

COMMUNICATION SYSTEMS & NETWORKS (CSN)

- Professor Dr. Yoshihide Yamada Professor, Head of ikohza
- Assoc. Prof. Dr. Wan Haslina Hassan, Associate Professor
- Ir. Dr. Kamilia Kamardin, Senior Lecturer

NUMBER OF STUDENTS

- Ph.D : 11 students
- Master: 2 students
- Bachelor: 8 students

RESEARCH KEYWORDS

- Antennas and Propagation
- Antenna for Human Health Care
- Radar Cross Section
- Cognitive Radio Networks
- Cloud Computing
- Network Security
- Industrial Cybersecurity
- Mobile Communication

OUTLINE OF IKOHZA

Communication Systems & Networks Research Lab (ikohza) is an inter-disciplinary group focusing on cutting-edge research in the development of reliable and efficient delivery of information for future Internet. It encompasses several areas of research including, but not limited to, telecommunication engineering, mobile communications, antenna and radio wave technology, wireless sensor networks (WSN), intelligent algorithms, network security and healthcare system. The main objective of the group is to establish a world-class collaborative research environment harnessing expertise from Malaysia, Japan, and abroad.

CURRENT RESEARCH

- **RESEARCH1: FRGS MOHE GRANT**
Investigations of Reflector Shaping Method of Dual Reflector Antenna for Multi Beam Performances (Total: RM64,400)
- **RESEARCH 2: UTM PROTOTYPE RESEARCH GRANT**
Fabrication of Base Station Antennas for 5G Mobile System (Total: RM75,000)
- **RESEARCH 3: UTM TIER 2 GRANT**
Estimation of Electrical Power Concentration Inside Human Body by Distributed Array Antenna Illumination for Hyperthermia Application (Total: RM30,000)
- **RESEARCH 4: JICA GRANT**
Electrically Small and Implantable Antennas for Biomedical Applications (Total: RM180,000)
- **RESEARCH 5: UTM TIER 2 GRANT**
Detection Model Using Multidimensional Factors for Insider Threat in Organization (Total: RM30,000)
- **RESEARCH 6: PROFESSIONAL DEVELOPMENT RESEARCH UNIVERSITY GRANT SCHEME**
Self-Optimisation in Heterogeneous Networks for Next Generation 5G Systems (RM 126,000)

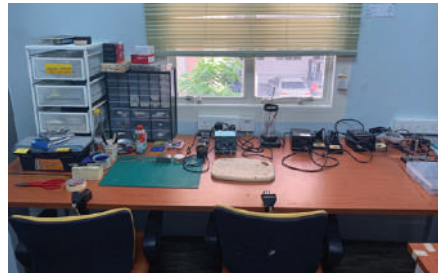
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



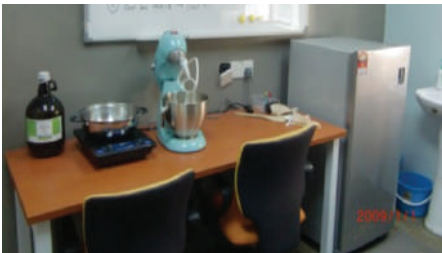
MERIT OF THE TECHNOLOGY

1) Antenna Measurement Facility

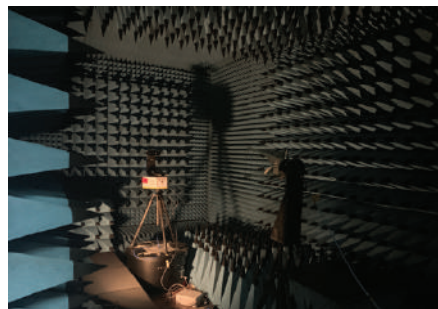
- Antenna fabrication room



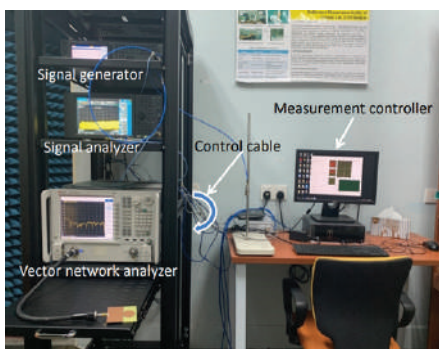
- Phantom fabrication room



- Anechoic chamber



- Measurement system



POSSIBLE INDUSTRY APPLICATION

1. Consultation on Anechoic Chamber design
2. Trainings for industry on antenna measurements
3. Anechoic chamber rental for antenna measurements

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