新加坡国立大学材料系吴昌盛课题组诚聘博士生博士后（材料/电子/生医/机械/物理等相关背景均可）

新加坡国立大学（NUS）材料科学与工程系助理教授吴昌盛课题组诚聘博士生博士后，同时欢迎硕士生和访问学生/学者。 博士生最早可于 2022 年 8 月开始，博士后最早可于 2022 年 6 月开始。具体细节如下。

Dr. Changsheng Wu's lab in the Department of Materials Science and Engineering at the National University of Singapore (NUS) is now looking for passionate and highly motivated PhD students and postdoc researchers. Master's students and visiting students/scholars are also welcome. 2 PhD scholarships will be available from August 2022 and 1-2 postdoctoral positions will be available from June 2022, in the areas including but not limited to:

- ❖ Bioelectronics
  - Wireless wearable soft devices for long-term clinical-grade health monitoring
  - Wireless implantable devices for biomedical research
  - Advanced signal processing and analysis of bio-signals
  - Closed-loop sensing & therapeutic systems
- ❖ Electromechanical Systems
  - Triboelectric nanogenerator (TENG) & piezoelectric nanogenerator (PENG)
  - High-efficiency biomechanical energy harvesters
  - Low-power electromechanical sensors
  - Self-powered biosensing systems
- ❖ Metamaterials by Advanced Manufacturing
  - Novel metastructures for soft biosensors and energy harvesters
  - Programmable metamaterials for actuation and sensing

The research at Wu group is multidisciplinary and concentrates on the theme of "iMESH" – acronym for "intelligent Materials for Energy and Sensors towards Healthcare", or more specifically, an intelligent Materials-based mesh synergizing biomechanical Energy and bio-Sensors towards digital Health. The research goal is self-powered bioelectronic systems for creating sustainable and disruptive digital health technologies. Assisted by artificial intelligence oriented data science, such an intelligent materials platform will lead to a paradigm shift in healthcare by launching continuous, pervasive, and personalized digital health solutions.

Applicants are expected to have BS/MS/PhD degrees in Materials Science, Electrical Engineering, Biomedical Engineering, Mechanical Engineering, Physics, or other related fields. Interested candidates are welcome to send application to Dr. Wu at wuchangshengnus@gmail.com. Details for different positions are listed below:

- ❖ Postdoctoral fellows
  - Highly motivated and capable of conducting independent and collaborative research
  - Good communication skills in English
  - Strong publication record and commitment to quality research

- Proficiency with any of the following is a plus: embedded coding, circuit design, machine learning, microfabrication, additive manufacturing, electrical characterization (wireless communication, semiconducting, analog to digital, etc.)
- Application materials: CV (with a list of publications), reprints of 3 selected publications, and contact information of 2-3 references. Research statement is encouraged.
- Compensation and benefits package will be internationally competitive.

❖ PhD students
- Strong interest in bioelectronics, energy, or materials design
- Highly motivated in multidisciplinary and translational research
- Relevant research experience is a plus
- Application materials: CV, and contact information of 2-3 references
- Besides the regular PhD scholarship, students are also encouraged to apply to other scholarships listed on https://nusgs.nus.edu.sg/scholarships-list/.

❖ Master's students
- Strong interest in bioelectronics, energy, or materials design
- Highly motivated in multidisciplinary and translational research
- Application materials: CV, and contact information of 1-2 references
- Students are encouraged to apply to scholarships listed on https://nusgs.nus.edu.sg/scholarships-list/

❖ Visiting students and scholars
- Relevant research background
- Strong commitment to quality research
- Application materials: CV

About PI: Dr. Changsheng Wu will join the Department of Materials Science and Engineering at NUS as Presidential Young Professor in April 2022. He received Ph.D. degree in Materials Science and Engineering from Georgia Institute of Technology in 2019 and B.E. degree (First Class Honours) in Engineering Science Programme from National University of Singapore in 2013. From 2019 to 2022, he works as a postdoctoral research fellow in the Querrey Simpson Institute for Bioelectronics at Northwestern University. His research interests include bioelectronics, electromechanical systems, metamaterials, and advanced manufacturing. He is the author or co-author of more than 50 peer-reviewed publications including *Nature Communications, Proceedings of the National Academy of Sciences*, *Materials Today*, *Science Robotics*, *Advanced Materials*, etc. He holds 5 patents, and his work received the TechConnect 2018 Innovation Award.

About NUS: The National University of Singapore (NUS) is a national research university based in Singapore. Founded in 1905 as the Straits Settlements and Federated Malay States Government Medical School, NUS is the oldest autonomous university in Singapore. According to most rankings, it is considered to be one of the best universities in the Asia-Pacific and in the world. NUS is a comprehensive research university, offering degree programmes in a wide range of disciplines at both the undergraduate and postgraduate levels, including in the sciences,

medicine and dentistry, design and environment, law, arts and social sciences, engineering, business, computing, and music. In 2021, the QS World University Rankings ranked NUS 11th in the world and 1st in Asia Pacific. The Times Higher Education World University Rankings 2022 placed NUS at 21st in the world and 3rd in Asia Pacific. (Source: Wikipedia)