

IGS Scholar's Name: Jermyn Juay
Research Centre: NEWRI

1. What were you doing before PhD studies?

I was an undergraduate student at NTU's School of Civil and Environmental Engineering pursuing my Bachelor Degree in Environmental Engineering.

2. What motivates or trigger you to pursue a doctorate?

I was first exposed to Research during my polytechnic days. That was when I first developed an interest towards research. Furthermore, after completing my Final Year Project in Year 4 during my undergraduate studies I felt that the research was something I wanted to pursue further hence I decided to take up a doctorate degree.

3. Why or how did you decide to apply to IGS or the interdisciplinary route of research?

In my own opinion, research is not about understanding your own field but how your research can impact areas beyond your field. Understanding how a symbiotic relationship of research can work would widen your knowledge and allow to view things in a bigger picture.

4. What is your thesis about?

It is about the synthesis and subsequent application study a nano-crystallised carbon Bismuth-Titanium dioxide nanofiber for clean water and energy production.

5. Why did you choose this topic and how does it benefit people or industries globally or internationally?

Population growth has heighten global demand to the access to clean and safe drinking water as well as energy. These 2 components factors are key driving forces behind a nation's development and it warrants its' competitive advantage. To remain competitive there was always a need to develop "greener" alternatives to help solve these issues. Hence I hope by showcasing the potential of the material developed through my research it can open avenues for the use of photocatalyst for such applications.

6. What kind of interaction did you have in IGS? How did that help you?

It was a platform for me to get to know others and to know what they are doing in their area of research. Also, it allowed me to developed collaborative research work with other Graduate students working in relevant research fields.

7. What are the challenges you faced during the candidature and how did you overcome it?

The main challenge for me was the access to certain equipment due to the limited funding support. I explored the use of cheaper alternatives that have the same intended purpose. Getting hands on and understanding the nitty gritty behind the system help me overcome this obstacles.

8. **What was your proudest moment or fondest memories over the years of candidature? E.g awards, overseas conference, patent, published papers, etc.**

The proudest moment was the moment the Professors came out from the Seminar Room to congratulate me on my successful defence of my PhD. Thesis.

9. **What do you think are the attributes for PhD students to successfully go through the 4 years?**
Adaptability and having a resilient attitude is crucial to pulling through the 4 years of research.

10. **Please share 1 key motivational/ key take away message with your juniors?**

The one most important thing that would benefit my juniors would be that, applied research is like a kid playing in a playground don't be afraid to fall and stand up again. Never give up.

11. **How does it feel like when you received the scholarship offer?**

It was a proud moment for me. As I was able to pursue something that I had a fond interest in without having to impose financial burdens on my family. It was something that they were proud off too!

13. Share with us some memorable photos you've taken with 1 line description of each photo. (e.g. Overseas conference, interactions in IGS, etc)



Friends beyond boundaries!

14. **What will you miss after graduating?**

Friends. The friends are the ones that keeps you going. I would definitely miss them after graduating.

15. What is your next adventure / challenge or any plans for the future?

My next adventure would be to progress well in my current job and explore other opportunities beyond research. And probably one day return to the field of academia as a Lecturer.

16. Is there anything you want to say to your family, supervisors, mentors, friends or anybody?

The 4 years has been a challenging one for me! I would like to take this opportunity for the unwavering support from my family over the course of my candidature. Their constant support and advice kept me going and was a key factor that kept me afloat when things was going as planned. I would like to thank my supervisors, mentors and seniors! Your research suggests and opinions on my work made sure that I was progressing on the right path!