

CURRICULUM VITAE



Tan Wei Hong

Senior Lecturer

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Academic Qualifications

- Doctor of Philosophy (Mechanical Engineering – Sound and Vibration)
Universiti Sains Malaysia (2013)
Project Title: Analysis of Vibro-acoustic Effect of Micro-perforated Panel Sound Absorber
- Master of Engineering (Mechanical Engineering)
Universiti Teknologi Malaysia (2007)
By Taught Course, 3.81 / 4.00
- Bachelor of Science (Industrial Physics)
Universiti Teknologi Malaysia (2006)
3.57 / 4.00 (2nd Class Upper Division)

Professional Memberships

- Chartered Engineer from Engineering Council UK
- Member of the Institution of Mechanical Engineers (MIMechE) 80260213
- Professional Technologist from Malaysia Board of Technologists (MBOT)

Working Experience

- Apr 2005 ~ Jun 2005 Trainee,
ACME Ferrite Products Sdn Bhd.
- Jan 2008 ~ Aug 2008 Engineer,
Silterra Malaysia Sdn Bhd.
- Sep 2013 ~ present Senior Lecturer,
Mechanical Engineering Programme,
School of Mechatronic Engineering,
Universiti Malaysia Perlis.

Administrative Experience

- Oct 2013 ~ present Secretary,
Mechanical Engineering Programme,
School of Mechatronic Engineering,
Universiti Malaysia Perlis (UniMAP).
- Apr 2015 ~ present International Student Affair Coordinator,
School of Mechatronic Engineering,
Universiti Malaysia Perlis (UniMAP).
- Oct 2016 ~ Sep 2017 Head of Division,
Division of Applied Mechanics,
School of Mechatronic Engineering,

- Oct 2016 ~ present Universiti Malaysia Perlis (UniMAP).
IMEchE UniMAP Student Chapter Coordinator,
School of Mechatronic Engineering,
Universiti Malaysia Perlis (UniMAP).

Research Interest

Acoustic Engineering, Noise Control, Sound Absorption, Vibration, Acoustic Simulation, Micro-perforated Panel (MPP) Sound Absorber, Optimization.

Research Grants

Principle researcher: Tan Wei Hong

Project title: Mechanism of Sound Absorption for Micro-perforated Panel backed with Natural Fiber

Grant: Fundamental research grant scheme (FRGS), - **RM88,200**, Vot 9003-00435 (Completed, 1 Jun 2014 – 5 Dec 2016)

Research member: Tan Wei Hong

Project title: New algorithms of diagnosis and prognosis processes for production machine system by considering deterioration information from fatigue mechanism condition and output performance characteristic using statistical models and rule-based artificial intelligent approach

Grant: Research acculturation grant scheme (RAGS) – **RM56,000**, Vot 9018-00076 (Completed, 1 Jan 2015 – 31 Dec 2016)

Research Journal Incentive Grant (Project Leader) – **RM5,000**, Vot 9007-00252, (Completed, 1 Feb 2015 – 31 Aug 2016)

List of Publications

International and National Journal Papers

- Wei-Hong, T.** and Zaidi, M. R. (2013). Analysis of exhaust muffler with microperforated panel, *Journal of Vibroengineering* 15(2): 558–573. Thomson ISI, IF:0.66.
- Wei-Hong, T.** and Zaidi, M. R. (2016). Optimization of double-layered micro-perforated panels with vibro-acoustic effect, *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 38(3):745-760. DOI: 10.1007/s40430-014-0274-4. Thomson ISI, IF:0.429.
- E.M. Cheng, M. Fareq, Shahrman A. B., Mohd Afendi R., Y. S. Lee, S. F. Khor, **W.H. Tan**, Nashrul Fazli M.N., A. Z. Abdullah and M. A. Jusoh (2014). Development of Microstrip Patch Antenna Sensing System for Salinity and Sugar Detection in Water, *International Journal of Mechanical & Mechatronics Engineering* 14(5):31-36.
- E.M. Cheng, M. Fareq, Shahrman A. B., Mohd Afendi, Zulkarnay Z., S. F. Khor, Liyana Z., Nashrul Fazli M. N., **W. H. Tan**, N. S. M. Noorpi, N. M. Mukhtar and M. Othman (2014). Development of Low Cost Microwave Detection System for Salinity and Sugar Detection, *International Journal of Mechanical & Mechatronics Engineering* 14(5):59-71.
- E.P. Ooi, R. Daud, N.A.M. Amin, **T.W.Hong** (2014). Recent development on fracture analysis of solder joints, *Applied Mechanics and Materials* Vol. 695:680-683. DOI: 10.4028/www.scientific.net/AMM.695.680.
- W. H. Tan**, R. Ahmad, N. H. Zunaidi, R. Daud, E.M. Cheng (2015). Development of an Indigenous Impedance Tube, *Applied Mechanics and Materials* Vol. 786:149-155. DOI:10.4028/www.scientific.net/AMM.786.149.
- E.P. Ooi, R.Daud, N.A.M. Amin, **T.W. Hong**, M.S. Abdul Majid, M. Afendi, A. Mohamad, A.K. Ariffin (2015). Finite Element Modeling of Intermetallic Compound (IMC) Solder Joints Fracture: Part B, *Applied Mechanics and Materials* Vol. 786:136-140. DOI:10.4028/www.scientific.net/AMM.786.136.
- Wei-Hong Tan**, M. Afendi, R. Ahmad, R. Daud, M. Shukry, E.M. Cheng (2015). Sound Absorption Analysis on Micro-Perforated Panel Sound Absorber with Multiple Size Air Cavities, *International Journal of Mechanical & Mechatronics Engineering* 15(5):71-76.
- Yakubu Dan-mallam, **Tan Wei Hong**, and Mohd Shukry Abdul Majid (2015). Mechanical Characterization and Water Absorption Behaviour of Interwoven Kenaf/PET Fibre Reinforced Epoxy Hybrid Composite, *International Journal of Polymer Science*, Vol. 2015, Article ID 371958, 13 pages. DOI:10.1155/2015/371958. Thomson ISI, IF: 1.195.
- E.M. Cheng, M. F. Abdul Malek, S. F. Khor, K. Y. You, K.Y. Lee, M. A. Rojan, S. Abu Bakar, N. F. Mohd Nasir, Z. Zakaria, and **W.H. Tan** (2016). Reflection and Dielectric Measurement for Salinity of Water Using Microstrip Loop Antenna and Dielectric Probe, *International Journal of GEOMATE* 11(24):2335-2340. DOI:http://dx.doi.org/10.21660/geomate
- Wei-Hong Tan**, T.S. Khor, N.H. Zunaidi (2016). Development of Acoustical Simulation Model for Muffler, *International Journal of GEOMATE* 11(24):2385-2390. DOI:http://dx.doi.org/10.21660/geomate

12. **Wei-Hong Tan**, EA Lim, HG Chuah, EM Cheng, CK Lam (2016). Sound Transmission Loss of Natural Fiber Panel, *International Journal of Mechanical & Mechatronics Engineering* 16(6):33-42.
13. N H Zunaidi, **W H Tan**, M S A Majid and E A Lim (2017). Effect of physical properties of natural fibre on the sound absorption coefficient, *IOP Conf. Series: Journal of Physics: Conf. Series* 908 (2017) 012023. DOI:<https://doi.org/10.1088/1742-6596/908/1/012023>
14. **W H Tan**, J X Cheah, C K Lam, E A Lim, H G Chuah and C Y Khor (2017). Vibration analysis on compact car shock absorber, *IOP Conf. Series: Journal of Physics: Conf. Series* 908 (2017) 012025. DOI:<https://doi.org/10.1088/1742-6596/908/1/012025>
15. S Amares, E Sujatmika, **T W Hong**, R Durairaj and H S H B Hamid (2017). A Review: Characteristics of Noise Absorption Material, *IOP Conf. Series: Journal of Physics: Conf. Series* 908 (2017) 012005. DOI:<https://doi.org/10.1088/1742-6596/908/1/012005>
16. T Y Chen, S F Khan and **W H Tan** (2017). Influence of processing methods on flexural strength in interwoven hemp/PET reinforced POM hybrid composite, *IOP Conf. Series: Journal of Physics: Conf. Series* 908 (2017) 012055. DOI:<https://doi.org/10.1088/1742-6596/908/1/012055>
17. T S Fatinah, M S Abdul Majid, M J M Ridzuan, **T W Hong**, N A M Amin and M Afendi (2017). Tensile properties of compressed moulded Napier/glass fibre reinforced epoxy composites, *IOP Conf. Series: Journal of Physics: Conf. S*
18. M.F.Ali, C.K.Lam, K.V.Ch'ng, K.Sundaraj and **W.H.Tan** (2018). Design and Development of Path Planning Techniques for a Tennis Ball Retriever Robot, *Journal of Telecommunication, Electronic and Computer Engineering* 10(1-15):59-65.
19. **W.H. Tan**, E.A. Lim, E.M. Cheng, K.S. Basaruddin and M. Hafifi Ramli (2018). Sound Transmission Loss Analysis for Laminated Glass and Perspex, *IOP Conf. Series: Materials Science and Engineering* 429 012008. DOI:<https://doi.org/10.1088/1757-899X/429/1/012008>
20. M A Che Zulkifli, K S Basaruddin, M Afendi, **W H Tan** and E M Cheng (2018). Finite Element Simulation on Railway Wheels under Various Loading, *IOP Conf. Series: Materials Science and Engineering* 429 012002. DOI:<https://doi.org/10.1088/1757-899X/429/1/012002>
21. E.A. Lim, **W.H. Tan** and A. Kadri (2018). An Improved Fuzzy C-MEANS Clustering Algorithm for RBF Networks, *Advance Research Journal of Multi-Disciplinary Discoveries* 31(1):1-5.
22. E.A. Lim, **W.H. Tan** and A. Kadri (2018). Dual Search Firefly Algorithm for Function Optimization, *Advance Research Journal of Multi-Disciplinary Discoveries* 31(1):6-15.
23. **Tan Wei Hong** and C.F. Sin (2018). Sound Transmission Loss Analysis on Building Materials, *International Journal of Automotive and Mechanical Engineering*, vol. 15, 4 Pages. DOI:<https://doi.org/10.15282/ijame.15.4.2018.20.0457>

International and National Conference Papers

1. **Wei-Hong, T.** and Zaidi, M. R. (2010). Transmission loss analysis of muffler with micro-perforated panel, *Proceedings of the 2010 International Conference on Advances in Mechanical Engineering (ICAME 2010)*, SACC Selangor.
2. **Wei-Hong, T.** and Zaidi, M. R. (2011). Acoustical simulation analysis of muffler with micro-perforated panel and experimental verification, *The 1st International Malaysia-Ireland Joint Symposium on Engineering, Science and Business (IMiEJS 2011)*, Athlone Institute of Technology (AIT), Ireland.
3. E.P. Ooi, R. Daud, N.A.M. Amin, **T.W. Hong** (2014). Recent development on fracture analysis of solder joints, *World Virtual Conference on Advanced Research in Materials and Engineering Applications*, September 22-26, 2014, Kuala Lumpur, Malaysia.
4. **Wei-Hong, T.**, Rosmaini A., Daud R., and Cheng E.M. (2015). Development of an indigenous impedance tube, *International Conference on Applications and Design in Mechanical Engineering (ICADME 2015)*, March 30-31, 2015, Penang, Malaysia.
5. E.P. Ooi, R.Daud, N.A.M. Amin, **T.W. Hong**, M.S. Abdul Majid, M. Afendi, A. Mohamad, A.K. Ariffin (2015). Finite Element Modeling of Intermetallic Compound (IMC) Solder Joints Fracture: Part B, *International Conference on Applications and Design in Mechanical Engineering (ICADME 2015)*, March 30-31, 2015, Penang, Malaysia.
6. **Wei-Hong, T.**, T.S. Khor, N.H. Zunaidi (2015). Development of Acoustical Simulation Model for Muffler, *First International Conference on Science, Engineering & Environment (SEE 2015)*, November 19-21, 2015, Tsu City, Mie, Japan.
7. Lim Eng Aik, Lam Chee Kiang, **Tan Wei Hong**, Mohd Syafarudy Abu (2016). The SIR Model of Zika Virus Disease Outbreak in Brazil at Year 2015, *The International Conference on Education, Mathematics and Science 2016 (ICEMS2016)*, November 19, 2016, UPSI Tanjung Malim, Perak, Malaysia.
8. Lim Eng Aik, Lam Chee Kiang, Zulkifley Bin Mohamed, **Tan Wei Hong** (2016). A Review on the Multivariate Statistical Methods for Dimensional Reduction Studies, *The International Conference on Education, Mathematics and Science 2016 (ICEMS2016)*, November 19, 2016, UPSI Tanjung Malim, Perak, Malaysia.

9. N.H. Zunaidi, **Wei-Hong Tan**, M.S. Abdul Majid (2016). A Preliminary Study of Sound Absorption Coefficient for Natural Fibres, Second International Conference on Science, Engineering & Environment (SEE 2016), November 21-23, 2016, Osaka City, Japan.

Teaching Experience

Academic Session 2013/2014

ENT388 Electronic; 3 units; 128 students
 ENT346 Vibration Mechanics; 3 units; 125 students

Academic Session 2014/2015

ENT286 Instrumentation and Measurements; 3 units; 121 students
 ENT346 Vibration Mechanics; 3 units; 100 students

Academic Session 2015/2016

ENT286 Instrumentation and Measurements; 3 units; 125 students
 ENT346 Vibration Mechanics; 3 units; 109 students

Academic Session 2016/2017

ENT286 Instrumentation and Measurements; 3 units; 99 students
 ENT346 Vibration Mechanics; 3 units; students

Academic Session 2017/2018

ENT286 Instrumentation and Measurements; 3 units; 10 students
 ENT346 Vibration Mechanics; 3 units; 86 students

Academic Session 2018/2019

ENT286 Instrumentation and Measurements; 3 units; 108 students
 ENT346 Vibration Mechanics; 3 units; 113 students

List of Courses / Conferences Attended

Date	Programme	Role
10 - 18 Feb 2014	Kursus asas pengajaran dan pembelajaran pensyarah baru IPTA, Bilik Seminar Kechor 1, Kompleks Pentadbiran Taman Kechor, UniMAP, Kangar, Perlis.	Participant
2 Dec 2013	Bengkel 'Outcome Based Education (OBE)' UNIKA UniMAP, Seriab, Kangar, Perlis	Participant
24 Jun 2014	Kursus 'Postgraduate Supervision', Bilik Seminar Kechor 1, Kompleks Pentadbiran Taman Kechor, UniMAP, Kangar, Perlis.	Participant
15 Oct 2014	Seminar 'Route to Professional Engineer (PE)', Bilik Seminar Tun Mahathir, UNIKA UniMAP, Seriab, Kangar, Perlis	Participant
13 Nov 2014	Seminar 'Talk on Route to Become a Chartered Engineers (C.Eng)', Dewan Kapitol UniMAP, Kangar, Perlis	Participant
27 Nov 2014	Seminar 'Vibration: Measurement and Current Research 2014 (VibS2014)', UniKL MSI, Kulim Hi-Tech Park, Kulim, Kedah	Speaker / Presenter
8 Jan 2015	Commercialisation Seminar 'From Research to Commercial Value at UniMAP', Auditorium Pauh Putra Library, Pauh Putra Campus UniMAP, Perlis.	Participant
19 - 23 Jan 2015	Program Transformasi Minda (PTM) Siri 1/2015, Bilik Seminar Kechor 1, Kompleks Pentadbiran Taman Kechor, UniMAP, Kangar, Perlis.	Participant
2 Mac 2015	Academic Publishing Workshop, Auditorium Pauh Putra Library, Pauh Putra Campus UniMAP, Perlis.	Participant
30 - 31 Mac 2015	2015 ICADME/IcoBE/ICoMMS Joint Conference UniMAP, Bayview Hotel, Georgetown Penang, Malaysia.	Participant / Commitee
13 May 2015	IET Workshop 'Professional Registration & Way Towards C Eng for Academicians', Auditorium Pauh Putra Library, Pauh Putra Campus UniMAP, Perlis.	Participant
19 Jan 2016	Public Talk 'CEO Faculty Programme UniMAP' by Ms. Anna Maria Braun, Presiden B. Braun Medical Industries Sdn. Bhd., Dewan Kecemerlangan, Pauh Putra Campus UniMAP, Perlis.	Participant
2 Feb 2016	ISO Workshop 'Introduction and Awareness Course ISO 9001:2015', DK3 Pauh Putra Campus UniMAP, Perlis.	Participant
21 - 22 Aug 2017	2017 ICADME/IcoBE/ICoMMS Joint Conference UniMAP, Bayview Hotel, Georgetown Penang, Malaysia.	Participant / Commitee

Referees

1. Prof. Dr. Zaidi Mohd Ripin
Professor,
School of Mechanical Engineering,
Universiti Sains Malaysia, Engineering Campus,
14300 Nibong Tebal, SPS Pulau Pinang, Malaysia.
Email: mezaidi@eng.usm.my
2. Ir. Dr. Khairul Salleh Basaruddin
Programme Chairperson,
Mechanical Engineering Programme,
School of Mechatronic Engineering,
Universiti Malaysia Perlis,
02600 Arau, Perlis, Malaysia.
Email: khsalleh@unimap.edu.my
3. Dr. Cheng Ee Meng, CEng MIET,
School of Mechatronic Engineering,
Universiti Malaysia Perlis,
02600 Arau, Perlis, Malaysia.
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