



IET Travel Award Report 2022

This report has presented a full trip detail to Centre of Healthcare Science and Technology, at the Universiti Tunku Abdul Rahman (UTAR) in capital city of Malaysia, Kuala Lumpur. The UTAR campus has great facilities and properly accessible by public. The journey to the campus from my hotel took about 40 minutes and it is very convenient to travel in the city. I was invited for this research visit by Assoc. Prof. Dr. Chee Pei Song, the centre director and I am thankful for the chance to witness many creative and novel biomedical and healthcare products integrated with antenna and communication technology for human applications. I learned about the challenges and benefits of each product and how the research team manages all settings to ensure a reliable testing on human body as experimental subject. I had the opportunity to speak with several researchers who shared their knowledge and experiences working in the biomedical field.

Currently, I am working on long distance healthcare monitoring system and this research visit's support from the IET is important for this research work to progress to the final stage, where testing and improvement of the fabricated antenna is conducted. I have spent my time at the microwave laboratory to conduct measurement for my fabricated antenna. For your information, there is no anechoic chamber testing facility above 10GHz in my university and most of the time, I will need to post them the prototype and they will help to measure at their side. This time, I manage to grab the opportunity to conduct the testing by myself and further investigate several discrepancies from the past testing. Also, I have visited the smart cities and communications testbeds at their campus. It was a great learning experience when viewing the testbeds in person and eventually, it gave me lots of ideas to propose an establishment of suitable and low-cost connection network for rural Sarawak. After the fruitful discussion, we have planned few initial projects for the year 2023 to kickstart and also applying few industrial grants to support the research projects. At the meantime, I have taken this opportunity to promote the IET with the UTAR academicians and students related to awards and scholarships as well as voluntary services.

Overall, this research visit was a valuable opportunity to learn about the Centre of Healthcare Science and Technology of UTAR's commitment to radio frequency biomedical research and to see the different approaches in action. It was also a chance to network with experts professionals and to exchange ideas and best practices. I would like to sincerely thank the IET for granting me this great opportunity. Without the IET's support, it would have been difficult for me to attend and most importantly, my research output would not have gained publicity and collaboration. This is certainly one of my best memories in life, thanks to the IET Travel Award 2022.

Snapshots of all memorable moments during my visit



Picture 1: The main gate of UTAR; Picture 2: Antenna structures displayed at the lab



Picture 3: The Vector Network Analyzer; Picture 4: The antenna fabrication station



Picture 5: The anechoic chamber for the antenna testing; Picture 6: Measurement taking at the lab

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