



UNIVERSITI PERTAHANAN NASIONAL MALAYSIA

CURRICULUM VITAE



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1. Academic Background, Research Interest & H-Index

(i) Qualification

Num	Qualification	Field	University	Year
1	PhD	Environmental Statistics	University of Glasgow, United Kingdom	2012
2	MSc	Quality Management and Productivity	Universiti Kebangsaan Malaysia	1999
3	BSc (Hons.)	Statistics	Universiti Kebangsaan Malaysia	1998

(ii) Research Interest

Num	Field	Area
1	Statistics, Mathematics and Artificial Intelligence	<ul style="list-style-type: none"> Data Science, Machine Learning, Wavelet Analysis, Temporal and Spatial Modelling, and Data Mining.
2	Science	<ul style="list-style-type: none"> Climate Change, Water Quality, Air Quality, Hydrology and Chemical Physics.
3	Social Science	<ul style="list-style-type: none"> Education and Management.

(iii) H-Index

Num	Index	H-Index
1	Web of Science	15
2	Scopus	15
3	Google Scholar	18

2. Association, Administration and Fellowship

I. Association (International and National)

Num	Association/ University	Position
1	Apple Teacher Learning Center	Certified Apple Teacher
2	Educator @ Virtual Learning Environment (Ministry of Higher Education)	Certified Content Creator
3	Institution of Geospatial & Remote Sensing Malaysia (IGRSM)	Professional & Life Member
4	Malaysia Board of Technologists (MBOT)	Professional Technologist (Atmospheric Science & Environment Technology)
5	Malaysia Board of Technologists (MBOT)	Graduate Technologist
6	Malaysia Institute of Statistics (ISM)	Life Member
7	Malaysian Mathematical Sciences Society (PERSAMA)	Life Member
8	Territorial Army Regiment (RAW) / Reserve Officer Training Unit (PALAPES)	Commissioned Officer (Commissioned by the King of Malaysia in 1998)

II. (Administration and Fellowship (International, National, University & Faculty/ Centre))

(i) UPNM (2023-Present)

Num	Institute/ Center/ Committee	Status	Level	Year
1	Malaysia Institute of Statistics (ISMy)	Vice President	National	2024-2026
2	Department of Environmental Health, Faculty of Public Health, Universitas Airlangga (UNAIR)	Adjunct Professor	International	1 July 2023 – 31 Dec 2023
3	Institute of Climate Change, UKM	Principal Associate Fellow	National	1 July 2023- 30 June 2025
4	Cluster of Climate Change and Environment	Head of Committee	University	1 Oct 2023 – 30 Sept 2025
5	Core Group for Academic Development and Research Expert (CADRE)	Research Expert (R, Minitab & SPSS Softwares)	Centre of Defence Foundation	1 Oct 2023 – 30 Sept 2025

(ii) UKM (2000-2023)

Num	Institute/ Center/ Committee	Status	Level	Year
1	Malaysia Institute of Statistics (ISMy)	Member of a Council	National	2022-2024
2	Institute of Climate Change	Senior Associate Fellow	University	2014-2020/ 2021-2023
3	Center of Excellence in Engineering Education	Associate Fellow	University	2021-2024
4	Center of Research and Water Analysis	Associate Fellow	University	2021-2023
5	Teaching and Learning (Department of Engineering Education, Faculty of Engineering & Built Environment)	Coordinator	Faculty	2020-2023
6	Active Learning (Appointed by Prof Ir Dato Dr Mohd Marzuki Mustafa (Deputy Vice Chancellor))	Ambassador	University	2020-2022
7	Verbal Thesis Examination (Appointed by Prof Ir Dato Dr Mohd Hamdi Abd Shukor (Vice Chancellor))	Chairperson	University	2019 - present

8	Program of Fundamental Engineering, Faculty of Engineering & Built Environment (Appointed by Prof Tan Sri Datuk Seri Dr Noor Azlan Ghazali (Vice Chancellor))	Head	University	2018-2020
9	Center of Research of Tasik Chini (UNESCO Project)	Associate Fellow	University	2015-2017
10	Domain of Quantitative and Qualitative Reasoning, Centre of Citra (Appointed by Prof Tan Sri Datuk Seri Dr Noor Azlan Ghazali (Deputy Vice Chancellor))	Head	University	2013-2015
11	Project on The Effects of Reclamation at Selat Johor (Project under Department of Environment Malaysia)	Research Fellow	National	2012-2015
12	Unit of Fundamental Engineering	Acting Head	Faculty	Sept – Nov 2013
13	Webmaster (Unit of Fundamental Engineering)	Head	Faculty	2016-2018
14	Webmaster (Department of Civil Engineering)	Head	Faculty	2013-2015

3. Award and Appreciation

(i) UPNM (2023 – Present)

Num	Award/ Appreciation	Level	Year
1	Excellent Performance	University	2023

(ii) UKM (2000 – 2022)

Num	Award/ Appreciation	Level	Year
1	International Teaching of Apple & Microsoft Award	University	2022
2	20 Years of Service Award	University	2021
3	Excellent Service Award (APC)	University	2017
4	Excellent Lecturer (Innovation Award UKM)	University	2014
5	Salary Increment	University	2006
6	Exemplary Lecturer	Faculty of Engineering UKM	2003

(iii) Miscellaneous

Num	Award/ Appreciation	Level	Year
1	Outstanding Researcher Award	International Conference on Engineering and Computing.	2020
2	Reward on Publication GP-2019-K011210 (RM7,000)	University	2020
3	Reward on Publication (GP-2020-K011210) (RM10,000)	University	2019
4	Innovation and E-Learning	University	2019
5	Competition of Innovation in Teaching & Learning (Silver Medal)	National	2018
6	Competition of Innovation in Teaching & Learning (Bronze Medal)	National	2017

4. Previous/ Current Employment

No.	Employer	Position	Year	Course	Level
1	National Defence University of Malaysia (UPNM)	Lecturer	2023 - Present	1) Research Methodology 2) Mathematics II 3) Statistics For Social Science	PhD/ MSc/ MEng Foundation Foundation
2	National University of Malaysia (UKM)	Lecturer & Lab Demonstrator	2000-2007 & 2012-2022	1) Research Methodology 2) Water Quality Modelling 3) Quality System 4) Engineering Statistics 5) Vector Calculus 6) Linear Algebra 7) Differential Equation 8) Communication 9) Fluid Mechanics in Civil Engineering	PhD/ MSc/ MEng MSc/ MEng MSc BEng BEng BEng BEng BEng
3	ASASlpintar Pre-University Program (UKM)	Lecturer	2020-2021	1) Statistics	Foundation

4	Open University Malaysia (OUM)	Subject Matter Expert, Student Guide's Writer & Tutor	2014-Present	<ol style="list-style-type: none"> 1) Evaluation and Health Outcomes Research 2) Applied Statistics 3) Statistics For Educational Research 4) Statistical Quality Control 5) Project Quality Management 6) Project Risk Management 7) Project Cost & Appraisal 	PhD PhD/ DBA/ DN MSc MSc MBA/ MPA MBA/ MPA MBA/ MPA
5	University of Glasgow, United Kingdom	Teaching Assistant	2008-2011	<ol style="list-style-type: none"> 1) Statistics for Biologist 2) Statistics for Psychology 	BSc BSc
6	Akademik Tentera Malaysia	Lecturer (Freelance)	2002-2005	<ol style="list-style-type: none"> 1) Engineering Mathematics 2) Mathematics for Management 	BEng BSc
7	International College of Yayasan Melaka	Lecturer	1999 - 2000	<ol style="list-style-type: none"> 1) Engineering Mathematics 2) Engineering Statistics 	Diploma Diploma
8	Binary University	Lecturer	1998 - 1999	<ol style="list-style-type: none"> 1) C Programming 2) Visual Basic Programming 3) Networking System 4) Business Mathematics 5) Operating System 	Diploma Diploma Diploma Diploma Diploma
9	National University of Malaysia (UKM)	Research Assistant	1998	-	-

5. Panel of External Assessor for Promotion

Num	Name	Position Applied	Field of Expertise	University	Year
1	Dr. Halim bin Razali	Associate Professor (DS54)	Energy and Solar	UKM	2024
2	Dr Norshahida Shaadan	Associate Professor (DS54)	Statistics	UiTM	2024
3	Dr. Sharmila Karim	Associate Professor (DS54)	Mathematics	UUM	2024

4	Dr. Adyda Ibrahim	Associate Professor (DS54)	Mathematics	UUM	2023
5	Dr. Mohamad Shukri Abdul Hamid	Associate Professor (DS54)	Statistics	UUM	2023

6. Consultation

Num	Project	Status	Amount (RM)	Year
1	Program Data Alam Sekitar di Sepanjang Selat Johor dan Sekitar Batuan Tengah dan Tubir Selatan	Committee Member	2,929,212.68	2015-2017

7. Program Assessor, Coursework Developer & Teaching

7a. Program Assessor

Num	Program	Period of Appointment	Level	University
1	Bachelor of Science in Mathematics With Statistics (Hons)	30 October 2023 – 29 October 2025	BSc	Universiti Industri Selangor (UNISEL)
2	Master of Education (Data Science)	7 June 2022 – 30 July 2023	MSc	Universiti Perguruan Sultan Idris (UPSI)

7b. New Coursework Developer (UKM)

Num	Course	Course Code	Level	Status
1	Research Methodology	KKKF6013	PhD, MEng & MSc	Compulsory
2	Water Quality Modelling	KKKA6453	MSc	Elective
3	Engineering Statistics	KKKQ2023	BEng	Compulsory
4	Statistical Methods for Data Analytics		BEng	Elective

7c. Teaching

(i) UPM (2023-Present)

Num	Course	Lecture/Tutorial	Hours	Semester/Session	Level
1	Statistics For Social Science (FMA0164)	Lecture	8 hours/week	1/ 2024-2025	Foundation
2	Research Methodology (STEMS)	Lecture	3 hours/semester	2/ 2023-2024	PhD and MSc

3	Mathematics II (FMA0126)	Lecture	12 hours/ week	2/ 2023-2024	Foundation
4	Statistics For Social Science (FMA0164)	Lecture	8 hours/ week	1/ 2023-2024	Foundation
5	Mathematics II (FMA0126)	Lecture	12 hours/ week	2/ 2022-2023	Foundation

(ii) **UKM (2000-2023)**

Num	Course	Lecture/ Tutorial	Hours	Semester/ Session	Level
1	Engineering Statistics (KQ2023)	Lecture	6 hours/ week	2/ 2022-2023	BEng
2	Research Methodology (KF6004)	Lecture (PKP)	3 slots/ semester	1/ 2022-2023	PhD/MSc
3	Vector Calculus (KQ1123)	Lecture	6 hours/ week	1/ 2022-2023	BEng
4	Engineering Statistics (KQ2023)	Lecture	6 hours/ week	2/ 2021-2022	BEng
5	Research Methodology (KF6004)	Lecture (PKP)	3 slots/ semester	1/ 2021-2022	MSc
6	Vector Calculus (KQ1123)	Lecture	6 hours/ week	1/ 2021-2022	BEng
7	Engineering Statistics (KQ2023)	Lecture	6 hours/ week	2/ 2020-2021	BEng
8	Research Methodology (KF6004)	Lecture (PKP)	2 slots/ semester	1/ 2020-2021	MSc
9	Vector Calculus (KQ1123)	Lecture	6 hours/ week	1/ 2020-2021	BEng
10	Engineering Statistics (KQ2023)	Lecture	6 hours/ week	2/ 2019-2020	BEng
11	Research Methodology (KF6004)	Lecture (PKP)	2 slots/ semester	1/ 2019-2020	MSc
12	Vector Calculus (KQ1123)	Lecture	6 hours/ week	1/ 2019-2020	BEng
13	Data Analytic & Management (LMCM2022)	Lecture & MOOC	2 hours/ week	2/ 2018-2019	BEng
14	Vector Calculus (KQ1123) (Kuwait Program - Repeaters)	Lecture	3 hours/ week	2/ 2018-2019	BEng
15	Engineering Statistics (KQ2023)	Lecture	6 hours/ week	2/ 2018-2019	BEng
16	Linear Algebra (KQ1123)	Lecture	3 hours/ week	1/ 2018-2019	BEng
17	Research Methodology(KF6004)	Online Lecture	3 hours/ semester	1/ 2018-2019	PhD/MSc
18	Vector Calculus (KQ1123) (Kuwait Program)	Lecture	6 hours/ week	2/ 2017-2018	BEng
19	Water Quality Modelling (KA6453)	Lecture	3 hours/ week	2/ 2017-2018	MSc
20	Engineering Statistics (KQ2023)	Lecture	6 hours/ week	2/ 2017-2018	BEng

21	Vector Calculus(KQ1123)	Lecture	3 hours/ week	1/ 2017-2018	BEng
22	Research Methodology(KF6004)	Online Lecture	3 hours/ semester	1/ 2017-2018	PhD/MSc
23	Vector Calculus(KQ1123)	Lecture	6 hours/ week	3/ 2016-2017	BEng
24	Water Quality Modelling (KA6453)	Lecture	3 hours/ week	2/ 2016-2017	MSc
25	Engineering Statistics (KQ2024)	Lecture	6 hours/ week	2/ 2016-2017	BEng
26	Research Methodology(KF6004)	Lecture	3 hours/ semester	1/ 2016-2017	PhD/MSc
27	Differential Equation(KQ1224)	Lecture	6 hours/ week	1/ 2016-2017	BEng
28	Vector Calculus(KQ1124)	Lecture	6 hours/ week	3/ 2015-2016	BEng
29	Engineering Statistics (KQ2024)	Lecture	6 hours/ week	2/ 2015-2016	BEng
30	Research Methodology(KF6004)	Lecture	3 hours/ semester	1/ 2015-2016	PhD/MSc
31	Vector Calculus (KQ1124)	Lecture & Tutorial	6 hours/ week	1/ 2015-2016	BEng
32	Engineering Statistics(KQ2024)	Lecture	6 hours/ week	2/ 2014-2015	BEng
33	Research Methodology(KF6004)	Lecture	3 hours/ semester	1/ 2014-2015	PhD/MSc
34	Vector Calculus(KQ1124)	Lecture	6 hours/ week	1/ 2014-2015	BEng
35	Engineering Statistics(KQ2024)	Lecture	6 hours/ week	2/ 2013-2014	BEng
36	Research Methodology(KF6004)	Lecture	3 hours/ semester	1/ 2013-2014	PhD/MSc
37	Vector Calculus(KQ1124)	Lecture	6 hours/ week	1/ 2013-2014	BEng
38	Linear Algebra(KQ1224)	Lecture	6 hours/ week	2/ 2012-2013	BEng
39	Linear Algebra(KQ1113)	Lecture	6 hours/ week	2/ 2006/2007	BEng
40	Engineering Statistics(KQ2013)	Lecture	6 hours/ week	1/ 2006/2007	BEng
41	Calculus (KQ1223)	Lecture	6 hours/ week	2/ 2005/2006	BEng
42	Engineering Statistics(KQ2013)	Lecture	6 hours/ week	1/ 2005/2006	BEng
43	Linear Algebra & Vector Calculus(KF1223)	Lecture	6 hours/ week	2/ 2004/2005	BEng
44	Fluid Mechanics in Civil Engineering (KH2133)	Lab	3 hours/ week	1/ 2004/2005	BEng
45	Engineering Statistics(KF2013)	Lecture	3 hours/ week	1/ 2004/2005	BEng
46	Linear Algebra & Vector Calculus(KF1223)	Lecture	3 hours/ week	2/ 2003/2004	BEng

47	Engineering Statistics(KF2013)	Lecture	3 hours/ week	2/ 2003/2004	BEng
48	Engineering Statistics(KF2013)	Lecture	3 hours/ week	1/ 2003/2004	BEng
49	Differential Equation(KF1193/ KF1313)	Lecture	3 hours/ week	1/ 2003/2004	BEng
50	Linear Algebra & Vector Calculus(KF1223)	Lecture	6 hours/ week	2/ 2002/2003	BEng
51	Engineering Statistics(KF2033)	Lecture	3 hours/ week	1/ 2002/2003	BEng
52	Differential Equation(KF1193)	Lecture	3 hours/ week	1/ 2002/2003	BEng
53	Differential Equation(KF1193)	Lecture	3 hours/ week	2/ 2001/2002	BEng
54	Engineering Statistics(KF2033)	Lecture	3 hours/ week	2/ 2001/2002	BEng
55	Quality System (KP6373)	Lecture	3 hours/ week	2/ 2001/2002	MSc
56	Engineering Statistics(KF2033)	Lecture	3 hours/ week	1/ 2001/2002	BEng
57	Linear Algebra & Vector Calculus(KF1223)	Lecture	3 hours/ week	1/ 2001/2002	BEng
58	Differential Equation(KF1193))	Lecture	6 hours/ week	2/ 2000/2001	BEng
59	Linear Algebra & Vector Calculus(KF1223)	Lecture	6 hours/ week	1/ 2000/2001	BEng

8. Supervision, External and Internal Examiners

8a. Supervisor - Postgraduate (Full Research Based) – Completed

(i) UKM

Num	Year	Role	Student	Thesis Title	Level	Status
1	2015/2024	Co-supervisor	Ezahtulsyahreen Ab Rahman	Modelling of Air Quality in Malaysia	PhD	Completed
2	2013/2024	Co-supervisor	Farahani Bt. Mohd Saimi	The effects of Climate Change on Palm Oil Production via Statistical Approaches	PhD	Completed
3	2012/2022	Main Supervisor	Siti Hawa Binti Mohd Yusoff	Time Series Modeling and Determination of Streamflow Characteristics of Langat River Basin	PhD	Completed

4	2018/ 2022	Main Supervisor	Fatimah Bibi Binti Hamzah	Random Robust Regression Imputation Method For Estimating Missing Data With The Presence Of Outliers Langat River Basin Streamflow	PhD	Completed
5	2013/ 2020	Main Supervisor	Mohd Norulhisham Bin Abd Rashid	The Development of Authentic Assessment for Mechanical Courses & Maintenance in Polytechnics in Malaysia	PhD	Completed
6	2014/ 2020	Co- supervisor	Ariff Azly Bin Muhammed	Halal Supply Chain Management In Pharmaceutical Industries	PhD	Completed
7	2012/ 2019	Co- supervisor	Ahmad Danboos	Water Scarcity In Iraq : The Dependence On Water Supply By Euphrates And Tigris And The Measures To Secure The Water Demand Of The Country By 2025	PhD	Completed
8	2015/ 2019	Co- supervisor	Mohd Ridwan Bin Abd Razak	The Relationship Between Reward Management Based on Performance, Organization Perception and Attitude	PhD	Completed
9	2016/ 2019	Main Supervisor	Mohammed Falah Allawi	Artificial Intelligence Based Models for Evaporation, Inflow & Storage	PhD	Completed (Graduate on Time)
10	2013/ 2017	Main Supervisor	Nur Deana Najwa Binti Zainal	The Effect of Climate Change: Changes in Intensity and Number of Rainy Days	MSc	Completed
11	2014/ 2017	Co- supervisor	Nimisha K.	Heavy metal concentration in Tasik Chini	MSc	Completed
12	2014/ 2016	Co- supervisor	Zaher Mundher Yaseen	Artificial Intelligence Based Model For Stream- Flow Forecasting	PhD	Completed
13	2011/ 2016	Co- supervisor	Nadya Hussin Als bani	Phytoremediation of Wastewater Containing Hydrocarbon Using Lepironia Articulate	PhD	Completed
14	2011/ 2016	Co- supervisor	Ali Habeb Kashmar	Development of New Stream Ciphers	PhD	Completed

15	2011/ 2016	Co-supervisor	Ahmad Amri Bin Zainal Adnan	The Relationship Between Religiosity Behaviour and High Level of Working Culture Among The Administrators in Public Universities in Klang Valley.	PhD	Completed
16	2011/ 2015	Co-supervisor	Wan Nur Fazlina Binti Abdol Jani	Marine Pollution in North port (Malaysia) Bhd.	MSc	Completed
17	2009/ 2013	Co-supervisor	Israa Abdulwahab Hammoudi Al-Baldawi	Phytoremediation of Hydrocarbon in Wastewater Using Scirpus Grossus.	PhD	Completed
18	2009/ 2013	Co-supervisor	Salmi Nur Ain Binti Sanusi	Hydrocarbon Phytoremediation Using Paspalum scrobiculatum L. Hack and Paspalum vaginatum Sw.	MSc	Completed
19	2009/ 2013	Co-supervisor	Siti Norleela Binti Selamat	Solid Waste Phytoremediation Using Melastoma Malabathricum L.	MSc	Completed

8b. Supervisor - Postgraduate (Full Research Based) – In Progress

(i) UPM

Num	Year	Role	Student	Mode	Title	Level	Status
1	2024/ 2028	Main supervisor	Hasliza Ramli	Full Time Student	Assessment of PM2.5, O3 and CO Concentrations and Its Response To The Changes of VOC and Meteorological Parameters Using Statistical and Machine Learning Approaches in Malaysia	PhD	In Progress

2	2023-2027	Co-supervisor	Dr. Mohamad Wisman Abdul Kadir	Full Time Student	Perincian Morfologi dan Molekular Ameba Hidup Bebas Patogenik Bawaan Air dan Logi Rawatan Air Mentah	PhD	In Progress
3	2023-2027	Co-supervisor	Azyyati Syuhada Borhana	Full Time Student	Model Specification Problems In A Linear Structural Relationship Model for Circular Data	PhD	In Progress
4	2023-2025	Co-supervisor	Nurul Dayana Razuki	Full Time Student	Analysis of Tail Dependence on Return Periods of Multivariate Extreme Rainfall	MSc	In Progress

(ii) UKM

Num	Year	Role	Student	Mode	Title	Level	Status
1	2024/2028	Co-supervisor	Ahmad Tarmizi Mohd Azmi	Full Time Student	Remote Sensing	PhD	In Progress
2	2023/2027	Co-supervisor	Salwa Binti Mustafa Din	Full Time Student	Geostatistics of PM2.5, O3 and CO Concentrations	PhD	In Progress
3	2023/2029	Co-supervisor	Akram Tha Abbas Al Aoef	Part Time Student	Data Mining On Soil	PhD	In Progress

4	2019/ 2026	Co- supervisor	Munirah binti Mohd Fadzil	Part Time Student	Statistical Analysis On Significant Impact Of Climate Change Parameters And Sea Level Rise Over The Time Period In Selangor, Malaysia	PhD	In Progress
5	2019/ 2026	Co- supervisor	Nur Suaidah Binti Rosli	Part Time Student	Spatial Prediction of Water Quality Assessment on Sungai Semenyih (Malaysia)	PhD	In Progress
6	2019/ 2021	Co- supervisor	Nurul Huda Mislan	Part Time Student	Artificial Intelligence in Prediction of Slope Stability	PhD	Withdrawn
7	2019/ 2021	Co- supervisor	Erza Nandan a Sembiri ng	Part Time Student	Predcition od streamflow	PhD	Withdrawn
8	2016/ 2021	Co- supervisor	Hazrina Tajudin	Full Time Student	The effects of Streamflow and Water Stage on Flood Events	PhD	In Progress
9	2016/ 2021	Co- supervisor	Mohd Faisal Bin Zaini	Full Time Student	Spatial Analysis on Poverty in Perlis	PhD	Withdrawn

(iii) USM

Num	Year	Role	Student	Mode	Title	Level	Status
1	2024/ 2026	Co- supervisor	Al Mahmud	Full Time Student	Elucidating an Arima-LSTM Hybrid Model for Forecasting and Improving Covid- 19 Decision Making	Master	In Progress

(iv) **UNITEN**

Num	Year	Role	Student	Mode	Title	Level	Status
1	2021-2028	Field Supervisor	Suhib Aref Hussein Alrtaimat	Full Time Student	Statistical Quality Control for Performance Improvement of Engineering Students 'A Study from Jordan'	PhD (Industrial Science - Structure A)	In Progress

8c. Supervisor - Postgraduate (Coursework) – Completed

(i) **UKM**

Num	Year	Role	Student	Mode	Title	Level	Status
1	2021/2023	Main Supervisor	Muhamad Faiz Bin Ab Rahman	Full Time Student	The Impact Of Funding On Halal's Cerified SME Performance: Forecast Versus Actual	MSc	Completed
2	2020/2021	Main Supervisor	Sharifah Dora Binti Syed Abdul Bahri	Full Time Student	Kajian Kepuasan Majikan Terhadap Pelajar Kejuruteraan dan Kemahiran di Institut Latihan Kemahiran Awam (ILKA)	MSc	Completed
3	2012/2015	Co-Supervisor	Nur Zulaikha Binti Onn	Full Time Student	Penilaian dan Pemantauan Persekitaran	MSc	Completed

(ii) OUM

Num	Year	Role	Student	Mode	Title	Level	Status
1	2020-2023	Main Supervisor	Mohammad Sirajuddin Sabaruddin	Full Time Student	Data Center Relocation (DCR) implementation project from on premise infrastructure to cloud computing have significant growth for past two years.	Master of Project Management	Completed

8d. External Examiner - Postgraduate Students (Full Research Based)

(i) International (PhD)

Num	Student	Title	Level	University	Year
1	Nadeem Akhtar	Bayesian Estimation of Single and Mixture Geometric Model Using Novel Censoring Schemes	PhD	Department of Statistics, Islamia College Peshawar	2023

(ii) National (PhD)

Num	Student	Title	Level	University	Year
1	Amina Ahmed Ali Belal	Temporal Dynamics of Urban Particulate Matters in Malaysia during 2018-2021	PhD	UKM	2024
2	Aliyu Abba Mustapha	Bayesian Spatiotemporal Modelling With Interaction Effect For Measles Cases In Northeastern Nigeria	PhD	UPM	2024
3	Hairulliza Mohamad Judi	Development And Effectiveness Evaluation of Visual Data Analytic Learning Module (Adavis) To Enhance Statistical Mastery and Meaningful Learning	PhD	UKM	2024
4	Zhang Rui	Novel Deep Learningbased Models for Air Quality Prediction: Addressing Non-Stationary and Spatio-Temporal Issues	PhD	USM	2024
5	Mohammad Nasarudin Adnan	Hybrid Method Mechanism of Multi-Layer Feed Forward Neural Network (MLFNN) for Biometry Regression Model	PhD	USM	2024

6	Rabiu Sani	Optimization of Inventory Management in Small and Medium-Sized Enterprises: Intergrating Dynamic Demands Deterioration Defectiveness and Backlogging	PhD	USM	2024
7	Nurshazneem Binti Roslan	2 Satisfiability Rawak Bersyarat Dalam Rangkaian Diskrit Neural Hopfield Untuk Mempertingkatkan Perlombongan Logik	PhD	USM	2024
8	Gwani Abdullahi Alhaji	The Impacts Of Transiting To Green Energy In African: Evidence From GIS Mapping And Spatial Panel Models	PhD	USM	2024
9	Feng Caicai	A Novel Dynamic Evolutionary Model Integrating Discrete Hopfield Neural Network With Satisfiability Problems And Its Applications In Image Encryption And Decryption	PhD	USM	2024
10	Alenezy Abdullah Hobaykanna A	Improving Forecasting Accuracy For Time Series Data Using Fuzzy Techniques And Wavelet Transform	PhD	USM	2024
11	Shebani Aboalyem Mustafa Abdulsalam Ba	Unraveling The Spatial Patterns of COVID-19 Pandemic in the MENA Region: A Geospatial Modelling Analysis of Sociodemographic Determinants	PhD	USM	2024
12	Ro'ya Saleh Faleh Al Dibi'i	Modified Iterative Estimation Method for Fitting Measurement Error Model	PhD	USM	2024
13	Nurul Hafizah Binti Azizan	Bayesian Estimation of Latent Traits Parameters in a Polytomous Rasch Rating Scale Model for Subjective Well-Being Responses Survey	PhD	UiTM	2024
14	Faraz Ahmed Farooqi	Developing A New Methodology : A New Dimension Of Linear Regression Model And Its Application In Biostatistics	PhD	USM	2024
15	Nur Atiqah Binti Hazali	Rainfall Events Estimation Using Cloud Brightness Temperature Of Himawari-8 In The Centre West Of Peninsular Malaysia	PhD	UiTM	2024

16	Wu Yimin	Exploring The Relationships Between China's Crude Oil Futures Market And Other Related Markets : New Findings	PhD	USM	2024
17	Nur Atiqah Binti Hazali	Extreme Rainfall Estimation using Cloud Brightness Temperature of Himawari-8 in The Center West of Peninsular Malaysia	PhD	UiTM	2023
18	Lim Bao Man	Data Panel Dan Penganggaran Model Data Reruang Bagi Kadar Pengangguran Untuk Negara Asia Terpilih	PhD	USM	2023
19	Sun Jun	Develop Hopfield Neural Networks Using Gaussian Distributed Small World Topology For Visual Object Tracking	PhD	USM	2023
20	Shahzad Hazik	Prediction Classification and Modelling Using Decion Tree with Ordered Regression and Its Application To The Health Sciences Research	PhD	USM	2023
21	Irdayu Binti Ibrahim	Pendekatan Kesepaduan Simulasi Peristiwa Diskrit, Analisis Penyampulan Data dan Proses Hieraraki Analitik bagi Perancangan Kapasiti di Jabatan Kecemasan	PhD	USM	2023
22	Abedelmalek Kaleft Sleeman Tabnjh	Devoloping A New Hybrid Regression Model: An Application in Herbal Medicine Related to Oral Health Knowledge and Practice	PhD	USM	2023
23	Mohd Danial Doreme	Kaedah Optimasi bagi mendapatkan nilai parameter Weibull: Suatu kajian terhadap laju angin di Mersing.	PhD	UKM	2023
24	Amani Idris A Sayed	Modeling the Modified Internal Rate of Return (MIRR) for Long-Term Investment Strategy by the Assumption of Gamma Distributions	PhD	USM	2022
25	Alshammari Tariq Saleh T	Maximum Overlapping Discrete Wavelet Methods for Modelling Saudi Stock Exchange	PhD	USM	2022
26	Muhammad Azeem	Developing a New Dimension of Prognostic Logistic Regression Model of the Survival Cancer Patients.	PhD	USM	2022
27	Rashedi Khudhayr Abdullah M	Modeling and Detecting of Outlier Values in Saudi Stock Exchange	PhD	USM	2022

28	Abubakar Hamza	Transformed Modified Internal Rate of Return on The Assumption of Weibull Distribution for Long Term Investment Modelling	PhD	USM	2022
29	Farid Zamani Bin Che Rose	Pengesanan Titik Terpencil dan Putusan Berstruktur di Dalam Model Keadaan-Ruang Menggunakan Pendekatan Petunjuk Ketepuan	PhD	USM	2022
30	Soban Qadir	Developing a Methodology: Modelling Two Factor Analysis in Design of Experiment Towards Regression Approach Using Multi-Layer Feed-Forward Neural Network and Its Application in Biostatistics.	PhD	USM	2022
31	Adejoh Friday Oduh	Application Of Two-Stage Game Cross-Efficiency Approach To Primary Health Care In Nigeria	PhD	USM	2021
32	Muhammad Azeem	Developing A New Dimension Of Prognostic Logistic Regression Model Of The Survival Cancer Patients.	PhD	USM	2021
33	Sayed Mohibul Hossen	Model Building and Forecasting of Climate Data for Tourism Area in Bangladesh	PhD	USM	2021
34	Md Jamal Hossain	A Hybrid Markov Switching GARCH Model Approach for Improving Volatility Dynamics	PhD	USM	2021
35	Sarsour Wajeih M A	The Performance Of Adjusted Internal Rate Of Return For Equity Investment Assessment: A Markov Chain Approach	PhD	USM	2021
36	Anam Jarvaid	Efficient Model Selection Through Standard Operating Procedure Using Hybrid Of Sparse And Robust Estimators	PhD	USM	2020
37	Ida Normaya Mohd Nasir	Structural Breaks and Outliers in ASEAN Shariah Compliant Indices	PhD	USM	2020

(iii) National (Master)

Num	Student	Title	Level	University	Year
1	Muhd Amirul Mat Lazin	Alternative Method To Develop New Strategy In Ordinal Regression: A Case Study In Health Science Data	MSc	USM	2024
2	Mohd Faris Fauzi	An Investigation Into Flood Phenomena in Peninsular Malaysia Using Copulas & Related Nonparametric Statistics.	MSc	UPNM	2021
3	Chai Kah Chun	An Enhancement Of Hybrid GA-SARIMA-ANN In Forecasting The Palm Oil Export In Malaysia	MSc	UTHM	2021
4	Muhd Azim Mohd Nasir	Outliers And Structural Breaks Detection In Autoregressive Model By Indicator Saturation Approach	MSc	USM	2020
5	Muhd Zulhafiz Zulkurnain	An Early Warning System Using Markov Regime Interchange for Selected Bank in Malaysia	MSc	USM	2019
6	Nur Wahyu Izzati Abd Aziz	The Rate of Change & Its Determination: Finite Mixed Analysis	MSc	USM	2019

8e. Internal Examiner - Postgraduate Student (Full Research Based)

Num	Student	Title	Level	University	Year
1	Fatin Najihah Badarisam	Statistical problems on Circular Simultaneous Functional Relationship Model for Unequal Variances	PhD	UPNM	2024
2	Mohammed Saleh Jaballa Alghadi	Hydraulic Modeling of Road Drainage During Tropical Flash Floods	PhD	UKM	2021

8f. Supervisor – Undergraduate Students

(i) UPNM (2023-Present)

Num	Year	Role	Student	Title	Level	Status
1	2024	Co-Supervisor	Muhamm ad Nor Aieman Mokhtar	Comparison Of Endurance, Agility and Strength Between Forwards And Backline Position In NDUM Rugby Players	BSc	In Progress
2	2024	Co-Supervisor	Nor Syazwani Rosman	Tahap Kepuasan Kemudahan Sukan Pada Atlit UPNM	BSc	In Progress
3	2024	Co-Supervisor	Muhamm ad Islahuddin Mohd Rosdi	Relationship Between Agility and Speed Performance Among UPNM Hockey Players.	BSc	In Progress
4	2024	Co-Supervisor	Gilbert Tiong Sie Jium	Perbandingan Tahap Kelajuan Pembakaran Lemak Bahagian Atas Badan Di Kalangan Atlet Gym Yang Baru Dan Elit Berumur 18-22 Tahun	BSc	Completed

(ii) UKM (2020-2023)

Num	Year	Role	Student	Title	Level	Status
1	2022	Main Supervisor	Anis	Perubahan Kepekatan Bahan Pencemar Dalam Udara Sebelum, Semasa dan Selepas Perintah Kawalan Pergerakan (PKP) Ketika Wabak Covid-19 di Malaysia	BEng	In Progress
2	2022	Main Supervisor	Athirah	Kesan Faktor Meteorologi Terhadap Partikel Terampai (PM2.5) dan Kedalaman Optik Aerosol (AOD)	BEng	In Progress

3	2022	Main Supervisor	Alissa	Kesan karbon monoksida terhadap indeks pencemaran udara di Selangor menggunakan model Rangkaian Neural Buatan	BEng	In Progress
4	2021	Main Supervisor	Hoe Zi Yang	Analisis Statistik Terhadap Pulau Haba Bandar Dan Kesan Bumbung Hijau Dalam Penggunaan Tenaga	BEng	Completed
5	2021	Main Supervisor	Nur Adura Binti Azni	Variasi Kepekatan Ozon Troposfera, O ₃ Kesan Kepada Perubahan Parameter Meteorologi Di Bandar Dan Luar Bandar Dengan Kaedah Statistik	BEng	Completed
6	2021	Main Supervisor	Ogi Alfian Bin Mulyanto	Variasi Siri Masa Bagi Zarah Terampai Pm ₁₀ , Pm _{2.5} & Nisbah Pm _{2.5} /Pm ₁₀ Di Bandar & Luar Bandar Dengan Kaedah Statistik	BEng	Completed
7	2020	Main Supervisor	Ahmad Nazri	Pemodelan Berstatistik Terhadap Peramalan Ozon Permukaan Dengan Menggunakan Kaedah Pembedulan	BEng	Completed
8	2020	Main Supervisor	Alyaa Najihah	Senario Ozon Permukaan Dan Kualiti Udara Mengikut Kawasan Dan Musim Monsun	BEng	Completed
9	2019	Main Supervisor	Wong Khai Seen	Modeling Of Sea Level During High Tide Using Statistical Method And Neural Network	BEng	Completed
10	2019	Main Supervisor	Mohd Nabil Fikri	Spatial-Temporal Assessment Of Marine Water Quality Using Statistical Approach	BEng	Completed

11	2018	Main Supervisor	Nur Amira	Return Period of Tidal in Peninsular Malaysia	BEng	Completed
12	2018	Main Supervisor	Sabrina	Water Quality of Marine Water	BEng	Completed
13	2018	Main Supervisor	Zahin	The Effect of Meteorological Parameters In the Airport	BEng	Completed
14	2017	Main Supervisor	Syazriena Bahari	Spatial Variation of Heavy Metal in Marine Water	BEng	Completed
15	2017	Main Supervisor	Siti Nur Syuhada Mohammed	Temporal Changes of Salinity in Marine Water	BEng	Completed
16	2016	Main Supervisor	Nor Nazatul Syima Muhamad	The Statistical Analysis On The Distribution Of Oil And Grease In Marine Water.	BEng	Completed
17	2015	Main Supervisor	Umie Nor Ain Abdullah	The Assessment of Concrete Strength via Probability Analysis	BEng	Completed
18	2014	Main Supervisor	Muhammad Imran Mohd Junaidi	Multivariate Analysis on Water Quality Parameters in Ocean	BEng	Completed
19	2006	Main Supervisor	Asnani Abu Jamal	Time Series Analysis on Rainfall in Serdang	BEng	Completed
20	2006	Main Supervisor	Mohd Anis Anuar	Water quality Modelling At Sungai Langat via Multiple Regression.	BEng	Completed
21	2006	Main Supervisor	Mohd Zool Fazlee Basir	Time Series Regression on Temperature, Humidity and wind Speed in PJ and Subang.	BEng	Completed
22	2006	Main Supervisor	Nurul Huda Resad	Air quality Modelling in Shah Alam and Kajang via Multiple Regression.	BEng	Completed

23	2006	Main Supervisor	Lee Ik Wen	Time Series Modeling on Water Stage and Streamflow at Sungai Langat	BEng	Completed
24	2006	Main Supervisor	Nurul Ashikin Mahat	Modelling on water Stage and Streamflow at Sungai Langat in Kajang and Dengkil via ARIMA.	BEng	Completed
25	2005	Main Supervisor	Mohd Yazmil Md Yatim	Modelling Rainfall and Streamflow at Sungai Langat via Exponential Smoothing Technique.	BEng	Completed
26	2005	Main Supervisor	Siti Halimah Hassim	Modelling Rainfall in Kajang via Pseudo-Addition Decomposition Method.	BEng	Completed
27	2005	Main Supervisor	Mohd Muhaimin Mansor	Modelling Rainfall and Streamflow at Sungai Lui via ARMA	BEng	Completed
28	2005	Main Supervisor	Mohd Suhaizad Sauti	Modelling Water Stage and Streamflow at Sungai Langat in Kajang and Dengkil via ARMA.	BEng	Completed
29	2005	Main Supervisor	Mohd Azmer Md Zainol	Time Series Regression on Streamflow at Sungai Langat in Dengkil.	BEng	Completed
30	2005	Main Supervisor	Azura Sharina Md Sidek	The Relationship Between Rainfall and Streamflow: A Case Study at Sungai Lui and Sungai Langat.	BEng	Completed
31	2005	Main Supervisor	Nur Hafidzan Idris	The Analysis of Parameter on The Shifting of The Use of Public Transport in Bangi.	BEng	Completed
32	2005	Main Supervisor	Hani Nadzirah Razali	Water Resource Study: The Relationship Between Rainfall and Streamflow at Sungai Semenyih.	BEng	Completed

33	2004	Co-Supervisor		The effect of Land Use on Streamflow: A Case Study at Sungai Lui and Sungai Langat in Kajang.	BEng	Completed
34	2004	Co-Supervisor		Statistical Analysis on Sediment at Sungai Langat.	BEng	Completed
35	2004	Co-Supervisor		Parameter Analysis on The Shifting of Vehicle Usage From Individual to Public Transportation in Bangi.	BEng	Completed
36	2004	Co-Supervisor		Spatial Analysis Between The Rainfall and Water Flow at Langat River, Dengkil.	BEng	Completed
37	2004	Co-Supervisor		Statistical Analysis on the sediment of Langat River	BEng	Completed

8g. Supervisor - Industrial Training (Department of Civil Engineering, UKM)

Num	Year	Role	Course Code	Student	Outcome
1	2005	Supervisor	KF3065	Sabariah Samsudin	Industrial Report
2	2005	Supervisor	KF3065	Marianie Md Aris	Industrial Report
3	2005	Supervisor	KF3065	Nurul'ain Ab. Jalil	Industrial Report
4	2005	Supervisor	KF3065	Siti Hafifah Abd. Wahid	Industrial Report
5	2004	Supervisor	KF3065	Nur Hafidzan Idris	Industrial Report
6	2004	Supervisor	KF3065	Azura Sharina Md. Sidek	Industrial Report
7	2003	Supervisor	KF3065	Muhd Nazri Burhan	Industrial Report
8	2003	Supervisor	KF3065	Nurhayati Abu Bakar	Industrial Report
9	2003	Supervisor	KF3065	Rohani Ali	Industrial Report
10	2003	Supervisor	KF3065	Toh Xin Yee	Industrial Report

8h. Supervisor - Industrial Training (Other University)

Num	Year	Role	University	Student	Outcome
1	2021	Supervisor	UTHM	Muhd Zharif	Industrial Report

9. Publication

9a. Journal – Editor & Reviewer

9a1. Editorial Board

Num	Board/ Committee/ Title	Date	Journal	Status
1	Associate Editor	2023-2025	ZULFAQAR Journal of Defence Science, Engineering & Technology (JDSET)	Google Scholar
2	Board of Reviewer	2023- Present	Jurnal Kesehatan Lingkungan	Scopus
3	Associate Editor	2022-2024	Journal of Statistical Modeling & Analytics (Josma)	MyJurnal
4	Associate Editor (Special Issue)	2022	Jurnal Kejuruteraan	WOS ESCI
5	Member of Editorial Board	2018-2020	Journal of Information and Communication Technology	Scopus

9a2. Reviewer

Num	Board/ Committee/ Title	Date	Journal	Status
1	Recognition of Problematic Vehicle Licence Plates using Deep-Learning	2024	Expert Systems With Applications	WOS Q1
2	Spatio-temporal fusion of meteorological factors in hybrid directed graph neural networks for multi-city PM2.5 prediction	2024	Environmental Pollution	WOS Q1

3	Cooperative Patrol Routing: Optimizing Crime Surveillance through Multi-Agent Reinforcement Learning	2024	Expert Systems With Applications	WOS Q1
4	Development of a coupled Multiple Linear Regression and Artificial Neural Network methods for forecasting of Pollution Index in Khamissiya Canal, Thi Qar Province, Iraq	2024	Heliyon	WOS Q1
5	Prediction of Tropospheric Ozone in the Northern Zone of the Metropolitan Area of Lima using a Multilayer Perceptron Neural Network Model	2024	Heliyon	WOS Q1
6	Review and intercomparison of machine learning applications for short-term flood forecasting	2024	Water Resource Management	WOS Q1
7	Relative Humidity Prediction Across the Indian Subcontinent Using Kumaraswamy Distribution Based non-Gaussian Model	2024	Environmental Science and Pollution Research	WoS Q1
8	Development of Integrated Machine Learning Model for Estimation of Spatial Distribution of Particulate Matter Pollutant in Air	2024	Environmental Science: Advances	WoS Q2
9	Pharmaceutical Stocks Prediction Using LSTM Regression	2024	MATEMATIKA	WoS ESCI
10	Evaluating the long-term strength of GGBFS-blended cement across various water-to-binder and superplasticizer ratio under heating/cooling cycles	2024	PLOS ONE	WoS Q1
11	Sediment particle sizes and river discharge implications on shoreline change along Anlo Beach, Ghana.	2024	Regional Studies in Marine Science	WoS Q2
12	Investigating the performance of PERSIANN-CDR and AMSR satellite-based data for determining the inflow values into the dam reservoir (case study: ZayandehRoud dam reservoir)	2024	Heliyon	WOS Q1
13	Multiobjective optimization of construction parameters for tunneling undercrossing an existing tunnel	2024	Engineering Applications of Artificial Intelligence	WoS Q1
14	Disaggregation of Monthly to Daily Streamflow Data: A Case Study of the Nile River Basin	2024	Journal of Hydrology: Regional Studies	WoS Q1
15	Exploring the compound nature of coastal flooding by tropical cyclones: a machine learning framework	2024	Journal of Hydrology	WoS Q1
16	Real-Time Assessment of PM2.5 Risk Levels in Industrial Environments: A LightGBM-Fuzzy BiLSTM IoT Monitoring Framework	2024	Expert Systems With Applications	WOS Q1

17	Urban PM2.5 Pollution Dynamics In Petaling Jaya, Malaysia: A Temporal Approach	2024	Journal of Quality Measurement and Analysis	WoS ESCI
18	Analysis and forecasting of Air Pollution on Nitrogen Dioxide and Sulfur Dioxide using Deep Learning	2024	Frontiers in Environmental Science	WOS Q2
19	Assessment of Rainfall Data Imputation Techniques: A Comparative Study with Focus on Thai Rainfall Dataset	2024	Journal of Engineering Research	WoS Q4
20	Improving water Consumption Management: A Study on Socio-Economic-climate Factors using optimized Support Vector Regression by Modified Horse Herd Optimizer (MHHO) and Shared Socioeconomic Pathways (SSPs)	2024	Heliyon	WOS Q1
21	Does China's crude oil futures market have a role in determining the impact of international oil price shocks on China's economy?	2024	Resources Policy	WOS Q1
22	Enhanced Policy Search in Reservoir Management through Bootstrap Aggregation-based Adaptive Synthetic Algorithm	2024	Journal of Hydrology	WoS Q1
23	Demand forecasting analysis with learning models using hydropower plant data in Turkey	2024	Heliyon	WOS Q1
24	How to improve collaborative performance in carbon mitigation and air pollution control? A spatio-temporal study based on evidence from 284 cities in China	2024	Environmental Science and Pollution Research	WoS Q1
25	Prediction Model of PM2.5 from Forest and Land Fires in the Sumatra Region using Deep Learning Algorithm	2024	International Journal of Electrical and Computer Engineering	WOS ESCI
26	Factors Influencing Mud Crab Fattening Rates: Insight From Cox Proportional Hazards Regression Modelling	2024	Jurnal Teknologi	Scopus
27	Forecasting Water Consumption Trends using optimal Support Vector Regression based on a new optimization algorithm and Socio-Economic-Weather Parameters under Shared Socioeconomic Pathways (SSPs)	2023	Heliyon	WOS Q1
28	Statistical Modeling of Indus River Outflow at Tarbela Dam using Generalized Gumbel Type 2 Distribution	2023	Water Resource Management	WOS Q1

29	Digital Meme Marketing Campaigns and its Lead Generation Effectiveness for the Generation Z Segment	2023	Journal of Computational Innovation and Analytics (JCIA)	MyJurnal
30	Developing an Ensembled Machine Learning Model for Predicting Water Quality Index in Johor River Basin	2023	Environmental Sciences Europe	WOS Q1
31	Past and projected future rainfall variability and change in Southern Ethiopia	2023	Heliyon	WOS Q1
32	Impact of Transportation Infrastructure and Urbanization on Environmental Pollution: Evidence from Novel Wavelet Quantile Correlation Approach	2023	Environmental Science and Pollution Research	WoS Q1
33	Time-varying relationship between fossil fuel-1 free energy indices and economic uncertainty: global evidence from wavelet coherence approach	2023	Environmental Science and Pollution Research	WoS Q1
34	Quantifying Regional Low flows under Data Scarce Conditions	2023	Heliyon	WOS Q1
35	Comparative Analysis of Machine Learning Models for Prediction of Surface Water Quality	2023	Environmental Monitoring and Assessment	WoS Q2
36	Improvement of dam inflow prediction accuracy using deep learning based on the combination of a metaheuristic optimization algorithm and gradient descent-based optimizer	2023	Journal of Hydrology	WoS Q1
37	Role of the Government towards stock markets and Carbon Emissions. Evidence from wavelet approach	2023	Environmental Science and Pollution Research	WoS Q1
38	Natural baseline level of groundwater in Malaysia based on groundwater physicochemical Elements	2023	Groundwater for Sustainable Development	WOS Q1
39	Counterbalancing energy consumption, trade openness, and economic growth from consumption-related carbon dioxide emission: Do governance, human capital and environmental technology innovation matter?	2023	Environmental Science and Pollution Research	WOS Q1
40	When orientations matter: Modelling employee orientation, shareholder orientation and supply chain orientation as necessary and sufficient conditions for firm performance	2023	Heliyon	WOS Q1

41	Renewable energy harvesting of the Peninsula Malaysia hot springs using geoscientific characterization	2023	Geothermics	WOS Q1
42	Using Artificial Intelligence tools to analyze particulate matter data (PM2.5)	2023	Aerosol and Air Quality Research	WOS Q2
43	A techno-economic assessment of sCO ₂ Brayton cycles for low-grade geothermal reservoirs	2023	Geothermics	WOS Q1
44	Spatiotemporal Variation of the Water Resources Carrying Capacity Based on the PSDR-DP model	2023	Water Resource Management	WOS Q1
45	Analysis of particulate matter data (PM2.5) during the COVID-19 outbreak using tools of artificial intelligence.	2023	Aerosol and Air Quality Research	WOS Q2
46	A Novel Water Quality Index for Surface Water	2023	Heliyon	WOS Q1
47	Market Risk Data Analytics for Selected Asian Stock Markets during the Pandemic COVID-19	2023	Journal of Quality Measurement and Analysis	MyCite
48	Financial Market Predictions With Deep Learning	2023	Journal of Quality Measurement and Analysis	MyCite
49	Prediction Of Compaction Parameters Of Fine-Grained Soils In Terms Of Atterberg Limits In Pahang, Malaysia	2022	Jurnal Kejuruteraan	WOS ESCI
50	Measuring Stability Period of Post-Closure Sanitary Landfill in Malaysia using Double Exponential Smoothing	2022	Jurnal Kejuruteraan	WOS ESCI
51	The Development of the Future Learning Skills for graduates in TVET by using Focus Group Discussion	2022	Jurnal Kejuruteraan	WOS ESCI
52	The Pervasiveness Of Antibiotic Bacteria And Physiochemical Water Quality Analysis Of Segong River, Bau, Sarawak	2022	Sains Malaysiana	WOS Q4
53	Multivariate statistical analysis of multiple elements in <i>Anisodus tanguticus</i> (Maxim.) Pascher from different regions to determine geographic origins and their relationships with soil and environmental factors	2022	Heliyon	WOS Q2
54	Uncertainty Quantification and Optimization Method Applied to Time-Continuous Geothermal Energy Extraction	2022	Geothermics	WOS Q1

55	Committee of Reviewer Article: A new EWM-FCM approach to optimize the allocation of water ecology compensation funds	2022	Water Resources Management	WOS Q1
56	Committee of Reviewer Article: Analysis of PM10 Concentration Changes and Influencing Factors in Coal Port Area Based on K-means Clustering	2022	Maritime Business Review	WOS Q3
57	Committee of Reviewer Article: Changes in PM2.5 patterns using the clustering analysis: a case study in South Sumatra, Indonesia 2019-2021	2022	Acta Geophysica	WOS Q3
58	Committee of Reviewer Article: Confidence Interval For Parameters Estimates In Circular Simultaneous Functional Relationship Model (Csfrm) For Equal Variances Using Normal Asymptotic And Bootstrap Confidence Intervals	2022	Sains Malaysiana	WOS Q4
59	The Development of the Future Learning Skills for graduates in TVET by using Focus Group Discussion	2022	Jurnal Kejuruteraan	WOS ESCI
60	Measuring Stability Period of Post-Closure Sanitary Landfill in Malaysia using Double Exponential Smoothing	2022	Jurnal Kejuruteraan	WOS ESCI
61	Prediction Of Compaction Parameters Of Fine-Grained Soils In Terms Of Atterberg Limits In Pahang, Malaysia	2022	Jurnal Kejuruteraan	WOS ESCI
62	Committee of Reviewer Article: <i>Estimating Reservoir Properties Using Downhole Temperature and Pressure Data</i>	2021	Geothermics	WOS Q1
63	Committee of Reviewer Article: <i>Comparison of the Calculated Drought Return Periods Using Tri-variate and Bivariate Copula Functions under Climate Change Condition</i>	2021	Water Resources Management	WOS Q1
64	Committee of Reviewer Article: <i>Performance Of A Novel Hybrid Model Through Simulation And Historical Financial Data</i>	2021	Sains Malaysiana	WOS Q3
65	Committee of Reviewer Article: <i>Development of Hydrodynamic Modelling for Salinity Assessment in The River System</i>	2021	International Journal of Integrated Engineering	Scopus
66	Committee of Reviewer Article: <i>Monitoring Groundwater Quality using Probability Distribution in Gwale, Kano state, Nigeria</i>	2021	Journal of Statistical Modeling and Analytics	-

67	Committee of Reviewer Article: <i>Bitcoin, emerging and frontier stock markets, GARCH, threshold autoregressive.</i>	2021	Journal of Science and Technology	Scopus
68	Committee of Reviewer Article: <i>Using the water quality index (WQI), and the synthetic pollution index (SPI) to evaluate the groundwater quality for drinking purpose in Hailun, China</i>	2020	Sains Malaysiana	WOS Q3
69	Committee of Reviewer Article: <i>Monthly streamflow forecasting using ELM-IPSO based on phase-space reconstruction</i>	2019	Water Resources Management	WOS (Q1)
70	Committee of Reviewer Article: Random	2018	Journal of Advanced Manufacturing Technology	Scopus
71	Committee of Reviewer Article: <i>Hydrological Change Effects on Langat River Water Quality</i>	2017	Sains Malaysiana	WOS (Q3)
72	Committee of Reviewer Article: <i>Kajian Analisis Ramalan Pelemahan Hujan dan Peta Rekaan Berkontur Semenanjung Malaysia.</i>	2017	Journal of Engineering, UKM	WOS ESCI
73	Committee of Reviewer Article: <i>Physicochemical Parameters of Bakun Reservoir in Belaga, Sarawak, Malaysia, 13 Months After Reaching Full Supply Level.</i>	2013	Sains Malaysiana	WOS (Q3)
74	Committee of Reviewer Article: <i>Kajian Analisis Ramalan Pelemahan Hujan dan Peta Rekaan Berkontur Semenanjung Malaysia</i>	2013	Journal of Engineering, UKM	WOS
75	Committee of Reviewer of Engineering Education Journal (PEKA 2014) Article: Random	2013 & 2014	JESTEC/ Journal of Technology	Scopus
76	Committee of Reviewer Article: Random	2004-2007	Journal of Engineering, UKM	WOS ESCI

9b. Journal - Publication

9b1. WOS/ Scopus Indexed Journal

Num	Journal	WOS/ Scopus
1	Siti Hasliza Ahmad Rusmili, Firdaus Mohamad Hamzah, Khairul Nizam Abdul Maulud, Mohd Talib Latif. 2024. Exploring Temporal and Spatial Trends in PM2.5 Concentrations in the Klang Valley, Malaysia: Insights for Air Quality Management. <i>Water, Air and Soil Pollution</i> . 235:401: 1-18.	WOS Q2
2	Anji Reddy Polu, Pramod K. Singh, Aseel A. Kareem, Shufeng Song, Serguei V. Savilov, M.Z.A. Yahya, Markus Diantoro, Firdaus Mohamad Hamzah, S.N.F. Yusuf, Faisal Islam Chowdhury. 2024. Enhancing Ionic Conductivity, Mechanical Stability and Electrochemical Properties Simultaneously by integrating POSS-PEG13.3 Hybrid Nanoparticles into PEO-NaClO4 Solid Polymer Electrolytes. <i>Chemical Physics Impact</i> . https://doi.org/10.1016/j.chphi.2024.100778	WOS Q2
3	Mohammad Wisman Abdul Hamid, Roslaini Bin Abd Majid, Victor Fiezal Knight Victor Ernest, Nik Noorul Shakira Mohamed Shakrin, Firdaus Mohamad Hamzah, Mainul Haque. 2024. A Narrative Review of Acanthamoeba Isolates in Malaysia: Challenges in Infection Management and Natural Therapeutic Advancements. <i>Cureus</i> 16(11):e72851. DOI 10.7759/cureus.72851.	WOS Q3
4	Ismafatin Nabilah Ismail, Mohd Khairul Amri Kamarudin, Wan Nor Azilawanie Tun Ismail, Noorjima Abd Wahab, Ahmad Shakir Mohd Saudi, Mohd Ekhwan Toriman, Firdaus Mohamad Hamzah, Septi Ariadi. 2024. A Review on Chemometrics and Climate Change: Insights from Malaysia Case Study. <i>Applied Environmental Research</i> . 46(3): 037	Scopus
5	Siti Hasliza Ahmad Rusmili, Firdaus Mohamad Hamzah, Lam Kuok Choy, R. Azizah, Lilis Sulistyorini, Ririh Yudhastuti, Khuliyah Chandraning Diyanah, Retno Adriyani and Mohd Talib Latif. 2023. Ground-Level Particulate Matter (PM2.5) Concentration Mapping in the Central and South Zones of Peninsular Malaysia Using a Geostatistical Approach. <i>Sustainability</i> . 15(23), 16169.	WOS Q2
6	Mohd Khairul Amri Kamarudin, Mohd Ekhwan Toriman, Noorjima Abd Wahab, Mohd Armi Abu Samah, Khairul Nizam Abdul Maulud, Firdaus Mohamad Hamzah, Ahmad Shakir Mohd Saudi, Sunardi Sunardi. 2023. Hydrological and climate impacts on river characteristics of pahang river basin, Malaysia. <i>Heliyon</i> . 9(11): 1-26.	WOS Q1
7	Ab. Rahman, E., Hamzah, F.M., Latif, M.T., Azid, A. 2023. Forecasting PM2.5 in Malaysia Using a Hybrid Model. <i>Aerosol Air Qual. Res</i> . 23(9): 1-18	WOS Q2

8	Firdaus Mohamad Hamzah, Mohd Khairul Azhar Mat Sulaiman, Zambri Harun, Azwan Kamari and Muhammad Zaki Abd Manaf. 2023. Assessment of Economic Worth of Green Roof: A Case Study In Putrajaya. <i>Planning Malaysia Journal</i> . 21(3): 284-295.	Scopus
9	Charli Sitingjak, Zurinah Tahir, Mohd Ekhwan Toriman, Novel Anak Lyndon, Vladimir Simic, Charles B.A. Musselwhite, Wiyanti Fransisca Simanullang, Firdaus Mohamad Hamzah. 2023. Assessing Public Acceptance of Autonomous Vehicles for Smart and Sustainable Public Transportation in Urban Areas: A Case Study of Jakarta, Indonesia. <i>Sustainability</i> . 15 (7445): 1-21.	WOS Q2
10	Ahmad Danboos, Suraya Sharil, Firdaus Mohamad Hamzah, Ayman Yafouz, Yuk Feng Huang, Ali Najah Ahmed, Abdel Azim Ebraheem, Mohsen Sherif, Ahmed El-Shafie. 2023. Water budget-salt balance model for calculating net water saving considering different non-conventional water resources in agricultural process. <i>Heliyon</i> , 9(4): 1-16	WOS Q1
11	Nurfarahida Ramly, Mohd Saifullah Rusiman, Shuhaida Ismail, Suparman, Firdaus Mohamad Hamzah, Ozlem Gurunlu Alma. 2023. An adjustment degree of fitting on fuzzy linear regression model toward manufacturing income. <i>International Journal of Artificial Intelligence</i> , 12(2): 543-551.	Scopus
12	Gan Pei Yee, Mohd Saifullah Rusiman, Shuhaida Ismail, Suparman, Firdaus Mohamad Hamzah, Muhammad Ammar Shafi. 2023. K-means clustering analysis and multiple linear regression model on household income in Malaysia. <i>International Journal of Artificial Intelligence</i> , 12(2): 731-738.	Scopus
13	Ariff Azly Muhamed, Norhuda Salim, Mohd Nizam Ab Rahman, Firdaus Mohd Hamzah & Mohd Helmi Ali. 2023. Effects of supply chain orientation on firm performance: insights from a Malaysian case study of halal-certified small and medium-sized enterprises. <i>Journal of Small Business & Entrepreneurship</i> , 35(6): 927-943.	Scopus
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9b2. Other Indexed Journal

Num	Journal
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4	Muhammad Faiz Bukhori, Abdul Halim Ismail, Firdaus Mohamad Hamzah. 2018. Evaluating Fourth-Year Electrical Engineering Student Classroom Communication at the Engineering and Built Environment Faculty, Universiti Kebangsaan Malaysia. <i>Journal of Social Sciences and Humanities</i> .
5	Firdaus Mohamad Hamzah*, Othman Jaafar, Muhammad Imran Mohd Junaidi & Azrul Abdul Mutalib, 2017. Temporal Analysis of Water Quality in The Straits of Johor. <i>Jurnal Kejuruteraan</i> . (Special Issue 1) 2017: 63-67
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10	Khairul A. Mastor, Firdaus M. Hamzah, Nik R. Yaaacob, Khamisah Jafar, 2007, Personality Profiles Of Malay And Chinese Engineering Students, <i>World Transactions on Engineering and Technology Education</i> , 6(2): 357-360
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9c. Conference Proceeding

9c1. WOS/ Scopus Indexed

Num	Proceeding
1	Firdaus Mohamad Hamzah; Ahmad Nazri Tajul Ariffin; Siti Hasliza Ahmad Rusmili. 2022. Modelling of Surface Ozone via Neural Network and Statistical Approaches. International Visualization, Informatics and Technology Conference (IVIT) 2022. Proceedings at IEEE Explore.
2	Siti Hasliza Ahamad Rusmili; Khairul Nizam Bin Maulud; Firdaus Mohamad Hamzah; Mohd Talib Latif. 2022. Trend Detection and Modelling the Changes of Ground Level Ozone. International Visualization, Informatics and Technology Conference (IVIT) 2022. Proceedings at IEEE Explore.
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13	Nimisha Krishnankutty, Mushrifah Idris, Firdaus Mohamad Hamzah, and Neethu Vijayan. 2016. Geochemical speciation and risk assessment of heavy metals in the surface sediments of Jemberau Lake, Tasik Chini, Malaysia. AIP Conf. Proc. 1784, DOI: 10.1063/1.4966861
14	Firdaus Mohamad Hamzah ^a , Othman Jaafar ^b , Samsul Rijal Mohd Sabri ^c , Mohd Tahir Ismail ^d , Khamisah Jaafar ^e and Norazman Arbin ^f , 2015, The Interaction of Physical Properties of Seawater via Statistical Approach, AIP Conf. Proc. 1677, DOI: 10.1063/1.4930782
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9c2. Non-Indexed

9c2a. International

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2	Firdaus Mohamad Hamzah, Nur Arzilah Ismail, Muhamad Alias Md Jedi, Noorhelyna Razali, Mohd Haniff Osman, Haliza Othman, Noraishikin Zulkarnain, Zambri Harun. 2021. The Effectiveness of New Teaching Style on The Students' Performance in Vector Calculus During Movement Control Order. K-Novasi 2021, Evolution Towards Borderless Learning: A Way Forward.
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44	Firdaus Mohamad Hamzah & Zainol Mustafa, 2001: The Application of Process Capability Index : A Study In Manufacturing Process. VII National Symposium of Mathematical Sciences, Faculty of Science & Technology, National University of Malaysia. Page 96 – 100.

9d. Book Reviewer/ Editor

Num	Book	Date	Publisher	Status
1	Qualitative Analysis Using NVivo 12	2020	USM	Reviewer

9e. Book

Num	Book
1	Wan Muhamad Amir Bin W Ahmad, Mohamad Nasarudin Bin Adnan, Firdaus Mohamad Hamzah, Nor Farid Mohamad Nor. 2025. <i>Practical Qualitative Research for Health Sciences: A Beginner's Manual Without Software Assistance</i> . Publisher: Universiti Sains Malaysia.
2	Wan Muhamad Amir Bin W Ahmad, Wan Suriana Wan Ab Rahman, Mohd Fadhli Khamis, Firdaus Mohamad Hamzah. 2024. <i>Design a Good Proposal and Writing a Excellence Thesis For Health Sciences</i> . Publisher: Universiti Sains Malaysia.

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1	Norshariani Abd Rahman, Lilia Halim, Chan Mee Yong, Firdaus Mohamad Hamzah. 2024. Peradaban Islam: Nilai Kompetensi Global Berkaitan Tingkah Laku Mitigasi Perubahan di Kalangan Pelajar. Publisher: National University of Malaysia.
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4	Masturah Markom, Firdaus Mohamad Hamzah, Izamarlina Asshaari & Nasrul Amir Abdul., 2016, <i>Penambahbaikan Kualiti Berterusan: Sistem pengurusan kualiti program kejuruteraan</i> . Selangor, 20-36. Publisher: National University of Malaysia.

5	Firdaus Mohamad Hamzah & Mohd Ekhwan Toriman, 2007, <i>The Status of Environment Towards the Nature's Balance and Development in Malaysia: Linear Regression Modeling on Langat river run-off at Genting Peres station, Kajang in Selangor</i> , Ed. Ke-1, 47-54
6	Firdaus Mohamad Hamzah & Mohd Ekhwan Toriman, 2007, <i>The Status of Environment Towards the Nature's Balance and Development in Malaysia: Time Series Modeling on Rainfall at Genting Peres Station in Kajang, Selangor</i> , Ed. Ke-1, 88-92
7	Haryati Che Lah, Mohd Ekhwan Toriman, Firdaus Mohamad Hamzah dan Hafizan Juahir, 2007, <i>The Status of Environment Towards the Nature's Balance and Development in Malaysia: Erosion of river bank : A Study at Lendu River, Alor Gajah, Melaka</i> , Ed. Ke-1, 73-78.
8	Firdaus Mohamad Hamzah, Zainol Mustafa & Hafizan Juahir. 2002: <i>Total Quality Management in Service Industry. Centre of Mathematical Sciences, Faculty of Science & Technology, National University of Malaysia. The Paper Works' Collection of Quality and Productivity Issues</i> . 55-71. Publisher: National University of Malaysia.

9g. Module

9g1. Editor

Num	Course	Year
1	Module Mathematics 1 (FMA 0116)	2023

9g2. Author

Num	Course	Year
1	Social Science Statistics (<i>Chapter 7: Hypothesis Testing</i>)	2023

9g3. Assessor

Num	Course	Year
1	Basic Mathematics (<i>Chapter 3: Linear Programming</i>)	2023

9h. Manuscript

9h1. Main Author

Num	Manuscript
1	Firdaus Mohamad Hamzah, Nasarudin Mustafa, 2003, The Application of Moving Average Control Chart in The Quality Control on The Blower Armature's Length.. Conference paper on "Integrating Technology In The Mathematical Sciences 2003", Universiti Sains Malaysia. 14-16 April 2003. Five pages.
2	Firdaus Mohamad Hamzah, Mohd Raihan Taha, Ahmad Jais Alias, 2003, The Application of Process Capability Index in the Manufacturing Process of Blower Armature. Conference paper on "Integrating Technology In The Mathematical Sciences 2003", Universiti Sains Malaysia. 14-16 April 2003. Four pages.

9h2. Co-Author

Num	Manuscript
1	Mohd Zaki Nuawi, Firdaus Mohamad Hamzah & Mohamad Hanif Md Saad, 2003, An Interactive Learning of Engineering Mathematics Via Internet. Regional Conference on "Integrating Technology In The Mathematical Sciences 2003", Universiti Sains Malaysia. 14-16 April 2003. Five pages.

9i. Technical Report

Num	Report
1	Firdaus Mohamad Hamzah dan Nasarudin Abdul Manaf, 2003, The Application of EWMA Control Chart in the Quality Control of Blower Armature's Length. Centre of Engineering Advancement, Faculty of Engineering, National University of Malaysia.
2	Firdaus Mohamad Hamzah, 2003, The Quality Control on Blower Armature's Length by Using CuSum Chart. Centre of Engineering Advancement, Faculty of Engineering, National University of Malaysia.
3	Firdaus Mohamad Hamzah, 2003, The Application of Process Capability Index in Manufacturing Process of Blower Armature for Non-Normal Data. Centre of Engineering Advancement, Faculty of Engineering, National University of Malaysia.

9j. Bulletin

Num	Bulletin
1	Firdaus Mohamad Hamzah & Zulkefli Mohd Nopiah, 2005: A Combination of \bar{X} dan S Control Charts In Quality Control of <i>Blower Armature</i> For Non-Normally Distributed Data. Quantitative Bulletin, INTAN. pg. 8-15

9k. Research Report

Num	Research Report
1	Prof. Madya Sr. Dr. Khairul Nizam Abdul Maulud, Ir. Dr. Othman Jaafar, Prof. Dato' Ts Dr. Mohd. Ekhwan Bin Toriman, , Dr. Mokhtar Bin Jaafar, Prof. Dr. Che Abd. Rahim Bin Mohamed, Prof. Dr. Zaidi Bin Che Cob, Wan Mohd. Lotfi Bin Wan Muda, Prof. Madya Dr. Wan Juliana Bt. Wan Ahmad, Prof. Dr. Norhayati Bt. Ahmad, Prof. Madya Dr. Firdaus Bin Mohamad Hamzah, Dr. Lam Kuok Choy, Mohammad Khairul Faizi Bin Zulkifli, Puan Aslinda Oon Binti Ridzuan Oon, Mohamed Fahmy Bin Yusof, Ir. Dr. Nur Shazwani Binti Muhammad, Mohd. Shahrin Bin Senik, Dr. Mohammad Rozaimi Bin Jamaludin, Dr. Wan Shafrina Binti Wan Mohd Jaafar, Khirunnisa Binti Mazelan, Azizah Binti Ahmad, Syarina Binti Md Sah, Ahmad Tarmizi Bin Mohd Azmi, Nur Khairun Ayuni Binti Jusoh Sukri. 2020. Program Data Alam Sekitar Di Sepanjang Selat Johor Dan Di Sekitar Batuan Tengah Dan Tubir Selatan. Pusat Cerapan Bumi, UKM.
2	Amiruddin Ismail, Riza Atiq Abdullah O.K.Rahmat, Firdaus Mohamad Hamzah, Nur Izzi Md Yusoff . 2019. Bus Scheduling Model (BSM) For Urban Area. PRGS.
3	Nur Arzilah Binti Ismail;Haliza Binti Othman;Zulkifli Bin Mohd Nopiah;Firdaus Bin Mohamad Hamzah;Khamisah Binti Jafar;Norngainy Binti Mohd Tawil;Mohd Haniff Bin Osman. 2018. Pendedahan Awal Matematik Kejuruteraan Dalam Projek Inovasi Sains Dan Teknologi Kejuruteraan Menerusi Pembelajaran Berasaskan Masalah (Pbm) Di Peringkat Sekolah Menengah.
4	Nur Shazwani Binti Muhammad;Othman Bin Jaafar;Firdaus Bin Mohamad Hamzah;Ahmed Hussein Kamel Ahmed Nasser Elshafie. 2018. Return Period And Risk Of Droughts In Penisular Malaysia. FRGS.
5	Mohd Jailani Mohd Nor, Norhamidi Mohamad, Azami Zaharim, Ramlee Mustafa, Khairul Anwar Mastor, Zulkifli Mohd Nopiah, Riza Atiq O. K. Rahmat, Firdaus Mohamad Hamzah, Khamisah Jafar, Nik Rusdi Yaacob, 2007, Laporan Akhir Penyelidikan Fundamental KK005/2005, Fakulti Kejuruteraan, Universiti Kebangsaan Malaysia, Penyelidikan Mengenai Pendidikan Kejuruteraan Berasaskan Hasil (PBH) Di Fakulti Kejuruteraan
6	Firdaus Mohamad Hamzah, Khairul Anuar Mastor, Nik Rusdi Yaacob & Khamisah Jafar. Personality, Cognitive Style & Factors of Academic Achievement Among The Second & Third Years Students in The Faculty of Engineering, National University of Malaysia. 2005. Centre of Engineering Advancement, Faculty of Engineering, National University of Malaysia.

7	Khamisah Jafar, Firdaus Mohamad Hamzah, Nik Rusdi Yacob & Ruhizan Mohamad Yassin. A Study on the Factors that Influenced the Performance Achievement of Mathematics Courses in the Faculty of Engineering, UKM. 2005. Centre of Engineering Advancement, Faculty of Engineering, National University of Malaysia.
8	Firdaus Mohamad Hamzah, Mohd. Raihan Taha, Ahmad Jais Alias. The Quality Improvement of Electrical Parts by Using Quality Control Charts. 2003. Centre of Engineering Advancement, Faculty of Engineering, National University of Malaysia.

10. Research

10a. Project Head

(i) UPNM (2023-Present)

Num	Title	Location	Duration	Status	Grant	Amount (RM)	Outcome
1	Statistical, Spatial Panel Data and Meta Ensemble Machine Learning Analysis and Modelling of The Effects of Meteorological Parameters on The Emission of Volatile Organic Compounds in Malaysia	Malaysia	3 Years (Aug 24- July 27)	Project Head	FRGS/1/2 024/STG0 6/UPNM/0 1/1	131,800.00	
2	Analisis Ruang Berstatistik Bagi Partikel Zarah Berdiameter Kurang Atau Bersamaan Dengan $2.5\mu m$ (PM2.5) Dan Hubungannya Dengan Parameter Meteorologi Dan Kualiti Udara.	Malaysia	2 Years (Aug 23- July 24)	Project Head	UPNM/20 23/GPJP/ STG/3	20.000.00	- 2 WOS Q2 Journals

(ii) UKM (2000-2023)

Num	Title	Location	Duration	Status	Grant	Amount (RM)	Outcome
1	Analisis Ruang dan Permodelan Bagi $PM_{2.5}$ Terhadap Kedalaman Aerosol Beroptik, Parameter Meteorologi dan Guna Tanah.	Malaysia	1 Year (Sept 22- Aug 23)	Project Head	Dana Impak Perdana	100,00.00	(Withdrawn)

2	Assessment Of Economic Worth Of Green Roof To Mitigate Urban Heat Island: A Case Study In Putrajaya	Putrajaya	1 Year (Apr 21 - Dec 22)	Project Head	KK-2021-011.	55,000.00	- 1 Scopus Journal - 1 Final Report - 5 Interim Reports 1 Proceeding
3	Modelling of PM2.5 Concentrations and Its Association With Meteorological Parameters and Air Pollutants In Malaysia	Malaysia	2.5 Years (Aug 20- Jan 23)	Project Head	GUP-2020-013	70,000.00	- 5 WOS Journals
4	Trend Analysis of Sea Level Rise In Peninsular Malaysia Via Statistical Approaches	Selangor, Peran & Negeri Sembilan	1 Year (Oct 17-Sept 18)	Project Head	ZF-2017-008	15,000.00	- 1 WOS Journals - 2 WOS Proceedings
5	An Integrated Statistical Data-Driven Analysis For Flood Frequency, Discharge And Water Stage.	Selangor	3 Years (Aug 16 – July 19)	Project Head	FRGS (FRGS/1/2016/STG 06/UKM/02/1)	81,700.00	- 3 WOS Journals - 2 WOS Proceedings
6	Statistical Analysis of Physical & Biological Parameters in Ocean Over The Year With Depth	Selat Johor & UKM	2.5 Years (Apr 13 – Sept 15)	Project Head	FRGS (FRGS/1/2013/SG04/UKM/02/3)	67,000.00	- 3 WOS/Scopus Journals - 4 WOS Proceedings
7	The Framework Strategy of the Development of Future Terrace House in Perak: A Survey on the Perception and Acceptance on Terrace House.	Perak	1 Year (Nov 12 – Oct 13)	Project Head	HEJIM (KOMUNITI-2012-035)	25,000.00	- Research Report
8	The Effects of Trend and Seasonality on Temperature and Water Quality	UKM	2.5 Years (Oct 12 – Mac 15)	Project Head	GGPM (GGPM-2012-075)	40,000.00	- 2 WOS/Scopus Journals - 4 WOS Proceedings
9	Personality, Cognitive Style And Academic Achievement Of The Engineering Students In The Faculty Of Engineering, Universiti Kebangsaan Malaysia.	UKM	1 Year (Jan 06- Dec 07)	Project Head	Short-Term Research Grant	5,000.00	-1 Journal -2 Proceedings
10	Quality Improvement on Electrical Components of Car via Control Chart	Kilang Denso Bangi	1 Year (Jan 02- Dec 02)	Project Head	Short-Term Research Grant	5,000.00	-1 Journal -2 Proceedings - Technical Report

10b. Co-Researcher

(i) UPNM (2023-Present)

Num	Title	Location	Duration	Status	Grant	Amount (RM)
1	Elucidating An Arima-Lstm Hybrid Model With Exogenous Variables For Forecasting And Improving Covid-19 Decision Making	Malaysia	2 Years (Oct 2023-Sept 2025)	Co-Researcher	FRGS/1/2023 /STG06/USM /03/3	72,240.00
2	Pembangunan Model Tingkah Laku Filantropi untuk Pemuliharaan Alam Sekitar dalam kalangan Masyarakat di Lembah Klang	Klang	2 Years (Oct 2023-Sept 2025)	Co-Researcher	FRGS/1/2023 /SSI03/UKM/ 03/1	79,340.00
3	Development of a new class of error-in-variables model specifically a linear structural relationship model for circular data: emphasis on parameter estimation and outlier detection	Malaysia	2 Years (Aug 2023-July 2024)	Co-Researcher	UPNM/2023/ GPJP/STG/5	20.000.00
4	Buried trauma: Understanding the Emotional Toll of Search and Rescue Operation in Batang Kali Landslide Disaster	Malaysia	2 Years (June 2023 – May 2025)	Co-Researcher	SF0138-UPNM/2023/ SF/SKK/4	None

(ii) UKM (2000-2023)

Num	Title	Location	Duration	Status	Grant	Amount (RM)
1	Statistical, Geostatistical And Machine Learning Analysis For Predicting Carbon Monoxide, Ambient Particulate Matter And Tropospheric Ozone	Malaysia	3 Years (Sept 22-Aug 25)	Project Head	FRGS/1/2022 /STG06/UKM /02/1	148,500.00
2	A New Framework of Deep Learning Coupled With Decomposition Techniques and Genetic Algorithm For Modelling Malaysian	Johor	3 Years (Sept 22 – Aug 25)	Co-Researcher	FRGS/1/2022 /ICT06/UTH M/03/1	115,000.00

	Hydrological Phenomena For Early Flood Warning System					
3	Program Data Alam Sekitar di Sepanjang Selat Johor, Sekitar Batuan Tengah dan Tubir Selatan	Johor	2 Years (Nov 20 – Jan 22)	Co-Researcher	ZF-2020-008	500,000.00
4	Simulasi Impak Perubahan Iklim dan Kenaikan Aras Laut serta Keseimbangan Morfologi Sungai Bagi Memastikan Sekuriti, Kuantiti dan Kelestarian Sistem Sungai di Dua (2) Lembangan Sungai Terpilih di Pulau Pinang.	Penang	2 Years (Jul 20 – Apr 22)	Co-Researcher	SK-2020-012	500,000.00
5	Influence of Adverse Flow Conditions in Multi-Channel Pump Intake Towards the Effectiveness of Anti-Vortex Device (AVD)	Malaysia	2.5 Years (Aug 20- July 23)	Co-Researcher	GUP-2020-015	70,000.00
6	Identifying the mismatch of the 21st Century Skills between engineering technology graduates and industry needs	Malaysia	2.5 Years (Aug 20- July 23)	Co-Researcher	GUP-2020-016	58,000.00
7	A model on `Learning to Action` towards transformative climate change education: Moderating effect of ethnic groups.	Selangor	3.5 Years (Dec 19 – Dec 23)	Co-Researcher	TRGS/1/2019 /UKM/01/3/4	139,200.00
8	Program Data Alam Sekitar Di Sepanjang Selat Johor Dan Di Sekitar Batuan Tengah Dan Tubir Selatan	Johor	5 Months (Aug 19 – Dec 19)	Co-Researcher	ZF-2019-012	499,600.00
9	Characterizing and Modelling Rail-based Public Transport Usage in Greater Kuala Lumpur and Klang Valley New topic: Characterizing and modelling of Rail-based Public Transport User Behaviour in Greater Kuala Lumpur and Klang Valley	KL	2 Years (Aug 17 – Aug 19)	Co-Researcher	FRGS/1/2017 /TK08/UKM/01/1	71,200.00

10	PINTAR - UKM Sustainability and Green Technology through iGHome Module (iG-HOME) Module Development	UKM	2 Months Oct 2016- Dec 2016	Co- Researcher	ZF-2016-016	20,000.00
11	Program Data Alam Sekitar Di Sepanjang Selat Johor Dan Sekitar Batuan Tengah Dan Tubir Selatan	Johor	3 Years (Sept 15 – Dec 18)	Co- Researcher	ZF-2015-026	2,929,212.68
12	Enhancing Community Participation Through "UKM Zero Waste Campus Project" 2	UKM	1 Year (June 2015 – Sept 2016)	Co- Researcher	DPP-2015- 080	5,000.00
13	Holistic Sustainable Development Management in Tasik Chini Biosphere Reserve Area	Tasik Chini	2 Years (Nov 14 – Oct 16)	Co- Researcher	AP-2014-021	300,000.00
14	Integrated Development Surface Water Quality Monitoring in UKM Bangi Forest Reserve	UKM	2 Years (Aug 14 – July 16)	Co- Researcher	AP-2014-008	190,000.00
15	Return Period and Risk of Droughts in Penisular Malaysia	Malaysia	4 Years (Dec 2014- May 2018)	Co- Researcher	FRGS/2/2014 /TK02/UKM/0 3/2	112,000.00
16	Enhancing Community Participation Through "UKM Zero Waste Campus Project"	UKM	1 Year (Apr 2014 – Mar 2015)	Co- Researcher	DPP-2014- 073	30,000.00
17	Ke arah penambakan pengajaran dan pengajaran bersepadu dalam kursus matematik kejuruteraan melalui strategi pengajaran aktif serta pengukuran dan penilaian berkesan	UKM	2 Years (Aug 2014 – Jul 2016)	Co- Researcher	PTS-2014- 036	20,000.00
18	The fundamental simulation model for bus service reliability at high frequency (regularity) operation	Selangor	3 Years Dec 13 – Dec 16)	Co- Researcher	FRGS/2/2013 /TK02/UKM/0 1/1	98,000.00

19	Bus scheduling model (bsm) for urban area	KL	2 Years (Aug 13 – Jul 15)	Co-Researcher	PRGS/1/13/T K08/UKM/01/ 1	110,000.00
20	Innovative Teaching: Enhancing Problem Based Learning (PBL) for 1Malaysia	UKM	1 Year (July 13 – June 14)	Co-Researcher	PTS-2013- 032	10,000.00
21	The Development of Measurement on Student's Profile Performance and Learning Outcome in the Faculty of Engineering UKM via Rasch, Univariate and Multivariate Approaches.	UKM	1 Year (July 13 – June 14)	Co-Researcher	PTS-2013- 150	55,000.00
22	Prediction of Blast Damage for Reinforced Concrete (RC) Structures Using Pressure-Impulse (P-I) Space Model	UKM	3 Year (May 13 – May 16)	Co-Researcher	ERGS/1/201 3/PK04/UKM/ 02/1	87,000.00
23	Wastewater controlling versus quality index for rivers in Malaysia	UKM	1 Year (Jan 13 – Dec 13)	Co-Researcher	DPP-2013- 064	60,000.00
24	An Early Engineering Mathematics Exposure in a Project of Science Innovation and Engineering Technology Via PBL at A Secondary School Level.	UKM	1 Year (Nov 12 – Oct 13)	Co-Researcher	HEJIM (KOMUNITI- 2012-033)	25,000.00
25	Cooperative Learning: Innovation in Developing Measurement Method Effectively in Assessing Student's Academic and generic Skill Performance; And Internet Assisted Learning for Mathematics Engineering Courses at FKAB, UKM	UKM	1 Year (June 12 – June 13)	Co-Researcher	PTS (PTS-2012- 101)	10,000.00
26	Implementation Of The Internet Based As Innovation In Problem Based Learning (Pbl) Methods For Statistics.	UKM	1 Year (Nov 12 – Nov 13)	Co-Researcher	PTS-2012- 157	15,000.00

27	Mathematical Modelling of Magnetohydrodynamic (MHD) Boundary Layer Flow and Heat Transfer in Viscous, Micropolar and Upper Convected Maxwell Fluids	UKM	2 Years (Apr 12- Apr 14)	Co-Researcher	FRGS (FRGS/1/2012/SG04/UKM/03/3)	76,000.00
28	Land Use Cover Change	Selangor	3 Years (July 11- July 14)	Co-Researcher	LRGS/PTD/2011/UKM/PG/02	346,519.00
29	Derivation and Formulation of Robust Test Statistics for The Different Type of Outlier in Time Series Data	UKM	2 Years (July 2007 – June 2009)	Co-Researcher	UKM-KK-01-FRGS0041-2006	41,000.00
30	The Formulation of Robust Test Statistics for the Detecting the Different Type of Outliers in Time Series Data	UKM	2 Years (Sept 2007 – Aug 2009)	Co-Researcher	UKM-KK-06-FRGS0007-2007	58,200.00
31	A Study on Engineering Education based on Outcome at the Faculty of Engineering.	UKM	2 Years (Jan 07 – Dec 08)	Co-Researcher	UKM	27,000.00
32	Cooperative Learning: Innovation in Developing Measurement Method Effectively in Assessing Student's Academic and generic Skill Performance; And Internet Assisted Learning for Mathematics Engineering Courses at FKAB, UKM	UKM	1 Year (Jan 05- Dec 05)	Co-Researcher	PTS	10,000
33	Development of Improved Outlier Model for Hydrological Studies	UKM	2 Years (Jan 05- Dec 06)	Co-Researcher	SCIENCE FUND	171,680.00
34	A Study Of Factors Which Influence The Performance Of Students In Mathematical Courses At The Faculty Of Engineering, UKM Bangi	UKM	1 Year (Jan 05 – Dec 05)	Co-Researcher	UKM	15,000.00

35	Development of Trackable Daylighting System Using Fiber Optics for Core-Daylighting in Malaysia Building	UKM	3 Years (Jan 03-Dec 05)	Co-Researcher	IRPA	192,000.00
36	The Measurement Of Achievement, Performance And Study Method For The First Year Mathematics Course At The Faculty Of Engineering In UKM.	UKM	1 Year (Jan 03-Dec 03)	Co-Researcher	UKM	6,000.00

11. Intellectual Property

Num	Type of IP	IP Title	Number	Status
1	Copy Right	Instrumen Kompetensi Global 'Learning To Action' dalam Pendidikan Perubahan Iklim	LY2022W03933	Filed

12. Research Collaboration/ Network

Num	University/ Agency	Type of Network/ Collaboration	Year
1	<ul style="list-style-type: none"> Jabatan Kerja Raya (JKR) 	Workshop and Training	2023 & 2024
2	<ul style="list-style-type: none"> Department of Environment Malaysia (DOE) 	<ul style="list-style-type: none"> Research on the Impact of Reclamation in Selat Johor. Research on Air Quality and Meteorology 	2012-2023
3	<ul style="list-style-type: none"> National Valuation Institute (INSPEN) Perbadanan Putrajaya (PPJ) Heriot-Watt University 	Research on Green Roof and Urban Heat Island (UHI)	2021-2022
4	<ul style="list-style-type: none"> National Hydraulic Research Institute of Malaysia (NAHRIM) 	Research on Climate Change & Sea Level Rise	2020-2022
5	<ul style="list-style-type: none"> Malaysian Palm Oil Board (MPOB) 	Workshop and Training	2019-2021

6	<ul style="list-style-type: none"> University Glasgow, UK 	<ul style="list-style-type: none"> Publication 	2015
7	<ul style="list-style-type: none"> University Nottingham, UK 	Research on Water Quality in Tasik Chini	2015

13. Training, Workshop, Course, Consultation, Expertise

Num	Title	Year	Position	Agency	Organizer
1	A course on Proposal Writing for Master & PhD Programs	2024	Invited Speaker	Public Work Department (JKR)	Public Work Department (JKR)
2	A course on Proposal Writing for Master & PhD Programs	2023	Invited Speaker	Public Work Department (JKR)	Public Work Department (JKR)
3	Evaluation and Health Outcomes Research (NPHO7103) for PhD Program in Nursing	2023	Subject Matter Expert	OUM	OUM
4	Webinar on Data Analysis in R	May 2022	Speaker	Faculty of Engineering & Built Environment, UKM	Faculty of Engineering & Built Environment, UKM
5	Applied Statistics (BPAS7103) for PhD/DBA Program	2022 & 2021	Subject Matter Expert	OUM	OUM
6	Evaluation and Health Outcomes Research (NPHO7103) for PhD Program in Nursing	2021	Learning Kit Writer	OUM	OUM
7	Evaluation and Health Outcomes Research (NPHO7103) for PhD Program in Nursing	2021	Subject Matter Expert	OUM	OUM
8	Workshop on Data Analysis in R Programming	2021	Invited Speaker	Malaysian Palm Oil Board (MPOB)	Malaysian Palm Oil Board (MPOB)
9	Statistical Analysis (NMNA5103) for Master Program in Nursing.	2020	Subject Matter Expert	OUM	OUM

10	Workshop on Data Analysis for Scientific Research	2020 & 2019	Invited Speaker	Malaysian Palm Oil Board (MPOB)	Malaysian Palm Oil Board (MPOB)
11	Applied Statistics (BPAS7103) for PhD/DBA Program	2019	Study Guide Writer	OUM	OUM
12	Innovative and Creative	2019	Facilitator	Public Work Department (JKR)	UKM
13	<i>Program Data Alam Sekitar di Sepanjang Selat Johor dan Sekitar Batuan Tengah dan Tubir Selatan</i>	2015-2019	Member <i>(Fund: RM29,292 12.68)</i>	Department of Environment (JAS)	Kementerian Sumber Asli dan Alam Sekitar
14	Workshop on Data Analysis in Environmental Science	2014	Invited Speaker	Department of Environment (JAS)	Earth Observation Centre, UKM
15	Workshop on Data Analysis in Hydrology via R Programming	2014	Invited Speaker	National Hydraulic Research Institute of Malaysia (NAHRIM)	UKM Pakarunding
16	Research Methodology (Statistical Data Analysis)	2012-2019	Speaker	UKM	Faculty of Engineering, UKM

14. Conference/ Seminar

14a International Advisory Board Member/ Reviewer

Num	Conference Theme	Date	Venue	Role
1	National Symposium of Mathematical Sciences (SKSM 32)	8-9 July 2025	Cyberview Resort	Chairman
2	Malaysia Statistics Conference (MyStats 11)	Sept 2024	Bank Negara Malaysia	Scientific Reviewer

3	10th International Conference on Time Series and Forecasting. (ITISE 2024)	15-17 July 2024	Gran Canaria, Spain	Program Committee Member
4	International Conference on Advanced Materials and Applied Sciences 2024 (IConMAS 2024)	26-27 June 2024	UPNM	Program Committee Member
5	National Seminar of Institute of Malaysia Statistics 18 (SKISM 18)	7 March	UPM	Reviewer
6	Malaysia Statistics Conference (10 th MyStats 2023)	25-26 Sept 2023	Bank Negara Malaysia	Scientific Reviewer
7	6th ISM International Statistical Conference ISM-VI 2023	19-20 Sept 2023	UiTM Shah Alam, Selangor	Reviewer
8	9th International Conference on Time Series and Forecasting. (ITISE 2023) http://itise.ugr.es/	12-14 July 2023	Gran Canaria, Spain	Program Committee Member
9	5th International Conference on Mathematical Science (ICMS5)	16-17 May 2023	Bangi Resort Hotel, Bangi	Reviewer
10	Seminar Kebangsaan Institut Statistik Malaysia Ke-17 (SKISM-17)	28 Feb 2023	UKM, Bangi Selangor	Chairman
11	Malaysia Statistics Conference (9 th MyStats 2022)	5 October 2022	Malaysia	Reviewer
12	8th International Conference on Time Series and Forecasting. (ITISE 2022) https://itise.ugr.es/	27-30 June 2022	Gran Canaria, Spain	Program Committee Member

13	5th International Conference on Multi-Disciplinary Research Studies and Education (ICMDRSE-2022)	26-27 May 2022	Malaysia	National Advisory Committee Member
14	2nd International Conference on Technology Innovative Educational and Multidisciplinary skills in the 21 st -century research” (ICTEMR_2022)	8-9 Jan 2022	Thailand	International Advisory Committee Member
15	28th World Conference On Applied Science, Engineering And Technology-2020	29-30 April 2020	Indonesia	Adivosry Board Member
16	11th Curtin University Technology, Science and Engineering International Conference 2018	26-28 Nov 2018	Malaysia	Reviewer

14b Presenter and Participant

Num	Conference Theme	Author	Status	Title of the paper	Date	Venue
1	Enhancement of Competitiveness in Mathematical Sciences	Firdaus Mohamad Hamzah, Zainol Mustafa	Presenter	The Application of Process Capability Index: A Study In Manufacturing Process.	18/07/01-20/07/01	Centre of Mathematical Sciences, National University of Malaysia (UKM)
2	International Conference On Information Technology & Multimedia	Firdaus Mohamad Hamzah, Mohd Zaki Nuawi, Shahrom Abdullah	Presenter	Statistical Analysis For Quality Control Purpose Via Internet Using Matlab (Case Study : Car Wiper Shaft At Denso Factory)	14/08/01-15/08/01	UNITEN
3	Regional Symposium On Environment And Natural Resources	Firdaus Mohamad Hamzah, Hazura Binti Mohamed, Zainol Hj. Mustafa, Teoh Yen See & Hafizan Hj. Juahir	Presenter	The Forecasting of Water PH At Langat River Using Time series Method.	10/04/02-11/04/02	Kuala Lumpur, Malaysia
4	The 7 th Conference on Technological Mathematics.		Participant		17/12/02-21/12/02	Multimedia University of Malaysia
5	Regional Conference On "Integrating Technology In The Mathematical Sciences 2003	Firdaus Mohamad Hamzah, Nasarudin Mustafa	Presenter	The Application of Process Capability Index in the Manufacturing Process of Blower Armature.	14/04/03-15/04/03	Science University of Malaysia
		Firdaus Mohamad Hamzah, Mohd Raihan Taha, Ahmad Jais	Presenter	The Application of Moving Average Control Chart in The Quality Control on The Blower Armature's Length		
		Mohd Zaki Nuawi, Md. Hanif Md Saad	Presenter	An Interactive Learning of Engineering Mathematics Via Internet		

6	The 3rd International Conference On Advances Strategic Technologies		Participant		12/08/03 – 14/08/03	KL
7	National Decision Science Conference	Firdaus Mohamad Hamzah, Azami Zaharim, Nasarudin Abdul Manaf	Presenter		15/12/04 – 17/12/04	Penang, Malaysia
		Firdaus Mohamad Hamzah, Khairul Anwar Mastor, Nik Rusdi Yaacob, and Khamisah Jafar	Presenter	Congruency of personality profile and cognitive style in the selection of engineering major : A study on second year engineering students at Universiti Kebangsaan Malaysia		
		Norngainy Mohd Tawil, Firdaus Mohamad Hamzah, Azami Zaharim, Zulkifli Mohd Nopiah, Shahrir Abdullah	Participant	The Effectiveness of Industrial Training Towards The Attitude of Engineering Students : Statistical Studies at The Faculty of Engineering, Universiti Kebangsaan Malaysia		
		Firdaus Mohamad Hamzah Norngainy Mohd Tawil	Participant	A Quality Study on Blower's Armature's Length Using CuSum Chart.		
8	National Seminar on Life Harmony, Nature's Balance & Development.	Firdaus Mohamad Hamzah	Presenter	Time Series Modeling on the Rainfall at Genting Peres Station at Kajang, Selangor	05/09/05 – 06/09/05	Faculty of Social Sciences & Humanity, National University of Malaysia (UKM)
		Firdaus Mohamad Hamzah	Presenter	Linear Regression Modeling on Langat River run-off at Genting Peres Station, in Kajang, Selangor		
9	International Statistics Conference		Participant		27/12/05 – 31/12/05	PJ
10	Seminar on Quantitative Sciences	Firdaus Mohamad Hamzah & Osman Jaafar	Presenter	Rainfall Modeling at Lalang Sungai Lui Rainfall Station using Box-Jenkins Method	19/12/06- 21/12/06	Langkawi

11	Seminar on Teaching and Effective Learning	Firdaus Mohamad Hamzah	Presenter	The Impact of Restructuring on the Engineering Mathematics Syllabus Towards the Student's Achievement and Learning Style	04/01/07-05/01/07	ESSET, Bangi
12	Seminar on Engineering Education		Committee Member - Treasurer		26/12/07 – 28/12/07	Putrajaya
13	The 9th Islamic Countries Conference On Statistical Sciences (ICCS-IX)		Participant			Shah Alam
14	Regional Conference on Engineering Mathematics Mechanics Manufacturing Architecture 2007		Committee Member - Webmaster		27/11/07 – 28/11/07	KL
15	SAC/SEPA Biennial Conference	FM Hamzah, EM Scott, CA Ferguson, S Waldron and CE Adams	Presenter (poster)	Time Series Modelling of Temperature, Chlorophyll and Nutrient Concentrations in Loch Lomond, a Freshwater Loch in Central Scotland	31/03/10 – 01/04/10	University of Edinburgh
16	International Workshop on Statistical Modelling	FM Hamzah, EM Scott, CA Ferguson, S Waldron, CE Adams and M O'Hare	Presenter (poster)	Estimating Thermocline Depth In Lakes	05/07/10 – 09/07/10	University of Glasgow
17	Seminar on Teaching and Effective Learning	Firdaus, M. H., Norngainy, M.T., Nur Arzilah, I., Izamarlina, A. & Haliza, O.	Presenter	The Effects of E-Learning on the Student's Performance in Engineering Mathematics at the Faculty of Engineering UKM.	15/12/12 - 18/12/12	Awana Genting Highland
18	7 th National Seminar ISM	-	Participant	-	6 March 2013	Shah Alam
19	Joint Seminar On Statistics In Hydraulics	-	Participant	-	09/04/13 - 10/04/13	NAHRIM Seri Kembangan

20	21 st National Symposium of Mathematical Sciences	Firdaus Mohamad Hamzah	Presenter	Analysis of Trend and Seasonal Pattern of Temperature and Chlorophyll in Loch Lomond Scotland	6 – 8 Nov 2013	Penang
21	Statistics and operational research international conference	Firdaus Mohamad Hamzah	Presenter	Temporal Changes In Nutrients In Freshwater Scottish Lake	3- 5 Dec 2013	Sarawak
22	The 5th International Conference on Mathematics and Natural Sciences (ICMNS)	Firdaus Mohamad Hamzah ^a , Othman Jaafar ^b , Samsul Rijal Mohd Sabri ^c , Mohd Tahir Ismail ^d , Khamisah Jaafar ^e and Norazman Arbin ^f	Presenter	The Interaction of Physical Properties of Seawater via Statistical Approach	2-3 Nov 2014	Bandung
23	International Conference on Quantitative Sciences and Its Applications	Firdaus Mohamad Hamzah, Othman Jaafar, Mohd Kamal Mohd Nawawi, Mohd Tahir Ismail and Norazman Arbin	Presenter	Assessing the responses of physical parameters in ocean via statistical approach.	12-14 Aug 2014	Langkawi
24	Seminar on Innovation in Teaching & Learning	Firdaus Mohamad Hamzah, Puteri Sarah Diba Kamarulzaman, Nur Arzilah Ismail, Haliza Othman	Presenter	Students' Performance In Engineering Mathematics Courses: Vector Calculus Versus Differential Equations	11-12 Feb 2015	UKM
25	9 th National Seminar on Statistics		Participant	-	31 March 2015	UKM
26	2 nd Joint Seminar on Statistics in Hydraulics (JoSSH)		Participant	-	26-27 May 2015	Nahrim

27	Seminar on Innovation in Teaching & Learning	Firdaus Mohamad Hamzah, Khamisah Jafar, Haliza Othman, Noorhelyna Razali, Nuryazmin Ahmad Zainuri & Zulkifli Mohd Nopiah	Presenter	The Effects of Pre-Test on the Performance of Students in Differential Equation Course at the Faculty of Engineering UKM.	15-16 July 2016	UKM
28	Seminar on Innovation in Teaching & Learning	F. M. Hamzah, H. Tajudin, N. A. Ismail, H. Othman	Presenter	Students' Performance In Engineering Mathematics Course With A New Assessment System	15-16 Feb 2017	UKM
		Firdaus Mohamad Hamzah	Presenter	Creative Teaching Week (Consolation Prize)	3-21 Oct 2016	
29	K-Novasi Seminar	F. M. Hamzah ^{1,2,*} , H. Tajudin ¹ , N. Razali ² , N. Zainuri ² , N. Zulkarnain ²	Presenter	The Achievement of Students in Engineering Statistics with a New Assessment System.	Feb 2018	UKM
		F. M. Hamzah ^{1,2,*} , H. Tajudin ¹ , H. Othman ² , N. Razali ²	Presenter	A Comparison of Performance of Students in Engineering Mathematics and Engineering Statistics Courses	Feb 2018	
30	ISI World Statistics Congress	Firdaus Mohamad Hamzah ^{1*} ; Hazrina Tajudin ¹ ; Hafizan Juhair ²	Presenter	A comparison between annual maximum and partial duration series of high-flow at Langat Rive	Aug 2019	KLCC

		Firdaus Mohamad Hamzah ^{1*} ; Christer Loh Chai Jia ² ; Hazrina Tajudin ³ ; Hafizan Juahir ⁴	Presenter	Trend analysis and return period of sea level on West Coast of Peninsular Malaysia	Aug 2019	KLCC
31	2 nd International Conference on Informatics, Computing and Applied Mathematics (ICICAM'19)	Firdaus Mohamad Hamzah, Hazrina Tajudin, Othman Jaafar	Presenter	Flood Frequency Analysis of Tidal at Pelabuhan Klang, Malaysia	Oct 2019	Kuala Trengganu
		Firdaus Mohamad Hamzah ^{1*} , Hazrina Tajudin ¹ , Othman Jaafar	Presenter	Trend and Change Point Detection of Streamflow at Kajang Station, Malaysia	Oct 2019	Kuala Trengganu
32	5 th International Conference on Mathematical Applications in Engineering (ICMAE'19)	F Mohamad Hamzah ^{1,2*} , S N S Mohammed ¹ , O Jaafar ^{1,2} , SM Syed Abdullah ²	Presenter	The Effect of Marine Parameters On Salinity Along the Straits of Johor via Statistical Approach	Oct 2019	PICC
		F Mohamad Hamzah ^{1,2*} , S Bahari ¹ , O Jaafar ^{1,2} , SM Syed Abdullah ²	Presenter	Statistical Analysis On Physical and Chemical Parameters and Heavy Metal in Marine Water	Oct 2019	PICC
33	8 th International Conference on Global Optimisation and Application (ICoGOIA'19)	F., Mohamad Hamzah ^{1*} , M.N., Abd Rashid ² , M. N., Ab Rahman ³ and M.S., Rasul ⁴	Presenter	Rasch Model Analysis for Evaluating Validity and Reliability of Authentic Learning Instrument in Malaysian Polytechnics	Nov 2019	KL

		Firdaus Mohamad Hamzah ^{1, 2*} , Nur Arzilah Ismail ² , Haliza Othman ² and Mohd Norul Hisham Abd. Rashid	Presenter	The Performance of Students in Differential Equation Course with a New Assessment System	Nov 2019	KL
34	International Conference on Advances in Engineering, Computing and Applied Sciences (RAECAS'19)	Firdaus Mohamad Hamzah ^{1,2*} , Mohamad Zahin Irfan ¹ , Othman Jaafar ¹ , Sharifah Mastura Syed Abdullah ²	Presenter	Assessment of Rainfall Trends at The Airports In Malaysia	Dec 2019	Langkawi
		Firdaus Mohamad Hamzah ^{1,2} , Siti Nur Syuhadha Mohammed ¹ , Othman Jaafar ¹ , Sharifah Mastura Syed Abdullah ²	Presenter	Temporal Variation of Water Salinity Along The Straits of Johor	Dec 2019	Langkawi
35	International Conference on Engineering and Computing 2020 (ICEECComp2020)		Presenter	Frequency Analysis of High Tide in the Malacca Straits	March 2020	Melaka
			Presenter	The Estimation of Return Period of Extreme High Tide at Port Klang in Malaysia		
			Presenter	Statistical Modelling of High Tide at the Straits of Malacca		
36	3rd International Conference on		Presenter	Flood Frequency Analysis Using Partial Duration Series Of Sea Level At Tidal Station Pulau Pinang	Nov 2020	Penang

	Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2020)		Presenter	Rainfall Frequency Analysis Using Annual Maximum At Sungai Junjung And Batu Ferringhi Station		
37	Seminar Program Data Alam Sekitar Di Sepanjang Selat Johor Dan Di Sekitar Batuan Tengah Dan Tubir Selatan		Presenter	Analisis Data Alam sekitar di Selat Johor, Sekitar Batuan Tengah dan Tubir Selatan.	Sept 2020	Putrajaya
38	Seminar Kebangsaan ISM ke-15 (SKISM-XV)		Participant	-	Feb 2021	UKM
39	The Congress and Innovation Competition in Teaching and Learning 2021 "Evolution Towards Borderless Learning: A Way Forward"	[1] *Firdaus Mohamad Hamzah, [2] Nur Arzilah Ismail, [3] Muhamad Alias Md Jedi, [4] Noorhelyna Razali, [5] Mohd Haniff Osman, [6] Haliza Othman, [7] Noraishikin Zulkarnain & [8] Zambri Harun	Presenter	The Effectiveness of New Teaching Style on The Students' Performance in Vector Calculus During Movement Control Order	August 2021	UKM
40	Seminar Kebangsaan Institut Statistik Malaysia Ke-16 (SKISM-XIV)		Participant	-	March 2022	UKM
41	11 th IRERS 2022: Revitalising Real Estate: The Next Normal	Firdaus Mohamad Hamzah *, Mohd Khairul Azhar Mat Sulaiman , Zambri Harun , Azwan Kamari and Muhammad Zaki Abd Manaf	Presenter	Assessment of Economic Worth of Green Roof: A Case Study In Putrajaya	Sept 2022	Inspen, Selangor

42	4 th IEEE International Conference on Artificial Intelligence in Engineering & Technology (IICAIET 2022)	Ng Tze Ling, Mohd Saifullah Rusiman, Suparman, Firdaus Mohamad Hamzah, Nur Ain Ebas	Participant	Factors Affecting Customer Loyalty on Starbucks Malaysia using Binary Logistics & Probit Model	Sept 2022	Sabah
43	International Visualization, Informatics & Technology Conference (IVIT2022)	Firdaus Mohamad Hamzah*, Ahmad Nazri Tajul Ariffin, Siti Hasliza Ahmad Rusmili	Presenter	Modelling of Surface Ozone via Neural Network and Statistical Approaches	Nov 2022	KL
		Siti Hasliza Ahamad Rusmili, Firdaus Mohamad Hamzah*, Mohd Talib Latif, Khairul Nizam Bin Maulud	Participant	Trend Detection and Modelling The Changes of Ground Level Ozone	Nov 2022	KL
44	Seminar Kebangsaan Institut Statistik Malaysia Ke-17 (SKISM-17)	Siti Hasliza Ahamad Rusmili, Firdaus Mohamad Hamzah, Mohd Talib Latif, Khairul Nizam Bin Maulud	Committee Member & Participant	Modelling The Changes of Groud Level Ozone	March 2023	UKM
		Suaidah Rosli, Firdaus Mohamad Hamzah, Siti Fatin Razali	Committee Member & Participant	Spatial Characteristics of Water Quality Assessment in Langat River Basin via Multivariate Analysis	March 2023	UKM
45	The 6th ISM International Statistical Conference (ISM – VI) 2023	-	Committee Member & Participant	-	Sept 2023	Shah Alam
46	10 th Malaysian Statistics Conference (MyStats) 2023	-	Committee Member & Participant	-	Sept 2023	Bank Negara Malaysia

47	11th International Symposium on Applied Engineering and Sciences (SAES 2023)	Siti Hasliza Ahmad Rusmili, Firdaus Mohamad Hamzah*, Mohd Talib Latif, Mohd Saifullah Rusiman, Mohd Hasrul Kamarulzaman	Presenter	Comparison of Predictive Models for Ozone Concentration	Nov 2023	UPM
		Siti Hasliza Ahmad Rusmili, Firdaus Mohamad Hamzah*, Mohd Talib Latif, Aeizal Azman A. Wahab, Mohd Saifullah Rusiman, Mohd Hasrul Kamarulzaman	Presenter	The Exploratory Analysis of the Patten of Ozone Precursors	Nov 2023	UPM
48	Seminar Kebangsaan Institut Statistik Malaysia Ke-18 (SKISM-18)		Committee Member & Journal Reviewer		March 2024	UPM
49	International Conference on Advanced Materials and Applied Sciences 2024 (IConMAS 2024)		Committee Member & Participant		June 2024	UPNM
50	15th International Fundamental Science Congress 2024 (IFSC2024)	Firdaus Mohamad Hamzah	<i>Invited Speaker</i>	An Exploratory Analysis of The Economic Worth of Green Roof	August 2024	UPM
51	11 th Malaysia Statistics Conference (MyStats 2024)		Main Committee Member & Scientific Reviewer	-	Sept 2024	Bank Negara Malaysia
52	National Symposium of Mathematical Sciences (SKSM 32)		Chairman		8-9 July 2025	Cyberview Resort

15. **Courses/ Workshops Attended**

(i) **UPNM (2023-Present)**

Num	Course/ Workshop	Date	Sponsor/ Organizer	Venue
1	Wokshop on Module of Mathematics Courses	5-7 June	PAP UPNM	UPNM
2	Executive Talk on Machine Learning	23 May	DOE	Online
3	Workshop on A New Program of MSc in Safety in Industry	8 March 2024	PAP UPNM	UPNM
4	Workshop on Open Journal System of ZULFAQAR Journal	22 February 2024	UPNM	UPNM
5	Workshop on the Preparation of MQA-04 Document for Postgraduate Program	9 February 2024	PAP UPNM	UPNM
6	Discourse of Global Thinkers with the Prime Minister	24 January 2024	Universiti Malaya	Universiti Malaya
7	Townhall with the Minister of NRECC on Transboundary Haze Pollution	21 December 2023	Ministry of NRECC	Putrajaya
8	Integrity Course	15-17 Nov 2023	UPNM	Kem Kongkoi, Jelebu
9	Workshop on FRGS Proposal Writing (Engineering Core)	8 Nov 2023	UPNM	UPNM
10	Workshop on Regulation Book of PAP Program	13 Oct 2023	UPNM	UPNM
11	Workshop of ISMy	6 Oct 2023	ISMy	UPM
12	Workshop on Mathematics & Annual General Meeting of PERSAMA	28 Aug 2023	UKM	UKM
13	Workshop on An Effective Graduate Supervision and Research Management	12 July 2023	UPNM	Bangi Putrajaya
14	TRGS Workshop	13-14 March 2023	UKM	UKM

(ii) UKM (2000-2023)

Num	Course/ Workshop	Date	Sponsor/ Organizer	Venue
1	Confidence Strengthening Workshop	3 December 2022	Faculty of Engineering, UKM	Selangor
2	Virtual Short Course of Malaysia Statistics Conference 2022	4 October 2022	DOSM, BNM & ISMy	Putrajaya
3	Workshop of TRGS	May 2022	UKM	Bangi Putrajaya
4	Workshop on Book's Publication	March 2022	UKM	UKM
5	Educator @ Virtual Learning Environment Program	Aug-Sept 2021	Ministry of Higher Education and Ministry of International Trade and Industry	Putrajaya
6	WileyPLUS Champion	September 2021	John Wiley	Malaysia
7	Workshop on Sequential Data Modeling with Keras	March 2021	Tertiary Courses Malaysia	KL
8	Workshop on Data Visualisation with R	March 2021	Tertiary Courses Malaysia	KL
9	<i>Bengkel Pembentangan Laporan Akhir Projek Penyelidikan Simulasi Impak Perubahan Iklim Dan Kenaikan Aras Air Laut Serta Keseimbangan Morfologi Sungai Bagi Memastikan Sekuriti, Kuantiti Dan Kelestarian</i>	Dec 2020	Nahrim	Putrajaya
10	<i>Seminar Program Data Alam Sekitar Di Sepanjang Selat Johor Dan Di Sekitar Batuan Tengah Dan Tubir Selatan</i>	Sept 2020	DOE	Putrajaya
11	<i>Kerja Lapangan Penyelidikan Kontrak UKM-Nahrim Di Lembangan Sungai Junjung Dan Batu Ferringhi, Pulau Pinang</i>	Sept 2020	Nahrim	Penang
12	Workshop on Artificial Intelligence Basics for Beginners	March 2020	Tertiary Courses Malaysia	KL
13	Workshop on Python 3 Essential.	Feb 2020	Tertiary Courses Malaysia	KL
14	Workshop on Deep Learning and Machine Learning with TensorFlow	Feb 2020	Tertiary Courses Malaysia	KL
15	<i>Bengkel Perancangan Pelan Strategik FKAB 2019-2030</i>	July 2019	FKAB UKM	Melaka

16	Program Enhancement of Management Process Skills (EOMPS) II	April 2019	UKM	Port Dickson
17	Mathematics Day	May 2019	FKAB UKM	UKM
18	Workshop on Publication of Q1 & Q2	April 2019	UKM	Kuala Terengganu
19	Mathematics Day	May 2018	FKAB UKM	UKM
20	Workshop on ICGPA	May 2018	FKAB UKM	UKM
21	Workshop on Journal Publication	April 2018	FKAB UKM	UKM
22	Talk on Journal Publication	April 2018	FKAB UKM	UKM
23	Workshop of Reviewing Journal Articles of Advanced Manufacturing Technology (JAMT) and Malaysian Journal Of Learning And Instruction (MJLI)	April 2018	FKAB UKM	UKM
24	Workshop on Module of University Compulsory Courses: KMCQ Management and Data Analytic	Feb 2018	Centre of Citra	UKM
25	Talk on Research Grant	Jan 2018	UKM	UKM
26	Workshop on Marine Water Quality	August 2017	UKM & DOE	Bangi-Putrajaya
27	MyGrants Workshop	August 2017	UKM	UKM
28	Workshop on Consolidation of Engineering Mathematics Courses	August 2017	FKAB UKM	FKAB UKM
29	Workshop on High Tech High Touch: Introducing Educational Web-Based Tools and Apps with Ipad	July 2017	UKM	UKM
30	Professional Certificate Workshop	July 2017	FKAB UKM	FKAB UKM
31	Workshop on Rasch Book Publication	July 2017	UKM	UKM
32	Seminar on Mathematics Day	June 2017	FKAB UKM	FKAB UKM
33	Workshop on IG-Home Book, House Innovation	Jan 2017	Institute of Climate Change	Pahang
34	Workshop on Manuscript	July 2016	FKAB UKM	UKM
35	Interview Panel of Scholarship Program under KPT	May 2016	KPT	UPM
36	Workshop on Rasch Measurement	May 2016	UKM	UKM
37	Workshop/ Assessment on Water Quality	April 2016	UKM	Tasik Chini
38	Workshop on Website	March 2016	FKAB UKM	UKM
39	Research Workshop	May 2015	UKM	FST UKM
40	Workshop on Manuscript Reviewed: Journal of Technology & JESTEC	Apr 2015	FKAB UKM	UKM
41	Workshop on Curriculum Assessment (Part 1)	March 2015	FKAB UKM	FKAB UKM
42	KRA Forum	Feb 2015	UKM	UKM

43	Workshop on Re-Assessment of Faculty Courses	March 2015		
44	Workshop on Curriculum Assessment (Part 2)	March 2015	FKAB UKM	FKAB UKM
45	Talk on Research Fund under MOSTI	Jan 2015	UKM	UKM
46	Workshop on Flipped Classroom	Sept 2014	FKAB UKM	FKAB UKM
47	Workshop on Hydrology and Padi Plant	Sept 2014	FKAB UKM	FKAB UKM
48	Workshop on R (Multi-Criteria Decision Making With R)	June 2014	FST UKM	FST UKM
49	Workshop on Mike 21	June 2013	FKAB UKM	Damansara KL
50	Workshop on Problem Based Learning for Engineering Mathematics & Statistics Courses	Feb 2013	FKAB UKM	Perak
51	Workshop on Career Path of New Lecturer	Jan 2013	UKM	UKM
52	Workshop on Rasch Measurement Model	July 2013	FKAB UKM	FKAB UKM
53	Forum on Teaching and Learning Style	Nov 2013	FKAB UKM	FKAB UKM
54	Workshop on Research Statistics and ERGS/FRGS Proposal Preparation	Nov 2012	PTS-2012-157	UPM
55	Rasch Model Winstep	May 2012	UKM	UKM
56	SEM with Amos	May 2012	UKM	UKM
57	I-Folio	Sept 2012	UKM	UKM
58	Functional Data Analysis	July 2010	University of Glasgow	University of Glasgow
59	Introduction to Computer Server	June 2010	University of Glasgow	University of Glasgow
60	Departmental Seminar	May 2009	University of Glasgow	University of Glasgow
61	Statistical Modelling and Asymptotics	April 2009	University of Southampton	University of Southampton
62	Scottish Mathematical Sciences Training	Dec 2008 - Mar 2009	University of Glasgow	University of Glasgow
63	Statistical Computing and Inference	Dec 2008	University of Warwick	University of Warwick
64	SCENE Research Seminar	Nov 2008	University of Glasgow	Loch Lomond, Scotland UK
65	Spatial and Longitudinal Data Analysis and Nonparametric Smoothing	Sept 2008	University of Glasgow	University of Glasgow
66	Postgraduate Training	Sept 2008	University of Glasgow	University of Glasgow
67	Comprehensive Matlab	Jan 2008	UKM	UKM

68	S-Plus Essentials-Software Training	Dec 2007	UKM	KL
69	Amos Course	2007	UKM	UKM
70	Professional and Personal Enhancement Program	2007	UKM	UKM
71	Maple Course	28/11/06-29/11/06	UKM	UKM
72	Graduate Research Methodology Workshop	06/02/06 – 09/02/06	UKM	UKM
73	ISCM Pre-Conference Short Course Workshop: Geographic and Network Surveillance Geoinformatics for Arbitrarily Shaped Hotspots and Emerging Hotspots with Applications	27/12/05	UKM	PJ
74	A Short Course on Mathematical Modeling	29/07/04	UKM	UIA
75	A Course on the Evaluation of the Level of Effectiveness	06/10/03 - 18/10/03	UKM	Putrajaya
76	A Course on Leadership & Management for Young Lecturer	21/07/03 – 24/07/03	National Bureau	Balik Pulau, Penang
77	A Basic Course on Macromedia Dreamweaver	22/04/03 - 23/04/03	UKM	UKM
78	A Basic Course on Adobe Photoshop	11/09/02 - 12/09/02	UKM	UKM
79	A Basic Course on Macromedia Flash	20/08/02 - 21/08/2002	UKM	UKM
80	A Course on Basic Counseling Skills for Young Lecturer	23/07/02 - 25/07/02	UKM	Port Dickson
81	Induction Course	10/10/01 – 24/10/01	UKM	UKM
82	A Course on Research Report Writing	23/07/01 – 01/08/01	UKM	UKM
83	A Course on Teaching & Learning Skill	09/04/01 – 12/04/01	UKM	UKM
84	A Course on Evaluation at the Institute of Higher Learning	24/04/01 – 25/04/01	UKM	UKM
85	A Course on Effective Academic Supervision	17/07/01	UKM	UKM

16a. Membership in Committee (Department/ Faculty/ University)

(i) UPNM (2023-Present)

Num	Committee	Status	Level	Year
1	Panel of Viva Voce	Chairperson	University	5 Aug 2024
2	Panel of Short Term Research	Head of Panel	University	2024

	Grant (GPJP): Cluster of Climate Change & Environment			
3	Panel of Interviewer of New Foundation Students	Interviewer	Centre for Defence Foundation Studies	2024
4	Panel of Mock Presentation for Defence, Security & Sustainability Exhibition (DSS 2024)	Assessor	Centre for Defence Foundation Studies	2024
5	Panel for Vetting (Mathematics 3)	Assessor	Centre for Defence Foundation Studies	2024
6	Panel of FRGS (2 PAP)	Assessor	University	2024
7	Panel of Short Term Research Grant (GPJP) (1 PAP)	Assessor	University	2024
8	Staff beyond Study Leave Period	Mentor	University	2024
9	International Conference on Advanced Materials and Applied Sciences (IconMAS 2024)	Head of Sponsorship Committee	International	2023-2024
10	Panel of GPJP (Cluster: Environment & Climate Change)	Head of Panel/ Cluster	University	June 2023
11	Committee of Quality Academic	Committee Member	Centre for Defence Foundation Studies	2023-2024
12	Committee of Academic	Committee Member	Centre for Defence Foundation Studies	2023-2024
13	Mentor of Research Grant Application (Field of Expertise: Statistics)	Mentor	University	2023
14	Committee of Expert	Committee Member	Centre for Defence Foundation Studies	2023-2024
15	Panel of FRGS (2 PAP & 2 FSTP)	Assessor	University	2023
16	Internal Rigorous Assessment (Nur Fahimah Mod Nasir & Nur Arina Mat Rusni)	Committee Member	Centre for Defence Foundation Studies	2023
17	Tabung Amanah	Committee Member	Centre for Defence Foundation Studies	2023-2024

18	Academic Advisor	Committee Member (PS7)	Centre for Defence Foundation Studies	2023-2024
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(ii) UKM (2000-2023)

Num	Committee	Status	Level	Year
1	Seminar Pendidikan Kejuruteraan dan Alam Bina (PEKA 2023)	Committee Member of Publication	National	2023-2024
2	National Seminar of Institute of Statistics Malaysia XVII (SKISM-XVII)	Chairperson	National	2022-2024
3	Expert Panel of Research Funding	Committee Member	Faculty	2021-2023
4	Committee of National Competition of Invention and Innovation (PRIN 2021)	Committee Member	National	2021
5	Committee of Mathematics Day	Committee Member	Faculty	2021
6	Institute of Climate Change	Senior Associate Fellow	University	2021-2023
7	Center of Research and Water Analysis	Associate Fellow	University	2021-2023
8	Center of Excellence in Engineering Education	Associate Fellow	University	2021-2024
9	Committee of National Competition of Piching HPTN	Assessor	National	2020
10	Committee of Mathematics Day of FKAB UKM	Chairperson	Faculty	2019
11	Malaysian Council of Engineering Conference	Secretary	National	2019
12	InnoMaths- STEM Group	Chairperson	Faculty	2019-2020
13	Hejim & International	Committee Member	Faculty	2018-2020
14	Institute of Climate Change	Associate Research Fellow	University	2018-2019
15	Committee of International Grant	Committee Member	Centre (PEKA)	2018
16	Committee of Mathematics Day of FKAB UKM	Advisor	Faculty	2018
17	Committee of FKAB@Orphan Program	Chairperson of UPAK	Faculty	2017
18	Committee of Professional Certificate Worskshop	Speaker and Committee Member	Faculty	2017
19	Committee of Mathematics Day of FKAB UKM	Chairperson	Faculty	2017
20	Committee of Quotation	Committee Member	Earth	2016-

	Coordination of Water Quality Sampling in Selat Johor for ITLOS Program		Observation Centre	2017, 2013-2016
21	Committee of IG-Home	Committee Member	Department	2016-2017
22	Committee of IT	Webmaster	Department/Unit	2016-2017
23	Committee of 5 th International Technical Conference'	Committee Member	University	2016
24	Committee of K-Innovation P&P FKAB	Deputy Director	Faculty	2015
25	Committee of K-Innovation P&P UKM	Representative of Engineering Education Cluster (PeKA)	University	2015
26	Postgraduate Seminar	Chairperson & Assessor	Faculty	2015
27	Research on WaterQuality at Tasik Chini (UNESCO Project)	Associate Fellow	University	2015-2017
28	Institute of Climate Change	Associate Fellow	University	2014-2017
29	Earth Observation Centre	Associate Fellow	University	2014-2015
30	Committee of Documentation & Continuous Quality Improvement	Committee Member	Department	2014-2017
31	Committee of Engineering Education Seminar (PEKA 2014)	Committee Member	Faculty	2014
32	Committee of Reviewer of Engineering Education Journal (PEKA 2014)	Reviewer	Faculty	2014
33	Committee of 4 th International Technical Conference	Committee Member	Faculty	2014
34	Committee of Engineering Education Seminar (PEKA 2013)	Committee Member	Faculty	2013
35	Committee of Liberal Thinking	Committee Member	Faculty	2013
36	Research Centre of Tropical Climate Change (IKLIM)	Research Fellow	FST	2013-2016
37	Project on The Effects of Reclamation at Selat Johor	Research Fellow	University	2012-2015
38	Unit of Student's Development	Advisor	Faculty	2006-2007
39	Webmaster (Unit of Fundamental Engineering)	Webmaster	Unit	2006-2007

40	Final Year Project (Department of Civil Engineering)	Instructor (Statistical Analysis)	Department	2005-2008
41	Journal of Engineering	Reviewer	Faculty	2004-2007
42	Webmaster (Department of Civil Engineering)	Webmaster	Department	2003-2005
43	Professional and Personal Enhancement Program	Facilitator	University	2003-2005
44	Engineering Education Research Group	Member	Faculty	2003-2005
45	Environmental Research Group (Department of Civil Engineering)	Member	Department	2003-2005
46	Committee of Student's Development (Department of Civil Engineering)	Advisor	Department	2003-2005
47	Program of Mentor-Mentee	Mentor	Department	2003-2006
48	Quality Improvement Team	Committee Member	Faculty	2000-2003

16b. Other Contribution to the Unit/ Department/ Faculty/ University/National/ International.

(i) UPNM (2023-Present)

Num	Committee/ Project/ Activity	Status	Level	Venue	Year
1	National Symposium of Mathematical Sciences	Chairman	National	UPNM	2024-2025
2	Guest Lecture and Research Collaboration Program	International Lecturer	International	Universitas Riau, Indonesia	2024
3	Guest Lecture	Invited Speaker	International	Universitas Padjadjaran	2024
4	Seminar on PhD Proposal	Invited Speaker	National	The Malaysian Public Works Department (JKR)	2024
5	Talk on PhD & Master Proposal	Invited Speaker	National	The Malaysian Public Works Department (JKR)	2023

6	Talk on Research Grants	Speaker	University	Department of Mathematics, Centre for Defence Foundation Studies, UPNM	2023
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(iii) UKM (2000-2023)

Num	Committee/ Project/ Activity	Status	Level	Venue	Year
1	Guest Lecture Program and Student Discussion Program	Invited Speaker	International	Fakultas Kesehatan Masyarakat Universitas Airlangga	2022
2	Workshop on R	Speaker	University	Faculty of Engineering & Built Environment, UKM	2022
3	Workshop on Data Analysis for Scientific Research	Invited Speaker	National	Malaysian Palm Oil Board (MPOB)	2021
4	Workshop on Data Analysis for Scientific Research	Invited Speaker	National	Malaysian Palm Oil Board (MPOB)	2020
5	Workshop on Data Analysis for Scientific Research	Invited Speaker	National	Malaysian Palm Oil Board (MPOB)	2019
6	Workshop on Innovative and Creative- Public Work Department (JKR)	Facilitator	National	Faculty of Engineering UKM	2019
7	Project on Impact of Reclamation at Selat Johor	Presenter/ Researcher (Statistical Findings)	National	Department of Environment, Putrajaya	2012-2019
8	Seminar on Research Method (KF6004) – Postgraduate Students	Speaker	Faculty	Faculty of Engineering UKM	2012-2019
9	Program of Blended Teaching (Engineering Mathematics/Statistics Courses)	Lecturer	Faculty	Faculty of Engineering UKM	2014-2017

10	Workshop on Statistics in Hydrology - NAHRIM	Invited Speaker	National	UKM Pakarunding	2014
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17. Social Service

(i) UPNM (2023-Present)

Num	Committee	Year	Status	Level
1	Malaysia Institute of Statistics (ISMy)	2024-2026	Vice President	National
2	Malaysia Institute of Statistics (ISMy)	2022-2024	Committee Member	National
3	STEM Community Program at SMKBTk	11 July 2023	Committee Member	National
4	Parents and Teachers Association (PIBG)	2023-2024	Committee Member	State

(ii) UKM (2000-2023)

Num	Committee	Year	Status	Level
1	The Clean Air Forum Society of Malaysia MyCas	2022-2023	Member	National
2	Virtual Short Course of Malaysia Statistics Conference (9 th MyStats 2022)	2022	Committee Member	National
3	Parents and Teachers Association (PIBG)	2022-2023	Committee Member	State
4	Committee of Charity Program (Kampung Pulau Manis Pahang)	2019	Head	University
5	Gema Ilmu	2019	Head	University
6	National Science Challenge	2018	Judge	State (Putrajaya)
7	FKAB@Orphan	2018	Head	University
8	Committee of The Impact of Land Reclamation in Selat Johor (SK-2011-008)	2012-2017	Research Fellow	University
9	Committee of Exhibition of Unit of Fundamental Engineering	Sept 2015	Head	Faculty
10	Committee of Quotation Assessment on Water Quality Sampling in Selat Johor for ITLOS Program (Earth Observation Centre)	2013-2017	Committee Member	Centre

11	Workshop on Problem Based Learning (PBL) at Sungkai	2013 (3 Days)	Deputy Director	Unit
12	Graduate Program of Civil Engineering Department	3 Years	Member	Department
13	Unit of Student's Development	1 Year	Facilitator	Faculty
14	Pre-Test of Engineering Mathematics Courses	2 Years	Coordinator	Faculty
15	Committee of the Development of Unit Fundamental Engineering New Office	2006-2008	Coordinator	Faculty
16	Program of Self Enhancement & Professionalism	1 Year	Facilitator	Faculty