

## PERSONAL INFORMATION



**Name: Assoc. Prof. Ir. Ts. Dr. Muzammil Bin Jusoh (C.Eng)**  
 Director of Student Development and Services Center,  
 Research Fellow Advanced Communication Engineering Centre (ACE)  
 Universiti Malaysia Perlis  
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**Expertise:** Reconfigurable Antenna using RF switches for freq, polarization and beam control, Wearable Antenna, RFID, MIMO, UWB & 5G Antenna

## 1. ACADEMIC QUALIFICATIONS

- PhD in Communication Engineering, UniMAP (Jan 2011- July 2013)  
 \*Queen Mary University of London, QMUL (Feb 2013- May 2013)
- MEng in Electrical-Electronics & Telecommunications Eng., UTM (July 2009- Dec 2010)
- B.Eng in Electrical-Telecommunications Engineering, UTM (July 2002- Jun 2006)

## 2. PROFESSIONAL MEMBERSHIP

- **Professional Engineer** from **Board of Engineers Malaysia** on 28Aug20(P121203) **Electronic**
- **Professional Technologist** from **MBOT** since 12 Oct 2020 (PT20100371) **Electrical & Electronic**
- **Chartered Engineer** from Engineering Council UK (IET) since 1<sup>st</sup> Aug 2018 (**CEng No: 645022**)
- **Member of Institute of Engineer Malaysia (IEM)** since 1<sup>st</sup> July 2014 (**MIEM; 70648**)
- **Graduate Member of BEM** since 06 Mac 2009, (**Reg. No: 58517A**) (Eng. Field: Electronic)
- **Graduate Member of Board of Technologies Malaysia (MBOT)** since June 2020, (**Reg. No: GT20060101**) (Eng. Field: Electrical & Electronics Technology - EE)
- **Senior Member of IEEE**, Account No: **93017889**
- Member of **IEEE Microwave Theory and Techniques Society Membership**
- Member of **IEEE Antennas and Propagation Society Membership**
- Member of **IEEE Council on RFID**

## 3. ADMINISTRATIVE POST/ WORKING EXPERIENCE

- **Executive Committee** IEEE Council on RFID Malaysia Chapter from **30th Jan 2021 till current**
- **Research Fellow** of Advanced Communication Engineering Center of Excellence UniMAP from **1st July 2020 to 31st July 2022.**
- **Director** of Student Development and Services Center, UniMAP (**15th Apr 20 - 30th June 2022**)
- **Dean** of Student Development and Alumni, UniMAP (**1st Mac 2019 – 14th April 2020**)
- **Associate Professor of UniMAP** (**1st Dec 2017 – current**)
- **Anugerah Perkhidmatan Cemerlang (APC) @ Best Employee Award on 2015** from UniMAP
- **Deputy Dean** of Student Development and Alumni, School of Computer and Communication Engineering (SCCE), Universiti Malaysia Perlis (**1st Mac 2015 – 28th Feb 2019**)
- **Served Telekom Malaysia Berhad (TM) for three years (Oct 2006- Sept 2009).** Becoming Team Leader of Specialized Network Services which based in TM Senai, Johor (Jan 09 to Sept 2009). Sales Engineer/Account Executive that give technical consultation to enrich customers network in TM HQ Bangsar & Kedah/Perlis (Oct 2006 to Dec 2008).

## 4. TECHNICAL CONSULTATIONS

- Company: **G2R Sdn Bhd** for project name: Speed Internet for All, consultation period: 1<sup>st</sup>Sept 21
- Company: **Spectre Solutions Sdn Bhd (panel company under TM Bhd)** for project name: **Rekabentuk 2X2/ 4X4 MIMO Antenna untuk MIMO LTE projek, start period: 22 March 2021.**
- **Visiting Professor** of Nahda University of Benisuef, **Egypt**, Chitkara University in Chandigarh **India**, Dhaka University of Engineering Technology, **Bangladesh.**
- Company: **Spectre Solutions Sdn Bhd (panel company under TM Bhd)** for project name: **Rekabentuk Antenna untuk Wireless Communication** consultation: **1<sup>st</sup>Jan 2020–31<sup>st</sup>March 2020**
- Company: **MIMOS Bhd**, project name: **Antenna System for Port Management System**, consultation period: **30<sup>th</sup> January 2015 – 1<sup>st</sup> February 2016.**
- Company: **MASDAR Technologies Bhd**, project name: **Wireless System for KTMB EMU Train**, consultation period: **1<sup>st</sup> October 2014 – 30<sup>th</sup> September 2015.**
- **IMDC 2015, IMDC 2016, IMDC 2017 and IMDC 2018** (Innovate Malaysia Design Competition) steering committee represent UniMAP in coordination by Dreamcatcher Sdn Bhd

## 5. PUBLICATIONS

	No. of papers	H-index	No. of citations
Scopus Indexed	237	18	1257
Google Scholar	251	19	1406
Research Gate	261	19	1442

Updated 5<sup>th</sup> Feb 2022SCOPUS ID: <https://www.scopus.com/authid/detail.uri?authorId=24483755700>ORCID ID: <https://orcid.org/0000-0003-3870-6773>RESEARCH GATE: [https://www.researchgate.net/profile/Muzammil\\_Jusoh](https://www.researchgate.net/profile/Muzammil_Jusoh)PUBLONS: <https://publons.com/researcher/3118118/muzammil-jusoh/>GOOGLE SCHOLAR: <https://scholar.google.com/citations?hl=en&user=oX50HTQAAAAJ>

## Book Chapter

1. V. Vijayarveswari, M. Jusoh, T. Sabapathy, S. Khatun, **Book Chapter: Performance Analysis on UWB Antennas for Breast Cancer Detection**, **Book Title:** Advanced Aspects of Engineering Research Vol. 2, 18 February 2021, Page 65-74. <https://doi.org/10.9734/bpi/aaer/v2/7401D>.
2. Jing Huey Lim, R. Badlishah Ahmad, M. Jusoh and T. Sabapathy, **Book Chapter: Evaluating the Performance of Hybrid Network in Fractional Frequency Reuse and Femtocell Power Control Schemes**, DOI: 10.9734/bpi/etert/v11, Print ISBN: 978-93-90431-71-7, eBook ISBN: 978-93-90431-76-2. Book Title: Emerging Trends in Engineering Research Technology.

## Selected ISI-papers Publications (latest 5 years)

1. Kabir Hossain, Thennarasan Sabapathy, **Muzammil Jusoh**, Ping Jack Soh, Samir Salem Al-Bawri, Mohamed Nasrun Osman, Hasliza A. Rahim, Danai Torrungrueng, Prayoot Akkaraekthalin, "Decagonal C-Shaped CSRR Textile-Based Metamaterial for Microwave Applications", *Computers, Material and Continua*, 71(1), pp. 1677-1693, 2022. (Q1 IF: 3.772)
2. Rosli, S.J., Rahim, H.A., Rani, K.N.A., (...), **Jusoh M.**, Ariffin, W.S.F.W., Alkhayyat, A., "A hybrid modified sine cosine algorithm using inverse filtering and clipping methods for low autocorrelation binary sequences", *Computers, Materials and Continua*, 71(2), pp. 3533-3556, 2022. (Q1 IF: 3.772)
3. Elkhouly, A., Andrew, A.M., Rahim, H.A., **Jusoh M.**, Sabapathy, T., Siddique, S., "A novel unsupervised spectral clustering for pure-tone audiograms towards hearing aid filter bank design and initial configurations", *Applied Sciences (Switzerland)*, 12(1),298, 2022. (Q1 IF: 2.679)
4. Salem Al-Bawri, S., Islam, M.T., Hossain, K., Sabapathy, T., **Jusoh, M.**, "Left-handed characteristics tunable c-shaped varactor loaded textile metamaterial formicrowave applications", *Computers, Materials and Continua*, 71(1), pp. 611-628, 2022. (Q1 IF: 3.772)
5. Siti Rahena Isa, **Muzammil Jusoh**, Thennarasan Sabapathy, Jamel Nebhen, Muhammad Ramlee Kamarudin, Mohamed Nasrun Osman, Qammer Hussein Abbasi, Hasliza Abd Rahim, Mohd Najib Yasin, Ping Jack Soh, "Reconfigurable Pattern Patch Antenna for Mid-Band 5G: A Review", *Computers, Material and Continua*, 70(2), pp. 2699-2725, 2022 (Q1 IF: 3.772)
6. Kabir Hossain, Thennarasan Sabapathy, **Muzammil Jusoh**, Ping Jack Soh, R.Badlishah Ahmad, Mohd Ilman Jais, Mohamed Nasrun Osman, Mohd Najib Mohd Yasin, Hasliza A. Rahim, Nitin Saluja, Qammer H. Abbasi, "A Frequency-Reconfigurable Microstrip Antenna with Constant Dipole-Like Radiation Patterns Using Single Bias, Triple Varactor Tuning with Reduced Complexity", *Wireless Personal Communications*, <https://doi.org/10.1007/s11277-021-09167-8>, 2022. (Q3 IF: 1.2)
7. Abdul Halim, A.A., Andrew, A.M., Mohd Yasin, M.N., **Jusoh M.**, (...), Abdul Karim, M.K., Scavino, E., "Existing and emerging breast cancer detection technologies and its challenges: A review", *Applied Sciences (Switzerland)*, 11(22),10753, 2021. (Q1 IF: 2.679)
8. Hossain, K., Sabapathy, T., **Jusoh, M.**, (...), Rahim, H.A., Al-Bawri, S.S., "A negative index nonagonal csrr metamaterial-based compact flexible planar monopole antenna for ultrawideband applications using viscose-wool felt", *Polymers*, 13(16),2819, 2021. (Q1 IF: 4.329)
9. Vijayarveswari, V., Andrew, A.M., **Jusoh, M.**, (...), Khatun, S., Rahim, H.A., "Multi-stage feature selection (MSFS) algorithm for UWB-based early breast cancer size prediction (PLoS ONE (2020))", *PLoS ONE*, 16(5 May),e0251679, 2021. (Q1 IF: 3.24)
10. Hossain, K., Sabapathy, T., **Jusoh, M.**, (...), Yasin, M.N.M., Saluja, N., "Electrically tunable left-handed textile metamaterial for microwave applications", *Materials*, 14(5),1274, pp. 1-17, 2021. (Q1 IF: 3.623)
11. Sofri, T., Rahim, H.A., Abdulmalek, M., (...), Jusoh, M., Soh, P.J., "Health Effects of 5G Base Station Exposure: A Systematic Review", *IEEE Access*. (Q1 IF: 3.367)
12. Mashagba, H.A., Rahim, H.A., Adam, I., (...), Ismail, A.M., Soh, P.J., "A Hybrid Mutual Coupling Reduction Technique in a Dual-Band MIMO Textile Antenna for WBAN and 5G Applications", *IEEE Access*, 9, pp. 150768-150780, 2021. (Q1 IF: 3.367)
13. Ali, A., Mohd Yasin, M.N., Faiz Wan Ali, W.F., (...), Nurulazlina Ramli, Ali, N., "A Comprehensive Review of

- Midrange Wireless Power Transfer Using Dielectric Resonators”, *International Journal of Antennas and Propagation*, 5493013, 2021. (Q3 IF: 1.174)
14. Adam, I., Kamarudin, M.R., Rambe, A.H., (...), **Jusoh, M.**, Yasin, M.N.M., “ Investigation on Wearable Antenna under Different Bending Conditions for Wireless Body Area Network (WBAN) Applications”, *International Journal of Antennas and Propagation*, 2021,5563528. (Q3 IF: 1.347)
  15. Albreem, M.A., Sheikh, A.M., Alsharif, M.H., **Jusoh, M.**, Mohd Yasin, M.N., “Green Internet of Things (GloT): Applications, Practices, Awareness, and Challenges”, *IEEE Access*, 2021. (Q1 IF: 4.098)
  16. Albreem, M.A., Salah, W., Kumar, A., (...), **Jusoh, M.**, Uwaechia, A.N., “Low Complexity Linear Detectors for Massive MIMO: A Comparative Study,” *IEEE Access*, 2021. (Q1 IF: 4.098)
  17. Sabapathy, T., Soh, P.J., **Jusoh, M.**, “A Three-Year Improvement Assessment of Project-Based Learning for an Antennas and Propagation Course (Education Corner),” *IEEE Antennas and Propagation Magazine*, 2020. (Q1 IF:4.435)
  18. Samir Salem Al-Bawri, Md Shabiul Islam, Hin Yong Wong, Mohd Faizal Jamlos, Adam Narbudowicz, **Muzammil Jusoh**, Thennarasan Sabapathy and Mohammad Tariqul Islam, “Metamaterial Cell-Based Superstrate towards Bandwidth and Gain Enhancement of Quad-Band CPW-Fed Antenna for Wireless Applications”, *MDPI Sensors* **2020**, 20(2), 457; <https://doi.org/10.3390/s20020457>. (Q1 IF:3.076).
  19. Samir Salem Al-Bawri, Hui Hwang Goh, Md Shabiul Islam, Hin Yong Wong, Mohd Faizal Jamlos, Adam Narbudowicz, **Muzammil Jusoh**, Thennarasan Sabapathy, Rizwan Khan, Mohammad Tariqul Islam, “Compact ultra-wideband monopole antenna loaded with metamaterial”, *MDPI Sensors* **2020**. (Q1 IF:3.076).
  20. Nurul Fatimah Nabila Yah ; Hasliza A Rahim ; Ping Jack Soh ; Mohdfareq Abdulmalek ; R Badlishah Ahmad ; **Muzammil Jusoh** ; Lee Yeng Seng ; Mohd Haizal Jamaluddin ; Mohd Najib Mohd Yasin, “Green Nanocomposite-based Metamaterial Electromagnetic Absorbers: Potential, Current Developments and Future Perspectives”, *IEEE Access*, 8,8966373, pp. 33289-33304 2020. (Q1 IF:4.098).
  21. Jawad Ali, Noorsaliza Abdullah, Roshayati Yahya, Irshad Ullah, Bhagwan Das and **Muzammil Jusoh**, “Ultra-Wideband Antenna Development to Enhance Gain for Surface Penetrating Radar”, *Wireless Personal Communications*, <https://doi.org/10.1007/s11277-020-07656-w> (IF:0.951).
  22. Rosli, S.J., Rahim, H.A., Rani, K.N.A, Ngadiran, R., Ahmad, R.B., Yahaya, N.Z., Abdulmalek, M., **Jusoh, M.**, Yasin, M.N.M., Sabapathy, T., Andrew, A.M, “A hybrid modified method of the sine cosine algorithm using latin hypercube sampling with the cuckoo search algorithm for optimization problems”, *Electronics* (Switzerland), Volume 9, Issue 11, November 2020, Article number 1786, Pages 1-23.
  23. Ali, A., Mohd Yasin, M.N., **Jusoh, M.**, Ahmad Hambali, N.A.M., Abdul Rahim, S.R., “Optimization of wireless power transfer using artificial neural network: A review”, *Microwave and Optical Technology Letters*, 62(2), pp. 651-659, 2020. (IF: 0.948)
  24. S.Ramanathan, **M.Jusoh**, T.Sabapathy, G.Subash C.B, M.N.Yasin, H.A.Rahim, M.N.Osman and Y.A.Wahab, “Elastomeric polydimethylsiloxane polymer on conductive interdigitated electrode for analysing skin hydration dynamics”, *Applied Physics A : Materials Science and Processing*, 126(9),756, 2020 (IF:2.328)
  25. V. Vijayarveswari, A.M. Andrew, **M. Jusoh**, T. Sabapathy, R.A.A. Raof, M.N.M. Yasin, R.B. Ahmad, S. Khatun and H.A. Rahim, “Multi- stage feature selection (MSFS) algorithm for UWB based early breast cancer size prediction”, *PLOS ONE*, 15(8 August), e0229367 2020 (IF:2.740)
  26. Jais, M.I., Sabapathy, T., **Jusoh, M.**, R.B. Ahmad, M.H. Jamaluddin, M.R. Kamarudin, Murukesan Loganathan, L., Soh, P.J., “A Fuzzy-Based Angle-of-Arrival Estimation System (AES) Using Radiation Pattern Reconfigurable (RPR) Antenna and Modified Gaussian Membership Function”, *IEEE Access*, 7,8861097, pp. 145477-145488, 2019. (IF:4.098).
  27. Esmail, B.A.F., Majid, H.B., Dahlan, S.H., Abidin, Z.Z, Rahim, M.K.A., **Jusoh, M.** “Planar antenna beam deflection using low-loss metamaterial for future 5G applications”, *International Journal of RF and Microwave Computer-Aided Engineering* 29(10),e21867, 2019. (IF:1.472).
  28. Ali, A., Mohd Yasin, M.N., **Jusoh, M.**, Ahmad Hambali, N.A.M., Abdul Rahim, S.R., "Optimization of wireless power transfer using artificial neural network: A review", *Microwave & Optical Technology Letters (MOTL)*, 2019. (IF:0.948).
  29. Adam, I., Mohd Yasin, M.N., Ramli, N., **M.Jusoh**, Ramli, H.A, Abdul Latef, T.B, Tengku Mohmed Noor Izam, T.F., Sabapathy, T., "Mutual Coupling Reduction of a Wideband Circularly Polarized Microstrip MIMO Antenna", *IEEE Access*, *IEEE Access* 7,8763965, pp. 97838-9784, 2019. (IF:4.098).
  30. Hammood, D.A., Rahim, H.A., Badlishah Ahmad, R., Alkhayyat, A., Salleh, M.E.M., Abdulmalek, **M., Jusoh, M.**, Abbasi, Q.H., “Enhancement of the Duty Cycle Cooperative Medium Access Control for Wireless Body Area Networks”, *IEEE Access*, 7,8586792, pp. 3348-3359, 2019. (IF:4.098).
  31. Zahid, L., **Jusoh, M.**, Ahmad, R.B., T.Sabapathy, M.F.Malek, M.R.Kamarudin, Yasin, M.N., Osman, M.N., "FEMC Performance of Pyramidal Microwave Absorber using Sugarcane Baggasse and Rubber Tire Dust at 1 GHz to 18 GHz Frequencies", *Applied Computational Electromagnetics Society Journal (ACES)*, 34(1), pp. 162-171, 2019. (IF:0.58).

**6. SUPERVISION**

Program	Status	As Main Supervisor	As Co-supervisor
PhD	Graduated	4	2
	Ongoing	1	5
Master Research	Graduated	2	1
	Ongoing	2	7

Updated 1<sup>st</sup> May 2021

**Doctor of Philosophy – 5 as Main Sv (4 COMPLETED), 6 as Co-Sv (2 COMPLETED)**

- Doctor of Philosophy (Communication) by Research**, Dec 2018: (on-going): **Main Supervisor:** Siti Rahena bt Isa, “Beam Reconfigurable Antenna with Pixel Structure”, School of Computer and Communication Engineering (SCCE), UniMAP.
- Doctor of Philosophy (Communication) by Research**, Jan 2015: (COMPLETED-Dec2018): **Main Supervisor:** Vijayarveswari A/P Veeraperumal, “Hybridization of K-Fold with Feed Forward Backpropagation Algorithm for Insufficient Data Sample in Early Breast Cancer Detection” SCCE, UniMAP.
- Doctor of Philosophy (Computer) by Research**, July 2014: (COMPLETED- July 2018): **Main Supervisor:** Mohd ilman Bin Jais, “Azimuth and Elevation (AE) Localization Embedded System Using Fuzzy Interference System (FIS) Based Architecture” SCCE, UniMAP.
- Doctor of Philosophy (Communication) by Research**, March 2015: (COMPLETED-Sept 2018): **Main Supervisor:** Md Rabiul Awal, “Design and Implementation of A New, Low Cost, High Performance Wireless Power Transfer Technique for Rechargeable Pacemaker System”, SCCE, UniMAP.
- Doctor of Philosophy (Communication) by Research**, Feb 2014: (COMPLETED-Aug 2017): **Main Supervisor:** Liyana Binti Zahid, “Design and Development of Microwave Absorbers using Material Waste” SCCE, UniMAP.

**Doctor of Philosophy – 1 as Co-Sv for UiTM student**

- Doctor of Philosophy (Kejuruteraan Elektrik) by Research**, Dec 2020: (on-going): **Co- Supervisor:** Amirudin Bin Ibrahim, “On Body Wearable Antenna Using Flexible Material for Health” FKE, UiTM Permatang Pauh, PPinang.

**Master of Science – 4 as Main Sv (2 COMPLETED), 6 as Co-Sv (1 COMPLETED)**

- Master of Science (Communication) by Research**, Nov 2019 (on-going): **Main supervisor:** Santhana Laxmi A/P A. Muthukarpan, “RFID Based Using IoT System”, SCCE, UniMAP.
- Master of Science (Communication) by Research**, Apr 2019: (on-going): **Main supervisor:** Ainur Fasihah Mohd Fazilah, “Network Monitoring System using RFID Technology with Ability of Human Skin Dehydration Detection for Medical Application” SCCE, UniMAP.
- Master of Science (Communication) by Research**, May 2014: (COMPLETED-July 2016): **Main-supervisor:** Mr Shakhirul Bin Mat Salleh, “Reconfigurable Textile Antenna for GPS and WiFi Applications” SCCE UniMAP.
- Master of Science (Communication) by Research**, Jan 2016: (COMPLETED-Aug 2018): **Main-supervisor:** Mr. Devakumaran A/L Subramaniam, “Beam-Reconfigurable of A Planar Pixel Antenna for X-Band Radar Application”, SCCE UniMAP.

**7. RESEARCH GRANTS (RM2,070,530)**

Year Awarded	Title of Project	Type of Grant	Amount (RM)	Role
2022	Short Course on Telecommunication and Networking System (Basic Installation and Maintenance) : Graduate Employability Grant	KPT PENJANA CAP	132,000	Main Researcher
2021	Investigation on the Phase Displacement between the High Scalability and Accuracy of Tunable Metasurface Array Resonator and Terrestrial InSAR for Plastic Debris Detection in River	FRGS Grant	105,360	Co Researcher
2021	Fragmented Array Topology of RFID Antenna Structure for Gain Efficiency and Electromagnetic Wave Propagation Enhancement on Metallic Surface Layer	FRGS Grant	91,000	Co Researcher
2021	Indoor Positioning System: Efficient Design Deployment and Performance Measurement	Industry Matching Grant	20,000	Main Researcher
2021	RSSI Tracking System	Industrial Grant	14,950	Main Researcher
2021	Smart Attendance and Monitoring System	Industrial Grant	23,000	Main Researcher
2021	Smart Hand Sanitizer System	Industrial Grant	21,850	Co Researcher

2020	Theoretical study on Electromagnetic Orbital Angular Momentum in the presence of dielectric media	FRGS Grant	105,200	Co Researcher
2020	Enhanced Time Difference of Arrival Algorithm (TDOA) with Kalman Filtering (KF) as Object on Ground Localization Acoustic Sensor	FRGS Grant	62,200	Co Researcher
2020	Chaotic Behavior based Secured Encryption Algorithm for Near Field Wireless Power Transfer	FRGS Grant	97,450	Co Researcher
2019	Study on the Effects of Cognitive Performance, Well Being, Physiological Parameters and Electroencephalography (EEG) of the Malaysian Adults to Short Term Exposure from 5G Radio	MCMC	225,000	Co Researcher
2019	Gateless Entry Point for Access Control using RFID System	Internal Grant	16,300	Main Researcher
2019	A new model of Open-ended probe technique to characterize level of protein in raw milk	RACER	38,400	Co Researcher
2019	A fundamental approach to dual communication using electro-acoustic waves in high scale impedance mismatch	FRGS Grant	64,200	Co Researcher
2019	Investigation on the Correlation between Dielectric Properties of Malignant Tumor and Analytically Modeled Reconfigurable Metasurface Resonator Array for Early Breast Cancer Detection	FRGS Grant	91,200	Co Researcher
2019	Characterization of Metamaterial structure with reconfigurable property at millimeter wave frequency range for Internet of Medical Things (IoMT) Application	FRGS Grant	73,200	Co Researcher
2018	An Investigation of Human Skin Hydration Detection Using Non-invasive Optical Sensing for Medical Application	FRGS Grant	59,000	Main Researcher
2017	Optimization of Energy Efficient Protocols on New Statistical Game Theory Model for Wireless Sensor Networks	FRGS Grant	50,000	Co Researcher
2016	A new parametric optimization model using UWB imaging through human breast for domestic and low-cost breast health checkup	FRGS Grant	149,726	Main Researcher
2016	A fundamental Study of Insect Disinfestation Using Microwave Energy for Malaysian Post-Harvested Rice Storage	FRGS Grant	119,300	Co Researcher
2015	Improving Wireless Power Transmission Technique for Low-Cost Rechargeable Cardiac Pacemaker Circuit	FRGS Grant	118,100	Main Researcher
2015	Energy-Efficient Mobile Terminal Antennas for Green 5G Wireless Communication Networks	Science Fund-MOSTI	368,094	Co Researcher
2015		Publication Grant	15,000	Main Researcher
2015	Multi Directional Reconfigurable Beam Antenna	Short Term Grant	10,000	Main Researcher
			<b>2,070,530</b>	

#### 8. PATENT FILING/ COPYRIGHT

- Blood Vessel Detection on Retinal Image and Monitoring System (**MYIPO No. File: P12019004328**)
- **UK Copyright 284735465**, Product: Switchable Antenna System Based High Speed Wireless Railway Communication (**Expired Date: 8 Jun 2025**)
- **UK Copyright 284700666**, Product: High Gain Patch Array Stacked Antenna (**Expired: 26 Jan 2021**)
- **UK Copyright 284700660**, Product: Reconfigurable Wearable Textile Antenna with Circular Polarization (**Expired Date: 26 Jan 2021**)
- **UK Copyright 284700663**, Product: Green Microwave Absorber (GMA): Sugarcane Bagasse (SCB) and Rubber tire Dust (RTD). (**Expired Date: 26 Jan 2021**)
- **UK Copyright Service**, Product: Broadband T+RF energy harvester. (**Expired Date: 21 Feb 2022**)
- **UK Copyright Service**, Product: Flexible Broadband Textile Monopole Antenna for Internet of Things (IoT) Health wear System. (**Expired Date: 07 May 2023**)



**9. TEACHING**

Subjects	Semester	Student	Role
NMJ31603 Management for Engineers	Sem 1 2021/2022	4 <sup>th</sup> year degree	Lecturer
EKT104 Basic Electronic Circuit	Sem 2 2020/2021	1 <sup>st</sup> year degree	Lecturer
EKT341 Antenna and Propagation	Sem1 2020/2021, Sem1 2019/20, Sem1 2018/19, Sem1 2017/18,	3 <sup>rd</sup> year degree	Lecturer
EKT450 Research Methodology	Sem1 2018/19	Master	Lecturer
EKT450 Mobile Communication System	Sem2 2019/20, Sem2 2018/19, Sem2 2017/18, Sem2 2016/17	4 <sup>th</sup> year degree	Lecturer
EKT446 Final Year Project 1	Sem2 2013/14, Sem2 2014/15, Sem2 2015/16, Sem2 2016/17, Sem2 2017/18, Sem2 2018/19, Sem2 2019/20, <b>Sem1 2020/21</b>	4 <sup>th</sup> year degree	Lecturer
EKT445 Final Year Project 2	Sem2 2013/14, Sem2 2014/15, Sem2 2015/16, Sem2 2016/17, Sem2 2017/18, Sem2 2018/19, Sem2 2019/20, <b>Sem2 2020/2021</b>	4 <sup>th</sup> year degree	Lecturer
EKT451 Group Design Project	Sem2 2013/14, Sem2 2014/15, Sem2 2015/16, Sem2 2016/17, Sem2 2017/18, Sem2 2018/19, Sem2 2019/20	4 <sup>th</sup> year degree	Lecturer
EKT358 Communication System	Sem1 2016/17	3 <sup>rd</sup> year degree	Coordinator & Lecturer
EKT204 Analog Electronic Circuit	Sem1 2014/15, Sem1 2015/16	2 <sup>nd</sup> year degree	Lecturer
EKT314 Electronic Instrumentation	Sem2 2013/14, <b>Sem1 2020/21</b>	3 <sup>rd</sup> year degree	Lecturer
DKT224 Data Communication & Network	Sem2 2013/14	2 <sup>nd</sup> year Diploma	Coordinator & Lecturer

**10. RESEARCH AWARDS (Selected 2015 – 2021)**

- SV to recipient (my FYP student- Nur Syazwanee) for **IEEE MTT-S Undergraduate Scholarships 2021** Cycle 1 Awardees (October 2020 Competition)- **the only Malaysian recipient**
- **Asian Youth Innovation Awards 2021** – The Malaysia-Croatia Technology Exchange 2021: Wearable UHF RFID Tag Antenna Based Metamaterial for Monitoring and Tracking of Covid19 Patient
- **Silver Award of Youth Category in MTE 2021:** Wearable UHF RFID Tag Antenna Based Metamaterial for Monitoring and Tracking of Covid19 Patient
- **Special Award from Turkish Inventors and Innovators Network in MTE 2021:** Dielectric Materials Measurement System
- **GOLD Medal Award in MTE 2021:** Dielectric Materials Measurement System
- **GOLD Medal Award in MTE 2021:** Dual Band Circularly Polarized Textile Antenna for WLAN and 4G Health Wear Application
- **Silver Medal Award in MTE 2021:** A Flexible and Compact Metamaterial UHF RFID Tag for Remote Sensing in Human Health
- **Gold Medal Award in UniMAP Expo (EREKA 2021):** A Flexible and Compact Metamaterial UHF RFID Tag for Remote Sensing in Human Health
- **2020 IEEE Malaysia Best Final Year Project Competition** (my FYP student- Mr Fuad Hassan Adan): Switchable Antenna System Based High Speed Wireless Railway Communication
- **IEEE AP-MTT 2020 Excellence Paper Award:** Reconfigurable four-parasitic-elements patch antenna for high gain beam switching application.
- **UniMAP Young Scientist** with H-Index of 16 in 2020
- **UniMAP Young Scientist** with H-Index of 14 in 2019

- **Best Paper Award** from **UCET2020**- The 5<sup>th</sup> International Conference UK-China Emerging Technologies – paper title: ENG and NZRI Characteristics of Decagonal Shaped Metamaterial for Wearable Applications
- **Best Paper Award** from **BCWSP2020**- International Conference on Broadband Communication, Wireless Sensors and Powering, paper title: 1x4 Patch Array Textile Antenna for WLAN Applications
- **IEEE AP-MTT 2019 Excellence Paper Award**: Pattern Reconfigurable microstrip patch antenna with multidirectional beam for Wimax application.
- **Gold Medal Award in WICO in Korea 2019**, Product: Wearable Antenna Technology for Breast Cancer Detection.
- **Special Award and Gold Award in i2CREATE 2019**, Product: Wearable Antenna Technology for Breast Cancer Detection.
- **Gold Medal Award in ITEX 2018**, Product: Wireless Power Transfer (WPT).
- **Bronze Medal Award in MTE 2017**, Product: Green Microwave Absorber: Sugarcane Bagasse and Rubber Tire Dust (RTD).
- **Silver Medal Award in ITEX 2016**, Product: Frequency Reconfigurable Textile Antenna for GPS and WiFi Application.
- **Silver Medal Award in MTE 2015**, Product: Broadly Steerable Antenna System for High-Speed Wireless Bridging Networks Based Railway Communication.

#### 11. **SPEAKERS (International and Local Speakers, selected 2015 – 2021)**

1. **Keynote Speaker for ACHOST2021**-Annual Conference on Health and Food Science Technology organized by **Kresna Nusantara and Relawan Jurnal Indonesia** 20<sup>th</sup> November 2021.
2. **Keynote Speaker for ICMER2020**-International Conference on Multidisciplinary Engineering Research Towards Industrial Revolution 4.0 organized by **Universitas Mercu Buana**, 6<sup>th</sup> February 2021.
3. **Keynote Speaker for ICEAS2019**-International Conference Applied Engineering and Science conference at Madiun, Jawa Timur on **21<sup>st</sup> Aug 2019** organized by Universitas PGRI Madiun, Indonesia.
4. **Keynote Speaker** for conference **ICCSET2018** at Kudus, Jawa Tengah on **25<sup>th</sup> Oct 2018** organized Universiti Muria Kudus.
5. **Invited Speaker** on The Intellectual Convention- The Rise of Gig Economy organized by UniSHAMS on 14 Sept 2021.
6. **Invited Speaker** on Publish in ISI Journal: Myth and reality of academic publishing organized by **Al-Rasheed University, Iraq** on **17<sup>th</sup> Dec 2020**.
7. **Invited Speaker** on Strategies of Becoming a Good ISI Journal Writer organized by **Nahda University Benisuef, Egypt** on **20 November 2020**.
8. **Invited Speaker** for Motivational Talk and Tips to be An Excellence Student for Form Six of SMK Tengku Suleiman, Perlis organized by **KEMAS- Jabatan Kemajuan Negeri Perlis** on **28 Sept 2020**.
9. **Invited Speaker** on **How to Find Novelty in Research** organized by **Akademi Farmasi YPPM Mandiri Banda Aceh** on **6 Aug 2020**.
10. **Invited Speaker** at **Universitas Mercu Buana Jakarta Indonesia** with title Reconfigurable 5G mm-wave Antenna Design for Future Wireless: MIMO Technology and Cognitive Radio on **27<sup>th</sup> July 2020**.
11. **Invited Speaker** at **Chitkara University, Punjab, India** for **Webinar Talk Series** with title **Reconfigurable Antenna Design for Future Wireless: 5mm Wave and Cognitive Radio** on **26<sup>th</sup> June 2020**.
12. **Invited Speaker** at **Universitas Serambi Mekkah, Banda Aceh** with title Emerging Embedded System with Wireless Communication System and Strategies on Becoming A Good Writer on **13<sup>th</sup> March 2020**.
13. **Chitkara University Punjab INDIA**: Invitation for **Teaching Sharing** and Discussion on Potential Research Collaboration in 14<sup>th</sup> Global Week Program at Faculty of Computer Science Engineering, Chitkara Uni, India from **7<sup>th</sup> to 26<sup>th</sup> Oct 2019**.
14. **Universitas Harapan Medan (UnHAR)**: Invitation as **Invited Speaker** for Transdisciplinary Project: Connecting Embedded System with Wireless Communication System at UnHAR Indonesia on **25<sup>th</sup> Jan 19**.
15. **Invited Speaker** for conference Radio Frequency and Microwave (**RFM2018**) at Park Royal Hotel, Penang on **18<sup>th</sup> Dec 2018**.
16. **Invited Speaker** at **STIES**- Sek Tinggi Ilmu Ekonomi Sabang, Aceh for IoT technology towards Business on **26<sup>th</sup> Sept 2018**.
17. **NTTI Cambodia**: Invitation as **Keynote Speaker** for 5G and IoT: Future and Challenges at National Technical Training Institute (NTTI), Cambodia on **22<sup>nd</sup> March 2018**.
18. **IETR France**: Invitation for **Potential Research Collaboration** and Measurement of Prototype at Milimeter Wave Band at IETR Universite de Rennes 1, France between **18<sup>th</sup> Jan to 12<sup>th</sup> Febr 2018**.
19. **NUB Egypt**: Invitation for **Research and Teaching Sharing**, Discussion on Potential Research Collaboration and as External Examiner of Communication Engineering Program at Faculty of Electrical Engineering, Nahda University Banisuef, Egypt from **7<sup>th</sup> to 26<sup>th</sup> Dec 2017**.
20. **Universitas Harapan Medan**: Invitation as **Keynote Speaker** for 5G and IoT: Future and Challenges at Universitas Harapan Medan Indonesia on **2<sup>nd</sup> Nov 2017**.

21. **Politeknik LP3I:** Invitation as **Keynote Speaker** for 5G and IoT: Future and Challenges at Politeknik LP3I Medan Indonesia on **1<sup>st</sup> Nov 2017**.
22. **STMIK Triguna Darma Medan:** Invitation as **Keynote Speaker** for Research Publication and S2&S3 Opportunity in UniMAP at STMIK Medan Indonesia on **1<sup>st</sup> Nov 2017**.
23. **ITM Medan:** Invitation as **Keynote Speaker** for IT Seminar and Discussion on Potential Postgraduate Studies in UniMAP at **18 May 2017** at Institut Teknologi Medan, Indonesia.
24. **Politeknik MBP Medan:** Invitation as **Keynote Speaker** for Journal Coaching and Publication in High Impact Factor Journal at Politeknik MBP Medan Indonesia on **17 May 2017**.
25. **NUB Egypt:** Invitation to **Attended A Training Courses** and Discussion on Potential Research Collaboration at Faculty of Electrical Engineering, Nahda University Banisuef, Egypt from **5<sup>th</sup>-9<sup>th</sup> Sept 16**.
26. **DUET Dhaka:** Invitation as **Assistant Professor** at Computer Science Engineering (CSE), Dhaka University of Engineering Technology (DUET), Bangladesh to discuss on Educational Quality Assurance, Combinatorial Testing: Past, Present and Future and LINUX” from **30<sup>th</sup> May 2016 to 2<sup>nd</sup> June 2016**.
27. **DUET Dhaka:** Invitation as **Assistant Professor** at Computer Science Engineering (CSE), Dhaka University of Engineering Technology (DUET), Bangladesh to discuss on Leading Seminars and Workshop, Research Collaboration, Joint Supervision, Joint Publications & Joint Research Finding Bids from **29<sup>th</sup> Sept-1<sup>st</sup> Oct 15**.
28. **Asia Pacific University (APU) KL:** **Invited Talk** and Meeting on Potential Research Collaboration between UniMAP-UTM-APU on **24<sup>th</sup> April 2015**.
29. **Speaker:** How to Write A Good Journal SCOPUS Paper for PPKK postgraduate students on **3<sup>rd</sup> Feb 16**.
30. **Speaker** on Reconfigurable and Smart Antenna at FKE UTM Skudai on **12<sup>th</sup> Jan 2015**.
31. **Altera Session Chair** for Innovate Malaysia Design Conference 2015 (IMDC2015) on **17<sup>th</sup> Aug 2015**.
32. **Speaker Program** ICOE Antenna Training pada **15-16<sup>th</sup> Jan 2015** di UniMAP Pauh Putra anjuran **Industrial Centre of Excellenct Cluster Electrical and Electronics (ICoE EE)**.
33. **Fasilitator Program** Electrical Safety & Risk Assessment to Final Year Students of MTUN at UTHM, UNIMAP dan UMP in the month of **Disember 2015** orgnaized by **ICoE EE**.

## 12. INTERNATIONAL/NATIONAL/UNIVERSITY COMMITTEES (Selected 2015 – 2020)

### International/ National Committee:

1. **Editorial Board Member** for **Hadhramout University Journal of Natural & Applied Sciences** from Oct 2021 to Sept 2023.
2. **Panel Penilai Luar** bagi Program **Diploma Kejuruteraan Komunikasi** Politeknik Tuanku Syed Sirajuddin, Perlis pada **7 April 2021**.
3. **Panel Pakar Projek Dana Penyelidikan dan Pembangunan (R&D)** Kementerian Sains, Teknologi dan Inovasi (MOSTI) dari **1 Jan 2021 sehingga 31 Disember 2023**.
4. **Panel Forum Diskusi Nasional** anjuran PINTAR pada 18 Feb 2021, Tajuk: Sugarbaby: Sejauhmana Seriusnya Gejala Sugarbaby di IPT.
5. **Treasurer of IMTGT - Indonesia\_Malaysia\_Thailand Growth Triangle** consists of 12 Universities (Indonesia\_USU Medan, ITM, UniMED, Unsyiah Kuala Aceh, Malaysia\_UniMAP, UUM, USM, UiTM, Thailand\_PSU, Rajamanggala Uni, Thaksin, Walailak Uni) from **March 2019 to Dis 2021**.
6. **Academic Advisor** for Diploma Program of Electronic Engineering (Telecommunication) for **Politeknik Tuanku Syed Sirajudin (PTSS)**, Pauh Perlis (**14<sup>th</sup> Sept 2018 to current**).
7. **Scientific Committee for InCEESS2020** Conference on Economics, Engineering and Social Science, Bekasi Indonesia, **27<sup>th</sup> July 2020**.
8. **Scientific Committee for ICASI2020** The 3<sup>rd</sup> International Conference on internet and application. Focus on electromagnetics, **20<sup>th</sup> June 2020**.
9. **Organizer for Virtual Pi-Envex 2020 UniMAP** that open to all IHL either locally or internationally.
10. **Organizer for Royal Debate 2019** open for all IHL\_Institutional of Higher Learning with MoHE Malaysia
11. **Organizer of FoodBank Siswa@UniMAP** in collaboration with KPDNHEP Malaysia
12. **Organizer of Gig Center UniMAP** in collaboration with MDEC and MAFA-Malaysian Freelancing Association
13. **Organizer of Perkampungan Mahasiswa** involving all IPTA with nearly 400 students in UniMAP
14. **Organizer of UROC 2019**-University of Robot Competition which open for all IHL Malaysia
15. **Scientific Committee of ICASI2018:** Invited as **Scientific Committee** for 1<sup>st</sup> International Conference on Advance & Scientific Innovation at Madani Hotel Medan on **23-24 April 2018**.
16. **IMDC Chair for Northern Region Innovate Malaysia Design Competition (IMDC2018)** at Khazanah Nasional Berhad Georgetown from 19 to 20 May 2018.
17. **Conference Chair** of International Conference on Electronic Solutions for IoT Application (ICEESI) on 9&10 Oct 2017 at Bayview Penang.
18. **Chairman of IEM UniMAP Student Section** from **Sept 2017**.
19. **Steering Committee** INNOVATE MALAYSIA DESIGN COMPETITION(IMDC17)(Represent UniMAP\_MTUN)
20. **UniMAP Committee** of Outbound Mobility Program Nahda University Benisuef (NUB), Egypt, Sept 2016
21. **Steering Committee** INNOVATE MALAYSIA DESIGN COMPETITION(IMDC2016) (Represent UniMAP-MTUN)



22. **Steering Committee** INNOVATE MALAYSIA COMPETITION (**IMDC2015**) on 17&18 August 2015 in Connexion Nexus South Bangsar under ICOE Malaysia. (Represent UniMAP - MTUN)
23. Represent UniMAP as **participant of Huawei Advanced Train the Trainer (TTT) Program** organized by **ICoE EE and MoHE** in collaboration with Huawei Technologies (M) Sdn Bhd from 25 to 31 Oct 2015.

#### University Committee:

1. **Advisor to Majlis Perwakilan Pelajar UniMAP** effective from 1<sup>st</sup> March 2019 to current.
2. **Committee of Jk Kebajikan UniMAP** effective from March 2019 to current.
3. **Committee of Jk Aduan UniMAP** effective from Oct 2020 to current.
4. **Senate member of UniMAP** starting from 1<sup>st</sup> March 2019 to 30<sup>th</sup> Oct 2020.
5. **Committee of Jk Kebajikan, Tabung Amanah dan Zakat** pelajar dan staf UniMAP from 1<sup>st</sup> Oct 2019.
6. **Committee of Jk Smart Campus UniMAP** effective 1<sup>st</sup> November 2019 to current.
7. **Committee of Jk Majlis Tindakan Tata tertib Pelajar** effective 1<sup>st</sup> October 2019 to current.
8. **Committee of Jk Sasterawan Negara@UniMAP** effective 1<sup>st</sup> August 2019 to current.
9. **Committee of Cluster Kesejahteraan Pelajar** for UniMAP 2025 plan to current.
10. **Committee** pembangunan **statut Pusat Aktiviti dan Kecemerlangan Bakat** UniMAP.
11. **Committee of Graduate Employability of UniMAP** effective from 1<sup>st</sup> Nov 2019 to current.
12. **Jury of Pi-Envex 2020** (Perlis International Engineering Invention & Innovation Exhibition) 18-19 May 20.
13. **Jury of I-Finog 20s19** (International Festival of Innovation on Green Technology) on 21-22 April 2019.
14. **Lead Delegation of PPKKP** to PPKEE, USM Nibong Tebal for Benchmarking Visit on 30 July 2018.
15. **Committee of Young Innovative Challenge Perlis** Makers Day 2017 on 24 July 2017.
16. **Judge** for UniMAP EXPO 2017 at Main Campus Pauh on Fen 2017.

### 13. **INTERNAL AND EXTERNAL EXAMINERS**

#### External Examiner Thesis

1. **MsC, 11<sup>th</sup> Jan 2022, Mr Zayed Abdo Abdullah Nasser**, "Design of Integrated Filtenna and SPDT Switch for Wireless Communication", Fak Kej Elektronik dan Kej Komputer, **Universiti Teknikal Melaka (UTeM)**.
2. **PhD, 19<sup>th</sup> Jan 2021, Mr Ahasanul Hoque**, "Development of Single Negative and Double Negative Metamaterial Based Microwave Sensing using Uniform Transmission Line", **Fak Kej Alam Bina, UKM**.
3. **MsC, 24<sup>th</sup> Oct 2019, Mr Eistiak Ahamed**, "Development of A Tunnel Resonator Inspired Left-Handed Metamaterial for Sensing Application", Climate Change Institute, **Universiti Kebangsaan Malaysia (UKM)**.
4. **PhD, 30 Aug 2019, Mr Usman Ilahi**, "The design of Circularly Polarized Wearable DRA for WBAN Applications", Faculty of Electrical and Electronics Engineering, **Universiti Kuala Lumpur (UniKL)**.
5. **PhD, 29 Aug 2019, Mr Javed Iqbal**, "A Multiple-Input Multiple Wideband Circularly polarized DRA for Wimax Application", Faculty of Electrical and Electronics Engineering, **Universiti Kuala Lumpur (UniKL)**.
6. **PhD, 31 July 2019, Mr Muhannad Kalm Abdulhameed**, "Radiation Pattern Control of Microstrip Antenna Antenna Using Electromagnetic Band Gap", Faculty of Electronic&Computer Engineering, **UTEM**.
7. **MsC, 18<sup>th</sup> Jan 2019, Miss Siti Nor Hidayah Kamarudin**, "Design of Integrated Microstrip Patch Antenna with Light Emitting Diode As Monopole Antenna", FKE, **Universiti Teknologi MARA (UiTM)**.
8. **PhD, 17<sup>th</sup> Okt 2018, Md Jubaer Alam** bertajuk "Development of A Metamaterial Based Bandpass Filter for GPS, WLAN and WIMAX Applications", Climate Change Institute, **Universiti Kebangsaan Malaysia (UKM)**.
9. **PhD, 14<sup>th</sup> Sept 2018, Pn Yusmarnita bt Yusop** bertajuk "Capacitive Power Transfer for Low Power Contactless Charging Applications" Faculty of Electronic and Computer Engineering, **UTEM**.
10. **PhD, 23<sup>th</sup> May 2018, Md Zulfikar** bertajuk "Design of A UWB Antenna for Breast Cancer Detection", Fakulti Kejuruteraan dan Alam Bina, **Universiti Kebangsaan Malaysia (UKM)**.
11. **MsC, 4<sup>th</sup> Mac 2016, Miss Hazwani Bt Azman** bertajuk "Spanar Antenna for Heart Rate Monitoring System", Faculty of Electronic and Computer Engineering, **Universiti Teknikal Melaka (UTeM)**.
12. **MsC, 18<sup>th</sup> Okt 2016, Mr Ong Teik Kean**, "Characterization of Split Ring Resonator on New Hybrid Material in Microwave Frequency Region", Faculty of Electronic and Computer Engineering, **UTEM**.

#### Internal Examiner Thesis

1. **PhD, Nov 2021, Mr Bashaar Bahaa Noori Qas Elias**, "Design and Characterization of Flexible Antennas Using Characteristics Mode Analysis", in Communication Engineering, Faculty of Electronic Engineering Technology (FTKEN), UniMAP.
2. **PhD, Jan 2019, Mr Tan Gan Siang**, "Development of Six-port Interferometer using Substrate Integrated Waveguide Technique for Radar-Based Sensor Application" in Communication Engineering, School of Computer and Communication Engineering (SCCE), UniMAP.
3. **PhD, 24<sup>th</sup> Aug 2018, Ridzwan Khan** in Communication Engineering, SCCE UniMAP.
4. **PhD, Aug 2017, Mr Taih Gatte** in Communication Engineering SCCE UniMAP.
5. **Msc, 24<sup>th</sup> Aug 2017, Mr Mohamad Ashraf Halim** in Communication Engineering SCCE UniMAP.

6. **PhD, Dec 2016, Mr Omar Khaldun**, “Enhanced Multi-Cell Coordination in Wireless Communication System Using Beamforming Methods”, SCCE UniMAP.
7. **PhD, 14<sup>th</sup> Jan 2015, Miss Suzanna**, “Development of Asian Size Hand Phantom and Investigation of SAR and HSP in Brain Tissue for Mobile Phone Application”, SCCE, UniMAP.
8. **PhD, 17 May 2015, PRA-VIVA, Mr Rasim Aziz Khadim**, “Development of New Multi-Dimensional Code for OCDMA System”, SCCE UniMAP.
9. **Conversion MsC to PhD, 24 Feb 2014, Pemeriksa Thesis, Lee Yen Seng**, “Development of Wideband Frequency Microwave Absorber Using Carbon Nanotubes/ Rice Husk Composites”, SCCE UniMAP.

#### **Chairman for VIVA session**

1. **MsC, 5 Mac 2021, Noor Azrin Bt Abdul Hamid**, “WAT Algorithm Improvement for Power Trench MOSFET Leakage Current Measurement”, Faculty of Electronic Engineering Technology.
2. **PhD, 4 Okt 2018, Mr Taha Basheer Taha**, “Adaptive Image Watermarking Algorithm Based on Efficient Perceptual Mapping Model with FPGA Implementation”, Faculty of Electronic Engineering Technology, UniMAP.
3. **PhD, 31 July 2018, Pn Aini Syuhada Md Zain**, “Enhanced Parameter Selection and Scheduling Technique for LTE/LTE-Advanced Networks”, School of Computer and Communication Engineering, UniMAP.
4. **MsC, 2 April 2018, Mr Abdul Halim bin Lokman**, “A Compact and High Gain Circularly Polarized Antenna for Cubesat S-Band Application”, School of Computer and Communication Engineering, UniMAP.
5. **MsC, 30 April 2018, Mr Syed Nafis Syed Ngah Ismail**, “Enhancement of Biometric Recognition System using Gait Energy Images”, School of Computer and Communication Engineering, UniMAP.
6. **PhD, 9 Mac 2018, Mr Samir Salem**, “Single Base Station Localization Estimation Algorithms for Indoor and Outdoor Microcellular Wireless Networks using Antennas”, School of Computer and Communication Engineering, UniMAP.

#### **Bio-Statement**

MUZAMMIL JUSOH is an Associate Professor which is currently a Research Fellow of Advanced Communication Engineering (ACE) Centre of Excellence (CoE) in UniMAP. Experience as RF and Microwave Engineer with Telekom Malaysia Berhad (TM) company, from 2006 to 2009, performed as Team Leader of the Specialized Network Services (SNS) Department based in TM Senai Johor. Involved in preventive and corrective maintenance of ILS, NDB, DVOR, repeaters, microwave systems, VHF, and UHF. He received the bachelor's degree in electrical-electronic and telecommunication engineering and the M.Sc. degree in electronic telecommunication engineering from Universiti Teknologi Malaysia (UTM), in 2006 and 2010, respectively, and the Ph.D. degree in communication engineering from Universiti Malaysia Perlis (UniMAP), in 2013. Score H-Index of 18 (SCOPUS index) and leading few grants as main/co-researcher under the Ministry of Higher Education Malaysia, Industrial Grants, and Internal Grant from UniMAP worth in total USD500k. Currently supervising/graduate more than 20 postgraduate students (Ph.D. and M.Sc). Has published over 240 articles in journals and proceedings including IEEE Access, MDPI Sensors, IEEE Antenna and Wireless Propagation Letter (AWPL), Microwave and Optical Technology Letter (MOTL), the International Journal on Antenna and Propagation (IJAP), Progress in Electromagnetics Research (PIER), and Radio Engineering with more than 100 conference papers. His research interests include antenna design, reconfigurable beam steering antennas, wearable antennas, RFID, MIMO, UWB, wireless on-body communications, in-body communications (implantable antenna), wireless power transfer, and RF and microwave communication systems. Besides, he has been a member of the technical program committees of several IEEE conferences and technical reviewer for several IEEE and other conferences. Moreover, he is a member of the IET (MIET), the Antenna and Propagation Society (AP/MTT/EMC) Malaysia Chapter and IEEE RFID Council. He has received the Chartered Engineering Certification in July 2017, Professional Engineer on Sept 2020 and Professional Technologist on Oct 2020.

#### **REFEREES**

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