

CURRICULUM VITAE



Dr. Abdul Malek Abdul Wahab
School of Mechanical Engineering,
College of Engineering
Universiti Teknologi MARA
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Education

1. Ph.D. (Dynamic Structure), Intelligent Dynamic System i-Kohza, Malaysia-Japan International Institute of Technology (MJIT), Universiti Teknologi Malaysia Kuala Lumpur - 2017
2. MSc. in Sounds and Vibration Studies, Institute of Sound and Vibration Research (ISVR), University of Southampton, United Kingdom – 2012
3. Bachelor of Electrical and Electronics Engineering (Hons), Universiti Tenaga Nasional (UNITEN), Malaysia - 2006

Areas of Interest

1. Finite Element, Numerical method modeling, and simulation
2. Smart material-vibration control application
3. Non-linear vibration (Parametric Excitation)

Professional Qualification/ Membership/ Affiliation

1. Member, Board of Engineers, Malaysia – BEM

Appointments

Position	Year
1. Senior Lecturer	School of Mechanical Engineering, College of Engineering, UiTM Shah Alam Nov 2018 - to date
2. RIG Coordinator	Research and Innovation Unit, College of Engineering, UiTM Mac 2021 – to date
Coordinator	Peer Tutoring Program, Faculty of Mechanical Engineering, UiTM Shah Alam Mac 2019 – Feb 2020
3. Head	New Program Task Force Committee, Master of Science in Robotics Engineering, Faculty of Mechanical Engineering, UiTM Shah Alam Dec 2018 – Dec 2020
4. Head	New Program IQA 01 Documentation Task Force Committee, Master of Science in Robotics Engineering, Faculty of Mechanical Engineering, UiTM Shah Alam Nov 2019 – Dec 2020
5. Reader/ Updater	IQA 01 Document for Master of Science in Robotics Engineering, Faculty of Mechanical Engineering, UiTM Shah Alam Jan 2020 – Jan 2021
6. Section Editor	Journal of Mechanical Engineering (JMecHE), Faculty of Mechanical Engineering, UiTM Shah Alam Jan 2020 – Dec 2021

7.	Project Leader	Development of Lab Equipment, Motion Control for Three-Phase AC Motor, Faculty of Mechanical Engineering, UiTM Shah Alam	Dec 2020 – Feb 2021
8.	Expert on Subject Matter	New Program Task Force Committee, Bachelor of Mechatronic Engineering Technology, School of Mechanical Engineering, College of Engineering, UiTM Shah Alam	Jun 2021 – Oct 2021
9.	Expert on Subject Matter	New Program Task Force Committee, Bachelor of Rail Infrastructure Technology, School of Civil Engineering, College of Engineering, UiTM Shah Alam	Dec 2020 – Feb 2021
10.	Member	New Program Task Force Committee, Bachelor of Mechatronic Engineering Technology, Faculty of Mechanical Engineering, UiTM Shah Alam	Nov 2018 – Jun 2019
11.	Member	New Program Task Force Committee, Master of Sciences in Railway Engineering, School of Mechanical Engineering, College of Engineering, UiTM Shah Alam	Jan 2021 – to date
12.	Secretary	2 nd International Conference on Robotics and Intelligent System (ICRIS) 2021, Faculty of Mechanical Engineering, UiTM Shah Alam	2021
13.	Chairperson	2 nd International Conference on Robotics and Intelligent System (ICRIS) 2021, Faculty of Mechanical Engineering, UiTM Shah Alam	Mac 2021
14.	Member	Intelligent Industrial Control Lab, Jawatankuasa Pasukan Kerja Nod Satelit MARii, Faculty of Mechanical Engineering, UiTM Shah Alam	Oct 2019 – Dec 2020
15.	Member	Staff Welfare Committee, Faculty of Mechanical Engineering, UiTM Shah Alam	Jan 2019 – Dec 2020
16.	Member	Outcome Base Education (OBE)/MyOBE, Faculty of Mechanical Engineering, UiTM Shah Alam	Jan 2019 – Dec 2019
17.	Member	Jawatankuasa Pelaksana Pemilihan Perwakilan Pelajar (e-JPP) UiTM 2018/2019, Faculty of Mechanical Engineering, UiTM Shah Alam	Dec 2018

Related Appointments

Position		Year
1.	Panel	Technical Report and Presentation for Final Year Project, Faculty of Mechanical Engineering, UiTM Shah Alam Feb 2019
2.	Panel	Technical Report and Presentation for Final Year Project, Faculty of Mechanical Engineering, UiTM Shah Alam Sept 2019
3.	Panel	Technical Report and Presentation for Final Year Project, Faculty of Mechanical Engineering, UiTM Shah Alam Feb 2020
4.	Panel	Technical Report and Presentation for Final Year Project, Faculty of Mechanical Engineering, UiTM Shah Alam Sept 2020
5.	Panel	Technical Report and Presentation for Final Year Project, Faculty of Mechanical Engineering, UiTM Shah Alam Feb 2021
6.	Panel	Defence of Research Proposal (DRP) PhD Student, Institut Pengangkutan Malaysia (MITRANS), UiTM Shah Alam Jan 2021
7.	Panel	Defence of Research Proposal (DRP) Master Research Student, Faculty of Mechanical Engineering, UiTM Shah Alam Jan 2021

Publications

Journals

1. Marzuki, T. N., Idrus, S., Musa, M. A., **Wahab, A. M.**, Jamali, N. S., Man, H. C., & Ng, S. N. (2021). Enhancement of Bioreactor Performance Using Acclimatised Seed Sludge in Anaerobic Treatment of Chicken Slaughterhouse Wastewater: Laboratory Achievement, Energy Recovery, and Its Commercial-Scale Potential. In *Animals* (Vol. 11, Issue 11). **(WoS) Q1**
2. **Abdul Wahab, A. M.**, Anuar, M. A. and Hadi, M. S. (2021) 'Electromechanical Characteristics of Core Free Folded Dielectric Electro-active Polymer Soft Actuator', *Pertanika Journal of Science and Technology*, 29(3), pp. 2017–2026. **(WoS)**
3. Musa, M. A., Idrus, S., Harun, M. R., Tuan Mohd Marzuki, T. F., & **Abdul Wahab, A. M.** (2020). A Comparative Study of Biogas Production from Cattle Slaughterhouse Wastewater Using Conventional and Modified Upflow Anaerobic Sludge Blanket (UASB) Reactors. *International Journal of Environmental Research and Public Health*, 17(1), 283. **(WoS) Q1**
4. **Wahab, Abdul Malek Abdul**, Rustighi, E., & A., Z. (2020). Actuation and Dynamic Mechanical Characteristics of A Core Free Flat Dielectric Electro-Active Polymer Soft Actuator. *Journal of Mechanical Engineering and Sciences*, 14(4), 7396–7404. **(WoS)**
5. **Wahab, A M A**, Roslan, S. A. H., Rasid, Z. A., Abu, A., Rudin, N. F. M. N., & Yakub, F. (2019). The Whirling Frequency of High-Speed Shaft with Torsional Effect. *International Journal of Recent Technology and Engineering*, 7(6), 119–123. **(SCOPUS)**
6. **Wahab, A M A**, Yusof, Z., Rasid, Z. A., Abu, A., & Rudin, N. F. M. N. (2018). Dynamic Instability of High-Speed Rotating Shaft with Torsional Effect. *International Journal of Automotive and Mechanical Engineering*, 15(4), 6034–6051. **(WoS)**
7. **Wahab, A.M. Abdul**, Nuh, A., Rasid, Z. A., Abu, A., Tanasta, Z., Hassan, M. Z., & Mahmud, J. (2018). Tensile Behaviours of Single-Walled Carbon Nanotubes. *Materialwissenschaft Und Werkstofftechnik*, 49(4), 467–471. **(WoS) Q4**
8. Zaw, T., Abu, A., Fawazi, N., & **M. Wahab, A.** (2018). Effects of Parameters of Helmholtz Resonator on Transmission Loss of Hybrid Muffler. *International Journal of Engineering & Technology*, 7(3.17), 151. **(SCOPUS)**
9. **Wahab, A. M.**, Rasid, Z. A., Rudin, N. F. M., & Abu, A. (2017). Parametric Instability of Shafts Based on the Nelson's Beam Model Using Finite Element Method. *Advanced Science Letters*, 23(5), 4478–4482. **(SCOPUS)**
10. Norfazrina, H. M. Y., Muhamad, P., Aminudin, B. A., **Wahab, A. M.**, & Raihan, M. R. (2015). Application of Conditioned Reverse Path Method to Large Multi-Degree-of-Freedom Nonlinear Structure. *ARPN J. Eng. Appl. Sci.*, 10(15), 6571–6577. **(SCOPUS)**
11. **Wahab, A. M.**, Rasid, Z. A., Mohd Rudin, N. F., Abu, A., ZANF, R. M. R., & Abu, A. (2015). Dynamic Stability of Shaft Interconnected Through Joint: A Review. *ARPN Journal of Engineering and Applied Sciences*, 10(15), 6310–6318. **(SCOPUS)**
12. **Wahab, A. M.**, & Rustighi, E. (2015). Dynamics Characterizations of Dielectric Electro-Active Polymer Pull Actuator for Vibration Control. *International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering*, 9, 192–200.

Conference Proceedings

1. **Wahab, Abdul Malek Abdul**, Rasid, Z. A., Makhtar, A. K., & Mahmud, J. (2021). Assessing the Validity of Torsional Motion on Dynamic Analysis of Rotor Bearing System Using Finite Element. In Lecture Notes in Mechanical Engineering (pp. 341–352). **(SCOPUS)**
2. **Wahab, A. M.**, Rasid, Z. A., & Abu, A. (2017). Parametric Instability of Static Shafts-Disk System Using Finite Element Method. IOP Conference Series: Materials Science and Engineering, 241(1), 012002. **(WoS)**
3. **Wahab, A. M. A.**, Rasid, Z A, et al. (2017) 'Parametric instability of shaft with discs', IOP Conference Series: Materials Science and Engineering, 270(1), p. 012024. **(Wos)**
4. **Wahab, A M Abdul**, Rasid, Z. A., Abu, A., Noor Rudin, N. F. M., & Yakub, F. (2017). The Effect of Changing Disk Parameters on Whirling Frequency of High Speed Rotor System. IOP Conference Series: Materials Science and Engineering, 270(1), 012031. **(WoS)**

Research Grants *Principal Investigator (PI) Co-Researcher (Co)				
No	Project Title	Amount (RM)	Year	Source of Fund
1.	Formulation of An Integrated Numerical and Soft-Computing Framework Model for The Prediction of Vibration Induced by Railway Operation In Malaysia*(PI)	RM 51,200	Sept 2019 to May 2022	FRGS RACER (KPT)
2.	Integrated Automation System for The Essb Production Line In Improving Productivity and Increase Sales Turnover	RM 85,000	Oct 2020 to Jan 2022	Geran Public-Private Research Network (PPRN) (KPT)
3.	The Relationship between Mental Workload and Driving Performance	RM 20,000	Dec 2020 to June 2023	Geran Penyelidikan MyRA (GPM) (UiTM)

Awards/Recognition					
No	Award Type	Title	Award Authority	Level	Year
1.	Award	Excellent in Pemantauan Profesionalisme Pensyarah (PRO-PENS)	College of Engineering	College	2021

Student Supervision			
PhD (Main Supervisor)			
No.	Name	Title	Status
1.	Muhammad Zaki Bin Abdul Rahim (2021796761)	Vibration Energy Harvesting from Nonlinear Parametrically System	Ongoing

Master with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Mohamad Hazman Bin Halim (2020801338)	Modelling Rail Pad Vibration Induces by Surface Railway Operation	Ongoing

No.	Name	Title	Status
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Master with thesis (Co-supervisor)

No.	Name	Title	Status
1.	Aida Nur Syafiqah Binti Shaari (2020261234)	Intelligent Controller Based On Swarm Intelligence Algorithm For Vibration Cancellation Of Horizontal Flexible Structure	Ongoing
2.	Nurdalilah Binti Noordin (2020227474)	Failure Prediction Of Composite Laminates With Various Cutouts Shapes Using Ann	Ongoing

Master by coursework (Main Supervisor)

No.	Name	Title	Status
1.	Amiro Iqbal Bin Mohd Aminudin (2020541089)	Performance Analysis of Earth Switch Springs in Medium Voltage Switchgear Based on Industrial Standards	Ongoing

Bachelor Engineering Projects (Main Supervisor)

No.	Name	Title	Status
1.	Mohamad Hazman Bin Halim (2017687196)	Modeling of Ground-Noise Vibration Induces by Surface Railway Operation	Completed (Sept 2020)
2.	Muhammad Aiman Bin Nor Azam (2017631846)	Modeling of Vibration Inside High Building due to Surface Train Induced Vibration	Completed (Sept 2020)
3.	Nurul Nadhirah Binti Shaari (2017806554)	Recycling Sorting Machine by Using Image Processing	Completed (Sept 2020)
4.	Azfar Bin Abdullah (2017665824)	Modeling of Vibration Inside High Building due to Underground Train Induced Vibration	Completed (Sept 2020)
5.	Mohd. Sabri Bin Ridwan (2017806472)	Modeling of Ground-Noise Vibration Induces by Under Ground Railway Operation	Completed (Sept 2020)
6.	Asyraf Nabil Bin Aznor (2017806802)	Recycling Sorting Machine by Using Image Processing	Completed (Sept 2020)
7.	Muhammad Asyraf Bin Mustafar (2017182877)	Finite Element Analysis On The Rail Track Base Plate	Completed (Feb 2020)
8.	Muhammad Iqbal Haikal Bin Othman (2017806208)	Investigating Rail Fastening System of Railway Track Under Static Impact	Completed (Sept 2021)
9.	Mohammad Izzat Bin Razali (2018425688)	Vibration Energy Harvesting from Nonlinear Parametrically System	Completed (Sept 2021)
10.	Muhamad Firdaus Bin Kamarudzaman (218292574)	Dynamic Analysis of Nonlinear Parametrically Excited System Using Electromagnets.	Completed (Sept 2021)
11.	Muhamad Ihsan Naquiddeen Bin Mustafa (2018693624)	Vibration Energy Harvester under Parametric Excitation using Electromagnetic	Completed (Sept 2021)
12.	Arif Khuarizmi Bin Mazlan (2019312297)	The Behaviour Of Railway Baseplate Under Static Analysis	Ongoing

Teaching Experience				
No	Course	Credit hour	Level	Semester
1.	MEC523 Applied Electronics and Microprocessor	3 (2+1)	Bachelor	Semester 2 2018/2019
2.	MEC523 Applied Electronics and Microprocessor	3 (2+1)	Bachelor	Semester 1 2019/2020
3.	MEC521 Vibrations	3 (2+1)	Bachelor	
4.	MEC523 Applied Electronics and Microprocessor	3 (2+1)	Bachelor	Semester 2 2019/2020
5.	MEC523 Applied Electronics and Microprocessor	3 (2+1)	Bachelor	Semester 1 2020/2021
6.	MEC521 Vibrations	3 (2+1)	Bachelor	
7.	MEC523 Applied Electronics and Microprocessor	3 (2+1)	Bachelor	Semester 2 2020/2021
8.	MEC523 Applied Electronics and Microprocessor	3 (2+1)	Bachelor	Semester 1 2021/2022
9.	MEC521 Vibrations	3 (2+1)	Bachelor	