Curriculum Vitae for XMUM Official Website

Name	Dr. Intan Izafina Idrus
Current Position	Lecturer
Administrative Position (if applicable)	
Room No.	Xiamen University Malaysia, Jalan Sunsuria, Bandar Sunsuria, 43900 Sepang, Selangor
Programme	Electrical and Electronics Engineering, School of Computer and Electrical Engineering
Telephone	
Email	intanizafina.idrus@xmu.edu.my

BIOGRAPHY

- A committed lecturer with more than four years working experience in academic as well as research and development industry.
- Possess excellent interpersonal, verbal communication and written skills.
- Knowledgeable and experienced in microwave and millimeter wave communication systems such as antenna design and RF circuits design.
- Developed an antenna for base station in the fifth-generation mobile communication system and proposed a new design concept of producing simultaneously horizontal and vertical sectorizations to reduce co-channel interference in fifth-generation mobile network during doctoral study.
- Involved in a critical project in redesigning low-cost two-way radio products to overcome a global semiconductor shortage.

RESEARCH INTERESTS

Antenna Design & RF Propagation

EDUCATIONAL BACKGROUND

DOCTOR OF PHILOSOPHY
Electrical & Electronic Engineering, Universiti Malaya
December 2014 – February 2021
Doctoral Thesis: Multibeam Array Antenna for Base Station in the Fifth-generation Mobile Communication System

MASTER OF SCIENCE
Electrical, Electronic and Systems Engineering, Universiti Kebangsaan Malaysia
December 2010 – October 2013
Master Thesis: Total Electron Content Variations with the Occurrence of Large-scale Travelling Ionospheric Disturbances over High-latitude and Equatorial Regions

BACHELOR OF ENGINEERING
Electronic Engineering, Universiti Sains Malaysia,
June 2003 – August 2007

WORKING EXPERIENCE

LECTURER
Xiamen University Malaysia, Selangor
September 2021-Present

- Prepared and delivered lectures and tutorials.
- Developed curriculum and course materials.
- Collaborated with other academics and lecturers to improve teaching methods and expand knowledge base.
- Setting and grading assignments, tests, and final examinations.
- Conducted research and supervised students on their final year projects.

SENIOR ELECTRICAL ENGINEER
Motorola Solutions (Malaysia) Sdn. Bhd., Penang
March 2020-September 2021

- Designed and developed RF circuits for two-way radio.
- Simulated RF sub-circuit design and generate PCB Layout Gerber for fabrication using engineering computer aided design tools.
- Conducted RF testing and validated test results to ensure the designed product meets design requirements and international standards.
- Worked closely with engineers and subject matter expert during design phase.
- Provide technical solutions for customer issues.
- Proposed new component parts for end-of-life component parts and evaluated the performance of the component parts to ensure no degradation.
- Prepared documentation for test plans, product failures, and resolutions for design changes.

PROVISIONING SUPPORT ENGINEER
Global Enterprise International (Malaysia) Sdn. Bhd., Selangor
May 2014-June 2014

- Responsible for the provision of effective leadership and management of multiple small-medium telco and ICT projects to ensure smooth delivery of service within KPIs.
- Liaised with engineers and clients to ensure projects delivered on time.

DESIGN ENGINEER
Sony EMCS (Malaysia) Sdn. Bhd., Selangor
January 2008-June 2010

- Designed and developed RF circuit for television.
- Conducted RF testing to ensure good reception and noise interference mitigation.
- Performed actual field tests to ensure the functionality of the prototypes.

- Troubleshot and solved hardware problems during design development phase.
- Worked closely with senior engineers to meet design specifications and safety compliance.

PROFESSIONAL APPOINTMENTS / MEMBERSHIPS

- Board of Engineer Malaysia (Graduate Engineer)
- Institute of Engineer Malaysia (Graduate Member)
- Malaysia Board of Technologist (Graduate Technologist)

REPRESENTATIVE PUBLICATIONS

JOURNALS:

1. Design and characterization of a compact single-layer multibeam array antenna using an 8 × 8 Butler matrix for 5G base station applications. Intan Izafina Idrus, *Tarik Abdul Latef, Narendra Kumar Aridas, Mohamad Sofian Abu Talip, Yoshihide Yamada, Tengku Faiz Tengku Mohmed Noor Izam, and Tharek Abd Rahman. 2020. Turkish Journal of Electrical Engineering and Computer Sciences, 28 (2), 1121–1134. DOI: 10.3906/elk-1907-119. (ISI-Indexed - Q4)

2. A low-loss and compact single-layer Butler matrix for a 5G base station antenna. Intan Izafina Idrus, *Tarik Abdul Latef, Narendra Kumar Aridas, Mohamad Sofian Abu Talip, Yoshihide Yamada, Tharek Abd Rahman, Ismahayati Adam, and Mohd Najib Mohd Yasin. 2019. PLoS ONE, 14 (12), 1-23. DOI: 10.1370/journal.pone.0226499. (ISI-Indexed - Q2)

3. Large-scale travelling ionospheric disturbances observed using GPS receivers over high-latitude and equatorial regions. *Intan Izafina Idrus, Mardina Abdullah, Alina Marie Hasbi and Asnawi Husin. 2013. Journal of At,mospheric and Solar-Terrestrial Physics, 102, 321-328. DOI: 10.1016/j.jastp.2013.06.014. (ISI-Indexed - Q2)

CONFERENCES:

1. Multibeam characteristics of an array antenna for 5G mobile base station. Intan Izafina Idrus, Tarik Abdul Latef, Yoshihide Yamada, Mohamad Sofian Abu Talip, Narendra Kumar Aridas, and Tharek Abd Rahman. Paper presented at the IEEE International RF and Microwave Conference, 17–19 December 2018, Batu Feringgi, Penang.

2. Base Station Antennas for the 5G mobile system. Yoshihide Yamada, Kamelia M. Chatib Quzwain, Intan Izafina Idrus, Tarik Abdul Latef, Farizah Ansarudin, Muhammad Kamran Ishfaq, and Tharek Abd Rahman. Paper presented at the IEEE International RF and Microwave Conference, 17–19 December 2018, Batu Feringgi, Penang.

3. Unequally element spacing array antenna with Butler matrix feed for 5G mobile base station. Yoshihide Yamada, Chin Zhun Jing, Nurul Huda Abd Rahman, Kamilia Kamardin, Intan Izafina Idrus, Muhammad Rehan Ashraf, Tarik Abdul Latef, Tharek Abd Rahman, and Nyugen Quoc Dinh. Paper presented at the International Conference on Telematics and Future Generation Networks, 24–26 July 2018, Kuching, Sarawak.

4. Observation of large-scale travelling ionospheric disturbance using GPS receivers. Intan Izafina Idrus, Mardina Abdullah, Alina Marie Hasbi, and Asnawi Husin. Paper presented at the World Academy of Science, Engineering and Technology, 2–3 December 2013, Dubai, UAE.