



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

## CURRICULUM VITAE



### PERSONAL DETAILS

Name : **Dr. Mohd Ibrahim Bin Shapiai @ Abdul Razak**

Gender : Male

Date of Birth : 19<sup>th</sup> September 1983

Nationality : Malaysian

Marital Status : Married

Address : No.47, Jalan AU 1B/1, Taman Keramat Permai, 54200, Ampang,  
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ID Staff : 10381

Expertise : Artificial Intelligence, Machine Learning, Brain Computer Interface  
and Swarm Intelligence

## ACADEMIC QUALIFICATIONS

NO	LEVEL OF EDUCATION	COURSE	UNIVERSITY	STARTING DATE	ENDING DATE
1.	PHD	Electrical Engineering	Universiti Teknologi Malaysia	1 <sup>st</sup> July 2009	16 <sup>th</sup> Dec 2013
2.	Master	Digital Audio Signal Processing	University of York, United Kingdom	2005	2007
3.	Diploma	Telecommunication Engineering	Universiti Teknologi Malaysia	2002	2004

## AWARD AND HONORS RECEIVED

NO	AWARD	LEVEL (FACULTY /UTM /NATIONAL /INTERNATIONAL)	YEAR
1	York Probe Prize on Graduation Day for Best Performing 2nd Year Entrant Student	International	2005
2	Ministry of Higher Education Scholarship under Skim Latihan Akademik IPTA (SLAI) for Pursuing PhD Study	National	2010
3	Anugerah Perkhidmatan Cemerlang (APC)	UTM	2015
4	Finalist AI FR Frontier Final Competition Uniqlo Japan	International	2017
5	2 <sup>nd</sup> Runner Up Top Glove Collaboration Grant (TGICG) Competition	National	2019
6	Best Paper Award for the paper entitled "Imbalance Data Resampling in Convolutional Neural Network for Wafer Map Defect Classification".	National	2020
7	First Place for A Study of Multiple Reward Function Performance for Vehicle Collision Avoidance Systems Applying DQN Algorithm in Reinforcement Learning	International	2021

## PROFESSIONAL MEMBERSHIP / QUALIFICATIONS / RECOGNITION

NO	NAME OF PROFESSIONAL MEMBERSHIP	LEVEL (FACULTY /UTM /NATIONAL /INTERNATIONAL)	ROLE	YEAR
1	The Institution of Engineering and Technology (IET)	International	Member Membership No.: 1100404474	2015 – Present
2	Institute of Electrical and Electronics Engineers (IEEE)	International	Member Membership No.: 94188264	2017- Present
3	Sakura Science Club (Japan Science and Technology Agency)	International	Member Membership No.: 17102193	2017- Present
4	Certified NVIDIA DLI	International	Ambassador	2018- Present
5	The Academy of Sciences Malaysia's (ASM) Special Interest Group on Machine Learning (SIG ML)	National	Member	2018- Present
6	Malaysia Society for Automatic Control Engineers (MACE)	National	Member Membership No.: R0078	2018- Present
7	Malaysian Board of Technologies (MBOT)	National	Member Membership No.: GT19120331	2019- Present

8	Graduate Engineer for Board of Engineers Malaysia (BEM)	National	Member Membership No.: G1180712A	2020- Present
9	Professional Technologist for Malaysian Board of Technologies (MBOT)	National	Member Certificate No: PT20080128	2020- 2021
10	CEng Professional The Institution of Engineering and Technology (IET)	International	Successful Application and Waiting for Engineering Council Registration	Apr 2021

## ADMINISTRATIVE EXPERIENCE

NO	POSITION	STARTING DATE	ENDING DATE	DEPARTMENT
1	Procurement Manager	20 <sup>th</sup> Nov 2014	19 <sup>th</sup> July 2018	MJIIT
2	Head of Simulation Laboratory	1 <sup>st</sup> Jan 2016	31 <sup>st</sup> Dec 2017	MJIIT
3	Members	1 <sup>st</sup> Jan 2016	Present	Centre for Artificial Intelligence and Robotics (CAIRO)
4	Facilities Manager	15 <sup>th</sup> Sept 2016	14 <sup>th</sup> Sept 2018	MJIIT,UTM
5	Head of Department	1 <sup>st</sup> July 2018	Present	Electronic Systems Engineering
6	Head of Undergraduate Lab	1 <sup>st</sup> Jan 2019	31 <sup>st</sup> Dec 2020	Electronic Systems Engineering

## WORKING EXPERIENCE

	POSITION	STARTING DATE	ENDING DATE	DEPARTMENT/ORGANISATION
1	Lecturer	14 <sup>th</sup> Jan 2008	5 <sup>th</sup> May 2014	Fakulti Kejuruteraan Elektrik, Universiti Teknologi Malaysia
2	Senior Lecturer	6 <sup>th</sup> May 2014	Present	Malaysia – Japan International Institute of Technology Universiti Teknologi Malaysia

## CONSULTANCY EXPERIENCE

NO	NAME OF CONSULTANCY	ROLE	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
1	Developing Algorithm in Solving Small Datasets Problem in Assembly Test Semiconductor for Intel Corporation	Researcher	207,118.89	1 <sup>st</sup> March 2009	1 <sup>st</sup> Jan 2011	
2	Development of Artificial Intelligent (AI) Tracking Device for Biomedical Application, MIMOS Semiconductor Sdn Bhd	Project Leader	31,800.00	14 <sup>th</sup> Dec 2018	9 <sup>th</sup> June 2019	1417
3	Kajian Kompetensi Industri 4.0 Dengan Jabatan HSE Di UMW	Researcher	58,275.00	11 <sup>th</sup> Oct 2018	10 <sup>th</sup> April 2019	R.J130000.7651.4C214
4	Artificial Intelligence Deep Learning Models For Picture-Based Defect Classification	Project Leader	35,000.00	26 <sup>th</sup> July 2019	25 <sup>th</sup> Jan 2021	R.K130000.7643.4C281
5	A Simulated Annealing Approach for Optional Storing in A Semi-Automated Warehouse	Researcher	120,000.00	1 <sup>st</sup> April 2020	31 <sup>st</sup> March 2021	R.K130000.7643.4C355

6	Penyelidikan Pembangunan Sistem Operasi High Performance Computing (HPC) Untuk Pusat Kajian Lembangan Sungai, NAHRIM	Project Leader	500,000.00	1 <sup>st</sup> Aug 2020	28 <sup>th</sup> Feb 2021	R.K130000.7643.4C397
7	Development of Artificial Intelligence Inspection System on Thermography Images For 33kV Switchgears & System Migration	Project Leader	170,000.00	14 <sup>th</sup> Oct 2020	15 <sup>th</sup> June 2021	R.K130000.7643.4C425

## FACULTY APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	Information Working Committee	Committee Member	1 <sup>st</sup> July 2013	30 <sup>th</sup> Sept 2013
2	Telecom Exhibition Day 2014	Project Coordinator	1 <sup>st</sup> Dec 2013	31 <sup>st</sup> May 2014
3	Acoustic Research Group	Coordinator	1 <sup>st</sup> Feb 2014	30 <sup>th</sup> Sept 2014
4	Engineering Accreditation Council (EAC) for Electronic Systems Engineering (ESE) Department	Task Force Committee	1 <sup>st</sup> June 2017	31 <sup>st</sup> Dec 2018
5	Emergency Respond Team (ERT) Members	Committee Member	1 <sup>st</sup> Oct 2019	30 <sup>th</sup> Sept 2021
6	Committee Members for Human Resources Management	Committee Member	3 <sup>rd</sup> Dec 2019	Present
7	MJIT KAI Taskforce 2019	Committee Member	1 <sup>st</sup> July 2019	30 <sup>th</sup> June 2020
8	Special Committee Member for Direct Career Path (DCP) Academic Staff	Committee Member	1 <sup>st</sup> July 2019	31 <sup>st</sup> Dec 2020
9	Excutive Committee Member	Committee Member	16 <sup>th</sup> Jan 2020	Present
10	Academic Committee Member	Committee Member	16 <sup>th</sup> Jan 2020	Present
11	Teaching Excellent System (TES)	Teaching Quality Assessment Panel	7 <sup>th</sup> Jan 2021	15 <sup>th</sup> Jan 2021

## UNIVERSITY APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	Short Course GPU Deep Learning	Committee Member	22 <sup>nd</sup> Aug 2017	23 <sup>rd</sup> Aug 2017
2	The Special Committee for Differentiated Career Pathway (DCP) Academic Staff Universiti Teknologi Malaysia for MJIT	Committee Member	1 <sup>st</sup> July 2019	31 <sup>st</sup> Dec 2019
3	Training Unit CAIRO	Committee Member	1 <sup>st</sup> March 2020	31 <sup>st</sup> Dec 2020
4	MIDA Executive Training	Task Force Committee	12 <sup>th</sup> Jan 2021	Present

## NATIONAL APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	National Conference for Postgraduate Research 2016	Reviewer	24 <sup>th</sup> Sept 2016	25 <sup>th</sup> Sept 2016
2	MOHE-MyRAS Workshop: Building a MOHE Robotics Consortium	Secretariat	20 <sup>th</sup> Nov 2017	30 <sup>th</sup> Nov 2017
3	The 3 <sup>rd</sup> International Conference on Advanced Technology and Applied Sciences (ICATAS 2018) in Conjunction	The Scientific Committee	1 <sup>st</sup> Dec 2017	30 <sup>th</sup> Nov 2018

	with Malaysia-Japan Joint International Conference (MJJIC 2018)			
4	JKPAM Workshop Mara-Japan Industrial Institute, Beranang	External Industry Advisor Committee	26 <sup>th</sup> Feb 2019	28 <sup>th</sup> Feb 2019

## INTERNATIONAL APPOINTMENT COMMITTEE

NO	NAME OF COMMITTEE	ROLE	STARTING DATE	ENDING DATE
1	International Conference on Modelling, Simulation and Applied Optimization, ICMSAO2011	Committee Member	19 <sup>th</sup> April 2011	21 <sup>st</sup> April 2011
2	International Conference on Intelligent Systems, Modelling and Simulation, ISMS2015	Local Arrangement Chair	9 <sup>th</sup> Feb 2015	10 <sup>th</sup> Feb 2015
3	Communications in Science & Technology Komunitas Ilmuwan dan Profesional Muslim Indonesia (KIPMI)	Editorial Board	1 <sup>st</sup> June 2016	Present
4	Asia Modelling Symposium 2017 (AMS2017)	Conference Chair	4 <sup>th</sup> Dec 2017	6 <sup>th</sup> Dec 2017
5	8 <sup>th</sup> International Conference on Intelligent Systems, Modelling and Simulation 2018 (ISMS2018)	Local Arrangements/Venue Chair	8 <sup>th</sup> May 2018	10 <sup>th</sup> May 2018
6	International Conference on Electrical Engineering and Informatics (ICELTICs)	Technical Program Committee (TPC)	19 <sup>th</sup> Sept 2018	20 <sup>th</sup> Sept 2018
7	International Conference on Artificial Intelligence and Robotics for Industrial Applications 2018 (AIR 2018)	Committee Member	28 <sup>th</sup> Nov 2018	29 <sup>th</sup> Nov 2018
8	UKSim-AMSS 13th European Modelling Symposium on Mathematical Modelling and Computer Simulation	Program Chair	21 <sup>st</sup> Nov 2019	22 <sup>nd</sup> Nov 2019

## SELECTED ACTIVITIES / WORKSHOPS / SEMINARS / COURSES

NO	NAME OF ACTIVITIES	PLACE OF ACTIVITIES	STARTING DATE	ENDING DATE
1	Data Communication	KKTM Beranang	2009	2009
2	Machine Learning Workshop	CAIRO, UTMKL	17 <sup>th</sup> Nov 2016	17 <sup>th</sup> Nov 2016
3	Hands-on Electroencephalography (EEG) Workshop	CAIRO, UTMKL	18 <sup>th</sup> Jan 2017	18 <sup>th</sup> Jan 2017
4	GPU Deep Learning Workshop	CAIRO, UTMKL	22 <sup>nd</sup> Aug 2017	23 <sup>rd</sup> Aug 2017
5	Short Course on Deep Learning	CAIRO, UTMKL	27 <sup>th</sup> Jan 2018	27 <sup>th</sup> Jan 2018
6	Global Learning Week (GLoW) 2018	Telkom University, Bandung	21 <sup>st</sup> May 2018	1 <sup>st</sup> June 2018
7	Artificial Intelligence in Healthcare – International Developments and Opportunities for Malaysia	Institute of Strategic & International Studies (ISIS) Malaysia	11 <sup>th</sup> July 2018	11 <sup>th</sup> July 2018

8	Moving Forward to Industry 4.0 Learning with Rashberry Pi, Python Programming and Internet of Things (IOT) Course	Institut Latihan Perindustrian Pedas	27 <sup>th</sup> Aug 2018	30 <sup>th</sup> Aug 2018
9	Deep Learning Fundamentals In Computer Vision 1.0 for iTrain Asia	ADAX, The Vertical Business Suites, Bangsar South	7 <sup>th</sup> Sept 2018	7 <sup>th</sup> Sept 2018
10	Artificial Intelligence Deep Learning Application	MaGIC, Cyberjaya	21 <sup>st</sup> Sept 2018	21 <sup>st</sup> Sept 2018
11	CAIRO-NVIDIA Workshop Unleash The Power of AI in Malaysia	CAIRO, UTMKL	24 <sup>th</sup> Sept 2018	24 <sup>th</sup> Sept 2018
12	Fundamental of Deep Learning for Itrain Asia Training	Software Park Thailand	26 <sup>th</sup> Oct 2018	26 <sup>th</sup> Oct 2018
13	Artificial Intelligence Deep Learning Application	MaGIC, Cyberjaya	19 <sup>th</sup> Dec 2018	21 <sup>st</sup> Dec 2018
14	Fundamentals of Deep Learning for Computer Vision	iTrain (M) Sdn Bhd, KL Trillion	3 <sup>rd</sup> April 2019	3 <sup>rd</sup> April 2019
15	Workshop for Organisation Management for Academic Administrator UTM Kuala Lumpur	Menara Razak, UTMKL	14 <sup>th</sup> May 2019	15 <sup>th</sup> May 2019
16	Engineering Council CEng Professional Review Interview	Zoom Online Meeting	23 <sup>rd</sup> March 2021	23 <sup>rd</sup> March 2021

## RESEARCH ACTIVITIES

BIL	NAME OF GRANT	ROLE	CATEGORY OF GRANT (UTM / OTHERS)	TYPE OF GRANT	AMOUNT (RM)	STARTING DATE	ENDING DATE	VOTE NO
1	Learning from Imbalanced and Small Datasets to Improve Assembly Test Semiconductor	Researcher	Others	INTEL Corporation USA	207,118.89	2009	2011	
2	A Two-Step Learning Mechanism of Artificial Neural Network (ANN) for Imbalanced Dataset Problem	Researcher	Others	FRGS	24,000.00	2010	2012	
3	Incorporating Knowledge from Domain Expert to Improve Bayesian Network Learning Mechanism for Imbalanced Dataset Problem	Researcher	Others	FRGS	52,000.00	2010	2012	

4	An Extended Nadaraya-Watson Kernel Regression for Function Approximation Under Condition of Small Sample Sets	Researcher	Others	FRGS	39,200.00	2010	2012	
5	A New Approach in Incorporating Prior Knowledge into Kernel-Based Regression Based on Pareto Optimality Concept in Solving Small Sample Problems	Project Leader	Others	FRGS	102,000.00	16/12/2013	31/5/2016	R.J130000.7823.4F331
6	Incorporating Non-Dominated Solutions to Improve Vector Evaluated Gravitational Search Algorithm (VEGSA) for Multi-Objective Optimization Problems	Researcher	Others	FRGS	52,000.00	01/12/2014	30/11/2016	R.J130000.7823.4F615
7	Quantification Of The Effect Of Reverberant Condition On Bahasa Melayu Speech Intelligibility	Researcher	UTM	Tier 1	20,000.00	01/07/2014	31/07/2015	Q.J130000.2523.08H76
8	The Formulation Of Malay Speech Intelligibility Model Using Analytical Hierarchy Process	Researcher	Others	FRGS	60,000.00	01/07/2014	30/06/2016	R.J130000.7823.4F486
9	Modelling and Tracking of Oil Spill using Swarm Robotics with Fuzzy Based Controller	Researcher	Others	FRGS	127,500.00	02/11/2015	28/02/2019	R.K130000.7843.4F801
10	Motor Imagery of Brain Computer Interface with Improved Common Spatial Pattern in Analyzing EEG Signal for Stroke Patients	Project Leader	Others	Aunseed/Ne, JICA	198,159.50	01/05/2015	31/03/2017	R.K130000.7343.4B188
11	Classification Of Brain Signal For Normal Person And Stroke Patients For	Project Leader	UTM	Tier 2 UTM	20,000.00	01/05/2015	31/07/2016	Q.K130000.2643.10J98

	Application In Brain Computer Interface							
12	Enhanced Common Spatial Pattern in Analyzing EEG Signal for Stroke Patients	Project Leader	UTM	Matching Grant	70,000.00	01/08/2015	31/07/2017	Q.K130000.3043.00M79
13	Mask Covariance Of Common Spatial Pattern for Brain Computer Interface	Project Leader	UTM	Tier 1 UTM	50,000.00	01/07/2016	30/06/2018	Q.K130000.2543.13H71
14	Cloud Optical Depth Retrieval via Infrared Radiation Analysis for Solar Radiation Prediction	Researcher	Others	Takasago	100,000.00	01/11/2016	31/10/2018	R.K130000.7343.4B262
15	Operation and Relief System Plan: Machine Learning and Drones for Disaster Response and Relief Operation	Researcher	UTM	MOHE, UTM	500,000.00	01/03/2017	29/02/2020	R.K130000.7843.4J276
16	Early Detection of Dementia In EEG Signals Using Advanced Signal Processing Techniques	Researcher	UTM	DPUTMR AZAK	32,000.00	01/08/2017	31/10/2019	R.K130000.7340.4J301
17	Real Time Occupancy Model using Deep Learning with IoT Sensors Technology for HVAC Predictive Operation	Project Leader	Others	Takasago	100,000.00	12/12/2017	31/03/2020	R.K130000.7343.4B319
18	Robust-Formation Control of Autonomous Underwater Vehicles based on Consensus Algorithm	Researcher	UTM	Flagship	50,000.00	15/11/2017	14/11/2019	Q.K130000.2443.03G87
19	Water Pollution Sensing in Rivers of Malaysia and Database Construction	Researcher	UTM	Tier 1	50,000.00	01/02/2018	31/01/2021	Q.K130000.2543.19H97
20	The Design of Spatial Selection Using Cur Decomposition to Improve Common Spatial Pattern for Multi-Trial EEG Classification	Researcher	UTM	Tier 1	50,000.00	01/02/2018	31/01/2020	Q.K130000.2543.20H34



21	Development Smart Embedded-Analytics Sensors And Cloud-Based Management Systems For Heating, Ventilation, And Air Conditioning (HVAC) System	Project Leader	UTM	CRG	160,000.00	01/07/2018	30/12/2020	Q.K130000.2443.04G64
22	HVAC Predictive System based on Deep Learning for Occupancy Modelling	Project Leader	UTM	IIIG	20,000.00	01/08/2018	31/01/2021	Q.K130000.3043.01M21
23	Decentralized Architecture of Rnn-Based Smart Controller for Hvac System	Researcher	UTM	IIIG	20,000.00	01/05/2018	30/04/2019	Q.K130000.3043.01M18
24	Study of Human-Like Robotic Hand Using Soft Mckibben Actuator Controlled by Artificial Intelligence Approach	Researcher	UTM	Flagship	40,000.00	01/08/2018	31/01/2021	Q.J130000.2451.04G98
25	Sesak: A Crowd Simulation Software Prototype For Systematic Crowd Management System	Researcher	UTM	PRGS-ICC	20,000.00	01/09/2018	31/08/2019	R.K130000.7709.4J360
26	UTM-TDR28.3(T2): Modeling And Optimization of Magnetorheological Elastomer Rheological Behavior Via Machine-Learning Approach	Researcher	UTM	UTM-TDR	35,200.00	01/12/2018	31/05/2022	Q.K130000.3556.07G19
27	Kajian Kompetensi Industri 4.0 Dengan Jabatan HSE Di UMW	Researcher	Others	CR DTD	58,275.00	11/10/2018	10/04/2019	R.J130000.7651.4C214
28	Kajian Keberkesanan dan Penambah Baikkan Modul Latihan Kompetensi Industri 4.0 dengan Jabatan HSE di UMW	Reseracher	UTM	IIIG	20,000.00	01/05/2019	31/10/2021	Q.J130000.3051.01M45
29	Pose Skeleton Estimation With Advanced Optical Flow Using Deep Learning For Human Action Detection	Project Leader	UTM	Tier 2	30,000.00	01/08/2019	31/01/2022	Q.K130000.2643.15J78

30	Artificial Intelligence Deep Learning Models For Picture-Based Defect Classification	Project Leader	Others	Contract Research DTD	35,000.00	26/07/2019	25/01/2021	R.K130 000.76 43.4C2 81
31	Industrial Defect Detection for wafer semiconductor using artificial intelligence technology	Project Leader	UTM	IIIG	15,000.00	01/11/2019	30/04/2021	Q.K130 000.30 43.01M 84
32	PPRN 3 MOE : Artificial Intelligence and Conditioning Base Monitoring Tools Software Development for Rotating Equipment	Project Leader	Others	PPRN	49,000.00	23/12/2019	22/06/2021	R.K130 000.78 43.4L4 40
33	PPRN 3 IND : Artificial Intelligence and Conditioning Base Monitoring Tools Software Development for Rotating Equipment	Project Leader	Others	PPRN	21,000.00	23/12/2019	22/06/2021	R.K130 000.76 43.4C3 30
34	Imbalanced Strategy For Wafer Defect Classification Using Fully Convolutional Neural Network	Project Leader	UTM	UTMFR	63,000.00	01/01/2020	30/06/2022	Q.K130 000.25 43.21H 17
35	Transforming Time To Spatial Domain For Eeg Signal Using Cnn Classification	Project Leader	UTM	Matching Grant	17,459.55	01/01/2020	30/06/2021	Q.K130 000.30 43.01M 92
36	Portable & Rapid Body Temperature Measurement	Project Leader	UTM	UTM R&D Fund	40,000.00	01/04/2020	31/05/2020	R.K130 000.77 43.4J4 51
37	Investigation of finger musculoskeletal pinching motion using soft Mckibben actuator with machine learning adoption	Researcher	Others	FRGS Grant	129,500.00	01/09/2019	31/05/2023	R.K130 000.78 09.5F1 37
38	CRG 30.0 : Smart Robotics System For Search And Rescue	Reseracher	UTM	CRG Grant	100,000.00	01/11/2019	30/04/2022	Q.J130 000.24 09.08G 30
39	Non-Cooperative Optimization of Electric Vehicle Charging Through Multi-Agent Deep	Researcher	Others	FRGS Grant	118,400.00	01/11/2020	31/10/2022	R.K130 000.78 43.5F3 48

	Reinforcement Learning							
40	Identification of microalgae by graphical image using deep learning technology	Researcher	Others	FRGS Grant	146,000.00	01/11/2020	31/10/2022	R.K130000.7843.5F418
41	Crowd Simulation Software Prototype for Systematic Crowd Management System	Researcher	UTM	UTMPR Grant	45,000.00	01/01/2020	30/06/2022	Q.J130000.2851.00L31
42	Artificial Intelligence Vision System for Calf Weight Estimation	Researcher	Others	MYRUN	109,800.00	01/04/2020	31/12/2021	R.K130000.7343.4B558
43	Predictive Modeling for Prevention and Control of COVID-19 Disease	Researcher	UTM	UTMER Grant	56,000.00	01/10/2020	30/09/2022	Q.K130000.3856.18J91
44	An Improved Inventory Management Process for Human Machine Warehouse Management System	Researcher	UTM	IIIG Grant	20,000.00	01/11/2020	31/10/2021	Q.K130000.3643.02M64
45	A Simulated Annealing Approach for Optional Storing in A Semi-Automated Warehouse	Researcher	Others	Contract Research	120,000.00	01/04/2020	31/03/2021	R.K130000.7643.4C355
46	Penyelidikan Pembangunan Sistem Operasi High Performance Computing (HPC) Untuk Pusat Kajian Lembangan Sungai, NAHRIM	Project Leader	Others	Contract Grant NAHRIM	500,000	01/08/2020	28/02/2021	R.K130000.7643.4C397
47	Development of Artificial Intelligence Inspection System on Thermography Images For 33kV Switchgears & System Migration	Project Leader	Others	Contract Grant TNB Research Sdn Bhd	170,000	14/10/2020	15/06/2021	R.K130000.7643.4C425
48	MYLAB 1 MOHE : Defect Inspection using Deep Learning Computer Vision for Software as a Service (SaaS)	Project Leader	Others	MyLAB MOHE	984,316.80	01/10/2020	30/09/2022	R.K130000.7843.4L916
49	MYLAB 1 IND : Defect Inspection using Deep Learning	Project Leader	Others	MyLAB Industry	51,806.15	01/10/2020	30/09/2022	R.K130000.73

Computer Vision for Software as a Service (SaaS)							43.4B6 11
<b>TOTAL AMOUNT OF GRANTS (RM)</b>						<b>5,078,735.89</b>	

## COLLABORATION / MOU

NO	NAME OF MOU	LEVEL OF MOU (NATIONAL/INTERNATIONAL)	STARTING DATE	ENDING DATE
1	Collaboration Research Program AUN/SEED-Net Project between UTM and Japan International Cooperation Agency (JICA)	International	1 <sup>st</sup> May 2015	31 <sup>st</sup> Mar 2017
2	MOA on The Establishment of Takasago Education and Research Fund For Takasago Research Grant	International	12 <sup>th</sup> Dec 2017	31 <sup>st</sup> Mar 2020
3	Collaboration Research Grant for Development Smart Embedded-Analytics Sensors and Cloud -Based Management Systems for Heating, Ventilation and Air Conditioning (HVAC) Systems [UTM, UMP, UNIMAP, QMEC]	National	1 <sup>st</sup> May 2018	31 <sup>st</sup> Dec 2020
4	MOA between UTM and Cuatro Services Sdn Bhd for The Program Entitled Artificial Intelligence Deep Learning Models for Picture-Based Defect Classification	National	26 <sup>th</sup> July 2019	25 <sup>th</sup> Jan 2021
5	Memorandum of Agreement (MOA) for Public Private Research Network (PPRN 2.0)	National	23 <sup>rd</sup> Dec 2019	22 <sup>nd</sup> Jun 2021
6	Letter of Intent Between NVIDIA Singapore Development Pte. Ltd. and UTM	International	1 <sup>st</sup> Sept 2019	31 <sup>st</sup> Aug 2020
7	Collaboration Research Grant for Smart Robotics Systems for Search and Rescue [UTM, UPM, USIM, UPNM]	National	1 <sup>st</sup> Nov 2019	31 <sup>st</sup> Oct 2021
8	Transforming Time To Spatial Domain For Eeg Signal Using Cnn Classification with Telkom University, Bandung	International	1 <sup>st</sup> Jan 2020	30 <sup>th</sup> Jun 2021
9	Memorandum of Understanding between HUAWEI	National	1 <sup>st</sup> June 2020	31 <sup>st</sup> May 2022

	Technnologies (Malaysia) Sdn. Bhd., UTM, and Tekmark Sdn Bhd. For the Program Entitled Atlas AI Talent Development			
10	Memorandum of Understanding (MOU) for Malaysia Laboratories for Academia-Business Collaboration (MyLAB) 1/2019 "Defect Inspection using Deep Learning Computer Vision for Software as a Service (SaaS)" [UTM, UNIMAP, KUIS, CUATRO]	National	1 <sup>st</sup> Oct 2020	31 <sup>st</sup> Sept 2022

## TEACHING ACTIVITIES

### UNDERGRADUATE

YEAR OF SEMESTER	SEMESTER (1/2)	SUBJECT CODE	NAME OF SUBJECT	CREDIT HOUR	SECTION
2020/2021	1	SMJE 4923	Final Year Project 1	3	
2020/2021	1	SMJE1013	Programming for Engineers	3	2
2020/2021	1	SMJE1013	Programming for Engineers	3	1
2019/2020	2	SMJE 4333	Biomedical Imaging Systems	3	1
2019/2020	2	SMJE 4313	Image Processing	3	1
2019/2020	2	SMJE 4923	Final Year Project 2	3	
2019/2020	1	SMJE 4923	Final Year Project 1	3	
2019/2020	1	SMJE1013	Programming for Engineers	3	1
2018/2019	2	SMJE3203	Artificial Intelligence	3	2
2018/2019	2	SMJE3203	Artificial Intelligence	3	1
2018/2019	2	SMJE 4923	Final Year Project 2	3	
2018/2019	1	SMJE 4913	Final Year Project 1	3	1
2018/2019	1	SMJE 3813	Monozukuri Project	3	2
2018/2019	1	SMJE1013	Programming for Engineers	3	1
2017/2018	2	SMJE3203	Artificial Intelligence	3	2
2017/2018	2	SMJE3203	Artificial Intelligence	3	1
2017/2018	2	SMJE 4923	Final Year Project 2	3	
2017/2018	1	SMJE 4913	Final Year Project 1	3	
2017/2018	1	SMJE1013	Programming for Engineers	3	1
2016/2017	2	SMJE 4923	Final Year Project 2	3	
2016/2017	2	SMJE3203	Artificial Intelligence	3	2
2016/2017	2	SMJE3203	Artificial Intelligence	3	1
2016/2017	1	SMJE 4913	Final Year Project 1	3	

2016/2017	1	SMJE1013	Programming for Engineers	3	2
2016/2017	1	SMJE1013	Programming for Engineers	3	1
2015/2016	2	SMJE 4923	Final Year Project 2	3	
2015/2016	2	SMJE3203	Artificial Intelligence	3	2
2015/2016	2	SMJE3203	Artificial Intelligence	3	1
2015/2016	1	SMJE 4913	Final Year Project 1	3	
2015/2016	1	SMJE1013	Programming for Engineers	3	2
2015/2016	1	SMJE1013	Programming for Engineers	3	1
2014/2015	2	SMJE3163	Digital Signal Processing	3	2
2014/2015	2	SMJE3163	Digital Signal Processing	3	1
2014/2015	1	SMJP1013	Programming for Engineers	3	2
2014/2015	1	SMJE1013	Programming for Engineers	3	1
2013/2014	2	SKEL4223	Digital Signal Processing	3	4
2013/2014	2	SKET3742	Makmal Umum Tahun 3	2	1
2013/2014	1	SKEE3732	Makmal Umum Tahun 3	2	5
2013/2014	1	SKEE3732	Makmal Umum Tahun 3	2	4
2013/2014	1	SKEE3732	Makmal Umum Tahun 3	2	1
2008/2009	2	SEE1123	Instrumentation	3	6
2008/2009	1	SEU2003	Electrical Technology	3	2
2008/2009	1	SEU2003	Electrical Technology	3	1

**TOTAL  
CREDIT  
HOUR**      **125**

## SUPERVISION

## PHD STUDENTS

### Main Supervisor

No	Name/No Matrik	Status (Graduated/ Ongoing)	Title	Date
1	Hilman Fauzi Tresna Sania	Graduated	The Design of Spatial Selection Using Cur Decomposition to Improve Common Spatial Pattern for Multi-Trial EEG Classification	2019
2	Hossamelden Mohamed Amin Elhawary	Ongoing	Real-time detection and recognition for Malaysian traffic signs using general-purpose GPU	
3	Asma Aftab	Ongoing	3D Medical Image Segmentation using Deep Learning A	
4	Zainab Malik	Ongoing	Semantic Segmentation with Deep Learning	

5	Uzma Batool	Ongoing	Image Fusion for Classification	
6	Zulkifli Bin Musa	Ongoing	Simulated Cubature Kalman Filter Algorithms (Sckf) For Numerical Optimization Problem	
7	Noor Jannah Binti Zakaria	Ongoing	Lane Detection Using Convolutional Neural Network	

### PhD Co Supervisor

No	Name/No Matrik	Status (Graduated/Ongoing)	Title	Date
1	Ayman F. M. Maliha	Graduated	Generalized Framework for Tracking Problem Based on Ranked Extreme Learning Machine	2017
2	Irfan Bahiuddin	Graduated	MRF Modelling with Machine Learning Technique	2019
3	Nenny Ruthfalydia Binti Rosli	Ongoing	Pre-Processing Module for Online Wood Recognition System	
4	Mohd Akmal Bin Mhd Yusoff	Ongoing	Modelling and position control of McKibben muscle using Predictive Functional Control	

### MASTER STUDENTS

#### Master by Research (Main Supervisor)

No	Name	Status (Graduated/Ongoing)	Title	Date
1	Muhammad Sollehuddin A. Jalil	Graduated	A Framework of the Fuzzy Logic Control For Domain Ontology Development	2017
2	Fathrul Azarshah Bin Abdul Aziz	Graduated	Classification Stroke patient and Healthy person Using EEG signal	2018
3	Yohanes De Britto Hertyasta	Graduated	Analytic Sub-Band Common Spatial Pattern with Feature Scaling for Classifying Eeg Signal	2018
4	Muhammad Hafiz Bin Md Zaini	Graduated	Alzheimer Disease Classification Using Structured Extreme Learning Machine Segmentation Technique	2019
5	Wan Siti Nur Shafiqah Wan Musa	Graduated	Vascular Dementia Classification Based on Hilbert Huang Transform (HHT) as Feature Extractor	2019
6	Noor Jannah Binti Zakaria	Graduated	Lane Detection Using Convolutional Neural Network	2019
7	Yap Hong Yeu	Graduated	Improvement of object proposal generation for object detection	12 <sup>th</sup> Nov 2020
8	Muhammad Afiq Bin Che Man	Ongoing	Dynamic Occupancy Modelling using Deep Learning via Convolutional Neural Networks for Predicting Heat, Ventilation and Air-Conditioning Operations	

9	Fong Jia Xian	Ongoing	Small Object Detection	2021
10	Putri Nor Azila Binti Tajudin	Ongoing	Improvement of semiconductor defect detection by using deep learning	
11	Muhammad Abdullah Azzam	Ongoing	Classification of Electroencephalogram Brain Motor Imagery in Spatial Domain Using Convolutional Neural Network	
12	Fakhrul Aniq Hakimi Bin Nasrul 'Alam	Ongoing	Poseflow Estimation on Skeleton for Behavior Classification in Heating Ventilating & Air-Conditioning System	
13	Nur Amirah Binti Abd Hamid	Ongoing	Detection of Hippocampal of Brain for Diagnosing Alzheimer's Disease by using Attention Networks	
14	Azlan bin Mohmad	Ongoing	Machine Learning Model for Classifying Transformer Health Index	

### Master by Research (Co Supervisor)

No	Name	Status (Graduated/ Ongoing)	Title	Date
1	Nuritaasma Binti Mohd Ghani	Ongoing	Modelling of Cultural Impacts on Crowd Dynamics using Video Processing	
2	Tan Chen Tung	Ongoing	Precise Calf Weight Estimation via Machine Vision	
3	Mohd Solehin Bin Shamsudin	Ongoing	Transformer Health Index using Artificial Intelligent	

## UTM POSTGRADUATE EXAMINATION / VIVA

### PHD

NO	ROLE	NAME OF STUDENT	TITLE	YEAR
1	Assistant Chairman Oral Examination (Viva-Voce) (PhD)	Gholamreza Gholam Pour		2016
2	Chairman for Research Proposal Defense (PhD)			2017
3	Panel of First Stage Evaluation Seminar Semester 1 (PhD)	Lai Kok Yee		2018
4	Panel of First Stage Evaluation Seminar Semester 1 (PhD)	Pyi Phyoo Aung		2019
5	Panel of First Stage Evaluation Seminar Semester 1 (PhD)	Mohd Hider Bin Kamarudin		2019



**MASTER BY RESEARCH**

<b>NO</b>	<b>ROLE</b>	<b>NAME OF STUDENT</b>	<b>TITLE</b>	<b>YEAR</b>
1	Thesis Internal Examiner	Siti Nurasma Binti Jalaludin	The Development of Computer Vision Learning for Face Recognition Systems	2016
2	Thesis Internal Examiner	Fakhrul Razi Bin Ahmad Zakuan	Vehicle Classification with Threat Assessment Algorithm using Machine Learning Approach for Blind Spot Monitoring	2017
3	Panel of First Stage Evaluation Seminar Semester 1 (MSc)	Ahmed Essameldin Fawzy Elfakharany,		2018
4	Panel of First Stage Evaluation Seminar Semester 1 (MSc)	Shuwaibatul Aslamiah Binti Ghazalli		2019
5	Panel of First Stage Evaluation Seminar Semester 1 (MSc)	Nor Aziah Amirah Binti Nor Muhammad		2019
6	Panel of First Stage Evaluation Seminar Semester 1 (MSc)	Amrul Faruq		2019
7	Panel of First Stage Evaluation Seminar Semester 1 (MSc)	Nur Syuhada' Binti Mohamad Ali		2019

**EXTERNAL POSTGRADUATE EXAMINATION / VIVA****MASTER BY RESEARCH**

<b>NO</b>	<b>ROLE</b>	<b>NAME OF STUDENT</b>	<b>TITLE</b>	<b>YEAR</b>
1	External Examiner 2	Alireza Samar	Uncertainty in Recurrent Neural Networks	2017

**MASTER BY MIXED-MODE**

<b>NO</b>	<b>ROLE</b>	<b>NAME OF STUDENT</b>	<b>TITLE</b>	<b>YEAR</b>
1	External Examiner	Nabiel Hasan Makarim	Ensemble Model for Phishing Website Detection	2019

## PUBLICATIONS

### JOURNAL

NO	ARTICLE TITLE	JOURNAL TITLE	ISSN/ ISBN	Vol.	Issues	Page	Publication year	IF	Type of Publication	Category of Publication	Quartile Ranking	Category Author
1	3D shallow deep neuralnetwork for fast and precise segmentation of left atrium	Multimedia Systems	0942-4962	-	-	-	2021	1.563	Indexed Journal	Web of Science (ISI) & Scopus	Q2	UTM First Author
2	Biosensing human blood clotting factor bydual probes: Evaluationby deep long short- term memory networksin time series forecasting	Biotechnology and Applied Biochemistry	0885-4513	-	-	-	2021	1.638	Indexed Journal	Web of Science (ISI) & Scopus	Q4	Co-Author
3	Gradient-Based Edge Effects on Lane Marking Detection using a Deep Learning-Based Approach	Arabian Journal for Science and Engineering	2193 - 567X	45	12	10989-11006	2020	1.711	Indexed Journal	Web of Science (ISI) & Scopus	Q3	UTM First Author
4	Waveguide for Vortex Mode Generation in HVAC Cloud Management Communication	AIP Conference Proceedings	0094-243X	2203		020059	2020		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author

5	Smart Embedded-Analytics Sensors with Cloud-Based Measurement System for HVAC	AIP Conference Proceedings	0094-243X	2203		020050	2020		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
6	Transfer Learning of BCI Using CUR Algorithm	Journal of Signal Processing Systems for Signal Image and Video Technology	1939-8018	92	1	109-121	2020	1.013	Indexed Journal	Web of Science (ISI) & Scopus	Q4	UTM First Author
7	Prediction of field-dependent rheological properties of magnetorheological grease using extreme learning machine method	Journal of Intelligent Material Systems and Structures	1045-389X	30	11	1727-1742	2019	2.41	Indexed Journal	Web of Science (ISI) & Scopus	Q3	Co-Author
8	A new platform for the prediction of field-dependent yield stress and plastic viscosity of magnetorheological fluids using particle swarm optimization	Applied Soft Computing Journal	1568-4946	76		615-628	2019	5.472	Indexed Journal	Web of Science (ISI) & Scopus	Q1	Co-Author
9	Evaluation of Different Horizon Lengths in Single-agent Finite Impulse Response Optimizer	2019 International Conference on Computer and Information Sciences (ICCIS)	978-1-5386-8125-1			99-104	2019		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
10	A Fitness-Based Adaptive Synchronous-Asynchronous	2019 International Conference on Computer and	978-1-5386-8125-1			241-245	2019		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author

	Switching in Simulated Kalman Filter Optimizer	Information Sciences (ICCIS)										
11	Oppositional Learning Prediction Operator with Jumping Rate for Simulated Kalman Filter	2019 International Conference on Computer and Information Sciences (ICCIS)	978-1-5386-8125-1			256-261	2019		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
12	A new constitutive model of a magneto-rheological fluid actuator using an extreme learning machine method	Sensors and Actuators A-Physical Journal	0924-4247	281		209-221	2018	2.904	Indexed Journal	Web of Science (ISI) & Scopus	Q2	Co-Author
13	Extreme learning machine for structured output spaces	Neural Computing & Applications	0941-0643	30	4	1251-1264	2018	4.774	Indexed Journal	Web of Science (ISI) & Scopus	Q1	Co-Author
14	An Oppositional Learning Prediction Operator for Simulated Kalman Filter	2018 3rd International Conference on Computational Intelligence and Applications (ICCIA)	978-1-5386-9571-5			195-199	2018		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
15	Automatic Energy Extraction Methods for EEG Channel Selection	2018 International Conference on Control, Electronics, Renewable Energy And Communications (ICCEREC)	978-1-7281-1993-9			70-75	2018		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
16	Feature Selection using Binary Simulated Kalman	Proceedings International Conference on	2166-0662			1-6	2018		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author

	Filter for Peak Classification of EEG Signals	Intelligent Systems Modelling Simulation									
17	An Analysis on the Number of Agents Towards the Performance of the Simulated Kalman Filter Optimizer	Proceedings International Conference on Intelligent Systems Modelling Simulation	2166-0662			16-21	2018		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
18	Analysis of Retinal Vessel Segmentation with Deep Learning and Its Effect on Diabetic Retinopathy Classification	2018 International Conference On Intelligent And Advanced System (ICIAS 2018) / World Engineering, Science & Technology Congress (ESTCON)	978-1-5386-7269-3				2018		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
19	A Review on Fundamental Advancements of Black Hole Algorithm	ICAROB 2018: Proceedings of the 2018 International Conference on Artificial Life and Robotics	978-4-9908350-3-3			241-244	2018		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
20	A Survey on Applications of Black Hole Algorithm	ICAROB 2018: Proceedings of the 2018 International Conference on Artificial Life and Robotics	978-4-9908350-3-3			245-248	2018		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
21	An Application of Simulated Kalman Filter Optimization Algorithm for	2018 SICE International Symposium on	978-4-907764-58-6			113-120	2018		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author

	Parameter Tuning in Proportional-Integral-Derivative Controllers for Automatic Voltage Regulator System	Control Systems (SICE ISCS)										
22	Pareto Optimality Concept for Incorporating Prior Knowledge for System Identification Problem with Insufficient Samples	Arabian Journal for Science and Engineering	2193 - 567X	42	7	2697-2710	2017	1.711	Indexed Journal	Web of Science (ISI) & Scopus	Q3	Corresponding Author
23	Improving EEG signal peak detection using feature weight learning of a neural network with random weights for eye event-related applications	Sadhana-Academy Proceedings in Engineering Sciences	0256-2499	42	5	641-653	2017	0.849	Indexed Journal	Web of Science (ISI) & Scopus	Q4	UTM First Author
24	EEG BSI-HHT in Ischaemic Stroke with Multifocal Infarction	TENCON IEEE Region 10 Conference Proceedings	2159-3442			1651-1656	2017		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
25	Study of Extreme Learning Machine Activation Functions for Magnetorheological Fluid Modelling in Medical Devices Application	2017 International Conference on Robotics, Automation and Sciences (ICORAS)	978-1-5386-1908-7				2017		Indexed Proceeding	Web of Science (ISI) & Scopus		Co-Author
26	An Application of Extreme Learning Machine in A	2017 International Conference on Robotics,	978-1-5386-1908-7				2017		Indexed Proceeding	Web of Science (ISI) & Scopus		Co-Author

	Graphical User Interface for Magnetorheological Fluid Study	Automation and Sciences (ICORAS)									
27	Removing Ocular Artefacts in EEG Signals by Using Combination of Complete EEMD (CEEMD)-Independent Component Analysis (ICA) Based Outlier Data	2017 International Conference on Robotics, Automation and Sciences (ICORAS)	978-1-5386-1908-7				2017		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
28	Hippocampal Segmentation using Structured Extreme Learning Machine with Bag of Features	2017 International Conference on Robotics, Automation and Sciences (ICORAS)	978-1-5386-1908-7				2017		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
29	Channel Selection for Common Spatial Pattern Based on Energy Calculation of Motor Imagery EEG Signal	2017 International Conference on Control, Electronics, Renewable Energy And Communications (ICCREC)	978-1-5386-1667-3			33-39	2017		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
30	Data Trustworthiness in Internet of Things: A Taxonomy and Future Directions	2017 IEEE Conference on Big Data and Analytics (ICBDA)	978-1-5386-0790-9			25-30	2017		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author
31	Classification of Hippocampal Region using Extreme Learning Machine	ICAROB 2017: Proceedings of The 2017 International Conference On	978-4-9908350-2-6			P735-P742	2017		Indexed Proceeding	Web of Science (ISI) & Scopus	UTM First Author



		Artificial Life And Robotics										
32	Feature selection using angle modulated simulated Kalman filter for peak classification of EEG signals	SPRINGERPLUS	2193-1801	5	1	1580	2016	1.13	Indexed Journal	Web of Science (ISI) & Scopus	Q3	UTM First Author
33	Evaluation of different time domain peak models using extreme learning machine-based peak detection for EEG signal	SPRINGERPLUS	2193-1801	5	1	1036	2016	1.13	Indexed Journal	Web of Science (ISI) & Scopus	Q3	UTM First Author
34	Feature Scaling for EEG Human Concentration using Particle Swarm Optimization	Proceedings Of 2016 8th International Conference on Information Technology and Electrical Engineering (ICITEE)	978-1-5090-4139-8				2016		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
35	Evaluation of Different Peak Models of Eye Blink EEG for Signal Peak Detection Using Artificial Neural Network	Neural Network World	1210-0552	26	1	67-89	2016	0.635	Indexed Journal	Web of Science (ISI) & Scopus	Q4	UTM First Author
36	Dingle's Model-based EEG Peak Detection	Proceedings of International Conference on	978-4-9902880-9-9			207-210	2015		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author

	using a Rule-based Classifier	Artificial Life and Robotics (ICAROB2015)										
37	Different Learning Functions for Weighted Kernel Regression in Solving Small Sample Problem with Noise	Proceedings of International Conference on Artificial Life and Robotics (ICAROB2015)	978-4-9902880-9-9			211-214	2015		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
38	An Assembly Sequence Planning Approach with Binary Gravitational Search Algorithm	New Trends in Software Methodologies, Tools and Techniques	0922-6389	265		179-193	2014		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
39	Feature Selection and Classifier Parameters Estimation for EEG Signals Peak Detection Using Particle Swarm Optimization	Scientific World Journal	1537-744X			973063	2014		Indexed Journal	Web of Science (ISI) & Scopus	Q2	UTM First Author
40	Improving Vector Evaluated Particle Swarm Optimisation Using Multiple Nondominated Leaders	Scientific World Journal	1537-744X			364179	2014	1.219	Indexed Journal	Web of Science (ISI) & Scopus	Q2	Co-Author
41	Identification of Phoneme and Its Distribution of Malay Language Derived from Friday Sermon Transcripts	2014 IEEE Student Conference on Research and Development SCOReD	2643-2439				2014		Indexed Proceeding	Web of Science (ISI) & Scopus		Co-Author

42	Feature Selection and Classifier Parameter Estimation for EEG Signal Peak Detection using Gravitational Search Algorithm	Proceedings 2014 4th IEEE International Conference on Artificial Intelligence with applications in Engineering and Technology (ICAIET)	978-1-4799-7910-3			103-108	2014		Indexed Proceeding	Web of Science (ISI) & Scopus		UTM First Author
43	Recipe Generation from Small Samples: Incorporating Weighted Kernel Regression with Artificial Samples	International Journal of Innovative Computing Information and Control	1349-4198	8	10B	7321-7328	2012	1.667	Indexed Journal	Web of Science (ISI) & Scopus	Q2	Corresponding Author
44	A Two-Step Supervised Learning Artificial Neural Network for Imbalanced Dataset Problems	International Journal of Innovative Computing Information and Control	1349-4198	8	5A	3163-3172	2012	1.667	Indexed Journal	Web of Science (ISI) & Scopus	Q2	UTM First Author
45	Enhanced Weighted Kernel Regression with Prior Knowledge Using Robot Manipulator Problem as a Case Study	Procedia Engineering International Symposium on Robotics and Intelligent Sensors 2012 (IRIS2012)	1877-7058	41		82-89	2012		Indexed Proceeding	Web of Science (ISI) & Scopus		Corresponding Author
46	Function and Surface Approximation Based on Enhanced Kernel Regression for Small Sample Sets	International Journal of Innovative Computing Information and Control	1349-4198	7	10	5947-5960	2011	1.667	Indexed Journal	Web of Science (ISI) & Scopus	Q2	Corresponding Author

47	Recipe Generation from Small Samples: Incorporating an Improved Weighted Kernel Regression with Correlation Factor	Software Engineering and Computer Systems, Pt 1	1865-0929	179		144-+	2011		Indexed Proceeding	Web of Science (ISI) & Scopus		Corresponding Author
48	Investigation on Different Kernel Functions for Weighted Kernel Regression in Solving Small Sample Problems	UKSim Fifth European Modelling Symposium on Computer Modelling and Simulation (EMS 2011)	2473-3539			64-69	2011		Indexed Proceeding	Web of Science (ISI) & Scopus		Corresponding Author
49	A Non-Linear Function Approximation from Small Samples Based on Nadaraya-Watson Kernel Regression	2nd International Conference on Computational Intelligence Communication Systems and Networks (CICSyN)	978-0-7695-4158-7			28-32	2010		Indexed Proceeding	Web of Science (ISI) & Scopus		Corresponding Author
50	Oversampling based on data augmentation in convolutional neural network for silicon wafer defect classification	Frontiers in Artificial Intelligence and Applications	09226389	327		3-12	2020		Indexed Journal	Scopus		UTM First Author
51	Convolutional Neural Network for Imbalanced Data Classification of Silicon Wafer Defects	Proceedings - 2020 16th IEEE International Colloquium on Signal Processing and its Applications, CSPA 2020	978-172815310-0		9068669	230-235	2020		Indexed Proceeding	Scopus		UTM First Author

52	Bypassing MRI Pre-processing in Alzheimer's Disease Diagnosis using Deep Learning Detection Network	Proceedings - 2020 16th IEEE International Colloquium on Signal Processing and its Applications, CSPA 2020	978-172815310-0		9068680	219-224	2020		Indexed Proceeding	Scopus		UTM First Author
53	Field dependent-shear stress prediction of magnetorheological fluid using an optimum extreme learning machine model	Journal of Advanced Research in Fluid Mechanics and Thermal Sciences	22897879	70	2	89-96	2020		Indexed Journal	Scopus		Co-Author
54	Investigation on different color spaces on faster RCNN for night-time human occupancy modelling	Proceeding - 2019 IEEE 7th Conference on Systems, Process and Control, ICSPC 2019	978-172811826-0		9068000	118-121	2019		Indexed Proceeding	Scopus		UTM First Author
55	Energy extraction method for EEG channel selection	Telkomnika (Telecommunication Computing Electronics and Control)	16936930	17	5	2561-2571	2019		Indexed Journal	Scopus		UTM First Author
56	Radial basis function neural network for head roll prediction modelling in a motion sickness study	Indonesian Journal of Electrical Engineering and Computer Science	25024752	15	3	1637-1644	2019		Indexed Journal	Scopus		Co-Author
57	Investigation on data augmentation for object detection using deep neural network	Frontiers in Artificial Intelligence and Applications	09226389	318		144-156	2019		Indexed Journal	Scopus		UTM First Author

	for traffic signs application											
58	Comparing the linear and logarithm normalized extreme learning machine in flow curve modeling of magnetorheological fluid	Indonesian Journal of Electrical Engineering and Computer Science	25024-752	13	3	1065-1072	2019		Indexed Journal	Scopus		Co-Author
59	Vascular dementia classification based on hilbert huang transform as feature extractor	Indonesian Journal of Electrical Engineering and Computer Science	25024-752	17	2	968-974	2019		Indexed Journal	Scopus		UTM First Author
60	Removing ocular artefacts in EEG signals by using combination of complete EEMD (CEEMD) - Independent Component Analysis (ICA) based outlier data	Proceeding of 2017 International Conference on Robotics, Automation and Sciences, ICORAS 2017	978-15386-1908-7			1-5	2018		Indexed Proceeding	Scopus		UTM First Author
61	Investigation on energy extraction methods for EEG channels selection in improving common spatial pattern	IET Conference Publications 2018		2018	CP750		2018		Indexed Proceeding	Scopus		UTM First Author
62	Fully convolutional neural network for	International Journal of Engineering and Technology(UAE)	22275-24X	7	4	152-155	2018		Indexed Journal	Scopus		UTM First Author

	Malaysian road lane detection											
63	A model of magnetorheological grease using machine learning method	Key Engineering Materials	10139826	775	2018	191-197	2018		Indexed Journal	Scopus		Co-Author
64	Distance evaluated simulated kalman filter with state encoding for combinatorial optimization problems	International Journal of Engineering and Technology (UAE)	2227524X	7	4	22-29	2018		Indexed Journal	Scopus		UTM First Author
65	Comparison of the themes of malaysian friday sermons between the year 2010 and 2015	Indonesian Journal of Electrical Engineering and Computer Science	25024752	6	1	212-217	2017		Indexed Journal	Scopus		Co-Author
66	Classification of human concentration in EEG signals using Hilbert Huang transform	International Journal of Simulation: Systems, Science and Technology	14738031	18	1	10.1-10.11	2017		Indexed Journal	Scopus		UTM First Author
67	Blade fault diagnosis using artificial neural network	International Journal of Applied Engineering Research	09734562	12	4	519-526	2017		Indexed Journal	Scopus		Co-Author
68	Common spatial pattern with feature scaling (FSc-CSP) for motor imagery classification	Communications in Computer and Information Science	18650929	751		591-604	2017		Indexed Journal	Scopus		UTM First Author

69	Gravitational search algorithm with a more accurate newton's gravitational principle	Communications in Computer and Information Science	18650 929	751		605- 614	2017		Indexed Journal	Scopus		UTM First Author
70	The design of spatial selection using CUR decomposition to improve common spatial pattern for multi-trial EEG classification	Communications in Computer and Information Science	18650 929	751		428- 442	2017		Indexed Journal	Scopus		UTM First Author
71	EEG brain symmetry index using hilbert huang transform	Communications in Computer and Information Science	18650 929	751		548- 560	2017		Indexed Journal	Scopus		UTM First Author
72	Masking covariance for common spatial pattern as feature extraction	Journal of Telecommunication, Electronic and Computer Engineering	21801 843	8	11	81-85	2016		Indexed Journal	Scopus		UTM First Author
73	Parameter optimization for conventional Soft Frequency reuse in multi cell networks using extreme learning machine and genetic algorithm	Journal of Telecommunication, Electronic and Computer Engineering	21801 843	8	11	23-28	2016		Indexed Journal	Scopus		UTM First Author
74	The quantification of speech intelligibility of Malay words by means of corner vowels	International Review of Mechanical Engineering	19708 734	10	4	279- 283	2016		Indexed Journal	Scopus		Co-Author
75	Incorporating prior knowledge in solving system identification	ICIC Express Letters	18818 03X	10	1	21-26	2016		Indexed Journal	Scopus		Correspondin g Author



	problem with insufficient samples based on pareto optimality concept											
76	A complete investigation of using weighted kernel regression for the case of small sample problem with noise	ARNP Journal of Engineering and Applied Sciences	18196608	10	23	17514-17520	2015		Indexed Journal	Scopus		UTM First Author
77	Investigation on different learning techniques for weighted kernel regression in solving small sample problem with noise	ICIC Express Letters	1881803X	9	4	965-971	2015		Indexed Journal	Scopus		Corresponding Author
78	Analysis of vector evaluated particle swarm optimization guided by non-dominated solutions: Inertia weight, cognitive, and social constants	ICIC Express Letters	1881803X	9	5	1279-1284	2015		Indexed Journal	Scopus		Co-Author
79	A Kalman filter approach for solving unimodal optimization problems	ICIC Express Letters	1881803X	9	12	3415-3422	2015		Indexed Journal	Scopus		UTM First Author
80	Enhanced weighted kernel regression with prior knowledge in solving small sample problems	Proceedings - CIMSIm 2011: 3rd International Conference on Computational Intelligence,	978-076954562-2	6076339		97-102	2011		Indexed Proceeding	Scopus		Corresponding Author

		Modelling and Simulation										
81	An improved two-step supervised learning artificial neural network for imbalanced dataset problems	Proceedings - CIMSim 2011: 3rd International Conference on Computational Intelligence, Modelling and Simulation	978-076954562-2	6076341		108-113	2011		Indexed Proceeding	Scopus		Co-Author
82	A hybrid artificial neural network-naive bayes for solving imbalanced dataset problems in semiconductor manufacturing test process	Proceedings of the 2011 11th International Conference on Hybrid Intelligent Systems, HIS 2011	978-145772150-2	6122093		133-138	2011		Indexed Proceeding	Scopus		UTM First Author
83	Enhanced Nadaraya-Watson kernel regression: Surface approximation for extremely small samples	Proceedings - AMS 2011: Asia Modelling Symposium 2011 - 5th Asia International Conference on Mathematical Modelling and Computer Simulation	978-076954414-4	5961232		7-12	2011		Indexed Proceeding	Scopus		Corresponding Author
84	Development of a hybrid Artificial Neural Network - Naive Bayes classifier for binary	ICIC Express Letters	1881803X	5	9A	3171-3175	2011		Indexed Journal	Scopus		UTM First Author

	classification problem of imbalanced datasets											
85	Artificial neural network - Naïve bayes fusion for solving classification problem of imbalanced dataset	2011 4th International Conference on Modeling, Simulation and Applied Optimization, ICMSAO 2011	978-145770005-7			5775584	2011		Indexed Journal	Scopus		UTM First Author
86	Recipe generation from small samples by weighted kernel regression	2011 4th International Conference on Modeling, Simulation and Applied Optimization, ICMSAO 2011	978-145770005-7			5775473	2011		Indexed Proceeding	Scopus		Corresponding Author
87	A rough-set-based two-class classifier for large imbalanced dataset	Smart Innovation, Systems and Technologies	21903018	4		641-65	2010		Indexed Journal	Scopus		UTM First Author

### **H INDEX**

<b>NO.</b>	<b>REFERENCE</b>	<b>H INDEX</b>
1	Google Scholar	11
2	Web of Science	6
3	Scopus	8

## **PROCEEDINGS/CONFERENCE**

1. Muhammad, B., Ibrahim, Z., Shapiai, M.I., Mohamad, M.S., Azmi, K.Z.M., Jusof, M.F.M. (2019), Oppositional learning prediction operator with jumping rate for simulated kalman filter, 2019 International Conference on Computer and Information Sciences, ICCIS 2019
2. Fauzi, H., Shapiai, M.I., Shah Abdullah, S., Ibrahim, Z. (2019), Automatic Energy Extraction Methods for EEG Channel Selection, Proceedings - 2018 International Conference on Control, Electronics, Renewable Energy and Communications, ICCEREC 2018, pp. 70-75
3. Muhammad, B., Jusof, M.F.M., Shapiai, M.I., Adam, A., Yusof, Z.M., Azmi, K.Z.M., Aziz, N.H.A., (...), Mokhtar, N. (2019). Feature selection using binary simulated kalman filter for peak classification of EEG signals, Proceedings - International Conference on Intelligent Systems, Modelling and Simulation, ISMS, pp. 1-6.
4. Muhammad, B., Jusof, M.F.M., Shapiai, M.I., Adam, A., Yusof, Z.M., Azmi, K.Z.M., Aziz, N.H.A., Ibrahim, Z. And Mokhtar, N., 2018. Feature Selection Using Binary Simulated Kalman Filter For Peak Classification Of Eeg Signals, *Proceedings - International Conference On Intelligent Systems, Modelling And Simulation, Isms 2018*, Pp. 1-6.
5. Muhammad, B., Jusof, M.F.M., Shapiai, M.I., Adam, A., Yusof, Z.M., Azmi, K.Z.M., Aziz, N.H.A., Ibrahim, Z. And Mokhtar, N., 2018. Feature Selection Using Binary Simulated Kalman Filter For Peak Classification Of Eeg Signals, *Proceedings - International Conference On Intelligent Systems, Modelling And Simulation, Isms 2018*, Pp. 1-6.
6. Bahiuddin, I., Usak, S.A.M., Shapiai, M.I. And Mazlan, S.A., 2018. An application of extreme learning machine in a graphical user interface for magnetorheological fluid study, *Proceeding of 2017 International Conference on Robotics, Automation and Sciences, ICORAS 2017 2018*, pp. 1-5
7. Md Zaini, M.H., Shapiai, M.I., Mohamed, A.R., Fauzi, H., Ibrahim, Z. And Adam, A., 2018. Hippocampal segmentation using structured extreme learning machine with bag of features, *Proceeding of 2017 International Conference on Robotics, Automation and Sciences, ICORAS 2017 2018*, pp. 1-5.
8. Bahiuddin, I., Mazlan, S.A., Shapiai, M.I., Imaduddin, F. And Ubaidillah, 2018. Study of extreme learning machine activation functions for magnetorheological fluid modelling in medical devices application, *Proceeding of 2017 International Conference on Robotics, Automation and Sciences, ICORAS 2017 2018*, pp. 1-5.
9. Aziz, F.A.A., Fauzi, H., Shapiai, M.I., Aziz, A.F.A., Remijn, G. And Ismail, Z.H., 2017. Eeg Bsi-Hht In Ischaemic Stroke With Multifocal Infarction, *Ieee Region 10 Annual International Conference, Proceedings/Tencon 2017*, Pp. 1651-1656.
10. Fauzi, H., Shapiai, M.I., Setiawan, N.A., Jaafar, J. And Mustafa, M., 2017. Channel Selection For Common Spatial Pattern Based On Energy Calculation Of Motor Imagery Eeg Signal, *Iccrec 2017 - 2017 International Conference On Control, Electronics, Renewable Energy, And Communications, Proceedings 2017*, Pp. 33-39.
11. Aziz, F.A.A., Fauzi, H., Shapiai, M.I., Aziz, A.F.A., Remijn, G. And Ismail, Z.H., 2017. Eeg Bsi-Hht In Ischaemic Stroke With Multifocal Infarction, *Ieee Region 10 Annual International Conference, Proceedings/Tencon 2017*, Pp. 1651-1656.
12. Zaini, M.H.M., Shapiai, M.I., Mohamed, A.R., Mokhtar, N. and Ibrahim, Z., 2017. "Classification of Hippocampal Region using Extreme Learning Machine". *ICAROB 2017: Proceedings of The 2017 International Conference on Artificial Life and Robotics*
13. FARIS RAMLI, M., MUNIANDY, K., ADAM, A., AB NASIR, A.F. and IBRAHIM SHAPIAI, M., 2020. Indoor occupancy estimation using carbon dioxide concentration and neural network with random weights, *IOP Conference Series: Materials Science and Engineering 2020*.
14. ASERI, N.S.M., ALI, N., YASIN, M.N.M., RASHIDI, C.B.M., ALJUNID, S.A., ENDUT, R., HAMBALI, N.A.M.A. and SHAPIAI, M.I., 2020. Smart embedded-analytics sensors with cloud-based measurement system for HVAC, *AIP Conference Proceedings 2020*.

15. ALI, N., AMPHAWAN, A., HAFIZALSHAH, M.H., ALJUNID, S.A., ENDUT, R., RASHIDI, C.B.M., YASIN, M.N.M. and SHAPIAI, M.I., 2020. Waveguide for vortex mode generation in HVAC cloud management communication, AIP Conference Proceedings 2020.
16. YEU, Y.H., SHAPIAI, M.I., ISMAIL, Z.H. and FAUZI, H., 2019. Investigation on different color spaces on faster RCNN for night-time human occupancy modelling, Proceeding - 2019 IEEE 7th Conference on Systems, Process and Control, ICSPC 2019 2019, pp. 118-121.
17. Aziz, N.A.A., Ibrahim, Z., Aziz, N.H.A., Mubin, M., Mokhtar, N., Shapiai, M.I. (2019), A fitness-based adaptive synchronous-asynchronous switching in simulated kalman filter optimizer, 2019 International Conference on Computer and Information Sciences, ICCIS 2019
18. Ab Rahman, T., Ibrahim, Z., Aziz, N.H.A., Aziz, N.A.A., Mohamad, M.S., Shapiai, M.I. (2019) Evaluation of different horizon lengths in single-agent finite impulse response optimizer, , 2019 International Conference on Computer and Information Sciences, ICCIS 2019
19. Ibrahim, Z., Azmi, K.Z.M., Ab Aziz, N.A., Aziz, N.H.A., Muhammad, B., Jusof, M.F.M., Shapiai, M.I. (2019) , An oppositional learning prediction operator for simulated kalman filter, Proceedings - 3rd International Conference on Computational Intelligence and Applications, ICCIA 2018 pp. 195-199
20. Aziz, N.H.A., Aziz, N.A.A., Jusof, M.F.M., Razali, S., Ibrahim, Z., Adam, A., Shapiai, M.I. ,An analysis on the number of agents towards the performance of the simulated kalman filter optimizer Proceedings - International Conference on Intelligent Systems, Modelling and Simulation, ISMS, pp. 16-21.
21. Aujih, A. B., Izhar, L. I., Meriaudeau, F., & Ibrahim Shapiai, M. (2018). Analysis of retinal vessel segmentation with deep learning and its effect on diabetic retinopathy classification. Paper presented at the International Conference on Intelligent and Advanced System, ICIAS 2018
22. Pramudita, B.A., Nugroho, Y.D., Ardiyanto, I., Shapiai, M.I. And Setiawan, N.A., 2018. Removing ocular artefacts in EEG signals by using combination of complete EEMD (CEEMD) – Independent Component Analysis (ICA) based outlier data, *Proceeding of 2017 International Conference on Robotics, Automation and Sciences, ICORAS 2017* 2018, pp. 1-5.
23. Fauzi, H., Shapiai, M. I., Khairuddin, U., Shah, S., & Ismail, Z. H. (2018). Investigation on energy extraction methods for EEG channels selection in improving common spatial pattern. Paper presented at the IET Conference Publications, 2018(CP750)
24. Haron, N., Jaafar, J., Aziz, I.A., Hassan, M.H. And Shapiai, M.I., 2018. Data trustworthiness in Internet of Things: A taxonomy and future directions, 2017 IEEE Conference on Big Data and Analytics, ICBDA 2017 2018, pp. 25-30.
25. Li, K.G., Shapiai, M.I., Adam, A., Ibrahim, Z. "Feature scaling for EEG human concentration using particle swarm optimization" (2017) Proceedings of 2016 8th International Conference on Information Technology and Electrical Engineering: Empowering Technology for Better Future, ICITEE 2016
26. Asyafie, M.A., Harun, M., Shapiai, M.I. And Khalid, P.I., 2014. Identification Of Phoneme And Its Distribution Of Malay Language Derived From Friday Sermon Transcripts, 2014 IEEE Student Conference On Research And Development, Scored 2014 2014.
27. Adam, A., Mokhtar, N., Mubin, M., Ibrahim, Z., Tumari, M.Z.M. And Shapiai, M.I., 2014. Feature Selection And Classifier Parameter Estimation For Eeg Signal Peak Detection Using Gravitational Search Algorithm, Proceedings - 2014 4th International Conference On Artificial Intelligence With Applications In Engineering And Technology, Icaiet 2014 2014, Pp. 103-108.
28. Adam, A., Chew, L.C., Shapiai, M.I., Jau, L.W., Ibrahim, Z. And Khalid, M., 2011. A Hybrid Artificial Neural Network-Naive Bayes For Solving Imbalanced Dataset Problems In

## **SEMINARS/WORKSHOPS**

1. Data Commuincation for KKTM Beranang, 2009
2. Machine Learning Workshop (17<sup>th</sup> Nov 2016)
3. Hands-On Electroencephalography (EEG) Workshop (18<sup>th</sup> Jan 2017)
4. GPU Deep Learning Workshop (22<sup>nd</sup> -23<sup>rd</sup> Aug 2017)
5. Short Course on Deep Learning (27<sup>th</sup> Jan 2018)
6. Moving Forward to Industry 4.0 Learning with Rashberry Pi, Python Programming and Internet of Things (IOT) Course in Institut Latihan Perindustrian Pedas (27<sup>th</sup> -30<sup>th</sup> Aug 2018)
7. Deep Learning Fundamentals In Computer Vision 1.0 for iTrain Asia in ADAX, The Vertical Business Suites, Bangsar South (7<sup>th</sup> Sept 2018)
8. Artificial Intelligence Deep Learning Application in MaGIC, Cyberjaya ( 21<sup>st</sup> Sept 2018)
9. CAIRO-NVIDIA Workshop (24<sup>th</sup> Sept 2018) Unleash The Power of AI in Malaysia
10. Fundamental of Deep Learning for Itrain Asia Training in Software Park Thailand (26<sup>th</sup> Oct 2018)
11. Artificial Intelligence Deep Learning Application in MaGIC, Cyberjaya (19<sup>th</sup> - 21<sup>st</sup> December 2018)
12. SEC301: Inroduction to Cyber Security in Grand Conpthorne Waterfront Hotel Singapore (18<sup>th</sup> - 23<sup>rd</sup> March 2019)
13. Fundamentals of Deep Learning for Computer Vision in iTrain (M) Sdn Bhd, KL Trillion (3<sup>rd</sup> April 2019)

## **THESIS**

1. Mohd Ibrahim Shapiai@Abd. Razak, Mono-To-Stereo & Beyond : AudiobSignal Separation, MS.c. Thesis, University of York, England, UK (2007).
2. Mohd Ibrahim Shapiai@Abd. Razak, Weighted Kernel Regression in Solving Small Sample Problems for Regression Framework and Its Variants, Ph.D. Thesis, Universiti Teknologi Malaysia, Skudai, Johor (2014).

## **EDITED BOOK**

1. Image Classification using EXIF Metadata of Images, Edited by M.I. Shapiai (2018)

## **BOOK CHAPTER**

1. M.I. Shapiai, Special topics in Propagation and Communication Engineering, Chapter of Mono-to-stereo & beyond audio Signal Separation, 2015, Pages 105.
2. M. Harun, M.I. Shapiai, P. Inayat. Khalid, S.Z.A. Hamid, F. A. Rahman, M. 'A. A. Ahmad, M.M.Mohamud, Room Acoustics and Sensor Characterization, Chapter of Optimum Loudspeaker Tilting for New Surau At-Taqwa, Skudai, 2015, Pages 17-31, UTM Press.

**PLENARY/CHAIRPERSON/ORAL POSTER PRESENTER/KEYNOTE ADDRESS / INVITED GUEST SPEAKER**

NO	ROLE	TITLE OF PROGRAMME	DATE	LOCATION
1	Chairperson	International Conference on Intelligent Systems, Modelling and Simulation, ISMS2011	23 <sup>rd</sup> – 24 <sup>th</sup> Jan 2011	Hotel Equatorial Kuala Lumpur
2	Chairperson	International Conference on Modelling, Simulation and Applied Optimization, ICMSAO2011	19 <sup>th</sup> -21 <sup>st</sup> April 2011	Impiana Hotel Kuala Lumpur
3	Chairperson	Asia Modelling Symposium AMS2011	23 <sup>rd</sup> May 2011	Hotel Equatorial Kuala Lumpur
4	Chairperson	Asia Modelling Symposium AMS2015	25 <sup>th</sup> July 2013	Pacific Regency Hotel, Kuala Lumpur
5	Chairperson	International Conference on Intelligent Systems, Modelling and Simulation, ISMS2015	9 <sup>th</sup> -10 <sup>th</sup> Feb 2015	Pacific Regency Hotel, Kuala Lumpur
6	Chairperson	First International Conference On Micro & Nano Technologies, Modelling and Simulation 2016 (Mntsim2016)	1 <sup>st</sup> -3 <sup>rd</sup> March 2016	Pacific Regency Hotel, Kuala Lumpur
7	Speaker	Academic Talk on Brain Computer Interface for Engineering Application	11 <sup>th</sup> Dec 2016	FKE, UITM Pasir Gudang, Johor
8	Speaker	High Index Journal Publication Workshop	28 <sup>th</sup> -29 <sup>th</sup> Aug 2017	Multimedia University, Melaka
9	Speaker	Image Classification Workshop	25 <sup>th</sup> Sept 2017	Kolej Universiti Islam Antarabangsa Selangor
10	Speaker	Artificial Intelligent Workshop	6 <sup>th</sup> Oct 2017	3F Resources Sdn. Bhd.
11	Speaker	HPC, Grid, Cloud & Identity Summit 2017 (HGCI2017)	27 <sup>th</sup> -28 <sup>th</sup> Nov 2017	UTP CAPE, Kuala Lumpur
12	Speaker	Journal Writing Workshop	18 <sup>th</sup> -19 <sup>th</sup> Dec 2017	UMP, Pahang
13	Chairperson	Asia Modelling Symposium AMS2017	4 <sup>th</sup> -6 <sup>th</sup> Dec 2017	Le Meridien Hotel, Kota Kinabalu, Sabah
14	Visiting Speaker	Global Learning Week for Deep Learning Course	21 <sup>st</sup> May – 1 <sup>st</sup> June 2018	Telkom Bandung University, Indonesia
15	Moderator	ICORS Round Table Discussion "The Ethics of Artificial Intelligence"	20 <sup>th</sup> Feb 2019	Institut Kefahaman Islam Malaysia (IKIM), Kuala Lumpur, (20 <sup>th</sup> February 2019)
16	Guest Speaker	Promoting Study Seminar in UTM MJIT	22 <sup>nd</sup> Feb 2020	RUKO ABC (Arenka Bisnis Center) Pekanbaru, Riau
17	Speaker	Sharing Session with Deputy Dean (R&I) MJIT " Industrial Collaboration: The Beginning Journey"	24 <sup>th</sup> April 2020	MJIT, UTMKL
18	Chairperson	The 9 <sup>th</sup> International Conference on Computational Intelligence, Communication Systems and Networks CICSYN2019	29 <sup>th</sup> -30 <sup>th</sup> October 2020	Pacific Regency Kuala Lumpur
19	Presenter	Innovation Prevention of Covid-19 Product	2 <sup>nd</sup> August 2020	School of Mechanical Engineering, UTM JB
20	Keynote Speaker	Webinar Faculty of Engineering and Informatics Universitas PGRI	10 <sup>th</sup> August 2020	Webex

		Semarang “ Science, Technology and Industry for Scientists and Engineers”		
21	Panel Forum	Forum Pengurusan Geran PPRN	12 <sup>th</sup> March 2021	Zoom

## PROFESSIONAL SERVICES

### Consultation and Training

NO	ROLE	TITLE OF PROGRAMME	DATE	LOCATION	TOTAL INCOME GENERATED (RM)
1	Project Leader	Machine Learning Workshop	17 <sup>th</sup> Nov 2016	CAIRO	2,850.00
2	Project Leader	Moving Forward to Industry 4.0 Learning with Rashberry Pi, Python Programming and Internet of Things (IOT) Course	27-30 Aug 2018	Institut Latihan Perindustrian Pedas	19,500.00
3	Project Leader	Development of Artificial Intelligent (AI) Tracking Device for Biomedical Application	14 <sup>th</sup> Dec 2018 – 9 <sup>th</sup> June 2019	MIMOS Semiconductor Sdn Bhd	31,800.00
4	Project Leader	Artificial Intelligence Deep Learning Models for Picture-Based Defect Classification	26 <sup>th</sup> July 2019- 25 <sup>th</sup> Jan 2021	Cuatro Services Sdn. Bhd.	35,000.00
5	Project Leader	Penyelidikan Pembangunan Sistem Operasi High Performance Computing (HPC) Untuk Pusat Kajian Lembangan Sungai, NAHRIM	1 <sup>st</sup> Aug 2020 - 28 <sup>th</sup> Feb 2021	National Hydraulic Research Institute of Malaysia (NAHRIM)	500,000.00
6	Project Leader	Development of Artificial Intelligence Inspection System on Thermography Images For 33kV Switchgears & System Migration	14 <sup>th</sup> Oct 2020-15 <sup>th</sup> June 2021	TNB Research Sdn. Bhd.	170,000.00

### Endowment and Wakaf to University

NO	NAME OF ENDOWMENT AND WAKAF	TOTAL CONTRIBUTION (RM)
1	Tabung Endowmen Pejabat Timbalan Naib Canselor (Penyelidikan & Inovasi )	1,000.00
2	Tabung Endowmen Pejabat Timbalan Naib Canselor (Penyelidikan & Inovasi )	12,000.00

### Copyright

NO	NAME OF COPYRIGHT	STATUS OF COPYRIGHT	CATEGORY
1	The Software Development for Detect the Defect of Wafer Semiconductor by using Artificial Intelligence (AI)	Approved	Main Inventor



2	Program to Predict Rheological behavior of Magnetorheological Fluid	Approve	Co-Inventor
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