



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

## CURRICULUM VITAE

### PERSONAL DETAILS

Name : Rudzidatul Akmam Binti Dziauddin

Gender : Female

Date of Birth : 08 January 1978

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**SCOPUS H-INDEX** : 7

Expertise : Wireless Communication Networks, Radio Resource Management, Vehicle/UAV Offloading and Edge Computing, Machine Learning in Internet of Things, Energy harvesting in Wireless Networks



## ACADEMIC QUALIFICATIONS

NO	LEVEL OF EDUCATION	COURSE	UNIVERSITY	STARTING DATE	ENDING DATE
1	PhD	Electrical & Electronic Engineering Thesis title : Quality of Service in WiMAX Network	University of Bristol, United Kingdom	2008	2012
2	Master Science	Information Technology and Science Qualitative	Universiti Teknologi MARA (UiTM)	2001	2004
3	Bachelor of Engineering	Electrical and Electronic Engineering	Universiti Sains Malaysia (USM)	1997	2000

## AWARD AND HONORS

NO	AWARD	LEVEL (FACULTY /UNIVERSITY /NATIONAL /INTERNATIONAL)	YEAR
1	<b>Gold Award</b> , Pecipta 2022	National	2022
2	<b>Best of the Best Award, Special Award Community, Gold Award</b> , Industrial Art & Technology Exhibition 2021	University	2022
3	<b>Best Paper Award</b> , 4 <sup>th</sup> International Conference on Smart Sensor and Applications (ICSSA), 2022	International	2022
4	<b>Publication Award Q1/Q2</b> , Faculty Technology and Informatics Razak	Faculty	2021
5	<b>Best Paper Award</b> , 7th International Conference on Smart Instrumentation, Measurement and Applications 2021 (ICSIMA2021)	International	2021
6	<b>Member Award, Malaysia Technical Standard Forum Berhad (MTSFB)</b>	National	2021
7	<b>Award of Excellence</b> , Active Blended Learning Course for SRSD4924-19 Projek Sarjana Muda 02 (Undergraduate Project 02)	University	2021

8	<b>Most Active Research Group Award</b> , Faculty Technology and Informatics Razak	Faculty	2020
9	<b>Award of Excellence</b> , Active Blended Learning Course for MANN 2103 - Machine Learning System	University	2020
10	<b>Award of Excellence</b> , Active Blended Learning Course for MRSL1453 - Ubiquitous Computing	University	2020
11	<b>Best Paper Session Award</b> , 2 <sup>nd</sup> International Conference on Telematics and Future Generation Networks (TAFGEN 2018)	International	2018
12	<b>Appreciation Award</b> , 20 <sup>th</sup> Industrial Art and Technology Exhibition 2018 (INATEX), Water Pipeline Leakage Detection Using Three-Axis Accelerometer Sensors	University	2018
13	<b>Award of Excellence</b> , Active Blended Learning Course for MRSL1453 – Programing for Engineers	University	2017
14	<b>Award of Excellence</b> , Active Blended Learning Course for MRSL1453 - Ubiquitous Computing	University	2017
15	<b>Award of Excellence</b> , Active Blended Learning Course for SMJP1043 - Programming for Engineers	University	2016
16	<b>Anugerah Perkhidmatan Cemerlang (APC)</b> , Citra Karisma 2017	University	2016
17	<b>Grand Prize, Innopitch Competition Award</b> , Innovation and Commercialisation Centre (ICC)	University	2013

## PROFESSIONAL MEMBERSHIP / QUALIFICATIONS / RECOGNITION

NO	NAME OF PROFESIONAL MEMBERSHIP	LEVEL (FACULTY /UNIVERSITY/NATIONAL /INTERNATIONAL)	ROLE	YEAR
1	Malaysia Board of Technologist (MBOT)	National	Graduate Technologist	2021
2	Crowdsource Application Subworking Group, Malaysia Technical Standard Forum Berhad	National	Member	2021
3	National STEM Association	National	Member	2021
4	Networking Networking Women	International	Member	2019 to date
5	Wireless Communication Center (WCC)	University	Associate Member	2017 to date
6	IMT-2020 Subworking Group, Malaysia Technical Standard Forum Berhad	National	Member	2017- to date

7	Board of Engineer Malaysia	National	Member	2013- to date
8	Institute Electrical and Electronic Engineer(IEEE)	International	Senior Member	2012- to date
9	IEEE Communications Society	International	Member	2010 – To Date
10	Persatuan Kakitangan Akademik UTM (PKA)	University	Member	2020 – To Date

## ADMINISTRATIVE EXPERIENCE

NO	POSITION	STARTING DATE	ENDING DATE	DEPARTMENT/ORGANISATION
1	RESEARCH COORDINATOR	27 OCT 2020	26 OCT 2022	RAZAK FACULTY TECHNOLOGY & INFORMATICS
2	HEAD OF RESEARCH GROUP (Ubiquitous Broadband Access Network (U-BAN))	27 OCT 2020	26 OCT 2022	RAZAK FACULTY TECHNOLOGY & INFORMATICS
3	COORDINATOR (Innovation & Entrepreneurship Coordinator)	01 SEP 2016	31 AUG 2018	RAZAK FACULTY TECHNOLOGY & INFORMATICS

## WORKING EXPERIENCE

NO	POSITION	STARTING DATE	ENDING DATE	DEPARTMENT/ORGANISATION
1	Associate Professor	Nov 2022	To date	Universiti Teknologi Malaysia, Kuala Lumpur
2	Senior Lecturer	Jan 2014	Oct 2022	Universiti Teknologi Malaysia, Kuala Lumpur
3	Lecturer	Dec 2006	2014	Universiti Teknologi Malaysia, Kuala Lumpur
4	Visiting Researcher	April 2000	December 2001	Gakushuin University, Jepun
5	Visiting Researcher Scientist	Nov 2018	Jul 2019	Nanyang Technology University (NTU), Singapore

6	Research Engineer	Oct 2011	Oct 2012	Toshiba Research Europe Limited (TREL), Bristol, United Kingdom
7	C++ Programming Lab Demonstrator	Jan 2011 Oct 2008	Mar 2011 Dec 2008	University of Bristol- United Kingdom
8	Engineer	Jul 2001	Jun 2005	(CELCOM (M) BHD)

## CONSULTANCY EXPERIENCE

NO	NAME OF CONSULTANCY	ROLE	AMOUNT (RM)	STARTING DATE	ENDING DATE
1	ITU Centres Of Excellence Online Training Course On Fifth Generation (5G) Radio Access Network Planning and Technology Coexistence	Member	11,300	14/09/2020	28/09/2020
2	3rd 2020 International Conference On Biosignal Analysis, Processing And Systems (ICBAPS), International Conference On Telematics And Future Generation Networks (TAFGEN), International Conference On Smart Sensors (ICSSA)	Chair ICSSA	7,480.85	2019	2020
3	2nd 2018 International Conference On Biosignal Analysis, Processing And Systems (ICBAPS), International Conference On Telematics And Future Generation Networks (TAFGEN), International Conference On Smart Sensors (ICSSA)	Co-chair TAFGEN	11,897	2017	2018
4	Malaysia's First Cellular Narrow Band IoT Hackathon	Committee	94,200	2018	2018

5	ANDROID Mobile Application Training	Committee	4,336	2017	2017
6	LATEX Course	Committee	930	2017	2017
7	1st 2015 International Conference On Biosignal Analysis, Processing And Systems (ICBAPS), International Conference On Telematics And Future Generation Networks (TAFGEN), International Conference On Smart Sensors (ICSSA)	Chair	23,111	2015	2015
8	3rd International Conference On Engineering Business Management (ICEBM 2014)	Committee	3,000	2013	2014
9	1st International Conference On Robust Quality Engineering (ICRQE 2013). UTM RAZAK with American Supplier Institute USE, Japan Quality Engineering Society Japan and Meiji University	Committee	9,000	2012	2013

## **FACULTY APPOINTMENT COMMITTEE**

<b>NO</b>	<b>NAME OF COMMITTEE</b>	<b>ROLE</b>	<b>STARTING DATE</b>	<b>ENDING DATE</b>
1	Data Research Management & Innovation Taskforce	Leader	2021	2023
2	Audit Taskforce	Committee	2021	2021
3	Industrial/Institution Collaboration Taskforce	Committee	2020	To date
4	Faculty Strategic	Coordinator of Strategic	2020	2022

5	Research Council	Coordinator of Myra	2020	2021
6	Research Management Council	Committee	2017	2019
7	Innovation and Commercialisation	Coordinator of ICC	2016	2018
8	Faculty KPI Achievement Audit Task Force	Committee	2016	2017
9	Professional Qualification Unit	Committee	2016	2016
10	Professional Qualification Unit	Chairperson	2014	2015
11	Curriculum Development Wireless Communication Elective in Master Degree Program (System Engineering)	Committee	2014	2014
12	Curriculum Development of MSc in System Engineering, UTM Razak School	Committee	2013	2015

## UNIVERSITY APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	Incubator 3.0 Development Taskforce	Committee	Mac 2021	Dec 2021
2	UTM Ericsson IC5G	Committee	Jan 2020	Dec 2021
3	WANITA TEKNOLOGI (WANGI)	AJK Kecil	2017	2019
4	Innovation and Commercialization Center (ICC) Taskforce	Member	2015	2017

## NATIONAL APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	Accreditation of Prior Experiential Learning (APEL)	Evaluator	2020	To date
2	Kolej Komuniti Ampang	Advisor	2019	2021
3	5G Multiple Access and Propagation Book, UTM Press, 2020	Editor	2019	2020

4	International Future Networks Working Group (IFN-WG), Malaysian Technical Forum Sdn Bhd (MTSFB)	Committee Member	2019	2020
5	IEEE 5G Learning Series Kuala Lumpur	Committee Member	2018	2018
6	Malaysia's First Narrow Band IOT Hackathon	Committee Member	2018	2018
7	Royal Belum National Conference	Treasurer	2014	2014

## INTERNATIONAL APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	International Journal of Integrated Engineering (Special Issue)	Editorial Board Member	2020	2020
2	3 <sup>rd</sup> International Conference on Smart Sensor and Applications (ICSSA)	Chair	2019	2020
3	2 <sup>nd</sup> International Conference on Telematics and Future Generation Networks	Co-Chair	2018	2019
4	1 <sup>st</sup> International Conference on Telematics and Future Generation Networks (TAFGEN)	Chair	2017	2017
5	International Conference on Engineering Business Management	Committee Member	2014	2015
6	International Conference on Robust Quality Engineering (ICRQE)	Committee Member	2013	2014
7	Jurnal Teknologi (Special Issue)	Editorial Board Member	2014	2014

## SELECTED ACTIVITIES / WORKSHOPS / SEMINARS / COURSES

NO	NAME OF ACTIVITIES	PLACE OF ACTIVITIES	STARTING DATE	ENDING DATE
1	Webinar Code Of Ethics	Online	11 Aug 2021	11 Aug 2021
2	Lifting AI Innovations In ASEAN Program	Online	3 Jun 2021	11 Jun 2021



3	Webinar AI-BOS: AI, IoT and Blockchain Adoption in Fishing Industry Webinar	Online	7 April 2021	7 April 2021
4	National Artificial Intelligence (AI) Roadmap Project (AIRmap)	Malaysia	1 Dec 2020	28 Feb 2021
5	IMT 2020 Technical Code for Malaysia	Malaysia	2019	2020
6	Academic Leadership : 'Women Leaders Empowerment In The Nation Development'	Malaysia	2020	2020
7	ASEAN IoT Hackathon Competition	Malaysia	2019	2019
8	Sabbatical Leave at Nanyang Technology University, Singapore	Singapore	2018	2019
9	Patent Software and Application	University	2018	2018
10	Taiwan Advanced Institute on Disaster Risk Reduction with Systems Approach for Slow-Onset Climate Disasters (AI-SOCD) Short Course	TAIWAN	4 June 2018	8 June 2018
11	LEADERSHIP TALK SERIES MODUL ASL 103 : QALBU - GUIDED LEADERSHIP	Malaysia	11 Dec 2017	11 Dec 2017
12	Supervisory Development Program	Malaysia	1 Jun 2016	1 Jun 2016
13	Supervisory Development Program (As102) - Razak School	Malaysia	4 May 2021	6 May 2021
14	Kursus Sijil Pengajaran Pengajian Tinggi (SPPT 2015) : Pengajaran Menggunakan Teknologi	Malaysia	17 Aug 2015	18 Aug 2015
15	Strategic Planning 2015 - Utm Razak School Of Engineering And Advanced Technology	Malaysia	23 Jan 2015	25 Jan 2015
16	Polytechnic Innovation Competition Shah Alam (Picoso 2014)	Malaysia	9 Oct 2014	9 Oct 2014
17	CDIO Workshop Component 3 : Design & Build	Malaysia	8 Oct 2013	10 Oct 2013
18	Bengkel CDIO Cascading Component 2,3,4	Malaysia	2 Sep 2013	5 Sep 2013

## RESEARCH ACTIVITIES

BIL	NAME OF GRANT	ROLE	CATEGORY OF GRANT	TYPE OF GRANT	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
1	<b>Deep Learning based Resource Management for Autonomous Vehicles in Vehicle Edge Computing</b>	<b>Principal Investigator (PI)</b>	Others	FRGS	<b>92,200</b>	2019	2023	5F277
2	CRG45.4 - Traceability Model for Blockchain-based Fish Supply Chain Network Connectivity		UTM	CRG	20,000	2019	2021	4B513
3	CRG 18.3 - Development of Online Remote Monitoring and Fall Detection System		UTM	CRG	20,000	2019	2021	4B443
4	<b>UTM-TDR 9.3(T1) Development of IoT-based Asset Tracking and Monitoring Device using GPS and Self Power Wireless Sensor Node</b>		UTM	TDR	<b>65,000</b>	2018	2020	05G14
5	<b>Hybrid Filtered Orthogonal Multiple Access for 5g Heterogeneous Networks.</b>		UTM	RUG	<b>40,000</b>	2017	2019	18H25
6	<b>New Filter Design for Multiple Access Schemes of the Fifth Generation (5G).</b>		Others	HICOE	<b>119,910</b>	2016	2017	4J235
7	Intercell Interference Mitigation for Machine-2-Machine (M2M) Communications		UTM	RUG	28,656	2014	2015	09J80
8	<b>An Adaptive Soft Frequency Reuse (SFR) In Multichannel And Multicellular Networks</b>		Others	FRGS	<b>76,200</b>	2013	2015	4F376
9	Water Pipelines Monitoring and Pipe Leakage Detection System		UTM	PAS	20,000	2013	2014	00K70
<b>TOTAL</b>					<b>RM 451,966</b>			

BIL	NAME OF GRANT	ROLE	CATEGORY OF GRANT	TYPE OF GRANT	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
1	Test bed for industry 5G use cases at IC5G	Project Member	OTHERS	CONTRACT RESEARCH DTD	65,000	1/1/2021	31/12/2023	4C485
2	4C485 : Test bed for industry 5G use cases at IC5G		UTM	MATCHING GRANT	65,000	1/1/2021	31/12/2023	03M60
3	Mobile Edge Computing and Non Orthogonal Multiple Access for Connected and Autonomous Vehicles		UTM	UTM SHINE	40,000	2020	2022	09G15
4	Feasibility analysis on optimal renewable energy storage model for off- grid remote area application		OTHERS	FRGS	123,000	2019	2022	5F276
5	CRG 45.0 : A Secured And Autonomous Quality Fish Supply Chain Traceability System Using Integrated Blockchain-IoT-AI		UTM	Collaborative Research Grant	100,000	2019	2022	09G00
6	CRG 18.0: Communication Technologies for Emergency Alerting in Cloud-based Healthcare Systems		UTM	RUG	100,000	2019	2022	08G05
7	Distributed Drone Management In Flying Ad-Hoc Networks (Fanets) For Emergency Response Environment		UTM	UTM	30,000	2019	2022	18J05
8	UTM-TDR24.1(T1):Energy Storage Condition Monitoring System for SMART-ENERGY Module		UTM	Transdisciplinary Research (TDR)	73,000	2018	2022	05G82
9	UTM-TDR 9: People And Assets Movement Tracking And Monitoring For Public Safety And Security		UTM	TDR	200,000	2018	2021	07G34
10	UTM-TDR 9.1 (T2): A Framework of People and Assets Tracking And Monitoring System for Location Based Services		UTM	TDR	35,000	2018	2021	05G63

BIL	NAME OF GRANT	ROLE	CATEGORY OF GRANT	TYPE OF GRANT	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
11	Development Of Indoor Wireless Smart Parking System In Web Based Environment	Project Member	UTM	UTM	38,000	2017	2019	18H11
12	A New Design Of Remote Monitoring And Controlling Of Agriculture Systems		UTM	RUG	40,000	2017	2018	17H58
13	Performance of Hybrid ARQ System Using Extended Mapping Technique		Others	HICOE	119,910	2016	2017	4J219
14	Spectral efficiency with Non Orthogonal Modulation technique in 5G communication		Others	HICOE	119,910	2016	2017	4J214
15	Community-based Disaster Informatics for Building a Resilient Nation (Project leader for telecommunication working group)		Others	International EBC-K	USD 30,000	2016	2017	4Y109
16	Multi-dimensional Source Correlation Assisted Channel Decoding With Parameter Estimation		Others	FRGS	86,500	2014	2015	4F595
17	Towards Geo-Sustainable Tourism in Royal Belum: Synergizing Indigenous Knowledge and Geospatial Technology		UTM	Flagship	60,000	2014	2015	02G03
<b>TOTAL</b>					<b>RM 1,385,000</b>			

## COLLABORATION / MOU

<b>NO</b>	<b>NAME OF MOU/MOA</b>	<b>LEVEL OF MOU (NATIONAL/INTERNATIONAL)</b>	<b>STARTING DATE</b>	<b>ENDING DATE</b>
1	Collaborative Research Grant (CRG) UTM-UUMP-UNITEN-UNIKL (MOA)	National	2019	2021
2	Collaborative Research Grant (CRG) UTM-UTEM-UNIMAP-UNITEN (MOA)	National	2019	2021
3	IEEE TAFGEN 2016 (MOU)	International	2015	2016

## TEACHING ACTIVITIES

### UNDERGRADUATE

YEAR OF SEMESTER	SEMESTER (1/2)	SUBJECT CODE	NAME OF SUBJECT	CREDIT HOUR	SECTION
2021	2	SRTI4924	Undergraduate Project 2	4	19
2020	1	SRTI4924	Undergraduate Project 2	2	19
2018	5	SMJE3163	Digital Signal Processing	3	1
2017	2	SMJE3163	Digital Signal Processing	3	2
	1	SMJP1043	Programming For Engineers	3	2
2016	2	SMJE3163	Digital Signal Processing	3	2
	1	SMJP1043	Programming For Engineers	3	1
2015	1	SMJE4383	Advanced Programming	3	1
2014	2	SMJE3163	Digital Signal Processing	3	1
		SMJE3163	Digital Signal Processing	3	2
2013	2	DDPP3553	Data Communication and Protocol	1.5	11
2012	2	DDPP2533	Propagation System	3	11
<b>TOTAL CREDIT HOURS</b>				<b>34.5</b>	

## POSTGRADUATE

YEAR OF SEMESTER	SEMESTER (1/2)	SUBJECT CODE	NAME OF SUBJECT	CREDIT HOUR	SECTION
2022	1	MRTL1043	Ubiquitous Computing	3	1
	2	MANN2103	Machine Learning System (Full Time)	3	2
2021	1	MANN2103	Machine Learning System (Part Time)	3	1
2020	1	MANN2103	Machine Learning System (Part Time)	3	1
	2	MANN2103	Machine Learning System (Full Time)	3	2
2019	3	MRSL1163	Scientific Computing for System Engineers	3	1
2018	6	URSP0013	Research Methodology	3	2
2017	1	MRSL1163	Scientific Computing for System Engineers	3	2
	2	MRSL1163	Scientific Computing for System Engineers	3	2
	1	URSP0013	Research Methodology	3	09
2016	2	MRSL1163	Scientific Computing for System Engineers	3	01
	2	MRSL1453	Ubiquitous Computing	3	01
	1	URSP6023	Information and Communication Technology	3	01
2015	1	URSP0010	Research Methodology	0	01
2014	2	MRSL1443	Advanced Sensor System	3	01
	1	MNN2093	Wireless Networking	1.5	02
	1	UDP0010	Research Methodology	0	01
2013	2	MNN2093	Wireless Networking	1.5	01
	2	MNN2093	Wireless Networking	1.5	02
	1	UDP0010	Research Methodology	0	01
	1	MNN2093	Wireless Networking	3	01
	1	MNN2093	Wireless Networking	3	02
<b>TOTAL CREDIT HOURS</b>				<b>46.5</b>	

**OVERALL TOTAL CREDIT HOURS**

**81.0**



## SUPERVISION

### PHD STUDENTS

#### PhD/ Eng Doc Main Supervisor (Graduated – 2)

NO	NAME	STATUS (Graduated/ Ongoing)	TITLE	DATE
1	Akram Bin Muhammad Razee	<b>Graduated</b>	New Infinite Impulse Response Filter Technique and Link Adaptation Model for filtered-Orthogonal Frequency Division Multiplexing	2021
2	Hafizah Binti Zainol Abidin (Eng Doctorate)	<b>Graduated</b>	Modified Service Development Process for Corporate Customer In A Telecommunication Service Provider	2021
3	Mohd Ismifaizul Mohd Ismail	B1-Minor Correction	Low power consumption for outdoor tracking and localisation	2017
4	Ahmad Ariff Aizuddin Bin Mohd Atan	On-going	Deep Reinforcement Learning for Vehicle Edge Computing	2020
5	Mohammed Ali Hameed Yassir	On-going	Multifactor of Authentication Model Using One Time Password Generation and Secure End to End Distribution Methods	2020
6	Noor Iziddin Abdullah Bin Ghazali	On-going	Renewable Energy for Base Station	2018
7	Mohammad Emad Alolaby	On-going	Software Define Networks In Interference Management in 5G Networks	2017
8	Nurul Izzah Binti Sidek	Deferment	Radio Resource Management in Multicell Networks	2017
9	Sheemaa Ali Mohamed Hashim	On-going	Internet of Thing Connectivity	2017

### PhD Co Supervisor (Graduated - 3)

NO	NAME	STATUS (Graduated/ Ongoing)	TITTLE	DATE
1	Amir Hamzah	<b>Graduated</b>	Pemantauan dan Pengurangan Kesyakan Lalu lintas di Persimpangan Menggunakan Integrasi Imej dan Logik Fuzzy	2020
2	Khairul Nizam Bin Puniran (Eng Doc)	<b>Graduated</b>	Development of Energy Harvesting from Radio Frequency Propagation for Improved Wireless Sensor Network	2019
3	Abidul Karim Khadim Ilijan	<b>Graduated</b>	QoS Scheduling in Wireless HART System	2017
4	Hari Heru Abrianto	On-going (4/16)	Development of New Stub Antenna	2019

### MASTER STUDENTS

#### Master by Research (Graduated- 1)

NO	NAME	STATUS (Graduated/ Ongoing)	TITTLE	DATE
1	Mohd Ismifaizul Bin Mohd Ismail	<b>Graduated</b>	Vibration Detection of Leaks in Water Pipelines Using Wireless Three-Axis Accelerometer Sensors	2017
2	Nur Izdiyar Binti Muhd Amir	Ongoing	Fall Detection System Using Accelerometer and Recurrent Neural Networks	2020

**Master by Taught Course (Main Supervisor, Graduated - 13)**

<b>NO</b>	<b>NAME</b>	<b>STATUS (Graduated /Ongoing)</b>	<b>TITLE</b>	<b>DATE</b>
1	Hizam Shah Bin Mohtar	<b>Graduated</b>	Master Engineering Business Management	2021
2	Devendran A/L K Thanapalan	<b>Graduated</b>	Master Engineering Business Management	2021
3	Airull Azizi Bin Awang Lah	<b>Graduated</b>	Master Science Systems Engineering	2019
4	Norashikin Binti Abdul Hamid	<b>Graduated</b>	Master Business Management	2019
5	Mohd Zulfadli Bin Abd Manas	<b>Graduated</b>	Master Executive Occupational and Health	2018
6	Mohd Zain Bin Hassan	<b>Graduated</b>	Master Science Systems Engineering	2017
7	Siti Norfatimah Binti Ahmad Shariff	<b>Graduated</b>	Master Engineering Business Management	2017
8	Mohd Iqbal Bin Mohd Zainuddin	<b>Graduated</b>	Master Executive Occupational and Health	2016
9	Mustafa Bin Mohd Zan	<b>Graduated</b>	Master Executive Occupational and Health	2016
10	Norafeezah Binti Ishak	<b>Graduated</b>	Master Engineering Business Management	2015
11	Somka' Mon A/L Chet	<b>Graduated</b>	Master Engineering Business Management	2015
12	Mohd Haziq Izzat Bin Sulaiman	<b>Graduated</b>	Master Executive Occupational and Health	2015
13	Sufian Bin Saleh	<b>Graduated</b>	Master Executive Occupational and Health	2013
14	Ahmad Ruzaini Bin Nape	Ongoing	Master Engineering Business Management	2020

## UTM POSTGRADUATE EXAMINATION / VIVA

### PhD

NO	ROLE	NAME OF STUDENT	TITLE	YEAR
1	Assistant Chairperson	Nolia Binti Harudin	Hybrid Bootstrap-Based Approach With Binary Artificial Bee Colony And Particle Swarm Optimization In Taguchi's T-Method	2020

### MASTER BY RESEARCH

NO	ROLE	NAME OF STUDENT	TITLE	YEAR
1	External Examiner	Noor Zuriatunadhirah Binti Zubir (UniKL)	Master of Engineering Technology (Electrical and Electronics)	2021
2	Assistant Chairperson	Tee Yi Wen	Electroencephalogram Stress Level Classification Using K-Means Clustering And Support Vector Machine	2020
3	Internal Examiner	Muhammad Izzat Amir Bin Mohd Nor	Exploiting 2D source correlation in channel decoding with parameter estimation	2018

### JOURNAL

1	F. A. Reegu , H. Abas , A. Jabbari , <b>R.A. Dziauddin</b> , M. Uddin, C. M. Wu , C.L. Chen , O.I. Khalaf, Interoperability Requirements for Blockchain-Enabled Electronic Health Records in Healthcare: A Systematic Review and Open Research Challenges, Hindawi Security and Communication Networks, Volume 2022, <a href="https://doi.org/10.1155/2022/195372">https://doi.org/10.1155/2022/195372</a>
2	A. Reegu, H. Abas, Z. Hakami, S. Tiwari, <b>R.A Dziauddin</b> , I. Muda, H.A. Almashqbeh, R. Jain, Systematic Assessment of the Interoperability Requirements and Challenges of Secure Blockchain-Based Electronic Health Records, Hindawi Security and Communication Networks, Volume 2022, <a href="https://doi.org/10.1155/2022/195372">https://doi.org/10.1155/2022/195372</a>

3	<b>R.A.Dziyauddin</b> , D.Niyato., N.C.Luong, M.A.M Izhar, M.A.Hadri, S.Daud, Computation offloading and content caching and delivery in Vehicular Edge Network: A Survey, Elsevier Computer Networks, In Press, 2021
4	Ismail, M.I.M., <b>Dziyauddin, R.A.</b> , Ahmad, R., Ahmad, N., Ahmad, N.A. and Hamid, A.M.A., A Review of Energy Harvesting in Localisation for Wireless Sensor Node Tracking, in IEEE Access, 2021
5	Abd Aziz, N.S.N., Daud, S.M., <b>Dziyauddin, R.A.</b> , Adam, M.Z. and Azizan, A. A Review on Computer Vision Technology for Monitoring Poultry Farm-Application, Hardware, and Software. IEEE Acces, 2020.
6	M. I. Mohd Ismail, <b>R.A. Dziyauddin</b> , N.A. Ahmad Salleh, F. Muhammad-Sukki, N.A. Bani, M.A. Mohd Izhar, "A Review of Vibration Detection Methods Using Accelerometer Sensors for Water Pipeline Leakage," in <i>IEEE Access</i> , vol. 7, pp. 51965-51981, 2019, doi: 10.1109/ACCESS.2019.2896302.
7	M. I. Mohd Ismail, <b>R. A. Dziyauddin</b> , N. A. Mohd Salleh, R. Ahmad, M. Hadri Azmi and H. Mad Kaidi, "Analysis and Procedures for Water Pipeline Leakage Using Three-Axis Accelerometer Sensors: ADXL335 and MMA7361," in <i>IEEE Access</i> , vol. 6, pp. 71249-71261, 2018, doi: 10.1109/ACCESS.2018.2878862.
8	AKI Yasari, LA Latiff, <b>RA Dziyauddin</b> , MA Lilo, Y Aljeroudi, HA Atee, "Flexible online multi-objective optimization framework for ISA100. 11a standard in beacon-enabled CSMA/CA mode" Elsevier Computers & Electrical Engineering 64, 537-551
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10	<b>RA Dziyauddin</b> , D Kaleshi, A Doufexi, M Alizadeh, Performance evaluation of quality of service for joint packet dropping and scheduling, Wireless Personal Communications 83 (2), 1549-1566
11	F. Firdaus; Ahmad, N.A., Sahibuddin, S. and <b>Dziyauddin R.A.</b> , Modelling the Effect of Human Body around User on Signal Strength and Accuracy of Indoor Positioning, International Journal of Integrated Engineering, <i>In Press (Also Scopus)</i>

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14	Lah, A.A.A., <b>Dziyauddin, R.A.</b> , Yusoff, N.M. , Localisation Techniques for Water Pipeline Leakages: A Review, International Journal of Integrated Engineering, 10(7). <i><b>(Also Scopus)</b></i>
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17	Hamed, M. M., Kamil, I. A., <b>Dziyauddin, R. A.</b> , & KAIDI, H. M. Development of an integrated web-based indoor parking system with sensors. International Journal of Integrated Engineering, 10(7). <i><b>(Also Scopus)</b></i>
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## PROCEEDINGS/CONFERENCE

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- 2 Kaidi, H. M., Izhar, M. A. M., Ahmad, N., Dziyauddin, R. A., Sarip, S., & Jalil, S. Z. A. (2022, April). Rehabilitation monitoring prototype: Arduino Nano 35 BLE. In *Journal of Physics: Conference Series* (Vol. 2250, No. 1, p. 012009). IOP Publishing.
- 3 HH Abrianto, N. Mohamed, R. A. Dziyauddin, S. M. Sam, M. A. Mohd Izhar and N. Ahmad, "Enhancement of Antenna Array Bandwidth through Matching Impedance Modification Using Double Stub Matching on Feeding," 2021 IEEE Symposium On Future Telecommunication Technologies (SOFTT), 2021, pp. 17-21, doi: 10.1109/SOFTT54252.2021.9673147.
- 4 Ismail, M. I. M. , **Dziyauddin, R. A.**, Ahmad, R. , Hamid, A. M. A., Anwar, S. (2021). Taguchi Optimisation of Piezoelectric Design for Hybrid Energy Harvesting of GPS Tracker Device. 2021 IEEE 7th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA), 2021, pp. 173-178, doi: 10.1109/ICSIMA50015.2021.9526325.
- 5 Amir, N. I. M., **Dziyauddin, R. A.**, Mohamed, N., Latiff L. A., Ismail, N. S. N. Development of Fall Detection Device Using Accelerometer Sensor. (2021). IEEE 7th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA), 2021, pp. 93-98, doi: 10.1109/ICSIMA50015.2021.9526289.
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- 8 Azmi, N. A., Samsul, S., Yamada, Y., Yakub, M. F. M., Ismail, M. I. M., & **Dziyauddin, R. A.** (2018, July). A Survey of Localization using RSSI and TDoA Techniques in Wireless Sensor Network: System Architecture. In 2018 2nd International Conference on Telematics and Future Generation Networks (TAFGEN) (pp. 131-136). IEEE.
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  - 12 **Dziyauddin, R. A.**, Shah, A. I. J., Omar, M. H., Zamri, N. H., Latiff, L. A., Noor, N. M., & Ahmad, N. S. (2018, July). Smart Fire Emergency System for Buildings: A Review. In 2018 2nd International Conference on Telematics and Future Generation Networks (TAFGEN) (pp. 125-130). IEEE.
  - 13 Nawawy, N. A., Mohamed, N., **Dziyauddin, R.A**, & Sam, S. M. (2018, July). Functional Split Architecture for Energy Efficiency in 5G Backhaul. In 2018 2nd International Conference on Telematics and Future Generation Networks (TAFGEN) (pp. 98-102). IEEE.
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  - 15 Lah, A. A. A., **Dziyauddin, R. A.**, & Yusoff, N. M. (2018, July). Localization Techniques for Water Pipeline Leakages: A Review. In 2018 2nd International Conference on Telematics and Future Generation Networks (TAFGEN) (pp. 49-54). IEEE.
  - 16 Bani, N. A., Hassan, M. Z., Kaidi, H. M., Hashim, N. F. M., **Dziyauddin, R. A.**, Musa, R., ... & Mas' ud, A. A. (2018, July). A Pilot Study of Malnutrition Among Elderly in a Malaysia Elderly Care Centre-Part I: Assessment of Handgrip Strength Measurement. In 2018 2nd International Conference on BioSignal Analysis, Processing and Systems (ICBAPS) (pp. 119-122). IEEE.
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  - 19 Puniran, K. N., Ahmad, R., & **Dziyauddin, R. A.** (2017, November). RF energy harvesting with multiple sources in wireless sensor network. In 2017 IEEE 4th International Conference on Smart Instrumentation, Measurement and Application (ICSIMA) (pp. 1-5). IEEE.
  - 20 Pohan, A. H., Latiff, L. B. A., & **Dziyauddin, R. A.** (2016, October). Crossroads traffic density monitoring and injection mitigation through visual recognition. In 2016 2nd

- International Conference of Industrial, Mechanical, Electrical, and Chemical Engineering (ICIMECE) (pp. 4-10). IEEE.
- 21 **Dziyauddin, R.A**; M.Ismail, M.I., M.Salleh, N. A. Comparative Study of Wireless Accelerometer Sensors for Water Pipeline Leakage, IEEE International Symposium on Robotics and Intelligent Sensors (IEEE-IRIS2015).
  - 22 M.Ismail, M.I., **Dziyauddin, R.A**, M.Salleh, N. A. Performance Evaluation of Wireless Accelerometer Sensor for Water Pipeline Leakage, IEEE International Symposium on Robotics and Intelligent Sensors (IEEE-IRIS2015).
  - 23 M. Izhar, M.A, Mat Kaidi, H, **Dziyauddin, R.A**, Ahmad, N.H, LOW COMPLEXITY TECHNIQUE EXPLOITING 2D SOURCE CORRELATION USING SINGLE PARITY CHECK CODES, International Symposium on Telecommunication Tehnologies, 94-99, 2014
  - 24 Jin, Y.; Cao, F.; **Dziyauddin, R.A**, Sooriyabandra M. Inter-cell Interference Mitigation with Coordinated Resource Allocation and Adaptive Power Control, 2014 IEEE Wireless Communications and Networking Conference (WCNC), 1797-1802
  - 25 M.Ismail, M.I., **Dziyauddin, R.A.**, M.Salleh, N. Water Pipeline Monitoring System using Vibration Sensor. IEEE Conference on Wireless Sensor 2014 (ICWiSe 2014)
  - 26 **Dziyauddin, R. A.** ; Cao, Fengming ; Jin, Yichao. An adaptive SFR in multicell networks, Personal Indoor and Mobile Radio Communications (PIMRC), 2013 IEEE 24th International Symposium on Digital Object Identifier: 10.1109/PIMRC.2013.6666428 ,Publication Year: 2013 , Page(s): 1764 – 1768
  - 27 **Dziyauddin, R.A.** ; Doufexi, A; Kaleshi, D.. Performance Analysis of Dynamic Burst Mapping in WiMAX Networks, Asia-Pacific Communication Conference (APCC), 2013.
  - 28 **Dziyauddin, R.A.** ; Kaleshi, D. ; Doufexi, A. Channel- and Delay-Aware Scheduling and Packet Dropping for Real Time Traffic over WiMAX Networks, IEEE Vehicular Technology Conference (VTC Fall), Digital Object Identifier: 10.1109/VTCFall.2012.6399289 , Publication Year: 2012 , Page(s): 1 – 5
  - 29 Alizadeh, M. ; **Dziyauddin, R.A.** ; Kaleshi, D. ; Doufexi, A. A Comparative Study of Mixed Traffic Scenarios for Different Scheduling Algorithms in WiMAX. Vehicular Technology Conference (VTC Spring), 2012 IEEE 75th, Digital Object Identifier: 10.1109/VETECS.2012.6240052 , Publication Year: 2012 , Page(s): 1 – 5
  - 30 **Dziyauddin, R.A.** ; Doufexi, A. ; Kaleshi, D. ; Tran, M. Performance of MIMO downlink WiMAX at application layer. Personal Indoor and Mobile Radio Communications (PIMRC), 2010 IEEE 21st International Symposium on Digital Object Identifier: 10.1109/PIMRC.2010.5672024 ,Publication Year: 2010 , Page(s): 1281 – 1286.

- 31 **Dziyauddin, R.A.** ; Doufexi, A. ; Kaleshi, D. Performance evaluation of -MIMO downlink WiMAX for different schedulers. *Wireless Advanced (WiAD)*, 2010 6th Conference on, Digital Object Identifier: 10.1109/WIAD.2010.5544946, Publication Year: 2010 , Page(s): 1 – 6

## **WORKSHOPS**

1. Sardi, M.F., Yusof, A.F.M., Razak, K.A., **Dziyauddin, R.A.**, Othman, S.H., Zulkaple, M., ICT-Based Landslide Disaster Simulation Drill: Road to Achieve 2030 Global Commitment, Workshop on World Landslide Forum, 583-589
2. **Dziyauddin, R.A.**, Farnham T, Sooriyanbandra M. Performance Analysis of Radio Environment Map Accuracy on Resource Reuse in Multichannel and Multicellular Networks, accepted in IEEE Wireless Communication and Networking Workshop 2014

## **THESIS**

1. Rudzidatul Akmam Dziyauddin, Quality of Service for Worldwide Interoperability for Microwave Access, Ph.D. Thesis, University of Bristol, UK (2012).

## **ORIGINAL BOOK**

1. UTM High Impact Research @ Royal Belum – Temengor Forest Complex, Gerik Perak, 2015. (ISBN 978-967-11814-9-2).  
[https://www.researchgate.net/publication/282005548\\_UTM\\_High\\_Impact\\_Research\\_Royal\\_Belum\\_-\\_Temengor\\_Forest\\_Complex\\_Gerik\\_Perak\\_A\\_compilation\\_of\\_scientific\\_expedition\\_activities\\_in\\_2013-2015](https://www.researchgate.net/publication/282005548_UTM_High_Impact_Research_Royal_Belum_-_Temengor_Forest_Complex_Gerik_Perak_A_compilation_of_scientific_expedition_activities_in_2013-2015)

## **BOOK CHAPTERS**

1. Akram, M.R, **Dziyauddin, R.A.**, Azmi, M.H. (2021), Filter Designs For Multiple Access Schemes Of The Fifth Generation (5G), 5G MULTIPLE ACCESS AND PROPAGATION, 25-38, UTM Press, 978-983-52-1816-3.
2. Kassir, A., **Dziyauddin, R.A.**, Kaidi, H.M. (2021), Power Domain Non Orthogonal Multiple Access (5G), 5G MULTIPLE ACCESS AND PROPAGATION, 1-24, UTM Press, 978-983-52-1816-3.
3. Shahrir, N., Ahmad, N., Ahmad, R. and **Dziyauddin, R.A.** (2018), "Flood Disaster Prediction Model Based on Artificial Neural Network: A Case Study of Kuala Kangsar, Perak", *Improving Flood Management, Prediction and Monitoring (Community, Environment and Disaster Risk Management, Vol. 20)*, Emerald Publishing Limited, pp. 103-112. <https://doi.org/10.1108/S2040-726220180000020018>

4. **Dziyauddin, R.A.**, Cao, F., Jin, Y., (2016) A QoS-adaptive Soft Frequency Reuse in Multichannel & Multicell Networks, UTM Press.

#### **NON INDEXED JOURNALS**

1. **Dziyauddin, R.A.**; Ahmad, N.; Salim, K.R.; Hj-Haron;H.N, Izhar, M.A.M, Kaidi, H.M, K. A. Razak; L. A. Latiff; N. Mohamed (2018).Awareness and Use of ICT among Orang Asli community at Royal Belum: A Case Study, Journal of Engineering Technology, Volume 7, Special Issue (Internet of Things),Oct. 2018, PP. 435-446.
2. **Dziyauddin, R.A**, Usman, S., Abdullah, H, "Applying TRIZ in Water and Electricity Problems", TRIZ Journal,Jan,2016. Open  
Access: <http://www.trizjournal.com/applying-triz-in-water-and-electricity-problems/>
3. Puniran, K. N., Ahmad, R., & **Dziyauddin, R. A**, Two Way Amplify-And-Forward Relaying With Rf Energy Harvesting Network Sensor For System Throughput Performance, Journal Of Advanced Research In Applied Mechanics
4. Ilijan, A.K , Latiff, L.A , **Dzyauddin, R.A.**, Lilo, M.A, "Scheduling Approaches for Dedicated and Shared Timeslots for ISA100.11a: A review", Research Journal of Applied Sciences, Engineering and Technology, Vol.12, Issue 1, January 2016. Open  
Access: <http://maxwellsci.com/jp/mspabstract.php?jid=RJASET&doi=rjaset.12.2304>
5. Haron, H.N., Harun, H., **Dziyauddin, R.A.**, Kamaruddin, A., "Education and ICT Facilities Of Royal Belum Orang Asli School Children", Journal of Management Info, Volume 7, No (1), 2015.  
Open Access: <http://jmi.readersinsight.net/index.php/jmi/article/view/40>
6. Puniran, K. N., Ahmad, R., & **Dziyauddin, R. A**, RF Energy Harvesting With Multiple Sources and Co-Channel Interference Assisted, Journak of Advanced Research In Business and Management Studies, 2017

#### **REFEREED CONFERENCES**

1. **Dziyauddin, R.A**, Salim, K.R, Ahmad, N.A, The awareness of ICT devices among Orang Asli Community in Royal Belum, Asean World Forum, Mei 2015
2. **Dziyauddin, R.A**, Haron, H. Harun, N.H, The ICT facilities and Education in Royal Belum, Asean World Forum, Mei 2015.

#### **CHAIRPERSON/ORAL POSTER PRESENTER/ INVITED GUEST SPEAKER**

<b>NO</b>	<b>ROLE</b>	<b>TITLE OF PROGRAMME</b>	<b>DATE</b>	<b>LOCATION</b>
1	Tutorial Speaker	IEEE 6 <sup>th</sup> Symposium on Future Telecommunication Technologies (SOFTT)	14/11-16/11/2022	Malaysia
2	Session Chair	ITU-COE: Fifth Generation (5g) Implementation: Practices And Case Studies	28/06/2021-08/07/2021	Malaysia
3	Oral Presenter	2020 IEEE 7th International Conference on Engineering Technologies and Applied Sciences (ICETAS)	18/12/2021	Malaysia
4	Invited Speaker	3rd International Conference on Telematics and Future Generation Networks (TAFGEN 2020) Virtual conference	5-6 May 2020	Malaysia
5	Invited Speaker	Symposium on future telecommunication technologies (SOFTT) 2020	10 Dec 2020	Malaysia
6	Session Chair	2 <sup>nd</sup> International Conference on Telematics and Future Generation Networks (TAFGEN 2018)	24 July 2018	Sarawak, Malaysia
7	Speaker	The Underlying Components of QoS in Mobile Networks at Malaysia Communication and Multimedia Commission (MCMC)	2017	MCMC, Malaysia
8	Session Chair	1st International Conference on Telematics and Future Generation Networks (TAFGEN 2015)	2015	Kuala Lumpur, Malaysia
9	Oral Presenter	5th Rural Research and Planning Group International Conference and Field Study in Malaysia 2014	2014	Malaysia
10	Oral Presenter	2014 IEEE Wireless Communications and Networking Conference (WCNC)	2014	Turkey
11	Oral Presenter	2013 19th Asia-Pacific Conference on Communications (APCC)	2013	Bali, Indonesia
12	Oral Presenter	21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communication	2010	Turkey
13	Oral Presenter	Wireless Advanced Conference	2010	London, UK

## PROFESSIONAL SERVICES

### Consultation and Training

NO	ROLE	TITLE OF PROGRAMME	DATE	LOCATION	TOTAL INCOME GENERATED (RM)
1	Consultant	Sistem Pangkalan Data Alumni Razak	Aug 2020	UTM Kuala Lumpur	3,700
2	Trainer	International Telecom Union (ITU) 5G RAN Course in 5G RAN Planning and Technology Coexistence	2020	UTM Kuala Lumpur	6,450
3	Trainer	Economics of Telecommunication, International Malaysia Training Center (IMTC)	2019	Malaysian Technology Development Corporation	4,000
4	Trainer	LTE Radio Access Networks, International Malaysian Training Center (IMTC)	2017	Malaysian Technology Development Corporation	4,000
5	Trainer	CDMA Networks, International Malaysian Training Center (IMTC)	2017	Malaysian Technology Development Corporation	4,000
6	Consultant	National Master Slope Review Project	2016	Kuala Lumpur	22,000
<b>Total Consultation</b>					<b>44,150</b>

### Entrepreneuership

NO	SPIN OFF COMPANY (UTM)	TOTAL INCOME GENERATED (RM) (individual equity value based on audited company account in 3 years)
1	Advanced Technology Solutions (ATES) Sdn Bhd	11,674.10

**Grant based on innovation and University Commercialisation Product**

<b>NO</b>	<b>NAME OF GRANT</b>	<b>ROLE</b>	<b>CATEGORY OF GRANT (UNIVERSITY/ OTHERS)</b>	<b>TYPE OF GRANT</b>	<b>AMOUNT (RM)</b>	<b>STARTING DATE</b>	<b>ENDING DATE</b>
1	Prototype Development Fund	Principal Investigator	University	PRGS ICC	20,000	1 Dec 2020	31 Nov 2020



### Community Project

NO	ROLE	NAME OF PROJECT	DATE	TOTAL VALUE OF PROJECT (RM)
1	Committee Member	Sustainability of Citizen Health and Fitness Development Projects for Elderly People, Elderly People Care Center Nur Hasanah, Beranang, Selangor Darul Ehsan <i>Cost Center No: S.K130000.0856.4Y134</i>	2018-2019	4,000
2	Committee Member	Sustainability of Citizen Health and Fitness Development Projects for Elderly People, Elderly People Care Center Nur Hasanah, Beranang, Selangor Darul Ehsan <i>Cost Center No: S.K130000.0840.4Y041</i>	2016-2017	15,000.00
3	Committee Member	Developing Micro Turbines Sustainably To Improve Living Standards And Eco-Tourism In Sungai Tiang Village, Taman Negeri Royal Belum <i>Cost Center No:R.K130000.7840.4L192</i>	2016-2017	100,000
4	Committee Member	Sustainability of Sungai Tiang Villagers Socio-Economic Development Transformation <i>Cost Center No:R.K130000.7840.4L201</i>	2016-2017	64,000
5	Committee Member	Towards Geo-Sustainable Tourism in Royal Belum	2014-2015	60,000
<b>TOTAL</b>				<b>RM 243,000</b>

### Community and University Services

NO	ROLE	TITLE OF PROGRAMME	DATE	LEVEL	LOCATION
1	Member & Malaysia Program Leader	Heat Stroke Survey and Awareness for High School	2021	International	Wilayah Persekutuan and Jepun
2	Member	Welfare Program An Najah Selangor	To date	National	Malaysia
3	Fascilitator	Science Workshop in Primary School Morib	2017	National	Selangor
4	Fascilitator	Solar System Introduction and Maintenance Program in the	2017	National	Perak

		village of Tiang River, Selangor			
5	Member	The Sustainability of the Health and Fitness Development of the Nur Hasanah Elderly Care Center	2016	National	Selangor
6	Member	Academic Visit of Aboriginal School Students	2014	National	UTM KL
7	Member & Subworking Group Leader (Communication)	Community-based Disaster Informatics for Building a Resilient Nation	2014	International	Selangor

### **Endowment and Wakaf to University**

NO	NAME OF ENDOWMENT AND WAKAF	TOTAL CONTRIBUTION (RM)
1	Wakaf UTMKL	50/month
2	Zakat UTMKL	300/month
	TOTAL	4,200/year

### **Patent Granted and Filing**

NO	NAME OF PATENT	PATENTS NO	STATUS OF PATENT	YEAR
1	Wireless Communication Methods and Apparatus	JP6163566B2	Granted	2013
2	Wireless Communication Methods and Apparatus	US9913170B2	Granted	2018
3	Wireless Communication Methods and Apparatus	WO2014135822A1	Granted	2014
4	Wireless Communication Methods and Apparatus	GB2525811A	Filing	2013
5	Inter-cell Interference Mitigation	US9313794B2	Granted	2016
6	Inter-cell Interference Mitigation	GB1218388	Granted	2012

### **Copyright**

NO	NAME OF COPYRIGHT	STATUS OF COPYRIGHT	YEAR
1	Portable Spreader	Granted	2019

2	Indoor Wireless Smart Parking System n Web Based Environment	Granted	2018
3	Process Flow of 6DOF	Granted	2016