**Tell me about yourself.**

Hi, I am Chin Zheng Yang. I am currently a final year mechanical engineering student (with a specialization in Energy & the Environment) at Nanyang Technological University. I am Dean Lister and an NTU President Research Scholar. I am hoping if everything goes as expected I should be graduating with an Honours with Highest Distinction, which is equivalent to a First-Class Honours previously.

Regarding my educational background, I am always a hardworking guy and have a strong passion to learn new skills and get in touch with the latest technologies. For example, I learn programming language like Python in my free time by taking online programming course. Talking about job related skills, I come with analytical mindset and good problem-solving skill. For instance, I had encountered a critical problem when I was doing an internship with Schlumberger which would affect the outcome of my project adversely. Not only that I was able to solve this major problem, but also managed to help my company to save some money and eventually completed my project before deadline.

I am interested in the oil & gas industry and have a strong passion to become an engineer to apply what I have learned in school in real world. Since ExxonMobil is the leading company in the oilfield services industry, I really want to become a part of the organization. Once again, thank you for providing me this precious chance to come here and participate in the interview session.

Hello Gopal, my name is Chin Zheng Yang, I have graduated from NTU Mechanical Engineering with a First-Class Honours in 2019. My current role is FEI FLS. As an inspection supervisor who leads a team of 4 senior inspectors and technicians, my job scopes include managing contractors and vendors to perform equipment maintenance and upgrading works safely and efficiently in a critical and complex environment and perform QA check to validate and verify quality of their work is adhering to highest standard. Furthermore, I will also drive and implement cost effective repair and inspection recommendations whenever there is any equipment failure to reduce plant downtime so that we are able to deliver our products to customers, ensuring great customer service and satisfaction.

In a nutshell, my role as a supervisor is to protect the mechanical integrity of my equipment, conducting failure analysis and ultimately enhancing the reliability and sustainability of my plants by eliminating bad actors (engineering recommendation more effective way to conduct inspection)

1)What do you see yourself in short term/5 years

In the short term, I hope to work as a Mechanical Engineer for a company such as yours. I wish I can grow together with a company where I can continue to learn, enhancing my skills and increasing my involvement in this field. Moreover, hopefully I am able take on expanded team leadership responsibilities in the future, as these become available.

In 5 years, once I gain additional experience, I would like to have the opportunity to move on from a technical position to management. I know this has been a common path for many people in this position, and I think in time this would be a logical move forward for me. I have had inspirational managers that I really admired and would love to manage my own team in a few years.

In 5 year, I see myself as a subject matter expert in managing data centre operations and I know I will have the opportunity to reach that stage by continuing to develop my business and technical skills along the way. And once I gain additional experience, I would like to have the opportunity to move on from a technical position to management. I know this has been a common path for many people in this position, and I think in time this would be a logical move forward for me.

2) What do you know about us?

ExxonMobil:

ExxonMobil SG is the regional headquarters for ExxonMobil downstream and Chemical businesses in Singapore. The downstream sector is the refining of petroleum crude oil and the processing and purifying of raw natural gas as well as the marketing and distribution of products derived from crude oil and natural gas.

We own and operate a 592,000-barrel-per-day (bpd) refinery, which is fully integrated with the Singapore Chemical Plant (SCP). Together, the refinery and chemical plant form 7ExxonMobil's largest integrated manufacturing site in the world. In Singapore, we also own an extensive network of service stations under the Esso brand and supply cylinder cooking gas (LPG) to many households. We also supply the commercial market in Singapore and those around the region with industrial, aviation and marine fuels and lubricants. We also market liquefied natural gas.

Schlumberger:

Schlumberger is the world's leading provider of technology for reservoir characterization, drilling, production, and processing to the oil and gas industry. Working in more than 85 countries and employing approximately 100,000 people who represent over 140 nationalities, Schlumberger supplies the industry's most comprehensive range of products and services, from exploration through production and integrated pore-to-pipeline solutions for hydrocarbon recovery that optimize reservoir performance.

Schlumberger operates in each of the major oilfield service markets, managing its business through four Groups: Reservoir Characterization, Drilling, Production, and Cameron. Each Group consists of a number of technology-based product and service lines, or Technologies. These Technologies cover the entire life cycle of the reservoir and correspond to a number of markets in which Schlumberger holds leading positions. The role of the Groups and Technologies is to support Schlumberger in providing the best possible service to customers and to ensure that Schlumberger remains at the forefront of technology development and services integration

Amazon:

3) Why ExxonMobil?

Recently, I saw this news ExxonMobil Partners with “Singapore Universities to Focus on Energy Innovation and Lower-Emissions Technologies”, and I found out that ExxonMobil is trying to pursue technologies to help meet growing energy demand while reducing environmental impacts and the risk of climate change. Personally, I am very interested on energy field, and that’s the reason why decide to specialize in Energy & the Environment in my Mechanical Engineering.

(ExxonMobil)Firstly, I think that ExxonMobil’s available positions are in line with my career interests. ExxonMobil reputation is also a factor. I would be proud to work for a leading company in the industry. Moreover, a good friend of mine has been working in ExxonMobil as intern and he told me that the culture supports learning and development on the job. I really like this corporate culture as I have a strong motivation to learn continuously and get in touch with the latest technologies.

(Schlumberger) Firstly, I think that Schlumberger’s available positions are in line with my career interests. Schlumberger reputation is also a factor. I would be proud to work for a leading company in the industry. After I completed my internship with Schlumberger, I found out that culture here supports learning and development on the job. I really like this corporate culture as I have a strong motivation to learn continuously and get in touch with the latest technologies.

(Amazon) I always wanted to work in an industry which has a vast amount of growing opportunities. Before covid19, there was a huge amount of growing opportunities in the OnG industry, but things have changed drastically. Covid19 has disrupted businesses, a lot of traditional brick and mortars stores had laid off a lot of employees across multiple countries. Most of the consumers turned to online retailers which has given e-commerce and tech industries a great boost. Coronavirus has accelerated process of digitalization. With the rapid growth in Tech and e-commerce sector, I really want to a part of Amazon to shape the future together.

Hence when I saw your job posting on LinkedIn, I did not hesitate to apply for it. I believe my technical, problem solving skills that I have picked up along the way and my courage to seek gap for delivering value-adding results to reach company goals.

4) In what ways can you contribute to our company? (Similar to strength)

I would contribute my acquired knowledge and skills through previous experience and my learning capability to acquire new knowledge for attaining company goal. For example, I would like to incorporate my programming skill and mechanical engineering skill together for the good of company.

5) What do you think are the qualities required for this position?

1. Strong analytical and critical thinking skill
2. Collaborative approaches
3. Good interpersonal and communication skills
4. Resilience
5. Adaptability
6. Effectiveness

6) Job Description

- design, develop and test components and systems enabling us to continue the evolution of our oilfield technologies, as well as introduce and commercialize new ones

7) What personal non-career-related goals have you set for the next ten years?

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8) Do you have plans for continued study?

While I don’t have any plans at this time to complete an advanced degree, I will attend seminars, workshops, on-the-job training and other courses with great enthusiasm in order not to fall behind on new technologies and help my department to be better. It’s important to me to be at the top of my game, so I can be the best employee that I can be.

9)Which is more important to you, the money or type of job?

In my opinion, work is slightly more important than money because by working hard I can get desirable money, but there should be a balance between the effort and the money I've got so then I'll be satisfied.

10) What do you think determines an individual’s success in a work situation?

I believe there is a strong correlation between individual work ethic and his/her success during jobs. Some examples of work ethics include initiative, reliability, determination and team orientation. As a successful employee, he had to take initiative to look for opportunities to solve problems and make a difference. He needs to show up when he said he was going and deliver what he promised. He also needs to have the determination to face obstacles and willing to go the extra mile for the good of the team.

11) How do you determine success?

For me, success is setting a goal, planning the steps required to achieve it, and implementing that plan effectively. Once I think I have achieved that goal, I have succeeded.

12) How has NTU prepared you for a career in (teaching, law, engineering, etc)?

NTU has a solid curriculum for Mechanical Engineering student, by which makes me acquire fundamental knowledge of several important subjects like Mechanics of Materials and Fluid Mechanics and Thermodynamics. Which I believe is very important because I am able to investigate equipment failure and evaluate the mechanical integrity of pump, like minimum thickness of piping in certain section of the equipment needed. Moreover, I can calculate the correct amount of fluids/natural gas/petroleum passed through piping between equipment using knowledge from Fluid Mechanics and Fluid Dynamics. Besides those fundamental subjects, NTU also provided me a chance to do internship with Schlumberger, through this precious chance to work together with professional engineers. Not only I had successfully developed technical skills like the ability to use Creo, ANSYS Fluent, I also able to acquire career skills like presentation skills by conducting a 30min presentation session about what have I done during my internship for my manager and co-workers from my department. I believe that skills I had picked up through the amount of years I have spent in NTU will help me to become a successful engineer.

13) If you could start again, what would you have done differently?

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14) Describe one or two accomplishments that have given you the most satisfaction? Why

The project that I completed on my recent internship gave me a lot of satisfaction, since I not only completed the project earlier and deliver good results, but also currently being adopted at my intern employer. My intern employers are also satisfied with my outcomes. I am proud that I was able to develop an effective protocol to carry out the project and eventually provide substantial benefits to my department. Let me tell you more about if you are interested about my project details, can I continue?

15) What was your most rewarding university experience

I was fortunate enough to be able to spend one full semester studying abroad in Czech Republic. Via having the chance to study or doing project with student from different nationalities, I have a better understanding and appreciation for people from different culture and background. I think this is very important for an employee who works in multinational company like ExxonMobil as we will engage and work closely with people from different countries. Moreover, as I had to being on my own throughout one semester, it really brought out my independent nature and self-awareness as I had to confront challenges outside a familiar support network and stepped out from comfort zone.

16) What have you learned by participating in CCA?

By having the chance to become a financial event of National Cashflow Competition, I have developed interpersonal skills. National Cashflow Competition is a national level competition which involved more than 600 primary and secondary students. It is a board game competition that’s is kind of like Monopoly, but this board game aims to teach primary and secondary students about fundamental financial knowledge. As this board game is rare to be seen, we must teach the participants beforehand about the rules and regulation of the game before they go into the competition. I went to several primary school to train the young participants. I have become a more patience and responsible person as not every kid is smart, I have to put into extra effort or change my teaching method to make sure all my attendees understand the rule of the board game and this is the responsibility of mine.

17) What do you expect from an employer? Describe the relationship that should exist between a supervisor and subordinates

I would like to be able to go to my manager if I have an issue or idea and to be able to feel comfortable in expressing my thoughts. I would also expect my supervisor to be open and honest with me and to let me know if there is anything I could do to improve upon or do differently in my work.

18) What kind of work environment do you prefer? /What kind of environment are you most comfortable in?

I can be flexible when it comes to my work environment. Based the information from ExxonMobil Singapore website, it looks like the environment department in ExxonMobil is fast-paced and structured to expand. I enjoy working in an area experiencing rapid growth, and I think many times this kind of environment is conducive to new ideas and applications."

19) Do you prefer working alone or with others? Why?

I can work both on a team and work alone and that depends on the project that needs to be done. For the most part, I prefer working independently to meet my deadlines but enjoy collaborating in a group to spark fresh new ideas.

20) What two or three things are most important to you in your job?

Growth potential is the most important thing to me in any role I accept. I look for good growth potential in terms of my own role within the company and especially in terms of the company’s overall growth. I’d love to work for a company that is innovative and always looking for new opportunities to expand. Secondly, I look for companies who have a positive and adaptive culture. And finally, a healthy level of respect and trust. A positive workplace will create high levels of respect and trust amongst its employees. It is important to me that my co-workers can respect and trust me just as I can trust my co-workers.

21) Describe a challenge you have encountered. /What major problem have you encountered before and how did you deal with it?

During my internship with Schlumberger, I faced a technical problem that no one internally had no idea about the approach to solve the question. It had to do with a performance issue on my 3D scanned model which was negatively affecting the accuracy of Computational Fluid Dynamics (CFD) simulation. In short, if I am unable to solve this problem, the 3D model that I successfully digitalize cannot be used. I was able to effectively not only solve this critical problem, but also successfully develop a protocol to solve this kind of problem, so that my co-workers can follow my steps to solve this kind of problem. Here is what I did and resolved the problem…

We assumed one of the components is two-sided opened Pringles can, 3D canner are like human eyes, receive information by reflection of light, inner details cant be scanned, inaccurate for CFD model as crude oil will flow thru the inner passage of ‘Pringles Can’. After do some research on internet, I decided to use one new programme named Geomagic Studio to reconstruct the inner flow passage based on the 2D CAD diagram and introduce this software to my supervisor and manager. My CFD simulation result has a 25% increased efficiency over the unmodified model and my supervisor was satisfied with my approach

22) Give an example of when you had to influence someone to take action./persuade ppl

While working on my recent internship with Schlumberger, I needed access to data from a department to complete one segment of my project. The head of that department initially refused my request for access to the data. Eventually, I went to my supervisor to seek assistance and he said it was a learning opportunity for me to work it out on my own. So, I asked the department manager to meet in person. At that meeting, I walked him through the scope of my project, how the data would be used and how it would be kept secure. Once he understood the actual use of the data and its security, he authorized my access later.

23) Share with us a time where you had to deal with a difficult person.

While working on my recent internship with Schlumberger, I needed access to data from a department to complete one segment of my project. The head of that department initially refused my request for access to the data. Eventually, I went to my supervisor to seek assistance and he said it was a learning opportunity for me to work it out on my own. So, I asked the department manager to meet in person. At that meeting, I walked him through the scope of my project, how the data would be used and how it would be kept secure. Once he understood the actual use of the data and its security, he authorized my access later.

24) Share with us a time where you had to creatively solve a problem.

Same thing loh(3d scanning, CFD quality), instead of suggest my supervisor to buy an extra handheld 3D scanner for a few thousands bucks, search online, Geomagic. Provide satisfactory output. Save costs

25) Are you analytical? Give an example.

Same answer for QS21 and 24

26) Do you consider yourself a leader or follower? Why?

In past experiences, I have been able to adapt to whatever was expected of me. When a group needed a leader, I was more than capable of handling that role, but at the same time, I recognize when it is better to take a step back and take direction from someone who is more knowledgeable than I am.

27) What would you do if you were given a tight timeline in a project you are unfamiliar with?

I would maintain a positive outlook and utilize my organizational skills to develop a plan of the project. I would start by organizing the tasks from most important to least, and then I would begin working on the most important task. I also like to break down larger, heftier parts of a project into bite-sized chunks. If there were any tasks I could delegate to other capable individuals, I would not be afraid to ask for assistance. Doing so allows me to keep cool and not get overwhelmed while working up against the deadline. Lastly, so if I saw that I absolutely could not accomplish my project on time after I had tried my best to organize and plan in that project, I would ask for an extension from my supervisor.

28) What are your weaknesses and strength**?**

I am a hardworking person, action-oriented and has a strong motivation to learn continuously. As the digital technologies are rapidly transforming and disrupting traditional industries, we employee, should not be only focus on our main field, we should have the will to continuously upskill in order to keep up with the latest trends. For example, big data is so popular, and it is impacting major industries. For example, I believe it will affect the inspection industry as well. With the vast amount of data generated by inspection program, we can use the data to build models that will lead to other better decisions and strategic business moves. (Save money, provide better solution for reliability of equipment and piping using model built). Based on this background, I will like to combine my Mechanical Engineering knowledge with highly technically IT skills. So, I had register for several Python Courses related to Data Analysis and Data Visualization on Coursera since last semester, and I used my free time during nights after I leave the office to watch lecture, do quizzes and projects. After few months, I have successfully passed my Python specialization course with flying colours and managed to continuously apply and elevate my Python scripting skill in my FYP.

Moreover, I am adaptable guy and a good team player. Via having the chance to do project and mingle with student from different nationalities during my semester exchange programme in Czech Republic, have a better understanding and appreciation for different culture and people. For example, we were asked to form a team of 5 from different nationalities to do an academic project about to design a mechanical gearing model. I took the initiative to become the leader and break down the project into several tasks and assign to my teammates. There was once time one of my groupmates, A was not happy with another groupmate, B sloppy effort on the project, I took the initiation to help B on his work and have a group discussion with them to help them eliminate misunderstandings. Eventually, our results were good, and Professor were satisfied with our works, and we all get A grade on this subject, everyone was happy. I think this trait is very important for an employee who works in multinational company like ExxonMobil as we will engage and work closely with people from different countries.

Well, every coin has two sides, one must always have their own weakness, as a student who is still studying, I discovered that sometimes I will treat problem from a student perspective, which is a taboo for professionals. I want to change my mindset as we are graduating, and will step into work field real soon, when I am doing my FYP projects with professors and research engineer, I will communicate with them proactively to learn their way of thinking as professionals.

Well, every coin has two sides, one must always have their own weakness, I was never confident with public speaking-which as you know, can be a hindrance in the workplace. When I realized this was a problem, I took the initiative to become the presenter in every academic project in school. As a result, I was able to overcome my fear and since then, I have given one 30min presentations to all my managers and coworkers in my department to demonstrate what have I done throughout my internship and even invited to join a presentation competition soon as suggested by my previous supervisor in Schlumberger. Regarding this, I still find public speaking challenging but enjoyable for me now.

29) What do you do during your free time?

In my spare time, I take online programming classes brush up my knowledge base and learn new programming language like Python and SQL. As we are in an information era and computers are used in every engineering field. Coding leverages me to a position above the average engineer who fears computer programming and becoming a more productive mechanical engineer. Moreover, I enjoyed working out in a gym. As exercise will let me more energetic, motivated when I am working. Employees with enhanced energy, improved brain function will lead towards a better overall performance.

30) Do you have a role model or mentor?

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31) Do you have any question for us?

a. As an experienced engineer, can you briefly explain how you spend your working day in ExxonMobil?

b. Which one of the company cultures make you feel proud of? Which one of the company cultures you like the most?

c. As a manager/supervisor of junior engineers, what are the most important traits a junior engineer should acquire?

d. Lets’ say I am lucky and capable enough to successfully get the offer from ExxonMobil, may I know what shall I prepare and learn in advance before I start my job?

e. How long did you work in ExxonMobil? What the reasons that makes you stay?

f. What are the prospects of \_\_\_\_\_\_ department?

g. My weaknesses

32) How do you handle conflict?

During year2, there was one module called Engineering, Innovation and Design project, which also known as EID in short. 8 peoples were formed into a team randomly. At first, thing was going well and successfully come out with an idea to make a smart plate collector, but suddenly a conflict about the embodiment design occurred between two team members who could no longer work effective together. Their relationship began affecting the productivity of whole team. The first thing I did was separate them to calm the situation. I then proceeded to meet with both parties to discuss the problem in a calm and controlled setting. I took control of the discussion and made it clear that a compromise must be reached. One of my main objectives during the meeting was to understand the perspectives of both parties without siding with either one. At first, this was difficult since each party presented their arguments without considering other perspectives. To counter this, I made it clear to each party that changes must be made since the status was unworkable. Shortly thereafter, we agreed to a workable solution. Before concluding the meeting, I emphasized that during future disagreements each party must act considerately and avoid getting emotional. After our meeting, work resumed as normal and the overall work atmosphere became more pleasant. We successfully delivered our products, and our supervising professor was satisfied with our outcome, all of our teammates managed to get a A+ grade for that module.

33) Why should we hire you?

I really believe in the value of teamwork and so when I saw a position with your company to join your engineering department I had to make sure my application was put in. I believe strongly in working with other people towards a common goal and I know the skills I bring not only as an engineer, but as a team member will not only bring me work satisfaction but will make me a valuable teammate as well.

34) How do you deal with differences of opinion when working on a team?

I always appreciate different viewpoints from my own. When someone expresses a different opinion, I listen carefully to what the person says and utilize that feedback

35) Tell about me a time you made a biggest mistake

When I was doing on my URECA project, as our project team consists of 2 undergraduate members. One of our team members go to holiday, so our supervising prof need to find volunteers to carry on his workload, I accepted his on-going tasks as in I didn’t want to seem like I couldn’t handle extra work without checking out my schedules. When the deadlines for one project unexpectedly changed, I couldn’t meet both deadlines. I admitted the issue to my Prof, my Prof brought on his PhD student to help meet the accelerated deadline. After this incident, I had become a more organized and reliable person. For instance, I will use application to note down my daily, weekly tasks to be done and indicate important project deadlines and where I am in the process at any given time and I am able deliver the results to my supervisor according to what I promised. Since then, I have never missed a deadline.

How u take risk (Are right, a lot)

36) Tell me what you have done illegally to achieve certain objective.

When I was working on my URECA project, there was one time that I unable to replicate a good experimental result due to time constraint. And I need to include one PhD candidate’s experimental result in my final report. I did not inform my professor about this. What I have done has violated the academic integrity principle. The lesson that I have learnt from this incident is I will go to my professor to seek for his approval to cite his PhD student results. If Prof didn’t approve my request, I will not include PhD works in my own report since that is illegal and even though I might not get a good grade on this subject.

37) Let say you got this job; how would you repay the community.

If I am lucky enough to secure this job, there are few things that I can do at this stage. For example, I can volunteer to become a social worker at nursing home and volunteer to donate blood. I volunteer because I feel it is part of being a human being. I think we are designed to help one another. If I have a longer vacation, I might want to go for volunteer teaching in remote areas. This is because I really believe an individual action, whether big or small will have an impact on someone’s life. For example, by teaching someone to speak English, I am helping them to break the poverty cycle by giving them access to better job opportunities.

38) FYP

38) Have you suggested or come forward with new ideas

Although our industry is pretty well established now, I feel like there are rooms for improvement.

One common damage mechanicsm of my equipments/piping are CUI. Piping are insulated to mainitain process temperature/act as a barrier to prevent water ingression. Current method is strip the insulation, and check the piping condition. Sometimes some of the pipings are high up in the sky, and very often we need to erect scaffold for workers to strip off the insulation and conduct visual inspection. The method is more accurate, but it will cost the company a lot of money for scaffolder erection and resources.

Few months back, I came across a news on our intranet that a new inspection method (A handheld X-ray machine that allows us to look thru the insulation without stripping of insulation) has been proved effective in one of our US site.

I am aware that in order to prove business stakeholders that this equipment is working, we have to create a test piece and use to equipment to do a mockup to ensure this method is effective.

In my office, there are some corroded piping which suffered this kind of damage mechanism, I have to learn myself to use a 3d scanner to capture its surface profile and fingerprint for later VnV purpose and then follow up with insulating it. We managed to get one of the local vendors to import the machine from US and mockup was a success. If we are able to utilize this machine to conduct NII, we can easily save up to 5k, 10k for each inspection for this type of tasks (depending on scope of the job), promoting innovations and efficiencies.

39) Describe a situation in which you identified a problem and took action to correct it rather than wait for someone else to do so.

Not too long ago, as I was doing my daily inspection tasks to preparing the starting up of my plant. I noticed some liquid dripping down to the ground from a tower (40m), even though it is not my base scope to report any abnormalities, I truly believe that its our mutual ownership to take care of mechanical integrity of equipment to prevent loss. I take initiative to look at the equipment.

As the possible leak location is pretty high up in the sky and I dun have any inspection tools that is suitable for this kind of inspection.After informing operation, who will barricade the area I go back office to study background and process parameters of the equipment (really important to understand the background of the task instead of being too task focused). After reading the scenario, I realized the line is highly corrosive and toxic and I have decided to use NDE instead of close up visual inspection to perform inspection after I have done my self-risk assessment. Doing self risk assessment is really important when you are working in a plant where many activities are going on the same time. Fall from height, PPE insufficient.

I used LDAR camera (a type of thermal camera) which to perform inspection. And I was able to detect minor leakage flange from the equipment flanges(bolted connection from pipe to pipe). I quickly gather all the stakeholders for a meeting to discuss follow up when I have gather the facts that the piping has a minor leakage. We were able to perform mechanical repair by wrapping and mitigate the leak before it become more severe. My initiative managed to prevent the plant from shutting down for a day for mechanical repair, saving 100k dollars for efficiencies.

40) Creativity

Even though OnG is an well established industry, innovation is still very important for us to march forward.

S: There is a scenario we need to do radiography for piping sulfidation corrosion (a special kind of corrosion). Radiography is like X-ray but instead of X-ray we use gamma ray as source. Normally this kind of equipment, we cover the piping with film, let it expose to radiation source to get the profile of internal condition of piping. For accessible locations, it is very easy to set up, however we need access like scaffold for piping which has higher altitude 5m 10m. Money and resources are wasted.

T: When I visited vendor workshop, I found one special equipment which inspires me. It is a telescopic pole with camera mounted on top. I came out with an idea that I can buy 2 telescopic pole and mount source on one pole, another with special holder which can hold the film. We can actually save up some dollars for scaffold.

A: I have designed and worked with my team with a welded metal frame to mount these 2 things. It took us several attempts to come out with a design where it is able to hold these equipmets.

R: As a result, our specially designed equipment has been used in field successfully. We are able to save 1k dollar from preventing scaffold erection for this particular task. In our daily operation we need a lot of radiography support and I foresee that we can achieve more cost saving in the near future.

41) Challenge

In my current team, a former colleague left his job unexpectedly. He was the data analyst and team leader of digitalizion project in my jobs across sites. When he left, I was asked to take over his role. While I had never performed job scope of data analyst in the past, ~~I had leadership experience as a supervisor.~~

The project is to use business intelligence tool (Tableau) to identify the gaps in our business by studying the data of whole ExxonMobil complex SG.FYI we have Ref, chem scattered around. I have to learn Tableau and data cleansing skill from scratch and reach out for help from senior analyst in different department. After setting up a template, I also guide the teammates who came from 4 different areas to use Tableau and setting up path to my Tableau template to feed in the data accordingly. The teammates where I have does not even have good excel skills let alone skill to do data analysis. I encouraged, very patient, meticulous when doing the coaching and they were able to complete their responsibilities as mine. We were able to complete this project successfully on deadline.

42) Difficult teammates

I started my journey as a supervisor in ExxonMobil after graduating from college. I have to lead a team of 4 inspectors who are at least 10 years elder than me. They were already working for EM before I was even born.

Initianially, the older inspector was not cooperative. One key reason is that he might think I am not qualified to lead thme as I was just graduated from college and does not have much domain knowledge in this sector. After I have joined the company for few months, my department has purchased a 3d scanner. No one knows how to use it as the vendor was stucked in his country, I took an initiative to learn how to use the scanner myself as I have past experience on 3d scanning and printing when I had my internship. I was able to use most of its function and create 3d modelling by self learning and I have shared the method to do to all of inspectors. The uncooperative inspector was quite surprised and eventually he also acknowledge I am not someone who only can ace well in study, but also armed with hands-on skill, he has become more cooperative.

I have earned his trust.

Acknowledge their experience (Listening), give credit to the older worker for his wisdom and learn from him. Encourage other members of my team to recognize the experience and learn form him.

Being humble is a very important part of leadership, but I am also aware of the difference between being humble and undercutting my own knowledge. That being said, Stand firm.

(Use PTZ example)

How can you lead when you don’t know. People with no knowledge often can show hungriness for knowledge

43) Improve work process (IDM)

Background: One of the most important task in plant to get thickness for every now and then. UT machine which has a probe.

Inspection database.

Standard of working:

Template parked inside UT machine, take thickenss and recorded down readings one by one. Multiple readings (100 readings) it takes very long to copy the data one by one.

I went the manual, find out a way which is able to create template first. Upload to machine, take thickness recorded down in template, upload to inspection database using cable. Saving a lot of time, at least one hr per job.

        Plan and carry out fixed equipment/piping inspection via on-stream risk-based monitoring programs and downtime inspection activities

        Advise business teams/units on inspection program findings and recommend appropriate solutions for corrosion issues, to ensure safe and reliable operation of equipment

        Investigate equipment failure and recommend cost-effective methods of repair and material selection

        Maintain effective working relationships and communication with business teams/units, to eliminate or minimize material and corrosion issues

        Monitor latest developments in inspection/materials and corrosion technology, via inter-affiliate technology transfers, network communications and meetings

        Develop and update piping and fixed equipment strategy as leading indicators for reliability

        Maintain effective Inspection Data Management system and filing system, including periodic updates

        Provide appropriate recommendations, mitigations and timely updates on equipment degradation problems

        Provide quality assurance on project construction and maintenance works to ensure compliance with applicable codes, standards and specifications

        Conduct reviews and/or updates on Materials Suitability Reviews and Equipment Strategies to ensure equipment reliability

44) Backbone

As a young supervisor at my age, sometimes you will face a lot of challenge/ different opinion during discussion with your very experienced team. To me, staying humble is the key. I wont force my guys just to follow my instructions because I am their supervisor. I am also aware the difference between staying humble and has backbone.

There was an occasion where we were asked to inspect a drum, this drum looks like a cylinder which has a 20m height, we were told to assess the internal condition of the drum near the lower end of the drum. Hence I had a discussion with my team to come out an idea to do the inspection, most of them suggest we should take out the drum out of service and go inside the drum to do a thorough inspection, by doing that our plant need to shut down for 2 days and it will cost 200k reduction in revenue. However, I had a idea where instead of going from the bottom, we should inspect from top where there is a platform and a manhole and deploy a drone for inspection with the aid of mobile lighting equipment where we don’t have to isolate the drum for inspector to go in where it will save 200k dollars. They were not comfortable about my suggestion until I show them several successful examples of drone deployment for inspection in other countries.

In the end, drone deployment was a success since we can get high quality photos from using drone alone. We managed to save 200k from preventing the plant from SD to conduct inspection

45) Biased for action

One day, a high pressure steam line was found leaking. Our engineering team decided to seal the leak with a engineering clamp. However, thickness on the nearby surface need to be acquired since a minimum required thickness is necessary for the clamp to be put in service. Our inspector was unable to get the thickness because the presence of the water vapour in the surrounding area. Usually in this case, we will call in a different team which has heat suit to help us to get thickness. However, if we need do that, we need waste few days to settle the procedure while I am clearly aware that speed truly matters in business.

What I have done, I went for site survey. I found out that there are some scaffold pipe which can be deployed to bypass the steam. After I did my risk assessment, I dun afraid to step up and do the call. I think I can mount the tube on the leaking point without getting myself. Hence I rolled up my sleeve and work together with my team and we are able to acquire the thickness reading and can proceed with clamp installation without wasting time to call in vendor in heat suith

46) Mistake

There was a scenario when one of inspection supervisor who is managing different unit went on leave for 2 weeks. Our managed need to find volunteer to carry on his workload, I accepted his ongoing tasks as in I didn’t want to seem like I couldn’t handle extra work without checking out my schedules. When we have break-in tasks (because equipment leak and need manpower to monitor the equipment, I don’t have enough manpower to meet deadlines for planned tasks. I admitted this issue to my manager, we need to get extra manpower from different site. For instance, I will use application to note down my daily, weekly tasks to be done and indicate important project deadlines and where I am in the process at any given time and I am able deliver the results to my supervisor according to what I promised, I will also think carefully and thoroughly before giving any promise.

47) Illegal

When I was working on my URECA project, there was one time that I unable to replicate a good experimental result due to time constraint. And I need to include one PhD candidate’s experimental result in my final report. I did not inform my professor about this. What I have done has violated the academic integrity principle. The lesson that I have learnt from this incident is I will go to my professor to seek for his approval to cite his PhD student results. If Prof didn’t approve my request, I will not include PhD works in my own report since that is illegal and even though I might not get a good grade on this subject.