

Dr. Norasmadi bin Abdul Rahim

Associate Professor



✉ norasmadi@unimap.edu.my

☎ +6019-4587176

🌐 norasmadi.unimap.edu.my

📍 Mechatronics Department, Faculty of Electrical Engineering & Technology, Universiti Malaysia Perlis, Pauh Putra Campus, 02600 Arau, Perlis, MALAYSIA

PROFILE SUMMARY

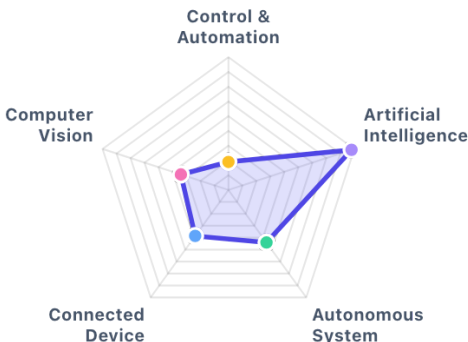
Dr. Norasmadi Abdul Rahim is an Associate Professor at the Faculty of Electrical Engineering & Technology, Universiti Malaysia Perlis (UniMAP), where he defines and leads innovative research centered on pattern recognition, advanced signal processing, and applied AI. His work is deeply rooted in the design and development of intelligent systems tailored to solve complex, real-world problems. With a strong track record of publications, Dr. Norasmadi consistently contributes findings to high-impact journals and international conferences, advancing the frontiers of machine learning, ensemble methods, robotics, and embedded systems. His dedication to research excellence and impactful innovation has been recognized through numerous academic and industry awards. Beyond his independent research, he is actively engaged in securing competitive grants and mentoring the next generation of engineers to bridge the gap between theoretical computing and practical industry applications.

ACADEMIC IMPACT & CITATIONS

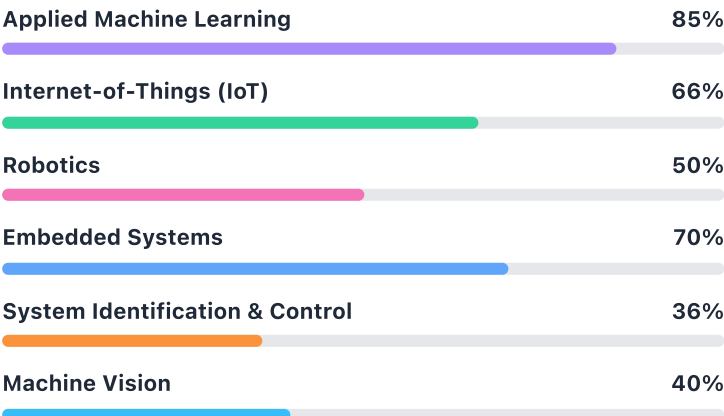
PLATFORM	NO. OF PAPERS	H-INDEX	TOTAL CITATIONS
Scopus®	73	14	773
Google Scholar	120	20	1343

*Updated July 2026

RESEARCH STRENGTH



CORE EXPERTISE



EDUCATION

PhD in Mechatronic Engineering

Universiti Malaysia Perlis — Pattern Recognition and Signal Processing

2015

MSc in Electrical Engineering

Universiti Teknologi MARA — Advanced Signal Processing and System Identification

2005

B.Eng (Hons) in Electrical Engineering (Power)

Universiti Teknologi MARA — Power System and Fuzzy Logic Control

2002

Diploma in Electrical Engineering (Power)

Universiti Teknologi MARA — Power

1999

WORK EXPERIENCE

Associate Professor

Universiti Malaysia Perlis

2021-Current

Postgraduate Program Chairman

Universiti Malaysia Perlis

9/2022-10/2024

Senior Lecturer

Universiti Malaysia Perlis

2015-2021

Mechatronic Head of Program

Universiti Malaysia Perlis

2008-2009

Lecturer

Universiti Malaysia Perlis

2005-2014

Teaching Engineer

Universiti Malaysia Perlis

2004-2005

GRANTS & FUNDING

- RFID Hospital Asset Tracking and Monitoring System** — Principal Investigator

Funder: University and Industry • Amount: RM 54,550 • Duration: 2023 - 2024
- IoT based Smart Betta Fish Aquaponic Monitoring System with Fish Disease Prediction using Embedded Fuzzy** — Co-Researcher

Funder: Ministry of Higher Education • Amount: RM 3,000 • Duration: 2022 - 2022
- Computer Vision based Pest Control in Smart Farming** — Co-Researcher

Funder: University and Industry • Amount: RM 20,000 • Duration: 2021 - 2023
- New Ensemble Classifier Algorithm Incorporating Deep Learning Dropout Approach for Small Sample-Sized Problems** — Principal Investigator

Funder: Ministry of Higher Education • Amount: RM 66,680 • Duration: 2020 - 2022
- Optimisation of Stingless Bee Hive Conditions and Corresponding Parameters Utilising IoT and Machine Learning for Improved Honey Production** — Co-Researcher

Funder: Ministry of Higher Education • Amount: RM 79,000 • Duration: 2020 - 2022
- Design and Development of an Automatic Waterjet Fruit Peeling and Cutting Machine** — Co-Researcher

Funder: University and Industry • Amount: RM 30,000 • Duration: 2020 - 2022
- Intelligent Machine Learning Technique for Predicting the Moisture Distribution and Provide Quantification Assessment using Deep Convolutional Neural Network** — Co-Researcher

Funder: Ministry of Higher Education • Amount: RM 145,000 • Duration: 2019 - 2022

- **Formulation of Microgrid Energy Management of Energy Internet Using Fuzzy Based Model Predictive Control** — Co-Researcher
Funder: Ministry of Higher Education • Amount: RM 60,450 • Duration: 2019 - 2021
- **A New Multimodal Classification-based Method for 3D Point Cloud Big Data Management in Heritage Building Preservation** — Co-Researcher
Funder: Ministry of Higher Education • Amount: RM 69,000 • Duration: 2017 - 2020
- **Early Detection System for Indoor Biological and Gas Contaminants** — Co-Researcher
Funder: Ministry of Higher Education • Amount: RM 85,000 • Duration: 2015 - 2017
- **Memristor based Silicone Brain-Enabling Instantaneous Artificial Neural Network Performing Pattern Recognition** — Principal Investigator
Funder: Ministry of Higher Education • Amount: RM 120,000 • Duration: 2013 - 2015
- **Fundamental Study on The Development of Tactile Sensory Aid for Hearing Impaired** — Co-Researcher
Funder: Ministry of Higher Education • Amount: RM 101,000 • Duration: 2008 - 2010
- **Design of an Artificial Intelligent Diagnostic System for Tuberculosis Infection** — Co-Researcher
Funder: MOSTI • Amount: RM 155,000 • Duration: 2007 - 2009
- **Fundamental Study and Investigation of Intelligent Algorithm for Autonomous Multi-Terrain Mobile Robot Control and Navigation in Large Scale Plantations** — Principal Investigator
Funder: Ministry of Higher Education • Amount: RM 100,000 • Duration: 2007 - 2009
- **A Study of An Intelligent Control System for Lower Limb Rehabilitation** — Co-Researcher
Funder: Ministry of Higher Education • Amount: RM 72,000 • Duration: 2007 - 2009
- **Development of Ultrasonic Tomographic Imaging Instrument for Measuring Oxygen Transfer Rate in Bioreactor** — Co-Researcher
Funder: MOSTI • Amount: RM 205,000 • Duration: 2007 - 2009
- **Attitude Control System Project for Innosat** — Co-Researcher
Funder: ATSB • Amount: RM 118,000 • Duration: 2006 - 2010
- **Prediction of Solar Energy and Average Clearness Index at North Malaysia Region** — Co-Researcher
Funder: University Internal • Amount: RM 10,000 • Duration: 2006 - 2007

SELECTED PUBLICATIONS

1. Ming Ee Chong, Bukhari Ilias, Norasmadi Abdul Rahim, SHAZMIN ANIZA ABDUL SHUKOR, MOHD AL HAFIZ SAAD (2026). **Study and Development of Strider Linkage Legged Robot's Movement with HuskyLens AI Vision Camera.** *International Journal of Autonomous Robotics and Intelligent Systems (IJARIS)*, Vol. 2(1), pp. 85-94.
2. Erdy Sulino bin Mohd Muslim Tan, Marni Azira Binti Markom, Abu Hassan Abdullah, Norasmadi Abdul Rahim, Lee Yit Leng, Fathinul Syahir Ahmad Saad, Allan Melvin Andrew, Imaduddin Helmi Wan Nordin, Pubalan Nadaraja, Mohd Amri Zainol Abidin (2025). **Analysis of NGBoost and XGBoost for Added Amount Fertilizer (NPK) Prediction: Uncertainty Estimation and Model Performance in Precision Agriculture.** *Advanced and Sustainable Technologies (ASET)*, Vol. 4(2), pp. 385-402.
3. Erdy Sulino bin Mohd Muslim Tan, Marni Azira Binti Markom, Abu Hassan Abdullah, Norasmadi Abdul Rahim, Fathinul Syahir Ahmad Saad, Imaduddin Helmi Wan Nordin, Mohd Amri Zainol Abidin, Yogesh CK (2025). **Boosting Algorithm Comparisons for the Prediction of Added Amount Macronutrients (NPK) of Harumanis Mango Tree Penology Stage.** *Advanced and Sustainable Technologies (ASET)*, Vol. 4(2), pp. 371-384.
4. Abu Hassan Abdullah, Muhamad Imran Ahmad, Norasmadi Abdul Rahim, Haniza Yazid, Wan Mohd Faizal Wan Nik, Shafie Omar, Tan Shie Chow, Fahmy Rinanda Saputri, others Mohd Nazri Abu Bakar (2025). **Quality Classification of Harumanis Mango Based on External Multi-Parameter and Machine Learning Techniques..** *International Journal of Advanced Computer Science & Applications*, Vol. 16(10), pp. 571-578.
5. Shazmin Aniza, Norasmadi Abdul Rahim Muhamad Shahrizuan Abdul Khair (2025). **LIDAR-based Robot for Localization and Mapping.** *International Journal of Autonomous Robotics and Intelligent Systems (IJARIS)*, Vol. 1(1), pp. 57-68.
6. Norasmadi Abdul Rahim, Bukhari Ilias Mohd Shakirin Mohd Shukri (2025). **Development of an Intelligent Sumo Robot based on Embedded Fuzzy Logic.** *International Journal of Autonomous Robotics and Intelligent Systems (IJARIS)*, Vol. 1(1), pp. 93-105.

7. Abdul Syafiq Abdull Sukor, Abdul Hamid Adom, Latifah Munirah Kamarudin, Norasmadi Abdul Rahim, Aimi Salihah Abdul Nasir Muhammad Rasydan Mazlan (2025). **EEG-Based Acute Stress Level Detection Via Mutual Information and Correlation-Guided Clustering**. *SSRN Journal*.
8. Bukhari Ilias, Norasmadi Abdul Rahim, Shazmin Aniza Abdul, Abdul Hamid Adom Shukor, Mohd Al-haffiz Saad, Mohd Fauzi Abu Hassan Muhammad Ammar Asyraf Che Ali (2024). **A Study of Heat Insulation Methods for Enhancing the Internal Temperature on Artificial Stingless Bee Hive**. *Journal of Engineering Research and Education*, Vol. 16, pp. 25-35.
9. MH Abdul Razak, MIS Nasri, NA Masuan, MS Mohd Amin, AF Ahmad Zaidi, MS Zanar Azalan, N Abdul Rahim H Ali (2024). **Hyperbolic recognition of buried pipes in ground penetrating radar images with the presence of scattering objects**. *The 6th International Conference on Electronic Design (ICED 2022)*, Vol. 2898(1), pp. 1-6.
10. Bukhari Ilias, Norasmadi Abdul Rahim, Shazmin Aniza Abdul, Abdul Hamid Adom Shukor, Mohd Al-haffiz Saad, Mohd Fauzi Abu Hassan Muhammad Ammar Asyraf Che Ali (2024). **A Study of Embedded Fuzzy Logic to Determine Artificial Stingless Bee Hive Condition and Honey Volume**. *Journal of Engineering Research and Education*, Vol. 16, pp. 36-45.
11. Norasmadi Abdul Rahim, Shazmin Aniza Abdul Shukor, Mohamad Hanif Ab Hamid Fateh Alrahman Kamal Qasem Alnagashi (2024). **Mitigating overfitting in extreme learning machine classifier through dropout regularization**. *Applied Mathematics and Computational Intelligence (AMCI)*, Vol. 13(1), pp. 26-35.
12. Abdul Syafiq Abdull Sukor, Abdul Hamid Adom, Latifah Munirah Kamarudin, Hiromitsu Nishizaki, Norasmadi Abdul Rahim Muhammad Rasydan Mazlan (2024). **Analysis of Acute Stress Reaction with EEG using MI-mRMR EEG Channel Selection and Ensemble Learning with Majority Voting**. *2024 International Conference on Cyberworlds (CW)*.
13. Norasmadi Abdul Rahim Fateh Alrahman Kamal Qasem Al-nagashi (2023). **Performance of Extreme Learning Machine**. *Symposium on Intelligent Manufacturing and Mechatronics*, pp. 165-185.
14. Abdul Hamid Adom, Norasmadi Abdul Rahim Muqri Muazam Zainal (2023). **A Convenient Proper Saf Arrangement Monitoring System for Congregational Salah in The Mosque**. *Proceeding International Multidisciplinary Conference (IMC 2023)*.
15. Bukhari Ilias, Norasmadi Abdul Rahim, Shazmin Aniza, Abdul Shukor, Abdul Hamid Adom, Mohd Alhaffiz Saad, Mohd Fauzi Abu Hassan Muhammad Ammar Asyraf Che Ali (2023). **Development of Artificial Stingless Bee Hive Monitoring using IoT System on Developing Colony**. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, Vol. 33(2), pp. 254-268.
16. Marni Azira Binti Markom, Allan Melvin Andrew, Abu Hassan Abdullah, Norasmadi Abdul Rahim, Fathinul Syahir Ahmad Saad, Imaduddin Helmi Wan Nordin, Mohd Amri Zainol Abidin, Syahrull Hi-Fi Syam Ahmad Jamil, CK Yogesh Erdy Sulino Mohd Muslim Tan (2023). **Analysis of Soil Nutrient (NPK) Test Value--Relative yield Relationship for Harumanis Mango using Modification Arcsine-Log Calibration Curve..** *8th International Conference on Man Machine Systems 2023 (Journal of Physics: Conference Series)*, Vol. 2641(1), pp. 1-8.
17. SM Othman, MN Ayob, N Abdul Rahim, SNAM Kanafiah, MS Muhamad Azmi, MS Mohamad Hashim, MTM Talib, NS Khalid NL Julida (2023). **IoT Based Smart Betta Fish Monitoring system with fish fatality prediction..** *8th International Conference on Man Machine Systems 2023 (Journal of Physics: Conference Series)*, Vol. 2641(1), pp. 1-8.
18. Marni Azira Binti Markom, Allan Melvin Andrew, Abu Hassan Abdullah, Norasmadi Abdul Rahim, Fathinul Syahir Ahmad Saad, Imaduddin Helmi Wan Nordin, Mohd Amri Zainol Abidin, Syahrull Hi-Fi Syam Ahmad Jamil, C Yogesh Erdy Sulino Mohd Muslim Tan (2023). **Nutrient Requirements and Growth Response of Harumanis Mango (Mangifera indica L.) during Vegetative Shoot Growth Stages: A Mitscherlich Law Analysis**. *8th International Conference on Man Machine Systems 2023 (Journal of Physics: Conference Series)*, Vol. 2641(1), pp. 1-8.
19. Muhamad Safwan Muhamad Azmi, Abdul Halim Ismail, Kamarulzaman Kamarudin, Lam Chee Kiang, Norasmadi Abdul Rahim, Wan Mohd Nooriman Wan Yahya, Tan Kian Yew, Lum Wei Min Yaghtiswara Seran (2023). **CFD Analysis of Pure Waterjet Nozzle for Fruit Peeling and Cutting Process**. *CFD Letters*, Vol. 16(1), pp. 138-149.
20. SA Abdul Shukor, NA Rahim, R Wong FA Ismail (2023). **Surface reconstruction from unstructured point cloud data for building Digital Twin**. *International Journal of Advanced Computer Science and Applications*, Vol. 14(10), pp. 701-709.
21. Norasmadi Abdul Rahim, Marni Azira Markom, Abu Hassan Abdullah, Allan Melvin Andrew, Aimi Salihah Abdul Nasir Erdy Sulino Mohd Muslim Tan (2023). **Multiple-Criteria Decision Analysis for Effect of Shoot Growth at Difference Combination Nutrient Fertiliser NPK for Harumanis Mango**. *Journal of Engineering Research and Education*, Vol. 15, pp. 1-8.
22. SA Abdul Shukor, NA Rahim, A Zakaria, AH Adom, NS Khalid, R Wong FA Ismail (2023). **Application of Deep Learning in Building Digital Twin—A Review**. *Symposium on Intelligent Manufacturing and Mechatronics*.

23. Kamarulzaman Kamarudin, Chee Kiang Lam, Muhammad Safwan Muhammad Azmi, Abdul Halim Ismail, Norasmadi Abdul Rahim, WMNW Yahya, GK Sneah, ML Seng, TP Hai, others N Ali (2022). **3D Reconstruction of Fruit Shape based on Vision and Edge Sections**. *Journal of Electronic & Information Systems*, Vol. 4(1), pp. 26-32.
24. Norasmadi Abdul Rahim, Maz Jamilah Masnan, Ammar Zakaria Boon Pin Ooi (2021). **A study of extreme learning machine on small sample-sized classification problems**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-7.
25. Hamiza Mohamad Radzi, AF Salleh, NA Rahim, MS Salim, Nurhidayah Omar, Hamzah Sakeran, Segaran K Nair (2021). **Effect of Strength and Conditioning Trainings on Lower Limb Muscles Activity of High-Jumping Athletes**. *Intelligent Manufacturing and Mechatronics: Proceedings of SympoSIMM 2020*, pp. 1127-1135.
26. AF Salleh, NA Rahim, MS Salim, A Saidatul, N Omar, S Hamzah SO Atiya (2021). **Accelerometer-based physical fatigue assessment in 400 meter running event**. *AIP Conference Proceedings*, Vol. 2339(1).
27. Nurul Syahirah Mohd Ideris, AF Ahmad Zaidi, MS Zanar Azalan, TS Tengku Amran, MR Ahmad, N Abdul Rahim, SA Abdul Shukor Hasimah Ali (2021). **Ground penetrating radar for buried utilities detection and mapping: a review**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-9.
28. SAA Shukor, NA Rahim Tew Chin Keong (2021). **Development of a Mobile Platform with IoT for LIDAR**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-7.
29. AH Abdullah, N Abdul Rahim, Erdy Sulino Mohd Muslim Tan WM Nooriman (2021). **Fuzzy logic based prediction of micronutrients demand for harumanis mango growth cycles**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-7.
30. Chee Kiang Lam, Kamarulzaman Kamarudin, Abdul Halim Ismail, Norasmadi Abdul Rahim, Muhammad Safwan Muhammad Azmi, Wan Mohd Nooriman Wan Yahya, Goh Kheng Sneah, Moey Lip Seng, Teoh Phaik Hai, others Sean Huey Tan (2021). **Vision-based edge detection system for fruit recognition**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-8.
31. B Ilias, N Abdul Rahim, SA Abdul Shukor, AH Adom, MAH Saad MAA Che Ali (2021). **A review on the stingless beehive conditions and parameters monitoring using IoT and machine learning**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-8.
32. AH Abdullah, N Abdul Rahim, H Yazid, NS Zakaria, S Omar, WMF Wan Nik, N Abu Bakar, SF Sulaiman, MI Ahmad, others MN Abu Bakar (2021). **Defects detection algorithm of harumanis mango for quality assessment using colour features extraction**. *International Conference on Man Machine Systems (ICoMMS 2021) (Journal of Physics: Conference Series)*, Vol. 2107(1), pp. 1-8.
33. Nor Idayu Mahat, Ali Yeon Md Shakaff, Ammar Zakaria, Norasmadi Abdul Rahim, Norazian Subari Maz Jamilah Masnan (2021). **Distance-based feature selection for low-level data fusion of sensor data**. *5th International Conference on Computing, Mathematics and Statistics (iCMS 2021)*, pp. 256-283.
34. MN Abu Bakar, AH Abdullah, NA Rahim, H Yazid, FSA Saad, K Ahmad (2020). **Development of ripeness indicator for quality assessment of harumanis mango by using image processing technique**. *IOP Conference Series: Materials Science and Engineering*, Vol. 932(1).
35. Abdul Syafiq Abdull Sukor, Latifah Munirah Kamarudin, Ammar Zakaria, Norasmadi Abdul Rahim, Sukhairi Sudin, Hiromitsu Nishizaki (2020). **RSSI-based for device-free localization using deep learning technique**. *Smart Cities*, Vol. 3(2), pp. 444-455.
36. MA Abd Halim, MTA Rahman, N Abdul Rahim, A Rahman, AFA Hamid, NAM Amin (2019). **Analysis on current flow style for vehicle alternator fault prediction**. *IOP Conference Series: Materials Science and Engineering*, Vol. 670(1), pp. 1-5.
37. Abdull Sukor, Abdul Syafiq, Ammar Zakaria, Norasmadi Abdul Rahim, Latifah Munirah Kamarudin, Rossi Setchi, Hiromitsu Nishizaki (2019). **A hybrid approach of knowledge-driven and data-driven reasoning for activity recognition in smart homes**. *Journal of Intelligent & Fuzzy Systems*, Vol. 36(5), pp. 4177-4188.
38. AS Abdull Sukor, Ammar Zakaria, N Abdul Rahim, Latifah Munirah Kamarudin, Hiromitsu Nishizaki (2019). **Abnormality detection approach using deep learning models in smart home environments**. *Proceedings of the 7th International Conference on Communications and Broadband Networking*, pp. 22-27.
39. MA Markom, AH Adom, SA Abdul Shukor, N Abdul Rahim, ES Mohd Muslim Tan, B Ilias (2019). **Improved KNN scan matching for local map classification in mobile Robot Localisation application**. *IOP Conference Series: Materials Science and Engineering*, Vol. 557(1), pp. 1-6.

40. AM Ali, SA Abdul Shukor, NA Rahim, ZM Razlan, ZAZ Jamal, K Kohlhof (2019). **IoT-based smart air conditioning control for thermal comfort**. *2019 IEEE International Conference on Automatic Control and Intelligent Systems (I2CACIS)*, pp. 289-294.
41. SN Mohd Isa, SA Abdul Shukor, NA Rahim, I Maarof, ZR Yahya, A Zakaria, AH Abdullah, R Wong (2019). **Orientation-Based Pairwise Coarse Registration with Markerless Terrestrial Laser Scans**. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, pp. 425-432.
42. WW Tai, B Ilias, SA Abdul Shukor, N Abdul Rahim, MA Markom (2019). **A study of ultrasonic sensor capability in human following robot system**. *IOP Conference Series: Materials Science and Engineering*, Vol. 705(1), pp. 1-9.
43. SN Mohd Isa, SA Abdul Shukor, NA Rahim, I Maarof, ZR Yahya, A Zakaria, AH Abdullah, R Wong (2019). **Point cloud data segmentation using ransac and localization**. *IOP Conference Series: Materials Science and Engineering*, Vol. 705(1), pp. 1-8.
44. Boon Pin Ooi, Norasmadi Abdul Rahim, Ammar Zakaria, Maz Jamilah Masnan, Abdul Shukor, Shazmin Aniza (2019). **Random subspace oracle (RSO) ensemble to solve small sample-sized classification problems**. *Journal of Intelligent & Fuzzy Systems*, Vol. 36(4), pp. 3225-3234.
45. Hayder A Yousif, Ammar Zakaria, Norasmadi Abdul Rahim, Ahmad Faizal Bin Salleh, Mustafa Mahmood, Khudhur A Alfarhan, Latifah Munirah Kamarudin, Syed Muhammad Mamduh, Ali Majid Hasan, Moaid K Hussain (2019). **Assessment of muscles fatigue based on surface EMG signals using machine learning and statistical approaches: A review**. *IOP conference series: materials science and engineering*, Vol. 705(1), pp. 1-8.
46. Hayder A Yousif, Norasmadi Abdul Rahim, Ahmad Faizal Bin Salleh, Ammar Zakaria, Khudhur A Alfarhan, Mustafa Mahmood (2019). **A study of lower limb muscles fatigue during running based on EMG signals**. *2019 IEEE International Conference on Sensors and Nanotechnology*, pp. 1-4.
47. Hayder A Yousif, Abdul Rahim Norasmadi, Ahmad Faizal Bin Salleh, Ammar Zakaria (2019). **Evaluation of Lower Limb Muscles Fatigue and Force During Running 400-Meters Using Learning Machine**. *Journal of Biomimetics, Biomaterials and Biomedical Engineering*, Vol. 43, pp. 39-53.
48. Hayder A Yousif, Abdul Rahim Norasmadi, Ahmad Faizal Bin Salleh, Ammar Zakaria, Khudhur A Alfarhan (2019). **Assessment of muscles fatigue during 400-meters running strategies based on the surface EMG signals**. *Journal of Biomimetics, Biomaterials and Biomedical Engineering*, Vol. 42, pp. 1-13.
49. Ch'ng Shen Yi, SA Abdul Shukor, NA Rahim, K Kohlhof, ZAZ Jamal (2018). **Internet-of-things (IoT) for human thermal comfort: A simulative investigation**. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, Vol. 10(1-14), pp. 119-123.
50. MN Abu Bakar, AH Abdullah, N Abdul Rahim, H Yazid, SN Misman, MJ Masnan (2018). **Rice leaf blast disease detection using multi-level colour image thresholding**. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, Vol. 10(1-14), pp. 1-6.
51. WM Nooriman, AH Abdullah, N Abdul Rahim, K Kamarudin (2018). **Development of wireless sensor network for Harumanis Mango orchard's temperature, humidity and soil moisture monitoring**. *2018 IEEE Symposium on Computer Applications & Industrial Electronics (ISCAIE)*, pp. 263-268.
52. AS Abdull Sukor, Ammar Zakaria, N Abdul Rahim (2018). **Activity recognition using accelerometer sensor and machine learning classifiers**. *2018 IEEE 14th international colloquium on signal processing & its applications (CSPA)*, pp. 233-238.
53. Abdul Syafiq Abdull Sukor, Ammar Zakaria, Norasmadi Abdul Rahim, Rossitza Setchi (2018). **Semantic knowledge base in support of activity recognition in smart home environments**. *International Journal of Engineering and Technology*, Vol. 7(4.27), pp. 67-72.
54. AM Ali, SA Abdul Shukor, NA Rahim, ZM Razlan, ZAZ Jamal, K Kohlhof (2018). **Computational fluid dynamic (CFD) of Air conditioning system for human thermal comfort analysis: a simulation study**. *2018 8th IEEE International Conference on Control System, Computing and Engineering (ICCSCE)*.
55. SN Mohd Isa, SA Abdul Shukor, NA Rahim, I Maarof, ZR Yahya, A Zakaria, AH Abdullah, R Wong (2018). **A review of data structure and filtering in handling 3D big point cloud data for building preservation**. *2018 IEEE Conference on Systems, Process and Control (ICSPC)*.
56. BP Ooi, N Abdul Rahim, A Zakaria, MJ Masnan, SA Abdul Shukor, MP Paulraj (2018). **Parametric Feature Selection for an Enhanced Random Linear Oracle Ensemble Method**. *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, Vol. 10(1-13), pp. 111-116.

57. NS Khalid, AH Abdullah, SAA Shukor, ND Dalila, MJ Masnan, H Mansor, NA Rahim, Fathinul Syahir AS (2018). **Detection of colletotrichum gloeosporioides fungus isolates development/spread for mango (Mangifera Indica L.) cultivar from electronic nose using multivariate-statistical analysis.** *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, Vol. 10(1-6), pp. 171-175.
58. Ahmad Nasrul Norali (2017). **Human breathing classification using electromyography signal with features based on mel-frequency cepstral coefficients.** *International Journal of Integrated Engineering*, Vol. 9(4), pp. 85-92.
59. Marni Azira Markom, Shazmin Aniza Abdul Shukor, Norasmadi Abdul Rahim, Abdul Hamid Adom (2017). **Laser Range Finder Filters for Mapping and Localisation.** *IEEE Conference on Systems, Process and Control (ICSPC)*.
60. Boon Pin Ooi, Norasmadi Abdul Rahim, Ammar Zakaria, Maz Jamilah Masnan, Shazmin Aniza Abdul Shukor (2017). **An Enhanced Random Linear Oracle Ensemble Method using Feature Selection Approach based on Naïve Bayes Classifier.** *Journal of Telecommunication, Electronic and Computer Engineering (JTEC)*, Vol. 9(4), pp. 69-77.
61. AH Abdullah, SA Shukor, MS Kamis, AYM Shakaff, A Zakaria, NA Rahim, SM Mamduh, K Kamarudin, FSA Saad, MJ Masnan, others (2017). **Calibration of an electronic nose for poultry farm.** *AIP Conference Proceedings*, pp. 1.
62. Bukhari Ilias, Abdul Hamid Adom, Norasmadi Abdul Rahim, Mohd Firdaus Ibrahim, Sazali Yaacob (2017). **Indoor Mobile Robot Localization using KNN.** *IEEE International Conference on Control System, Computing and Engineering (ICCSCE)*.
63. A.N. Norali, A.H. Abdullah, Z. Zakaria, N.Abdul Rahim, S.K. Nataraj (2017). **Human Breathing Assessment using Electromyography Signal of Respiratory Muscles.** *IEEE International Conference on Control System, Computing and Engineering (ICCSCE)*, pp. 1.
64. AN Norali, AH Abdullah, Z Zakaria, NA Rahim, V Vijejan, SK Nataraj (2017). **Classification of human breathing task based on electromyography signal of respiratory muscles.** *2017 IEEE 13th International Colloquium on Signal Processing & its Applications (CSPA)*, pp. 196-201.
65. AFA Hamid, MTA Rahman, SF Khan, AH Adom, MA Rahim, NA Rahim, MHN Ismail, A Norizan (2017). **Connected car: engines diagnostic via Internet of Things (IoT).** *Journal of Physics: Conference Series*, Vol. 908(1), pp. 1-11.
66. MA Markom, AH Adom, SA Abdul Shukor, N Abdul Rahim, ES Mohd Muslim Tan, A Irawan (2017). **Scan matching and KNN classification for mobile robot localisation algorithm.** *2017 IEEE 3rd International Symposium in Robotics and Manufacturing Automation (ROMA)*.
67. Hayder A. Azeez, Norasmadi Abdul Rahim, Muhammad Juhairi Aziz bin safar, Mustafa M. sabry (2016). **Controlling Power-assisted Wheelchair Movements by using LDA Classifier.** *International Journal of Engineering Trends and Technology (IJETT)*, Vol. 37(5), pp. 269-272.
68. A. H. Abdullah, N. Abdul Rahim, M. J. Masnan, F. S. Ahmad Sa' ad, A. Zakaria (2016). **Rice and the Electronic Nose.** *Electronic Noses and Tongues in Food Science*, pp. 103-113.
69. Hayder A. Azeez, Norasmadi Abdul Rahim, Muhammad Juhairi Aziz bin safar (2016). **EMG Controlled Wheelchair Movement based on Masseter and Buccinators Muscles.** *International Journal of Engineering Trends and Technology (IJETT)*, Vol. 37(3), pp. 133-139.
70. Norasmadi Abdul Rahim, MP Paulraj, Abdul Hamid Adom, Shazmin Aniza Abdul Shukor, Maz Jamilah Masnan (2015). **Multi-Classifer System for Moving Vehicles Noise Classification based on K-Nearest Neighbor.** *6th International Symposium on Advanced Engineering*.
71. AH Abdullah, AH Adom, AY Md Shakaff, MJ Masnan, A Zakaria, NA Rahim, O Omar (2015). **Classification of Malaysia aromatic rice using multivariate statistical analysis.** *AIP Conference Proceedings*.
72. MHM Razali, SM Mamduh, K Kamarudin, A Zakaria, NA Rahim, LM Kamarudin, N Azmi, AYM Shakaff, FSA Saad, SAA Shukor (2015). **Development of Microphone System for Low Cost Bioacoustic Device.** *Journal of Medical Imaging and Health Informatics*, Vol. 5(6), pp. 1242-1245.
73. Humairah Mansor, Abdul Hamid Adom, Norasmadi Abdul Rahim (2015). **Development of Leader and Follower Strategy for Swarm Robot Applications.** *Jurnal Teknologi*, Vol. 77(28), pp. 55-59.
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78. Norasmadi Abdul Rahim, MP Paulraj, Abdul Hamid Adom, Shazmin Aniza Abdul Shukor, Maz Jamilah Masnan (2015). **Homogeneous multi-classifier system for moving vehicles noise classification based on multilayer perceptron.** *Journal of Intelligent and Fuzzy Systems*, Vol. 29(1), pp. 149-157.
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80. Tan Hui Ling, S Ahmad Faizal, Norasmadi Abdul Rahim, Wan Mohd (2014). **Feature Extraction of Knee Joint Vibroarthrographic (VAG) Signal Using Statistical Means.** , pp. 832-835.
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87. N Abdul Rahim, MP Paulraj, AH Adom (2013). **Classification of Moving Vehicle using Heterogeneous Multi-Classifiers.** *International Conference on Innovation in Communication, Information and Computing (ICICIC'13)*.
88. N Abdul Rahim, MP Paulraj, AH Adom (2013). **Classification of Moving Vehicles using Multi-Classifier with Time-Domain Approach.** *International Journal of Computer Applications*, Vol. 71(1), pp. 12-17.
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96. N. Abdul Rahim, Paulraj M P, A. H. Adom, S. Sathish Kumar (2012). **Adaptive Boosting for Moving Vehicle Classification using KNN Classifier.** *Regional Economic Development through Science, Technology and Art, (REDSTAR2012)*.

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98. N Abdul Rahim, MP Paulraj, AH Adom (2012). **Homogeneous Multi-Classifiers for Moving Vehicle Classification**. *Karpagam Journal of Computer Science*, Vol. 6, pp. 342-354.
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100. N Abdul Rahim, MP Paulraj, AH Adom, S Sathish Kumar (2011). **Moving vehicle noise classification using multiple classifiers**. *Research and Development (SCORED), 2011 IEEE Student Conference on*.
101. Murugesu Pandiyan Paulraj, Sathishkumar Sundararaj Abdul Rahim Norasmadi (2010). **Moving vehicle noise classification using backpropagation algorithm**. *2010 6th International Colloquium on Signal Processing & its Applications*.
102. Ihsan Mohd Yassin, Mohd Nasir Taib, Norasmadi Abdul Rahim, Mohd Khairul Mohd Salleh, Husna Zainol Abidin (2010). **Particle Swarm Optimization for NARX structure selection—Application on DC motor model**. *Industrial Electronics & Applications (ISIEA), 2010 IEEE Symposium on*.
103. Norasmadi Abdul Rahim, MP Paulraj, Abdul Hamid Adom, Sathishkumar Sundararaj (2010). **Moving vehicle noise classification using backpropagation algorithm**. *Signal Processing and Its Applications (CSPA), 2010 6th International Colloquium on*.
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106. MHA Hamid, AH Adom, NA Rahim, MHF Rahiman, Abu Hassan Abdullah (2008). **Autonomous Mobile Robot (AMRSBot) with GPS Navigation and Ultrasonic Obstacle Avoidance System..** *Brunei International Conference in Engineering and Technology*.
107. IM Yassin, NA Rahim, MN Taib (2008). **NARMAX identification of DC motor model using particle swarm optimization**. *4th Int. Colloquium on Signal Processing & Its Applications (CSPA 2008)*.
108. ASW Wahab, MY Mashor, Zaleha Salleh, SA Abdul Shukor, N Abdul Rahim, F Muhamad Idris, H Hasan, SS Noor (2008). **A neural network approach for contrast enhancement image**. *2008 International Conference on Electronic Design*.
109. ASW Wahab, MY Mashor, Zaleha Salleh, SA Abdul Shukor, N Abdul Rahim, F Mohamad Idris, H Hasan, SS Noor (2008). **Colour image enhancement for Ziehl-Neelsen slide images**. *2008 International Conference on Electronic Design*.
110. Zaleha Salleh, MY Mashor, NR Mat Noor, Shazmin Aniza, N Abdul Rahim, ASW Wahab, SS Md Noor, F Mohamad Idris, Habsah Hasan (2007). **Colour contrast enhancement based on bright and dark stretching for Ziehl-Neelsen slide images**. *Third International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP 2007)*.
111. Norasmadi Abdul Rahim (2007). **Nonlinear system identification for a DC motor using NARMAX model with regularization approach**. .
112. Azizul Mohamad, Norasmadi Abdul Rahim (2007). **Overview of Fuel Cell Powered Radio Controlled Car**. *Space*.
113. Azizul Mohamad, Norasmadi Abdul Rahim, Shazmin Aniza Abdul Shukor, Nashrul Fazli Mohd Nasir (2007). **A Review of Fuel Cell Powered Mobile Robots**. *Space*.
114. N Abdul Rahim, AH Abdullah, SA Abdul Shukor, MH Fazalul Rahiman (2006). **Microcontroller-Based Data Acquisition for Thermal Comfort System**. .
115. NA Rahim, MN Taib, AH Adom, MY Mashor (2006). **The NARMAX Model for a DC Motor using MLP Neural Network**. *Proceeding of the First International Conference On MAN-MACHINE SYSTEMS (ICoMMS)*.
116. Norasmadi Abdul Rahim (2005). **Design of a Nonlinear Autoregressive Moving Average with Exogenous Input (NARMAX) model for a DC motor**. .

117. NA Rahim (2004). **The design of a non-linear autoregressive moving average with exogenous input (NARMAX) for a DC motor.** *MSc, Faculty of Electrical Engineering, Universiti Teknologi MARA, Shah Alam.*

118. NA Rahim (2004). **The design of a nonlinear autoregressive moving average with exogenous input (NARMAX) model for a dc motor.** *Faculty of Electrical Engineering.*

119. NA Rahim, MN Taib, MI Yusof (2003). **Nonlinear system identification for a DC motor using NARMAX Approach.** *Sensors, 2003. AsiaSense 2003. Asian Conference on.*

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STUDENT SUPERVISION

GRADUATED POSTGRADUATE STUDENTS

No.	Student Name	Program	Role	Title	Year
1	Erdy Sulino Muslim Tan	PhD	Co-SV	"Soil NPK Nutrition Prediction using Machine Learning Techniques for Each Phenology Harumanis Mango Grown"	2025
2	Muhammad Ammar Asyraf Che Ali	MSc	Co-SV	"Artificial Stingless Bee Hive Design Utilizing Embedded Fuzzy-IoT based Determining Hive Condition and Honey Volume"	2024
3	Hayder Abdulazeez Yousif Al-Yasari	PhD	Main SV	"Evaluation of Lower Limb Muscles Fatigue in 400-Meters Sprinting using Three Pacing Strategies based on sEMG Signal"	2021
4	Azarul Fahmin Ab Hamid	MSc	Co-SV	"Analysis on Network Performance by Considering Doppler Shift Effect for Connected Car Wireless Mobile Communication"	2022
5	Anwar Mohammed Ali	MSc	Co-SV	"Smart Room Thermal Comfort Control using Fuzzy Inference System"	2019
6	Abdul Syafiq Abdull Sukor	PhD	Co-SV	"Context-aware Activity Recognition and Abnormality Detection Approaches in Smart Home Environments"	2022
7	Mohd Nazri Abu Bakar	PhD	Co-SV	"Quality Measurement of Mango for Grading Standards using Multi Sensor Modalities and Decision Support System"	2025
8	Ooi Boon Pin	PhD	Main SV	"Diversity Injected Ensemble Model for Small Sample-sized Classification Problems"	2024
9	Hayder Abdulazeez Yousif Al-Yasari (MSc)	MSc	Main SV	"A Classification of EMG Signal from Masseter and Buccinators, Muscles to Control the Directional Movement of Power-Assisted... Wheelchair"	2017
10	Yallini A/P Selva	MSc	Co-SV	"Effect of Stability Exercises on 10M Air Rifle Shooting Performance"	2021
11	Marni Azira Markom	PhD	Co-SV	"The Mobile Robot System for Mapping and Localisation Utilising Single Laser Range Finder in Static Environments"	2018
12	Ahmad Nasrul Norali	PhD	Co-SV	"Classification of Human Breathing Activity based on Electromyography Signal of Respiratory Muscles"	2021
13	Humairah Mansor	MSc	Co-SV	"Development of Swarming Algorithm for Mobile Robot"	2013
14	Aida Sharmila Wati Binti Wahab	MSc	Co-SV	"Design of an Artificial Intelligent Diagnostic system for Tuberculosis Infection"	2010

ONGOING POSTGRADUATE STUDENTS

No.	Student Name	Program	Role	Title	Year
1	Mohd Shakirin Mohd Shukri	PhD	Main SV	"Multimodality Data Fusion with Ensemble Approaches for Functional Characterization of Cannabis Effects on Brain Activity"	
2	Falah Akmal Ismail	PhD	Co-SV	"Modelling of Complex Environment from Unstructured Point Cloud Data for Building Digital Twin"	
3	Fateh Alrahman Kamal Qasem Al-Nagashi	MSc	Main SV	"Ensemble Classifier Algorithm using Dropout Approach for Small Sample-Sized Problems"	
4	Mustafa Mahmood Sabry	PhD	Co-SV	"3D Computed Tomography Analysis using Deep Learning"	

UNDERGRADUATE (FYP) STUDENTS					
No.	Student Name	Program	Role	Title	Year
1	Danial Aiman Sukarno	FYP	Co-SV	"Development of Excess Noise Monitoring System based on 1/3 Octave Filter Bank"	2020
2	Mooi Tah She	FYP	Co-SV	"Fatigue Classification for 400-Meter Running based on Data Transformation Method"	2019
3	Lee Weng Yau	FYP	Co-SV	"Harumanis Index Level Identification based on Colour Image Processing Method"	2019
4	Abdulmalik Mohamed Alzubair Ahmed Ibrahim Altash	FYP	Co-SV	"Identification of Iqra' Recitation based on The Domain Analysis"	2019
5	Lau Chuan Ping	FYP	Co-SV	"An Intelligent Desk Lamp for Eye Comfort using Fuzzy Logic Controller"	2019
6	Tan Kean Tai	FYP	Co-SV	"Sudden Cardiac Arrest Prediction based on Electrocardiogram (ECG) Signals Morphology"	2018
7	Lai Jiunn Chyuan	FYP	Co-SV	"Accelerometer-based Personalized Gesture Recognition for Mobile Robot Application"	2018
8	Muhammad Nur Amin Hamid	FYP	Co-SV	"A Study of Excess Noise Emanating from Hammer Mill Machine based on 1/3 Octave Filter Bank"	2018
9	Muhammad Ariff Ashraf Abdul Hamid	FYP	Co-SV	"Knock Pattern Recognition for Home Automation"	2017
10	Norsyahmi Mohd Zahir	FYP	Co-SV	"Classification of Knee Joint Vibroarthrographic (VAG) Signal based on Support Vector Machines"	2017
11	Kang Wei Yu	FYP	Co-SV	"An Enhanced Random Subspace Ensemble Method using Genetic Algorithm Approach"	2017
12	Jayaganes A/L R Viswanathan	FYP	Co-SV	"A Study of Soft Independent Modelling of Class Analogy (SIMCA) Classifier for Multi-Class Application"	2017
13	Teoh Shi Lin	FYP	Co-SV	"Development of a Secured Laboratory Access System based on Face Recognition"	2020
14	Muhammad Amir Harith Abdul Jalil	FYP	Co-SV	"Embedded Fuzzy Logic Controller based Irrigation System for Harumanis Mango"	2020
15	Adli Iskandar Badiulzaman	FYP	Co-SV	"Paddy Field Diseases Monitoring using Image Processing Techniques"	2023
16	Lee Chee Ling	FYP	Co-SV	"Pathology Voice Recognition based on Machine Learning Approach"	2020
17	Teng Keat Fei	FYP	Co-SV	"A Study of Random Weight Neural Network in Classifier Ensemble Model"	2021
18	Abdul Fadhil Alias	FYP	Co-SV	"Paddy Fields Fungus and Bacteria Early Prediction based on Embedded Fuzzy Logic"	2021
19	Omar Qaiyyum Mohammad Aslahuddin	FYP	Co-SV	"Voice Disorder Classification based on 1/3 Octave Filter Bank"	2021
20	Mohd Nizamudin Abdul Rasid	FYP	Co-SV	"Development of Intelligent Living Room Lighting using Embedded Fuzzy Logic"	2022
21	Mohamad Shairil Rezman Mohamad Nizam	FYP	Co-SV	"Prediction of Soil Nutrient for Reproductive Vegetative Shoot Grow using Embedded Fuzzy Logic"	2022
22	Fahim Yusof Mohd Hanafiah	FYP	Co-SV	"Pathological Voice Disorder Classification using Convolutional Neural Network Model"	2022
23	Ong Chor Kian	FYP	Co-SV	"Human Activity Recognition using Deep Learning Approach"	2022
24	Danesvarman Rasanderan	FYP	Co-SV	"Facial Payment Hub"	2023
25	Ahmad Aiman Ahmad Asri	FYP	Co-SV	"Embedded Fuzzy Logic Sensor Fusion for Obstacle Avoidance Mobile Robot"	2023
26	Azwan Farid Mohd Tajudin	FYP	Co-SV	"Early Prediction of Paddy Diseases using Embedded Fuzzy Logic"	2023

No.	Student Name	Program	Role	Title	Year
27	Muhammad Hafirdaus Roslan	FYP	Co-SV	"Smart Based Traffic Clearance Management for Emergency Vehicles"	2024
28	Nur Sabrina Khairul Azahan	FYP	Co-SV	"Development of Happiness Index using Facial Emotion Recognition"	2024
29	Muhammad Qhairul Eimman Pauzi	FYP	Co-SV	"Estimating Paddy Field Chlorophyll Content and Leaf Nitrogen Concentration using Colour Segmentation"	2024
30	Adrian Leong Jun Jie	FYP	Co-SV	"Development of Plate Number Recognition System for Toll Gate Application"	2024
31	Yasmin Suraya Zamre	FYP	Co-SV	"Door Access Control System based on Voice Biometric Authentication"	2017

AWARDS & HONORS

- Enhanced Artificial Stingless Beehive Monitoring and Harvesting System** — PI-ENVEX (2024)
Medal: Gold • Level: International
- Enhanced Artificial Stingless Beehive Monitoring and Harvesting System** — EREKA 2024 (2024)
Medal: Gold • Level: University
- Early Prediction of Paddy Disease using Embedded Fuzzy Logic** — INVIDE (2023)
Medal: Silver • Level: National
- IoT Based Smart Betta Fish Aquaponic Monitoring System with Fish Disease Prediction** — EREKA 2023 (2023)
Medal: Silver • Level: University
- Reconstruction Hyperbolic Image of Buried Object using GPR B-Scan Images for Mapping Purposes** — SRIT RISE (2022)
Medal: Silver • Level: National
- HABAQQNPK-Prediction of Soil Nutrient for Harumanis Mango Vegetative Shoot Grow Harumanis Mango based TDR Method** — PECIPTA (2022)
Medal: Gold • Level: National
- IoT Based Smart Betta Fish Aquaponic Monitoring System with Fish Disease Prediction** — Niice (2022)
Medal: Silver • Level: National
- IoT Betta Fish Aquaponic Monitoring System** — iCompEx (2022)
Medal: Gold • Level: International
- H2: Honey Harvesting Monitoring System** — EREKA (2021)
Medal: Silver • Level: University
- An Invincible Stingless Bee Hive Design with IoT Monitoring System** — ITEX (2021)
Medal: Silver • Level: National
- A Cascade Hyperbolic Recognition using Hybrid Feature Extraction in Subsurface Mapping** — iPerlis (2021)
Medal: Gold • Level: International
- HARMS: Honey Harvesting Monitoring System** — EREKA (2021)
Medal: Silver • Level: University
- A Cascade Hyperbolic Recognition using Hybrid Feature Extraction in Subsurface Mapping** — EREKA (2021)
Medal: Bronze • Level: National
- IOT Monitoring System for Effective Harvesting of Stingless Bee Honey** — VIDE2020 (2020)
Medal: Gold • Level: National
- Smart Manufacturing: Voice Controlled Automation** — VINDREC (2018)
Medal: 1st Place • Level: National
- IOT-ACT: An IOT-based Air Conditioning Control for Thermal Comfort** — EREKA (2018)
Medal: Silver • Level: University
- Lighting System based on the Human Presence** — TGL-CTREST (2017)
Medal: 2nd Place • Level: University

- **Occupational Noise Exposure Monitoring for Manufacturing Industries** — EREKA (2016)
Medal: Silver • Level: University
- **HAZSens: Web-Based Machine Olfaction System for Atmospheric Hazards** — IENA (2014)
Medal: Silver • Level: International
- **Aromatic Rice classification System (ARCSys)** — MTE (2014)
Medal: Silver • Level: National
- **Aromatic Rice classification System (ARCSys)** — UniMAP (2014)
Medal: Gold • Level: University
- **NYSIS: Natural Intel Indoor Air Purifier** — BIS (2013)
Medal: Bronze • Level: International
- **ChicSense: Malodour Monitoring System** — BIS (2013)
Medal: Gold • Level: International
- **Nurse Following Robot: An Automated Robust Nurse Following Robot by Enhance High-Speed Vision System with Sensor Integration for Dynamic Human Tracking and Obstacle Avoidance** — UniMAP (2012)
Medal: Silver • Level: University
- **Low Cost SMS-based Car Security System** — MTE (2011)
Medal: Bronze • Level: National
- **An Early Detection of Basal Stem Rot (BSR) Disease in Oil Palm Trunk using Intelligent Autonomous Robot** — MTE (2011)
Medal: Bronze • Level: National
- **An Intelligent Sign Language to Voice Communication System for Hearing Impaired** — ITEX (2010)
Medal: Gold • Level: National
- **An Intelligent Gesture to Voice Communication System for Hearing Impaired** — UniMAP (2009)
Medal: Gold • Level: University
- **Process Tomography Imaging Sensor** — UniMAP (2008)
Medal: Gold • Level: University
- **Autonomous Mobile Robot Surveillance (ARMSBot)** — UniMAP (2008)
Medal: Bronze • Level: University
- **Process Tomography Imaging Sensor** — MTE (2008)
Medal: Gold • Level: National
- **Design and Development of a Multi-Terrain Mobile Robot for Oil Palm Estate Applications** — UniMAP (2007)
Medal: Bronze • Level: University

COLLABORATIONS

Collaboration on Ground Penetrating Radar (Scope: Artificial Intelligence) Partner: Agency Nuclear Malaysia • Role: Collaborator	2021-2024
Design and Development of Automatic Waterjet Fruit Peeling and Cutting Machine Partner: Walta Engineering Sdn. Bhd. • Role: Collaborator	2020
Design and Development of Fully Integrated IR4.0 Manufacturing Line for Surgical Blades Partner: PGMedic (M) Sdn. Bhd. • Role: Collaborator	2020
Study Lower Limb Muscle Effect for High Jump and 400-M Sprinting Partner: Majlis Sukan Negeri Perlis • Role: Collaborator	2018
Blades Manufacturing Processes: Robotics for Rod Pick and Place Partner: Walta Engineering Sdn. Bhd. • Role: Research Consultant	2017-2018
Machine and Environmental Noise Testing Partner: Peneraju Hijau Sdn. Bhd. • Role: Research Consultant	2016

TEACHING EXPERIENCE

Undergraduate Courses

- Microprocessor
- Microcontroller and Interfaces
- Fundamental of Electrical Engineering
- Analog Electronics
- Embedded System Design and Applications
- Embedded System and Interfacing
- Digital Electronics
- Digital Logic Design

PROFESSIONAL AFFILIATIONS

- **Board of Engineers Malaysia** (BEM) — Member #: 65984A
- **Malaysia Board of Technologist** (MBOT) — Member #: GT18051436
- **Science and Engineering Institute** (SCIEI) — Member #: 20120705001
- **International Association of Engineers** (IAENG) — Member #: 109829
- **International Association of Computer Science and Information Technology** (IACSIT) — Member #: 80350254

THESIS EXAMINER EXPERIENCE

Muhammad Adham Aziz (MSc - External)

"Speech Rehabilitation for Malay-Speaking Aphasia Patients"

• 2024

Ahmad Shakaff bin Ali Yeon (PhD - Internal)

"Deep Neural Network-Based Gas Source Localization Prediction for Mobile Robot via Hybrid Behaviour Based Algorithms & Kernel DM+V"

Universiti Malaysia Perlis • 2023

Muhammad Amran (PhD - Internal)

"Development of Magnetic Induction Spectroscopy Technique for Internal Fixator Screw Self-Loosening Detection"

Universiti Malaysia Perlis • 2022

Nurul Amira Mohd Ramli (PhD - Internal)

"Imaging of Moisture Content in Rice Silo Using Radio Tomography Method"

Universiti Malaysia Perlis • 2022

Tung Kai Xu (PhD - Internal)

"Investigation of A Measurement and Indexing System for Aggressiveness Monitoring using EEG"

Universiti Malaysia Perlis • 2021

Muhammad Aizat Abu Bakar (MSc - Internal)

"Development of Portable Electronic Nose for Monitoring the Atmosphere Hazards in Confined Space"

Universiti Malaysia Perlis • 2018

Asyraf Hakimi Abu Bakar (MSc - Internal)

"Non-Invasive Jaundice Detection System using Colour Card Technique"

Universiti Malaysia Perlis • 2018

Rina Syazwani Zulkafli (MSc - Internal)

"A Smart Battery Charging System based on the Depth of Discharged Technique for a Grid-Connected Photovoltaic System"

Universiti Malaysia Perlis • 2018

Chawki Berkai (PhD - Internal)

"Non-Linear Features and Feature Selection Algorithms for Speech based Prediction of Body Mass Index (BMI)"

Universiti Malaysia Perlis • 2017

Siow Lean Thiam (MSc - Internal)

"Design and Analysis of Ultrasound Tomography for Imaging of Void Fraction on Composite Pipe"

Universiti Malaysia Perlis • 2017

ACADEMIC SERVICES

- **Reviewer** — Jurnal Teknologi (2024)
- **Webmaster** — International Conference on Man Machine Systems (ICoMMS2023) (2023)
- **Webmaster** — International Virtual Expo of Innovation Product and System Design 2023 (In-ViDE2021) (2023)
- **Webmaster** — FTKE Postgraduate Academy (2022)
- **Webmaster** — International Virtual Expo of Innovation Product and System Design 2021 (In-ViDE2021) (2021)
- **Webmaster** — International Conference on Man Machine Systems (ICoMMS2021) (2021)
- **Reviewer** — Journal of Mathematical Problems in Engineering (2021)
- **Reviewer** — Indonesian Journal of Electrical Engineering and Computer Science (2021)
- **Reviewer** — Computers in Biology and Medicine (2021)
- **Webmaster** — Virtual Expo of Innovation Product and System Design 2020 (ViDE2020) (2020)
- **Reviewer** — Pervasive and Mobile Computing (2020)
- **Technical** — International Conference on Man Machine Systems (ICoMMS2019) (2019)
- **Reviewer** — International Conference on Biomedical Engineering (ICoBE) (2019, 2021, 2023)
- **Reviewer** — International Conference on Man Machine Systems (ICoMMS) (2017, 2019, 2021, 2023)
- **Reviewer** — Malaysian Technical Universities Conference on Engineering and Technology (MUCET) (2017)
- **Reviewer** — Digital Signal Processing (2017, 2018, 2019, 2020, 2021)
- **Reviewer** — Computers and Electronics in Agriculture (2017)
- **Reviewer** — Measurement and Control (2017, 2018)
- **Secretariat** — International Conference on Man Machine Systems (ICoMMS2017) (2017)
- **Reviewer** — International Conference on Signal Processing Systems (ICSPS) (2016, 2018, 2019, 2020)
- **Secretariat and Webmaster** — The 11th Asian Conference on Chemical Sensor (ACCS2015) (2015)
- **Reviewer** — IEEE Student Conference on Research and Development (SCOREd) (2014, 2015)
- **Reviewer** — International Colloquium on Science and Technology (ICOST) (2014)
- **Reviewer** — IEEE Colloquium on Humanities, Science & Engineering Research (CHUSER) (2014)
- **Reviewer** — Language Research and Evaluation (2013)
- **Reviewer** — IEEE Symposium on Business, Engineering & Industrial Applications (ISBEIA) (2013)
- **Reviewer** — IEEE Business, Engineering & Industrial Applications Colloquium (BEIAC) (2013)
- **Reviewer** — IEEE Symposium on Industrial Electronics and Applications (ISIEA) (2012)

DEVELOPMENT & INNOVATION

- **Judge Panel:** Perlis State Level STEM carnival (Innovators of Tomorrow) (2024)
- **Judge Panel:** International Virtual Expo of Innovation Product and System Design (InViDE 2023) (2023)
- **Keynote Speaker:** International Conference on Electrical and Electronic Engineering Intelligent System (ICE3IS2022) (2022)
- **Judge Panel:** International Eureka Innovation Exhibition (i-EIE22) (2022)
- **Judge Panel:** ICTE2022 Digital Innovation Competition (DIC2022) (2022)

- **Judge Panel:** National Innovation and Invention Competition through Exhibition (iCompEx2022) (2022)
- **Judge Panel:** Innovation and Design Expo (IDEX2021) (2021)
- **Judge Panel:** International Virtual Expo of Innovation Product and System Design (In-ViDE 2021) (2021)
- **Judge Panel:** National Innovation and Invention Competition through Exhibition (iCompEx2021) (2021)
- **Judge Panel:** Virtual Expo of Innovation Product and System Design (ViDE2020) (2020)
- **Judge Panel:** National Innovation and Invention Competition through Exhibition (iCompEx2020) (2020)
- **Judge Panel:** National Robotic Competition (NRC) for Open Category (Upper Secondary School) (2019)
- **Invited Speaker and Facilitator:** Robotic Workshop (2019)
- **Speaker:** Long Range (LoRa) Transceiver and Internet of Things (IoT) (2018)
- **Invited Speaker and Facilitator:** Robotic Workshop (2018)
- **Invited Speaker:** Internet-of-Things (IoT) Workshop (2017)



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