

CURRICULUM VITAE

Mohd Hanif Mohd Ramli, Ph.D.

Senior Lecturer

Faculty of Mechanical Engineering

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ACADEMIC QUALIFICATION

- **PhD. Functional Control Systems**, Shibaura Institute of Technology, Japan, 2017.
- **M. Eng. Mechanical Engineering (Control System)**, Universiti Teknologi Malaysia, Skudai Johor, 2009
- **B.Eng. (Hons.) Mechanical Engineering**, Universiti Teknologi MARA, Shah Alam Selangor, 2006

EXPERIENCE (EMPLOYMENT HISTORY)

- **Lecturer (December 2009 - present)**: Faculty of Mechanical Engineering, Universiti Teknologi MARA (UiTM) Shah Alam, Malaysia
- **Mechanical Engineer (Jan 2007-December 2007)**: TMR Urusharta (M) Sdn. Bhd., Damansara Utama, Selangor, Malaysia
- **Project Engineer (July 2006-December 2006)**: IAQ Technology (M) Sdn. Bhd., Kota Kemuning, Seksyen 31, Shah Alam, Malaysia

PROFESSIONAL AFFILIATIONS

- Board of Engineers Malaysia (Graduate Engineer 65306A)
- IEEE Robotics and Automation Society (RAS)

CRITICAL RESPONSIBILITIES (FACULTY / UNIVERSITY)

- Director, Sport Artificial and Intelligence Center (SEA-IC), School of Mechanical Engineering, UiTM Shah Alam, (2024 – 2025).
- Managing Editor, Journal of Mechanical Engineering (JMECHE), School of Mechanical Engineering, UiTM Shah Alam, (2024 – 2025).
- Editorial, Journal of Mechanical Engineering (JMECHE), School of Mechanical Engineering, UiTM Shah Alam, (2017 – 2023).
- Lead Researcher and Development, Sports Engineering & Artificial Intelligence Centre (SEA-IC), UiTM Shah Alam (2019 – 2022)
- Associate Member of Malaysian Institute of Transport (MITRANS), UiTM (2019-2021)
- Technical Advisor of Mechatronic Systems' Integration for Faculty/UiTM projects namely, Sinergy (Sensor Development), MITRA Perdana (Simulator Development), and Drone Course (2017-2020), Aquaculture monitoring system (SAMS MKIII), RFID, Wireless EMG and Exoskeleton suit robotics systems (2019-2021)

NATIONAL LEVEL RESEARCH FUNDING (MOSTI/FRGS & Others) (Last Five Years)

	Research Project	Source	Total Funds	Begin Year	End Year
1	Principal , Real-Time Monitoring and Control Of Sea-Ic Intelligent Lab System Via Milesight Lorawan Technology	PRIVATE	RM 90,000	2024	2027
2	Principal , Development of Smart Asset Management System via Internet of Things (Iot)	PRIVATE	RM 15,500	2022	2024
3	Principal , Development of Android & Ios Apps for Nex-Plex Internet of Things System	PRIVATE	RM 20,000	2021	2022
4	Principal , Smart Aquaculture Monitoring System Di Manjung Aquabest Hatchery, Kg Batu 4 Segailumut, Perak	PRIVATE	RM 6,000	2019	2020
5	Prototype Development of Wireless Transmission System for Surface Electromyography (SEMG)	SINERGI	RM 35,000	2019	2020
6	Co-Researcher , Enhancement of A Novel Local Anaesthesia Simulator Kit (LASK) in Performing Inferior Alveolar Nerve Block (IANB)	PRGS	RM 115,000	2019	2021
7	Co-Researcher , Magnetic Based Hybrid Electricity Generator System for Rural Application	LESTARI SDG	RM 20,000	2019	2021
8	Co-Researcher , Development of a Pico Hydroelectric System with Smart Storage for Domestic Use	LESTARI SDG	RM 20,000	2019	2021
9	Principal Researcher , Creative and Innovative Ways to Raise Visibility Accessibility of JMechE	LESTARI	RM 15,000	2018	2020
10	Co-Researcher , Threshold Classification of Patients Dynamic Muscle Tone in Upper-Limb Spasticity with Accordance to Modified Ashworth Scale	LESTARI	RM 20,000	2017	2019
11	Co-Researcher , Clinical Competence and Independence in Adminstrating an IANB Using a Novel Simulation Prototype (Development and Design of a Novel Pre-Clinical Training Prototype as a Teaching Aid for Oral Anatomy and Administration of Inferior Alveolar Nerve Block IANB)	MITRA PERDANA	RM100,000	2018	2020

PUBLICATIONS FROM 2017 – 2024;

Year 2024

Article

Yaakob A. Y., Azham M. H., Ramli M. H. M., "Kalman Filter-Based Data Stabilization for an Automated Water Quality Monitoring System in *Macrobrachium Rosenbergii* Larvae Culture", (2024) Journal of Mechanical Engineering, SI Vol. 13, pp. 157-176, November 2024, <https://doi.org/10.24191/jmeche.v13i1.2862>

Conference Paper

Khusaini N.S., Ramli M.H.M., Mohamad W.S.W., Mohamed Z., Azidin R.M.F.R., Hemdi A.R., Aziz N., "Product Design and System Development of Surface Electromyography (sEMG) Device: A User-Centric Review", (2024) 2024 IEEE Symposium on Industrial, DOI: 10.1109/ISIEA61920.2024.10607249

Taib M.D.B.A., Khusaini N.S., Ramli M.H.M., Z. Mohamed, Aziz N., "Design and Development of a Punching Analysis Device New Instrument in Boxing", (2024) Lecture Notes in Bioengineering, pp. 229 – 242, DOI: 10.1007/978-981-97-3741-3_22

Khusaini N.S., Hemdi A.R., Azidin R.M.F.R., Ramli M.H.M., Z. Mohamed, "Local In-Lab-Made IoT Sports Device Acceptance Survey Instrument Using a Modified UTAUT Model: A Pilot Study", (2024) Lecture Notes in Bioengineering, pp. 545 – 557, DOI: 10.1007/978-981-97-3741-3_47

Year 2023

Article

Bahari M.S., Firdaus M., Mohamed Z., Ramli M.H.M., "Computational Numerical Analysis of a Magnetic Flux Permanent Magnet with Different Shape for The Development of a Hybrid Generator", (2023) Journal of Mechanical Engineering, 20 (1), pp. 185 – 200, DOI: 10.24191/jmeche.v20i1.21087

Conference Paper

Rizal N. A. M., Ramli M. H. M. and Makhtar A. K., "Study on Driver Behaviour Questionnaire and Driver's Perception of Telematic Insurance in Malaysia," 2023 IEEE 13th Symposium on Computer Applications & Industrial Electronics (ISCAIE), Penang, Malaysia, 2023, pp. 7-12, doi: 10.1109/ISCAIE57739.2023.10165436.

Aiman Tun Mohd Khairi T.K., Thamrin N.M., Ramli M. H. M., "Underwater Brushless Motor Performance Analysis of Twin Hull-based Unmanned Surface Vehicle for Water Quality Monitoring", (2023) 2023 IEEE 6th International Conference on Electrical, Electronics and System Engineering: Enhancing Technology Through Sustainability Engineering, ICEESE 2023, pp. 20 – 25, DOI: 10.1109/ICEESE56169.2023.10278188

Yusri W.M.E.W.M., Ramli M.H.M., Khusaini N.S., Mohamed Z., "IoT based water quality monitoring system and test for swimming pool water physicochemical

quality", (2023) AIP Conference Proceedings, 2609, art. no. 020002, DOI: 10.1063/5.0124195

Year 2022

Article

Sham R., Siau C.S., Tan S., Kiu D.C., Sabhi H., Thew H.Z., Selvachandran G., Quek S.G., Ahmad N., Ramli M.H.M., "Drone Usage for Medicine and Vaccine Delivery during the COVID-19 Pandemic: Attitude of Health Care Workers in Rural Medical Centres", (2022) Drones, 6 (5), art. no. 109, DOI: 10.3390/drones6050109

Yusri M.H.A., Johan M.A., Khusaini N.S., Ramli M.H.M., "Preservation of Cultural Heritage: A Comparison Study of 3D Modelling between Laser Scanning, Depth Image, and Photogrammetry Methods", (2022) Journal of Mechanical Engineering, 19 (2), pp. 125-145

Conference Paper

Zainudin S.Z., Ramli M.H.M., Jamaluddin T.I.B.T., Abdullah S.A. (2022) Development of an Innovative Inferior Alveolar Nerve Block (IANB) Simulator Kit with Data Visualization and Internet of Things (IoT). In: Ab. Nasir A.F., Ibrahim A.N., Ishak I., Mat Yahya N., Zakaria M.A., P. P. Abdul Majeed A. (eds) Recent Trends in Mechatronics Towards Industry 4.0. Lecture Notes in Electrical Engineering, vol 730. Springer, Singapore. https://doi.org/10.1007/978-981-33-4597-3_82

Quek S.G., Selvachandran G., Sham R., Siau C.S., Ramli M.H.M., Ahmad N., "A Fuzzy Logic Based Optimal Network System for the Delivery of Medical Goods via Drones and Land Transport in Remote Areas", (2022) Lecture Notes in Networks and Systems, 418 LNNS, pp. 1306 – 1312, DOI: 10.1007/978-3-030-96308-8_121

Azuddin M.A., Jusoh M.A.M., Abdullah S.C., Mohamed Z., Ramli M.H.M., "Development of a Pico-Hydro Generating System with SES-BMS for Domestic Use", (2022) International Journal of Integrated Engineering, 14 (5), pp. 130 – 138, DOI: 10.30880/ijie.2022.14.05.015

Year 2021

Conference Paper

Adnan M.A.S.M., Ramli M.H.M., Khusaini N.S., Mohamad W.S.W., Mohamed Z., "Design and Development of IoT Based Water Leakage Monitoring System", (2021) International Journal of Nanoelectronics and Materials, 14 (Special Issue InCAPE), pp. 219 – 226.

Zainudin S.Z., Ramli M.H.M., T. I. B. T. Jamaluddin, and S. A. Abdullah, "Development of Innovative Inferior Alveolar Nerve Block (IANB) Simulator Kit with Data Visualization and Internet of Things (IoT)", in *Recent Trends in Mechatronics Towards Industry 4.0*, 12 June 2021.

Muhamad Fikhri bin Abdul Hamid, Mohd Hanif bin Mohd Ramli, Noor Ayuni Che Zakaria, Zulkifli Mohamed (2021) Conceptual Design and FEM Analysis of an

Exoskeleton Suit for Post-stroke Patient: A Lower Limbs Exo Suit. In: Shiraishi Y., Sakuma I., Naruse K., Ueno A. (eds) 11th Asian-Pacific Conference on Medical and Biological Engineering. APCMBE 2020. IFMBE Proceedings, vol 82. Springer, Cham. https://doi.org/10.1007/978-3-030-66169-4_17

Year 2020

Article

Yaakob A. and Ramli M.H.M., "Implementation of a Discrete Prescribed Performance Controller (DPPC) based on a Discrete PID Scheme on a DC Motor System", MEKATRONIKA, vol. 2, no. 1, pp. 8-15, Jan. 2020.

Year 2019

Article

Ramli M.H.M., Minh T. V. and X. Chen, "Pseudoextended Bouc–Wen Model and Adaptive Control Design with Applications to Smart Actuators," in *IEEE Transactions on Control Systems Technology*, vol. 27, no. 5, pp. 2100-2109, Sept. 2019. doi: 10.1109/TCST.2018.2849735 (**Q1, IF 5.371**)

Conference Paper

Ramli M.H.M., Abdul Majeed A.P.P., Anuar M.A.M., Mohamed Z., "Modelling and control of a nonlinear magnetostrictive actuator system", (2018) IOP Conference Series: Materials Science and Engineering, 342 (1), art. no. 012047, DOI: 10.1088/1757-899X/342/1/012047

Zainudin S.Z., Ramli M.H.M., Jamaluddin T.I.B.T., Wahab H.A., Husin A., Abdullah S.A., "The Development of Sensing Architecture for Inferior Alveolar Nerve Block Clinical Simulator Kit", (2019) IOP Conference Series: Materials Science and Engineering, 637 (1), art. no. 012005, DOI: 10.1088/1757-899X/637/1/012005

Year 2018

Article

Othman N.A., Zakaria N.A.C., Ramli M.H.M., Hanapiah F.A., Jingye Y., Yee L.C., Takashi K., "PLC system to optimize training device of upper limb spasticity", (2018) Journal of Mechanical Engineering, 15 (2), pp. 127 - 141

Mohamed Z., Ayub M.A., Ramli M.H.M., Shaari M.S.B., Khusairi S., "Assistive robot simulator for multi-objective evolutionary algorithm application", (2018) International Journal of Engineering and Technology (UAE), 7 (4), pp. 153 - 157, DOI: 10.14419/ijet.v7i4.27.22506

Ramli M.H.M., Dzahir M.A.M., "A new phenomenological-based rate-dependent hysteresis operator for hysteresis characterization", (2018) Journal of Mechanical Engineering, 5 (Specialissue5), pp. 142 - 153.

Conference Paper

Ramli, M.H.M., Abdul Majeed, A.P.P., Anuar, M.A.M., Mohamed, Z. Modelling and control of a nonlinear magnetostrictive actuator system (2018) IOP Conference Series: Materials Science and Engineering, 342 (1), art. No. 012047.

Year 2017

Article

Ramli M.H.M., Chen X., "Modelling and control of piezoelectric actuators by a class of differential equations-based hysteresis models" (2017) International Journal of Advanced Mechatronic Systems, 7 (3), pp. 165 - 173.
DOI: 10.1504/IJAMECHS.2017.086201

CONSULTATION AND EXPERTISE SERVICES

1. **Trainer & Co-Organizer** with AMD Management & Consultancy (M) Sdn. Bhd: Professional Certification of Smart Farming for Kolej Vokasional Dato' Lela Maharaja, Negeri Sembilan. (18 ~ 22 Mar 2024).
2. **Invited Speaker:** Navigating Digitalization for a Unified Endowment Platform, Dewan Bandaraya Kuala Lumpur 05 Mar, 2024.
3. **Invited Speaker:** Micro Python Training Program for Kolej Matrikulasi Kelantan, 15~16 Nov, 2023.
4. **Trainer & Co-Organizer** with One Nation Resources Sdn. Bhd: Professional Certification of Internet of Things in Electronics for Kolej Vokasional Malaysia, Negeri Sembilan. (08 ~ 12 May 2023).
5. **Trainer & Co-Organizer** with Jabatan Kerja Raya Selangor: Kursus Pengendalian Drone Jabatan Kerja Raya Selangor. (21 ~ 22 Mar. 2022).
6. **Trainer & Co-Organizer** with MyInvent Sdn. Bhd: IoT and Hardware Development Training for Politeknik Nilai, Negeri Sembilan. (25 ~ 30 Apr. 2021).
7. **Facilitator/committee member:** National Blockchain Roadmap workshop, 27th Nov 2020.
8. **Speaker:** Program Crash Course 2020 – Cairo UTM, 24th Nov 2020.
9. **Invited Speaker:** German-Malaysian Workshop Series, 16~18 Nov, 2020.
10. **Technical Advisor:** Development of an Airship drone based Advert platform for KANDA Technology, 03 Nov 2020 ~ 01 May 2021.
11. **Trainer & Co-Organizer** with One Nation Resources Sdn. Bhd.: TVET IoT Training of Trainers for Industrial Application (22 ~ 29 Aug. 2020).

12. **Technical Advisor:** Flood Monitoring & Warning System via IoT for Jinjang Fire Station (June 2020).
13. **Trainer & Co-Organizer** with SIRIM Bhd: TVET IoT Training of Trainers for Industrial Application (24 ~ 28 Feb 2020).
14. **Co-Exhibitor:** TM ONE Smart Industry Showcase – Aquaculture IoT System Solution for Udang Galah Hatchery Application (21 ~ 22 August 2019).
15. **Technical Advisor:** Smart monitoring system for Macrobrachium rosenbergii Hatchery for Koperasi Hujung Rintis Bhd (March 2019 ~ Nov 2019).
16. **Technical Advisor:** RFID System for CTRM Sdn Bhd, Melaka (March ~ Nov 2019).
17. **Trainer:** Series of Arduino & IoT Training – SEA-IC (Sept 2018 ~ Present).
18. **Technical Advisor:** 15 Lab Equipment Setup & Troubleshooting for KKTM Lenggong with ScieEdge Sdn Bhd (13August ~ 16 November 2018).
19. **Trainer:** Hands on workshop on DIY Mutirotor system – “Mentoring Jabatan Kerja Raya (JKR) Selangor on development of semi-autonomous Multirotor”, 12-13 December 2018.