

Engineering beyond education

TUNKU Abdul Rahman University of Management and Technology's (TAR UMT) Beyond Education philosophy is aimed at providing students with valuable experiences, industry exposure and soft skills development in addition to traditional academic learning. TAR UMT's Faculty of Engineering and Technology (FOET) is no exception to this approach.

One success story of TAR UMT's FOET is Samuel Lee, a chip design engineer at Nvidia in the UK. Lee's journey started with his undergraduate training in electronics engineering which has prepared him for a future career in chip design. However, it was his encounter with his final year project (FYP) supervisor and current dean of FOET Dr Lim Li Li that had a profound impact on Lee's life and career. Dr Lim's guidance led Lee to pursue a Master of Science in Telecommunications in the UK.

He shares, "Dr Lim encouraged me to further my postgraduate studies in the UK and looking back, that has been a valuable piece of advice that has helped me gain a rewarding career in the UK now."

Lee now works as a chip design engineer at Nvidia in the UK.



Even after graduating from the then TAR College more than 10 years ago, Lee has made it a point to stay in touch with Dr Lim. "The initial idea for my FYP was to use Field-Programmable Gate Array (FPGA) to implement a micro mobile communications network. Dr Lim turned down my idea because using FPGA was costly and as engineers, it is important to be both innovative and ensure the solutions provided are cost-effective. She then bounced off her idea of an FYP with me on implementing a custom turbo decoding algorithm. The project ideally would require two students to complete as the work and effort for the project is somewhat similar to a master's degree project. However, after not being able to find another student to join me, I decided to take on Dr Lim's idea as my FYP on my own and she became my supervisor."

He continues, "The project involved mathematical equations broken down into smaller functions and the use of Very High-Speed Integrated Circuit Hardware Description Language (VHDL) for the implementation of the algorithm. I must admit that the project was challenging but the learnings I gained were greater. My experience in VHDL impressed my master's degree professor and he took me on as a project student. And it is also through this project that I developed an interest in digital circuit design, and I am grateful that I now have a career in this very area."

Lee recently returned to Malaysia and he visited Dr Lim at TAR UMT. "It was great to meet up with Dr Lim after many years and I am so happy that she is now the dean of the faculty. I am confident that like me, many TARClans will benefit from her leadership and commitment

towards students' development."

He adds, "I am also amazed that TAR UMT has expanded its engineering programmes to include degree, master's degree and PhD, as well as continuing to improve and strengthen its programmes to stay relevant to industry developments. For example, the Bachelor of Electronics Engineering Technology (Hons) which I am familiar with consists of courses such as Data Science, Cloud Computing and

Machine Learning which are very relevant skills for the world of engineering and technology today, including the industry that I am in. I am also happy to know that the faculty maintains important fundamentals like Principles of Electrical and Electronic Engineering, Circuit Theorem and Digital/Analogue Electronics. These subjects are key to helping engineering students build strong foundation knowledge before they

move forward to higher levels."

The university offers financial aid and merit scholarships for qualified students.

■ For more information about TAR UMT's engineering and technology programmes, visit TAR UMT's Open Day held at campuses nationwide from June 8-25, 10am to 5pm. You can also call 011-1082 5613 and 011-1059 7120 or visit www.tarc.edu.my.



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