accept my request. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor Jeong:

I am Christopher (Student ID:2018141521058, Class of 2018). How is your health? I am writing to ask you some questions about the final paper.

I’ve already upload my final paper proposal on the BlackBoard. I was wondering whether I can start to write my final paper.

I would be really glad If you can do me a favor. Wish a speedy recovery to you.

Yours, sincerely

Christopher King

Dear Professor Mai,

I am Christopher (Student ID:2018141521058, Class of 2018). I’m writing to you to apologize for my mistake because I provided some students with my homework owning to my negligence. I feel very repentant with my reaction. Recently, I have met with a lot of trouble. Because courses of our sophomore have become more and more difficult recently, many people cannot understand what they are learning, which leads to these people will reach out for help from those who are able to understand. But few people can understand. Then almost only a few people went to answer the students’ questions. I’m one of them. Every week, many students come to ask me questions about some problems in homework and textbook, and many of these problems are almost the same. It’s really bothering me. This also led to my low learning efficiency, because I was interrupted by QQ messages from time to time. So, I have an idea, why don’t I directly give what I write about the homework to the people who ask me questions because my homework is more detailed than what I speak to them directly so that they can understand what they have confusion about better. As all of our students can see that every time before exam, I’ll always make an outline of the exam for everyone to review. And I always feel satisfied when I hear many students tell me that my outline is very useful. But now, I think it’s wrong because it’s unfair to someone who doesn’t ask me for help. So, Professor Quan suggested me that I can organize some students to explain the ideas of the problems in the homework, record these ideas into videos every week and provide these videos to all students, which will not lead to unfair things. What a fantastic idea! I’ll think more about it and try to do something useful to find a solution for my current dilemma.

Again, I apologize for my mistake. Looking forward to your reply.

Yours, sincerely

Christopher King

Dear Professor Ho,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Class in Linear Algebra). I am writing to you to check whether we have class on 30th Dec because most of our students will have Probability Exam on that day from 1:50pm to 16:25 pm.

Looking forward to your reply.

Your, sincerely

Christopher King

Dear Professor Yang,

I’m really glad to receive your reply. I think I can handle 11-13 hours per week because in this semester, I have 32 credits’ courses, but I can still handle them. However, in next semester, I only have about 24 credits. So, I can make sure that 11-13 hours is OK for me. And I have no question about the requirement for the teach assistant because I have a roommate who is in your class of Calculus 3 in this semester. So, he told me almost everything.

Looking forward to your earliest reply.

Your, sincerely

Christopher King

Dear Professor Jeong,

I am Christopher (Student ID:2018141521058, Class of 2018). I’m writing to you to send you our final version of the summary of the group presentation, which is in the attachment.

Best wishes

Christopher King

Dear Professor Yang,

I think it’s OK for me to do a recitation (mostly involved solving homework problems and answer questions from students) one to two hours every week. And my course selection for next semester has preliminarily determined that there will be no classes on Monday morning and Friday all day. I am not sure whether you have class on these periods of times. So, if there will be Calculus 3 courses on these periods of time, I can attend all lectures and interact one-on-one with students during studio sessions. And except this, other tasks are all OK for me to do.

Looking forward to your reply.

Your, sincerely

Christopher King

Dear Professor Jeong,

I am very appreciated for receiving your reply. And now, my final paper is almost done except the citation of the video I have used. However, it’s difficult for me to get the access to YouTube. So, I was wondering could you be so kind to provide me with the link to each video including the date it was uploaded. There are videos I have used.

1. BTS\_IDOL (Week 01 Video)
2. Cho Yong-pil (Week 02 Video)
3. H.O.T. - Warrior’s Descendant (Week 02 Video)
4. Rain’s Japan Tour (Week 03 Slide)
5. TVXQ – Hug (Week 03 Video)
6. TVXQ – Mirotic (Week 03 Video)
7. Jo Sung-mo, “To Heaven” (Week 12 Slide)

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Jeong,

I am very appreciated for receiving the link you find for me. But I still have one more question: should I write the citation like this in the Work Cited section besides below the figure.

“Cho Yong-pil.” *YouTube*.

“H.O.T. - Warrior’s Descendant.” *YouTube*, 18 Jun, 2012, https://www.youtube.com/watch?v=T6y2psd9ti4.

“Rain’s Japan Tour.” *YouTube*, 26 Sep, 2014, https://www.youtube.com/watch?v=puTqwCBbAwU.

“TVXQ – Hug.” *YouTube*, 2 Jun, 2011, https://www.youtube.com/watch?v=xQ635vE2RQI.

“BTS\_IDOL.” *YouTube*, 24 Aug, 2018, https://www.youtube.com/watch?v=pBuZEGYXA6E.

Leonardo Dalessandri. “Watchtower of Turkey.” *Bilibili*, 16 Oct, 2014, https://www.bilibili.com/video/av1625319?from=search&seid=14642080256134834075.

If I need to do so, what about the author? Should I write the author before each name of song? But I think like BTS-IDOL, the video maker is not BTS themselves, but other people. Therefore, how can I find the author of these MVs?

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Jeong,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to you to check whether we should write an abstract for the final paper. In last semester, Professor John didn’t require us to write an abstract so in the file I’ve upload on BB, I didn’t write the abstract. Therefore, if I need to write an abstract, could I write it and send the file to you via E-mail.

By the way, will we have class this night?

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Yang,

I’m very glad to hear that. My student ID is 2018141521058.

Yours, sincerely

Christopher King

Dear Professor Yang,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). Do you know we are going to have classes online at the beginning of next semester? I was wondering what the arrangement of the TA’s work during this period is. And could you be so kind to inform me your WeChat ID so that we can contact each other conveniently.

Your assistance will be appreciated and looking forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Hanne,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). Do you know we are going to have classes online at the beginning of next semester? Therefore, there are a lot of things to do during the holiday to adapt to the environment of online course, such as building the QQ group. So, I was wondering what the arrangement of the TA’s work during this period is.

Your assistance will be appreciated and looking forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Stehle,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to discuss with you the fourth question of the examination.

In Page 101 in the textbook, it says that we will use the term internal energy to refer to both internal energy per unit mass and the total internal energy and also in Page 110 in the textbook, it says that as for internal energy, we could speak of specific enthalpy, h, and total enthalpy, H. However, we will refer to both as enthalpy. As the TA replies me that if the problem does not need to solve the overall enthalpy and internal energy, why provide us with mass? In response to this reply, I think the fourth question requires us to use mass when we ask for the heat transfer. So, we don’t need to use mass in the second and third questions. I read the book for all what we have learned carefully, so, during the exam, I am confident that calculating the specific internal energy and specific enthalpy in this question is correct because the question doesn’t clearly indicate whether we want specific or total. I firmly believe that the idea and the purpose of our examination should be to test whether the students have mastered the knowledge, rather than whether we should multiply by a mass. In view of this, I hope you can give a correct and reasonable explanation to this question.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Christopher King

Dear Professor Hanne,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to ask question about the sentence “Handwriting only ( but, Xmind map is possible..Talk to Michael Cao about it)” in your announcement. I cannot fully understand this sentence. Do you mean if I use Xmind, which is a software, I need not to write down everything, just type in the computer?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Christopher King

Dear Professor Stehle,

I’m very sorry that I didn’t come to your office house today. When I received your reply, I was very happy, but I was thinking at the same time that I had classes all Monday afternoon. So I’m waiting for the professor to finish class ahead of time, so that I can join your office hour. But today that professor didn’t leave class in advance, so I missed your office hour. If it’s convenient for you, I can try to join your office hour next week. Anyway, the truth is there and will not disappear with the passage of time. Have a good week~

Yours, sincerely

Christopher King

Dear Professor Jeong,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to you to send you our group member and the movie we want to present.

Group Member (5 Boys):

Christopher Jin-2018141521058

Brian Liu-2019141520065

Faraday Zhong-2018141523018

Leslie Xie-2018141523022

Alex Huang-2018141521001

Movie: *Silenced (2011)*

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Stehle,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to discuss with you about the slide for studio.

For the first question in the studio of this week, you write that W=m(u2-u1) as shown in picture below:

I think it is wrong. I found that the explanation is not the same as yours. But because it’s studio, time is pressing. I didn’t have time to think about it, so I changed my correct answer to the wrong one according to the steps on your slide. Then I went to read the book afterwards. There seems to be something wrong with your slide as shown in picture below, which is from textbook.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Christopher King

Dear Professor Jeong,

Sorry for doing that. I’ve finished the first version of final paper. At that time, I thought I wanted to make good use of my labor holiday, because this month, I will face a lot of exams, projects, and presentations. So, I did it a little ahead of time. I send you my first version of final paper attached in this e-mail. If you think my theme is not good, I’ll write another one. I’m feel really sorry for doing that again.

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Christopher King

Dear Professor Yoon,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to ask you whether we have homework this week.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Christopher King

Dear Professor Hanne,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). Sorry professor~ I’m tired yesterday so I’m sleeping when you send the WeChat message. By the way, I have a question in the homework of Chapter 6. As shown in figure below, how can we create a negative resistor (-10Ω)? Why can the resistance be negative?

A screenshot of a cell phone

Description automatically generated

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Christopher King

Sichuan University-Pittsburgh Institute

Zone 3, Liberal Arts Building, Sichuan University Jiang’an Campus, Shuangliu District, Chengdu, Sichuan, China 610207

A picture containing drawing

Description automatically generated

Dear Professor Jeong,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to apologize for improper speech in class. When you ask us: “Why are the ghosts in horror movies mostly women?” I answer: “Women are symbols of desire and temptation.” I find I can not express my true thought properly. I mean it’s not that women have desires and temptations inside, but that women’s appearance arouses the audience’s desires. Sorry for confusing. And it seems like what I said annoyed Amanda. She tweeted me what I said and commented that I was morally corrupt, which is shown in picture below. If someone does not know why I answer in this way, this will certainly lead to many misunderstandings. I know there is something wrong with my expression, and I sincerely apologize to the women. I don’t have any malicious ideas.

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Dear Professor Kirchhof,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to ask you whether a junior like me can apply for a teaching assistant position in University of Pittsburgh.

Let me first introduce some of my basic information. Thank you very much for squeezing time out of your busy schedule to look through my self-recommendation materials. I hope this will be the beginning of my success.

Firstly, I am teaching assistant for Calculus 3 and Physics 1 courses at SCUPI now. I still want to assist teachers to complete teaching work successfully and help students master knowledge better at the University of Pittsburgh.

Academically, I have achieved the first place in the Class 2018 in SCUPI for three consecutive semesters (GPA4.0, weighted average mark: 96.88). In many compulsory courses, I scored nearly perfect 100 points. Therefore, I was honored to win the annual Best Academic Achiever in SCUPI last semester. As the winner of the Best Academic Achiever, I have the responsibility to lead the students to study and struggle together. I like to give full play to my advantages to help others. I am very happy to help students to solve their academic problems. When my classmates ask me questions, I usually answer them patiently and carefully to make them understand. I will also sort out some useful materials for students to review before each exam, such as outline and the answer to the previous assignments, etc.

Finally, my intended position is a teaching assistant for the courses like Linear Algebra, Calculus or Physics, because I have mastered these courses well.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Thank you very much for your help and guidance.

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to ask whether we can upload the PDF file onto BB for the term project instead of word document. As we know, the format of in the word document is often lost.

Your assistance will be appreciated and look forward to your early reply.

Yours, sincerely

Dear Professor Mai,

I am Christopher (Student ID:2018141521058, Class of 2018). I am writing to you to suggest to cancel the final examination for all subjects this semester and postpone the final exams to next semester offline. Here are my reasons.

As we all know, our institute has always attached great importance to fairness. Although the professors strictly prevent and control, there are many unfair aspects of the online exam.

First of all, I think Professor Ho and Professor Yang are the best in prevention and control. In order to prevent cheating, they disrupted the order of all questions, and even the order of choice of multiple-choice questions. But there is an old Chinese saying that there are policies at the top, there are countermeasures at the bottom (上有政策，下有对策). This method of preventing cheating does not work. For example, I can use the method below to break through this line of defense. If two people (assuming A and B) want to cheat, after they enter the exam, first, both A and B do the first question of A. After finishing it, A submitted it, and B would not submit it until he encountered this problem. Then A and B both started to do the first question of B. After finishing it, B submitted it, and A waited until he encountered this problem before submitting. Repeat in this way until all the questions are finished. This method not only allows two or more people to discuss the exam question, but also prevents cheating from being discovered.

Second, for most of the exam questions issued by professors, we can find the answer on the Chegg website (https://www.chegg.com/study). If all students can find the answer, it is fair. However, this Chegg website needs to pay a membership fee of $ 19 per month, which is a lot of money for people who are not very wealthy. But as far as I know, several freshmen and sophomores already have Chegg accounts. This is extremely unfair.

Third, we cannot test in the same environment, and environmental factors can also cause some injustice. For example, if a classmate’s home suddenly loses power during the exam, this leads to the classmate not being able to take the exam. I have encountered this kind of situation, but only in class. Besides, for example, the noise of the lawn mower, the need to cook at home for housework, etc. will affect the students’ exams.

Based on the above points, I think if it is impossible to maintain fairness, it is best not to take an exam this semester. I heard that Professor Quan put the exam offline to the next semester, which is great. If the examination has to take place, the grades of this semester should not be included in the standard range of measuring a student’s ability because there are a lot of unfairness. I hope you can consider my suggestion seriously.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Christopher King

Dear Professor Quan,

I am Christopher (Student ID:2018141521058, Class of 2018). I am writing to you because I heard that you put the final exam to the next semester offline so that I was wondering whether you could promote our institute to cancel the final examination for all subjects this semester and postpone the final exams to next semester offline. Here are my reasons.

As we all know, our institute has always attached great importance to fairness. Although the professors strictly prevent and control, there are many unfair aspects of the online exam.

First of all, I think Professor Ho and Professor Yang are the best in prevention and control. In order to prevent cheating, they disrupted the order of all questions, and even the order of choice of multiple-choice questions. But there is an old Chinese saying that there are policies at the top, there are countermeasures at the bottom (上有政策，下有对策). This method of preventing cheating does not work. For example, I can use the method below to break through this line of defense. If two people (assuming A and B) want to cheat, after they enter the exam, first, both A and B do the first question of A. After finishing it, A submitted it, and B would not submit it until he encountered this problem. Then A and B both started to do the first question of B. After finishing it, B submitted it, and A waited until he encountered this problem before submitting. Repeat in this way until all the questions are finished. This method not only allows two or more people to discuss the exam question, but also prevents cheating from being discovered. This is not the worst. Recently, someone even came to me and asked me to take the exam for him. I refused him decisively. Through my experience as a teaching assistant, I was particularly angry when reviewing students’ test papers. When I reviewed the seventh test paper yesterday, I found that three of the seven test papers had exactly the same problem-solving process, format, and answer (wrong answer), which shocked me. I told the professor about this situation, but the professor said: “Let’s keep this in mind, as we go along. One thing we cannot know is how they did their exams, we don’t know if they have used their books, or homework, or used internet, or even talk to each other, when they are writing down the solutions. What we can do is to note their names and check their performance for homework and quizzes in general and compare those with their exam performance. Hopefully they have learned something. We try to help them learn. It’s up to them eventually how they want to learn and what they expect from this class. With online assessments, currently we are lack of evidence even if we think some are cheating.” These words from the professor made me feel his helplessness. Really, it also makes me feel helpless. I study hard and work hard to be strict with myself. This makes me feel that my efforts are not worth it.

Second, for most of the exam questions issued by professors, we can find the answer on the Chegg website (https://www.chegg.com/study). If all students can find the answer, it is fair. However, this Chegg website needs to pay a membership fee of $ 19 per month, which is a lot of money for people who are not very wealthy. But as far as I know, several freshmen and sophomores already have Chegg accounts. This is extremely unfair.

Third, we cannot test in the same environment, and environmental factors can also cause some injustice. For example, if a classmate’s home suddenly loses power during the exam, this leads to the classmate not being able to take the exam. I have encountered this kind of situation, but only in class. Besides, for example, the noise of the lawn mower, the need to cook at home for housework, etc. will affect the students’ exams.

Based on the above points, I think if it is impossible to maintain fairness, it is best not to take an exam this semester. If the examination has to take place, the grades of this semester should not be included in the standard range of measuring a student’s ability because there are a lot of unfairness. I hope you can consider my suggestion seriously.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely

Dear Professor Quan,

I am honored to receive your reply and so appreciated that you have the same idea as me. Thank you again for your patient help.

As for the cheating methods you mentioned, all I can think of is to provide different types of exams with their unique cheating methods as shown following.

1. Exam Like Herding
   1. Explanation: In this type of examination, the professor directly puts the entire set of test papers onto the BlackBoard in the form of assignment, and then asks the students to complete and upload their answer onto BB within the specified time.
   2. Cheating Method: This kind of exam is very easy to cheat. Any exchange and discussion as well as search for answers are not restricted (in principle, it is not allowed). You can do whatever you want.
2. Exam with Time Control for Each Problem
   1. Explanation: This type of exam is an improvement on Exam Like Herding above. Added time limit for each question.
   2. Cheating Method: In the actual examination process, I can feel that this kind of examination has not achieved the purpose of preventing cheating. After all, two people working on a topic together is definitely more efficient and accurate than one person thinking about it. When two people do the subject quickly, this time limit is almost useless.
3. Exam on the BlackBoard Examination System
   1. Explanation: BlackBoard has its own examination system. It can allow professors to set the problem in a random order to prevent cheating. And once students have done one problem and enter the next problem, they can not go back to the previous one.
   2. Cheating Method: If two people (assuming A and B) want to cheat, after they enter the exam, first, both A and B do the first question of A. After finishing it, A submitted it, and B would not submit it until he encountered this problem. Then A and B both started to do the first question of B. After finishing it, B submitted it, and A waited until he encountered this problem before submitting. Repeat in this way until all the questions are finished. This method not only allows two or more people to discuss the exam question, but also prevents cheating from being discovered.

The above are all the types of exams I have taken in SCUPI. In view of this, none of these test types can effectively prevent cheating. I am also thinking about whether there are any examination methods that can reduce cheating. But the Internet is really unfathomable. You can not predict what absurd things will happen to students who sit in front of a computer screen thousands of miles away.

Again, thanks for your respectable reply and looking forward to your meeting with Professor Mai.

Best wishes.

Dear Professor Quan,

It’s a great idea. OK, let me try to open the camera during the exam as shown in the video in the attachment.

Thank you for your help.

Have a good night~

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to ask a problem in the quiz this week.

Question: A continuous conveyor has

Answer:

1. 3 rotating axes
2. 3 linear axes
3. 1 linear and 2 rotating axes
4. 2 linear and 1 rotating axes

I have a question about the meaning of rotating axes and linear axes in this problem. Is it mean that because there are one bar rotating near the load side and on bar rotating near the unload side (2 rotating axes) and there is a conveyor belt moving in a linear way (1 linear axes)?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely.

Dear Professor Jeong:

I am Christopher (Student ID:2018141521058, Class of 2018). I am writing to ask you a question about how I can cite the screenshot from the film *Kim Ji young and born 1982* (2019), I searched the film on YouTube. But I cannot find the whole film. As you know, in China, I can easily get accessed to this film in the website like iQiYi. But how can I find it on the English website and cite it?

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely.

A Letter from A Student in SCUPI Who Misses You So Much

Dear Professor Reed,

I am Christopher (金刘超) from SCUPI 2018. I’m writing to tell you that I plan to participate in Summer Studentship of Research Internship Program of Westlake University.

To be honest, you are my favorite professor since I entered university and I really like your classes. I still remember the time I came to your office, you told me a lot about what college students should do, and I benefited a lot. I still remember the car we made in engineering class as shown in picture below. I miss the good times with you in engineering class. I miss you so much, and hope to see you at Westlake University.

I am currently doing an application for the Summer Studentship at Westlake University. I want to participate in Understanding the economic consequences of COVID-19 on the Chinese and Global Economy project leaded by Professor Thomas Cherico Wanger or smart chip design and testing project leaded by Professor Zhang Ziyang.

I will be really glad and thankful if my application is approved. I cannot wait to see you at Westlake University!

Yours, sincerely

Christopher King

Dear Professor Reed,

I feel very honored and excited to receive your reply. Thank you very much for your help. I cannot thank you enough! I hope this will be the beginning of my success.

Have a good day.

Yours, sincerely

Christopher King

Dear Professor Wanger,

I’m Liuchao Jin (Christopher King) from SCUPI 2018. I feel very honored and excited to receive your email. I’m writing to send you my CV (in the first attachment) and talk about my experience in economics, compiling datasets, and analyzing these data with various tools. Thank you very much for squeezing time out of your busy schedule to look through my material.

I am now studying in Sichuan University-Pittsburgh Institute (major in Mechanical Engineering), and I have received honors such as the National Scholarship, Sichuan University Outstanding Student, Best Academic Achiever, etc. Since I entered the university, I have been the first in the 2018 grade of Pittsburgh Institute for three consecutive semesters. Currently I am working at Pittsburgh Institute as a teaching assistant in calculus and physics courses and also working in the Student TV Station of Sichuan University as deputy director.

And the following comes my experience in economics, compiling datasets, and analyzing these data with various tools.

Firstly, I am passionate about economics. I have learned Mankiw’s microeconomics and macroeconomics so far (all taught in English) (The lively atmosphere of the class when I learned the economics is shown in the second attachment). Recently, I studied the impact of the measures taken by the Chinese government after COVID-19 on the future development of the Chinese economy according to China’s response to the 2008 financial crisis and performed a group presentation (our slides for the presentation is attached in the third attachment). So, when I saw the content of the project you lead, I felt very excited and moved. This fall, I will go to the University of Pittsburgh for joint training. I plan to take a minor in economics at the University of Pittsburgh. I really hope this summer internship will be the beginning of my success.

Secondly, for the data analysis, I have learnt Probability and Statistics for Engineers (Grade: 100) and I can use MATLAB and SPSS to analyze data proficiently (There is a studio work I did in the fourth attachment about data analysis in the course - Intro. to Engineering taught by Prof. Reed). Besides, Prof. Yang is the tutor of the course in which I work as a teaching assistant. One of his research directions is also data analysis. I also learned a lot from him.

At the beginning of the establishment of Westlake University, I was full of yearning and expectation for it. In my eyes, Westlake University is a university with great vitality and potential. I have always believed that Westlake University is a good place to study and research. If I could become a summer intern at Westlake University and join your team, I would feel very honored.

I would be grateful if offered the chance. Looking forward to your reply.

Yours, sincerely

Christopher King

zhangziyang@westlake.edu.cn

Dear Professor Wanger,

Thank you for giving me the opportunity to understand what your team needs to do. I am well aware of the high requirements for joining your team. I will work hard to improve myself and hope to see you someday in the future. I wish your project great success and have a fantastic day.

Best wishes.

Dear Echard,

Thank you for emailing me. As I told you in the WeChat before, the access limitation forced me to choose the option 3, which is to defer the offer and take classes in SCUPI. So, I will take courses in SCUPI next semester. Actually, in the next semester, I have 30 credits of courses to learn and also to be a teaching assistant of differential equations and physics. I will be busy and full. Therefore, I think staying in SCUPI is also a good choice. Thank you again for your concern. Have a good day.

Best wishes.

Dear Professor Yoon,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I’m writing to ask a question in final exam. For the third problem part (a), I calculate the strain and stress inside the vessel. So, the sigma3 is not zero. It is -15 MPa, which will influence my final answer. And also I notice that there is only one significant figure in the question. But I think one significant figure is too less. So, I use two significant figure. The feedback for this question is “calculation -2” and “max ﻿shear -3”. Could you be so kind to give me one more point so that my final score can be one point higher (Now my final score is 97.27).



Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, sincerely.

Dear Professor Yoon,

I am honored to receive your reply and so appreciated that you solved my confusion. It’s OK. Thank you again for your patient help. Have a good day~

Yours, sincerely.

Dear Sir/Madam,

I’m Liuchao Jin (Christopher King) from SCUPI 2018. I’m writing to send you my CV (in the first attachment). Thank you very much for squeezing time out of your busy schedule to look through my material.

I would be grateful if offered the chance. Looking forward to your reply.

Yours, sincerely

Invitation of Write Academic Reference from SCUPI 2018

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Courses: Automatic Controls & Mechanical Design 1). I’m writing to ask whether you could be so kind to help me complete the academic reference.

Because I am full of desire for scientific research, I am now applying for Mitacs Globalink Research Internship 2021.

Mitacs Globalink Research Internship is a competitive initiative for international undergraduates from the following countries and regions: Australia, Brazil, China, France, Germany, Hong Kong, India, Mexico, Taiwan, Tunisia, Ukraine, United Kingdom and the United States. From May to October of each year, top-ranked applicants participate in a 12-week research internship under the supervision of Canadian university faculty members in a variety of academic disciplines, from science, engineering and mathematics to the humanities and social sciences.

The application requires us to have academic references from two professors. I was wondering whether you could do me a favor because I really hope to get your academic reference. If possible, I will send you an invitation letter. If you want to know more about me, I have attached my CV in the attachment.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, sincerely.

Dear Professor Ghalambor,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: Applied Thermodynamics). I’m writing to ask whether you could be so kind to help me complete the academic reference.

Because I am full of desire for scientific research, I am now applying for Mitacs Globalink Research Internship 2021.

Mitacs Globalink Research Internship is a competitive initiative for international undergraduates from the following countries and regions: Australia, Brazil, China, France, Germany, Hong Kong, India, Mexico, Taiwan, Tunisia, Ukraine, United Kingdom and the United States. From May to October of each year, top-ranked applicants participate in a 12-week research internship under the supervision of Canadian university faculty members in a variety of academic disciplines, from science, engineering and mathematics to the humanities and social sciences.

The application requires us to have academic references from two professors. I was wondering whether you could do me a favor because I really hope to get your academic reference. If possible, I will send you an invitation letter. If you want to know more about me, I have attached my CV in the attachment.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, sincerely.

Dear Professor Hessler,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Course: Introduction to Journalism and Non-Fiction). I’m writing to tell you that I really want to take your class.

One year ago, Prof. Rhym asked me: “Hey, Christopher. Do you want to take journalism course taught by a new-coming professor? He is an outstanding writer.” I nodded firmly and said: "Of course." Because at that time, I am the news reporter of Sichuan University Student TV Station. And I am very obsessed with the news industry. So, every semester, Introduction to Journalism and Non-Fiction was always in my pre-selection schedule. This time I finally took your class. I was so excited.

Hope we can enjoy a wonderful semester.

Yours, sincerely.

Hi Christopher

Sure, I will more than glad to assist. Do you need to attached the ref. letter to your application of do I send the ref. letter directly to Mitacs? Do you have the Mitacs selection criteria - it might help to target the ref letter to the requirements. Please send me more info including the submiission deadline

Good luck

regards

SC

Dear Professor Fok,

I feel very honored to receive your reply and very thankful for your help.

I have almost finished the application form of Mitacs. It requires me to input professor’s name and email as shown in figure below. So, I think the process of submission of the reference letter is that once I click the “invite your referring professor” button, Mitacs will send you a link to a website so that you can submit the reference letter. I will do it after I send this email to you.

手机截图图社交软件的信息

描述已自动生成

Besides, for the selection criteria, I have selected 7 projects for my Mitacs application as shown below: [The projects are displayed in my preferred order (i.e. 1 is my most preferred project, while 7 is my least preferred project)].

1. 3D printing and multiscale modelling of lattice structures-McGill University-Prof. Abdolhamid Akbarzadeh Shafaroudi
2. Control of Microrobots-University of Toronto-Prof. Eric Diller
3. Fabrication strategies for soft robots-University of Toronto-Prof. Mihai Duduta
4. Emerging topics and technologies in robotics and unmanned systems-University of British Columbia-Prof. Homayoun Najjaran
5. Artificial Intelligence for Industry 4.0-University of British Columbia-Prof. Homayoun Najjaran
6. Development of a gas sensor for detection of natural gas leakage- University of British Columbia-Prof. Mina Hoorfar
7. Mechanical Design and Prototyping of a Soft Robotic Hand or Gripper- McMaster University- Prof. Gary Bone

Finally, the deadline for the submission of application form is September 23, 2020 at 1:00 pm.

I express my sincere thanks to you once again. Looking forward to your early reply.

Yours, sincerely.

Hi Christopher

Thanks. I have rec’d the invitation to submit the ref letter. I will submit it online later this week. From your cv, you mentioned that you did some research projects with a few companies. It might be good if you can give me more details about these projects so that I can mention it in the ref letter (e.g. what are these investigations and findings/results, etc. and the potential benefits to the companies). I feel this could boost your chances.

Good luck

Regards

SC

Dear Professor Fok,

I feel very very honored to receive your reply and thank you for your careful consideration.

For the Dongfang Electric Machinery Co., Ltd., which is one of the top 500 in China and a state-owned enterprise in China., I did research on characterization method of stator winding insulation defects based on partial discharge online measurement technology. I am mainly responsible for the mechanical design in this project.

The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment. The partial discharge test is an important method to discover potential insulation defects of the insulation system. In the process of partial discharge, in addition to exciting the pulse current in the line, the high-speed displacement of space electrons will excite the surrounding medium to generate electromagnetic waves. At the same time, the discharge will excite protons to vibrate to generate mechanical waves, sound waves and ultrasonic waves. Ultrasonic testing has the characteristics of good anti-interference, low cost, and positioning capability, and is widely used in high-voltage equipment discharge testing. However, the ultrasonic signal decays too fast in the insulating material and the air gap, and a single ultrasonic detection method often cannot fully reflect the partial discharge of the equipment. In order to improve the test sensitivity, UHF sensors with high gain and broadband characteristics are used, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to local high-voltage equipment discharge positioning measurement, timely and effective discovery of potential insulation defects.

This project aims to develop a system suitable for the detection and intelligent positioning of large generator stator winding insulation faults and build a large-scale generator insulation partial discharge detection platform composed of UHF sensors, ultrasonic sensors, filter-detection amplifiers, data acquisition, data processing and wireless transmission systems to determine the insulation defects, the severity of the defects and the location of the defects, in order to provides a key technology to solve insulation partial discharge positioning problem of stator in the large generators.

Your assistance will be greatly appreciated and looking forward to your earliest reply.

Yours, faithfully.

Dear Professor Ghalambor,

I feel very honored to receive your reply and very thankful for your help.

In this email, I will tell you more about this project and my experience, maybe it will save your precious time.

I have almost finished the application form of Mitacs. It requires me to input professor’s name and email as shown in figure below. So, I think the process of submission of the reference letter is that once I click the “invite your referring professor” button, Mitacs will send you a link to a website so that you can submit the reference letter. I will do it after I send this email to you.

手机截图图社交软件的信息

描述已自动生成

Besides, for the selection criteria, I have selected 7 projects for my Mitacs application as shown below: [The projects are displayed in my preferred order (i.e. 1 is my most preferred project, while 7 is my least preferred project)].

1. 3D printing and multiscale modelling of lattice structures-McGill University-Prof. Abdolhamid Akbarzadeh Shafaroudi
2. Control of Microrobots-University of Toronto-Prof. Eric Diller
3. Fabrication strategies for soft robots-University of Toronto-Prof. Mihai Duduta
4. Emerging topics and technologies in robotics and unmanned systems-University of British Columbia-Prof. Homayoun Najjaran
5. Artificial Intelligence for Industry 4.0-University of British Columbia-Prof. Homayoun Najjaran
6. Development of a gas sensor for detection of natural gas leakage- University of British Columbia-Prof. Mina Hoorfar
7. Mechanical Design and Prototyping of a Soft Robotic Hand or Gripper- McMaster University- Prof. Gary Bone

Finally, the deadline for the submission of application form is September 23, 2020 at 1:00 pm.

And next, I will talk about my experience.

For the Dongfang Electric Machinery Co., Ltd., which is one of the top 500 in China and a state-owned enterprise in China., I did research on characterization method of stator winding insulation defects based on partial discharge online measurement technology. I am mainly responsible for the mechanical design in this project.

The phenomenon of partial discharge is an important factor that accelerates the electrical aging of the insulation system of electrical equipment. The partial discharge test is an important method to discover potential insulation defects of the insulation system. In the process of partial discharge, in addition to exciting the pulse current in the line, the high-speed displacement of space electrons will excite the surrounding medium to generate electromagnetic waves. At the same time, the discharge will excite protons to vibrate to generate mechanical waves, sound waves and ultrasonic waves. Ultrasonic testing has the characteristics of good anti-interference, low cost, and positioning capability, and is widely used in high-voltage equipment discharge testing. However, the ultrasonic signal decays too fast in the insulating material and the air gap, and a single ultrasonic detection method often cannot fully reflect the partial discharge of the equipment. In order to improve the test sensitivity, UHF sensors with high gain and broadband characteristics are used, combined with UHF and ultrasonic partial discharge test technology and three-dimensional mechanical scanning, which can be better applied to local high-voltage equipment discharge positioning measurement, timely and effective discovery of potential insulation defects.

This project aims to develop a system suitable for the detection and intelligent positioning of large generator stator winding insulation faults and build a large-scale generator insulation partial discharge detection platform composed of UHF sensors, ultrasonic sensors, filter-detection amplifiers, data acquisition, data processing and wireless transmission systems to determine the insulation defects, the severity of the defects and the location of the defects, in order to provides a key technology to solve insulation partial discharge positioning problem of stator in the large generators.

I express my sincere thanks to you once again. Looking forward to your early reply.

Yours, sincerely.

Dear Professor Fok,

The website shows that your submission was successful. Thank you for your kindness. I will share the follow-up news with you. Wish you a wonderful weekend.

Yours, faithfully.

Dear Sir/Madam,

I feel very honored and excited to receive your reply. My CV is attached in this email. I hope this will be the beginning of my success.

Have a good day.

Yours, sincerely

Christopher King

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058) (Courses: Mechanical Design 1). I’m writing to send you my assignment 07 (in the attachment) because the Blackboard only allows one attempt.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, sincerely.

Dear Professor Duduta,

I’m Liuchao Jin (English name: Christopher). I feel very honored to receive your email and very thankful for your help.

I prefer to have this interview on Friday, November 20th 9:00 am. I hope this will be the beginning of my success.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Dear Sir/Madam,

I am Liuchao Jin from Sichuan University-Pittsburgh Institute, Chengdu, Sichuan, China. I’m writing to you because I found my information is wrong in my account (windbirdman@stu.scu.edu.cn) on Mitacs Globalink Platforms.

In Home Country row, it shows that my home country is Christmas Island. It is not true. Actually, I am from China. I don’t know why. Maybe it is my fault. I sincerely hope that it won’t do much damage.

Your assistance will be greatly appreciated and looking forward to your early reply. Have a wonderful day!

Yours, faithfully.

I have an engineering background and capable of implementing both numerical and experimental techniques. I am proficient in the use and operation of CATIA, CAD, ANSYS, Matlab, C programming language, Python, Microsoft Office, and Adobe. I also mastered 3D printing technology, mechanical design, manufacturing process analysis, and experimental testing for material characterization. In addition, I have also studied materials structures and properties and statics and mechanics of materials. My research interests are 3D printing, robotics and artificial intelligence. I think these may be my future career choices.

I am now a member of a project in the Dongfang Electric Machinery Co., Ltd., which is one of the top 500 in China and a state-owned enterprise in China. I did research on the characterization method of the stator winding insulation defects based on partial discharge online measurement technology. I am mainly responsible for the mechanical design in this project. This project aims to develop a system suitable for the detection and intelligent positioning of large generator stator winding insulation faults and build a large-scale generator insulation partial discharge detection platform.

|  |  |
| --- | --- |
| **Faculty Supervisor:** | Mihai Duduta |
| **Specialization:** | Soft robotics is an emerging area of research in Robotics focused on flexible and compliant materials and mechanisms that allow robots to operate safely near the human body. Conventional electromagnetic motors are not suitable, therefore a major research effort has been devoted to developing soft actuators that can operate as artificial muscles. One area of focus for soft actuators is the exploration of fast, scalable, and repeatable methods of fabrication which are applicable to a wide range of starting materials. |
| **Province:** | Ontario |
| **Host University:** | University of Toronto – Toronto |
| **Language:** | English |

Project Description:

The project will be focused on exploring dynamic molds for the production of soft robotic actuators. Conventional fabrication methods include injection molding, casting, and 3D printing, all of which have trade-offs in terms of speed and resolution. In contrast, dynamic molds can leverage surface tension, as well as gravitational forces to re-distribute materials faster, into a wide range of geometries. Additionally, mold symmetry may be leveraged to produce defect-free actuators. The project will be focused on developing mold geometries, as well as exploring the dynamic conditions under which actuators can be fabricated reliably. Additional efforts will be spent exploring the process parameters, as well as fabricating a limited set of actuators. The actuators will be tested for performance in terms of force, displacement, and bandwidth. To further differentiate the method from existing fabrication processes, novel mold geometries will be made and used for making actuators. Lastly, the method, actuator geometries, and range of performance will be summarized in an article to be submitted as proceedings to a relevant robotics conference (i.e. International Conference on Robotics and Automation, International Conference on Soft Robotics, etc.).

Student Role:

The student will be leading this project, reporting directly to a faculty member. The internship time will be divided into three segments: Part 1: main goal will be reliable fabrication of suitable molds. The bulk of the time will be spent on mold fabrication, using iterations of 3D printing, and laminate assembly techniques to achieve the desired geometries. Expected duration is 4 weeks. Part 2: main goal will be actuator fabrication. The bulk of the time will be spent on using the molds under different dynamic parameters to produce soft actuators. The actuators will be made from commercially available siloxane mixtures, which cure rapidly to produce tough elastomer materials. Expected duration is 4 weeks. Part 3: main goal will be testing actuators and summarizing results. The fluidic actuators will be tested by pressurizing or applying vacuum to cause deformation of the body. Actuator performance will be evaluated by measuring the output force, displacement and response speed. The results will be summarized for a conference proceeding submission using the IEEE format. Expected duration is 4 weeks.

Required Skill:

The student is expected to have a background in Mechanical Engineering. Desired skills include: -familiarity with CAD modeling (e.g. SolidWorks, Autodesk, etc.). -machine shop experience (e.g. past work with lathe, mill, laser cutter, 3D printer, etc.) -mechanical testing knowledge (e.g. tensile testing, dynamic mechanical analysis, etc.) -proficiency with data collection and processing.

Additional Information:

|  |  |
| --- | --- |
| **Preferred Start date** | 2021-05-31 (yyyy-mm-dd) |
| **Is Start Date Flexible?** | Yes |

Project dates may be subject to change. Students must discuss any date limitations with the faculty supervisor. Final project dates are confirmed in March 2021.

Dear Professor Duduta,

Everything is fantastic. Looking forward to meeting with you tomorrow morning.

Best,

Christopher Jin

Dear Professor Bone,

I’m Liuchao Jin (English name: Christopher). I feel very honored to receive your email and very thankful for your help.

My skype username “live:windbirdman”. I have sent you a friend invitation on skype. It is available for me from 1:00 p.m. to 3:00 p.m. Nov. 20th. I hope this will be the beginning of my success.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Christopher Jin

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Course: Mechanical Design 1&Automatic Controls). I am writing to apply for the qualification to be your teaching assistant next semester. My CV and Official Undergraduate Transcript are attached in this email.

I am the TA now, assisting Prof. Ping C. Sui for MATLAB, Prof. Zheng Yang for Differential Equations, and Prof. Jeungphill Hanne for Physics for Science and Engineering 2. I am interested in the teach assistant for the courses like Statics and Mechanics of Materials and Manufacturing Processes and Analysis. I was wondering whether you will teach these courses next semester.

I would be grateful if offered the chance. Looking forward to your reply.

Your, sincerely

Dear Sir/Madam,

I feel very honored and excited to receive your reply. Thank you for your consideration.

Yours, faithfully.

Dear Professor Fok,

Thank you for telling me this. No problem. Yesterday, I learnt that I have been selected for a 2021 Globalink Research Internship. I have been matched with a professor in McGill University. His project is about 3D printing and multiscale modelling of lattice structures. So, I will go to Canada in May next year. Thank you very much for your academic reference.

Best,

|  |  |
| --- | --- |
| **Faculty Supervisor - 458** | Abdolhamid Akbarzadeh Shafaroudi |
| **Specialization** | The proposed research will be conducted at Advanced Multifunctional and Multiphysics Materials Laboratory (AM3L) directed by Dr. Hamid Akbarzadeh, who is an Assistant Professor in Bioresource Engineering Department and an Associate Member in Mechanical Engineering Department of McGill University. Inspired by biological systems where structural properties are integrated with sensing, actuating, and self-healing, Dr. Akbarzadeh research expertise is on design, simulation, and mathematical/numerical modelling of advanced multifunctional and energy materials. The specialized research areas are on multiphysics and multiscale simulation of advanced materials, multiferroic cellular solids, smart and biocomposites, microarchitectured structures, and functionally graded materials using computational and experimental methodologies. |
| **Province** | Québec |
| **Host University** | McGill University – Montréal |
| **Language** | English |

Dear Professor Hessler,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058, Course: Introduction to Journalism and Non-Fiction). I am writing to apply to be a little late for your class this week.

Now I am a teaching assistant of MATLAB course for freshman. This Thursday at 4:45 PM, I am going to supervise the MATLAB exam, which will end at 6:25 PM. I have to collect and sort out the papers and come from Teaching Building 1. I think I’ll be about ten minutes late. Sorry for that.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Dear Professor Fok,

Thank you for your suggestions. I will leave for Montreal in May next year, and I will leave Montreal for the United States in the end of August, which means I’ll be in Canada for three months.

I’m learning German now. If I can, I will learn a little French because I will be very free next semester.

I also saw online that if you do well, you might get a good research scholarship later. I will try my best to complete this internship.

Again, thanks for your respectable help and have a good day!

Yours, faithfully.

Apply to End the Class with the Seniors in the Applied Fluid Mechanics Course Next Semester

Dear Professor Stehle,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to apply to end the class with the seniors in the Applied Fluid Mechanics course next semester.

In May of next year, I will go to McGill University in Canada for an internship. The internship period lasts for three months. My research project is about 3D printing and multiscale modelling of lattice structures. So, could you be so kind to let me end the class early? If there were seniors in this course next semester, they may also need to end the class in May, because they have graduated by then. Therefore, can I end the class with them?

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Apply to End the Class with the Seniors in the Mechanical Measurements 1 & Mechatronics Courses Next Semester

Dear Professor Lu,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to apply to end the class with the seniors in the Mechanical Measurements 1 & Mechatronics courses next semester.

In May of next year, I will go to McGill University in Canada for an internship. The internship period lasts for three months. My research project is about 3D printing and multiscale modelling of lattice structures. So, could you be so kind to allow me to end the class early? If there were seniors in this course next semester, they may also need to end the class in May, because they have graduated by then. Therefore, can I end the class with them?

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Apply to End the Class with the Seniors in the Mechanical Design 2 Course Next Semester

Dear Professor Sui,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to apply to end the class with the seniors in the Mechanical Design 2 course next semester.

In May of next year, I will go to McGill University in Canada for an internship. The internship period lasts for three months. My research project is about 3D printing and multiscale modelling of lattice structures. So, could you be so kind to allow me to end the class early? If there were seniors in this course next semester, they may also need to end the class in May, because they have graduated by then. Therefore, it’s a good idea to end the class with them. Although the class ends early, I will try my best to learn the content of this course throughout the semester.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Apply to End the Class with the Seniors in the Mechanical Vibration Course Next Semester

Dear Professor Fok,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to apply to end the class with the seniors in the Mechanical Vibration course next semester.

In May of next year, I will go to McGill University in Canada for an internship. The internship period lasts for three months. My research project is about 3D printing and multiscale modelling of lattice structures. So, could you be so kind to allow me to end the class early? If there were seniors in this course next semester, they may also need to end the class in May, because they have graduated by then. Therefore, it’s a good idea to end the class with them. Although the class ends early, I will try my best to learn the content of this course throughout the semester.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Dear Professor Lu,

I feel very honored to receive your reply and very thankful for your help. Have a good day~

Best,

Apply to End the Class with the Seniors in the Dynamic Systems Course Next Semester

Dear Professor Yoon,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to apply to end the class with the seniors in the Dynamic Systems course next semester.

In May of next year, I will go to McGill University in Canada for an internship. The internship period lasts for three months. My research project is about 3D printing and multiscale modelling of lattice structures. So, could you be so kind to allow me to end the class early? If there were seniors in this course next semester, they may also need to end the class in May, because they have graduated by then. Therefore, it’s a good idea to end the class with them. Although the class ends early, I will try my best to learn the content of this course throughout the semester.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.

Dear Professor Lu,

My QQ number is 1782616120. The QR Code is also attached below:

Thank you for your help.

Yours, faithfully.

Dear Professor Sui,

I feel very honored to receive your reply and very thankful for your help. Have a good day~

Best,

Dear Prof. Zhang,

I feel very honored to receive your reply and very thankful for your patient help. Have a good day~

Best,

Liuchao Jin

Dear Professor Sui,

Yes. I did consider the gravity of the suspension bridge. But because the model I built is only used to approximate the force of the bridge, the result of simulating the influence of gravity on the bridge deck is also very inaccurate. Back to the topic, in this project, I will discuss the load and vibration characteristics of the multi-span suspension bridge, use the large-scale finite element calculation software ANSYS to establish the finite element calculation model of the suspension bridge’s mechanics, and analyze the influence of the dynamic characteristics and structural stiffness parameters on the suspension bridge and the dynamic and transient response of the bridge under the moving load.

As you mentioned about the cable, one of the most difficult things I meet in this project so far is to find out how to make the suspension cables have the property that they only have tension and don’t have compression and also to find out how to act the moving load on the model. I solve these two problems using the commands (APDL) code in ANSYS.

Again, thanks for your respectable help and have a good day!

Best,

Apply to End the Class Early with the Seniors Next Semester

Dear Professor Mai,

I am Christopher from SCUPI 2018 (ME, Student ID:2018141521058). I am writing to apply to end the class early with the seniors next semester.

In May of next year, I will go to McGill University in Canada for an internship. The internship period lasts for three months. My research project is about 3D printing and multiscale modelling of lattice structures. I have talked to Alex, the academic affairs teacher, about ending the class early. Alex said early ending is allowed but I have to tell you in advance. So, could you be so kind to allow me to end the class early? If there were seniors in the courses I will take next semester, they may also need to end the class in May, because they have graduated by then. Therefore, it’s a good idea to end the class with them. Although the classes will end early, I will try my best to learn the content of these courses throughout the semester.

Your assistance will be greatly appreciated and looking forward to your early reply.

Yours, faithfully.