

IGS Scholar's Name: Wang Jiacheng

Research Centre: ERI@N

- 1. Your current employment details (Designation, name of company, country and scope of work)**
Globalfoundries in Singapore. GLOBALFOUNDRIES is a leading full-service semiconductor design, development, fabrication and innovation company with locations across the globe.
- 2. What motivates or trigger you to pursue a doctorate?**
To be at the cutting edge of scientific discovery. To be able to work with intellectual people who share a common interest and genius ideas. To further my science career. I love playing with the new things and discovering something. Finally, I'd like to be called "Doctor".
- 3. Why or how did you decide to apply to IGS or the interdisciplinary route of research?**
This is because in the future, many new subjects and innovations will be created in the interdisciplinary areas. I believed that IGS could provide student with a broad learning experience. Because of the individualized focus and flexibility, the students in IGS can communicate with each other and work cooperation. I would like to get the opportunity to participate in an interdisciplinary and academically research environments.
- 4. What is your thesis about?**
My thesis topic is: Low power clock generators with digital calibration for sustainable building applications. It is focus on the IC design for electrical systems in sustainable building applications.
- 5. Why did you choose this topic and how does it benefit people or industries globally or internationally?**
Because in these sustainable building applications, many electronic systems are used for data collection and management. There are also several clock generators in these electronic systems. My research is focus on the energy efficiency on-chip clock generators. If the power hungry and additional off-chip clock generators can be replaced, the entire electronic systems will save much power and cost.
- 6. What kind of interaction did you have in IGS? How did that help you?**
One of my IC design is for biomedical application. I seek the SCE to help me to learn and understand much more biological acknowledgement, and then prepare some biological experiments. Furthermore, I also needed an equipment to changing the experiment environment. Finally, they help me to use the Thermal Steam testing equipment for it.
- 7. What are the challenges you faced during the candidature and how did you overcome it?**
The greatest challenge I've faced in my PhD candidate period is the changing supervisor at the end first year. Thanks to the school and my new supervisor's help. They help me re-gaining the confidence and passion of research.
- 8. What was your proudest moment or fondest memories over the years of candidature? E.g awards, overseas conference, patent, published papers, etc.**
My proudest moment is my research paper is accepted by the IEEE Asian Solid-State Circuits Conference (A-SSCC). A-SSCC is one of the top conference for presenting the most updated and advanced chips and circuit designs in solid-state and semiconductor fields.

9. What do you think are the attributes for PhD students to successfully go through the 4 years?

The most important thing is perseverance. And then you must have some innovations which is based on your solid acknowledgment and reading a lot of start-of-the-arts. The tenacity is also important. Don't be afraid of failure. It is said that no pain, no gain.

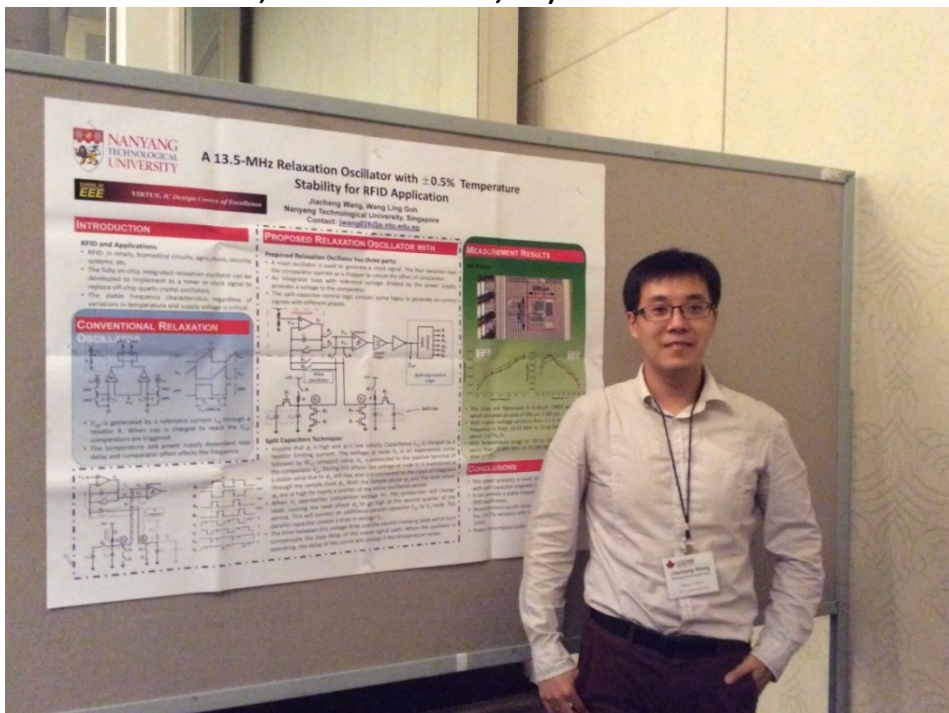
10. Please share 1 key motivational/ key take away message with your juniors?

In my opinion, the most important is perseverance. Because in your research work, it is hardly to obtain the ideal results just in one experiment. Usually, you may have many failures. Many persons may doubt themselves and get frustrated after several fails. But at that time, if you can insist on your right research direction, you will success at the end.

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

Excited. I can do some research which I am interested and can pursue my PhD dream.

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



The Poster presentation in ISCAS conference in Montreal, Canada.

13. What will you miss after graduating?

Missing the IGS' seminars and buffets, and also missing my beautiful and nice supervisor.

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

After the PhD, I plan to join in an industry company to improve my other skills, like the management, team work in a project schedule, communication with customers, etc. Because there is a huge difference between the research work in School and project based work in industry, I plan to practice myself in the industry company next.

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

I want to say to my parents and my wife that: thank you for supporting me for the PhD. When I feel tired and frustrated, you always courage me and give me the energy to continue.

To my supervisor: Thank you for your teachings to me. Let me know how to grow up and face the life in the PhD period. Filling our minds with knowledge is a teacher's job. Yes, but more important is giving the minds a compass in their whole lives. I always feel lucky that you are my supervisor.