

CURRICULUM VITAE



1.0 Personal Details

Name : Mohd Kameil bin Abdul Hamid
Current Position : Senior Lecturer (DS52)
Nationality : Malaysian
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Research interest: Automotive Tribology, Friction Material, Lubrication oil. Focusing on friction and wear control in braking system under normal and contaminant environment. Investigating third body, external particle size and shape effect on the friction, wear and noise of the automotive friction material. Also studying the oil palm as bio-oil lubricant for automotive application.

2.0 Academic Qualifications

2011 : Ph.D in Automotive Tribology,
The University of Western Australia,
Perth, Australia
2003 : M.Sc. in Automotive Engineering,
University of Leeds, UK
2000 : B.Sc. in Mechanical Engineering,
State University of New York, Buffalo, USA
1998 : Certificate of Associate American Degree Program,
Preparatory Centre (PPP-ITM),
Shah Alam, Selangor
1994 : Sijil Pelajaran Malaysia,
Royal Military College,
Sungai Besi, Kuala Lumpur

3.0 Professional Affiliation

1. Graduate Member of Board of Engineers Malaysia (68702A) April 2011

2. Life Member of Malaysian Tribology Society (L0613)

4.0 Career History

2011 – present	:	Senior Lecturer, Department of Automotive, Faculty of Mechanical Engineering, UTM
2003 – 2011	:	Lecturer, Department of Automotive, Faculty of Mechanical Engineering, UTM
2001 – 2003	:	Tutor, Department of Automotive, Faculty of Mechanical Engineering, UTM
2000 – 2001	:	Training Officer, Kementerian Perumahan dan Kerajaan Tempatan, K.L.

5.0 Administrative Responsibilities

5.1 Faculty Level

1. Automotive UG Programme Coordinator (2013-present).
2. Industrial Training Supervisor for Faculty of Mechanical Engineering (2012-2016)
3. Committee Member of Faculty of Mechanical Engineering Annual Report (2010-2016)
4. Committee Member of FKM Final Year Project (2011-16)

6.0 Teaching and Academic Responsibilities

6.1 Subjects Taught

1. Automotive Technology (SMC3012, SKMV3012)
2. Automotive Electrical System (SMV4003/SMC4002)
3. Engineering Workshop (SME2921 and SME3291)
4. Fluid Mechanics (SMU2302)
5. Experimental Technique (SKMM1912)
6. Statics (SEMM1203)

6.2 Postgraduates Supervision (PhD)

1. Anthony Opia (2019-present) : Main-Supervisor
2. Zulhanafi Paiman (2018 – present) : Co-Supervisor.
3. Binfa Bongfa (2014-2017) : Completed. Co-Supervisor.
PhD Title: Formulation Of Medium Duty Automotive Shock Absorber
Fluid Using Nigeria Crop Oil.

4. Ahmad Razimi Mat Lazim (2011-2016) : Completed. Co-Supervisor. PhD Title: A comprehensive study and investigation on the effect of third body formation between the sliding surface at pad and disc during squeal condition.

6.3 Undergraduates Supervision (B.Eng)

1. Ong Chin Huang – Race Car Aerodynamics
2. Foo Yu Suen - Utilization of waste component from crude palm oil blends and crude palm oil methylester as diesel fuel
3. Sin Yin Goh – Study on Car Wiper System

6.4 Examiner

1. Ahmad Shafarin Shafie (MSc) – April, 2011
2. Tiong Chiong Ing – Oktober (MSc) - 2012
3. Khairuldean bin Abdul Kadir (MSc)– April 2013
4. Iman Goulshokouh (PhD) – Nov 2013
5. Mohd Izhan bin Ibrahim (MSc) – Nov 2013
6. Zulhanafi bin Paiman (MSc) – April 2015
7. Wan Mohamad Aiman Bin Wan Yahya (MSc) – Feb 2018

6.5 Student Advisory

1. AUTEK Club – Advisor (2010 – 2013)
2. UTM Perodua Eco Challenge Team - Advisor (2011-12)
3. GOP - Seoul University and Industrial Visit 2011

7.0 Consultations

7.1 Project Consultation

1. Proton-UTM Brake Squeal Project. 2018-2019.
2. Malaysian Driving Cycle Project, Malaysia Automotive Institute – UTM. 2017-2018.
3. Automotive Electrical and Electronic Course, Uni-Technologies Sdn. Bhd., Aras 2, Bangunan Pusat Industri, Technovation Park, 81310 UTM Johor. May 2012.

8.0 Publications

8.1 Book Chapter

1. Abd Rahim Abu Bakar, **Mohd Kameil Abdul Hamid**, Afandi Dzakaria and Badri Abdul Ghani (2007), "Predicting wear and squeal noise of a disc brake assembly using the finite element method", In DG Solomon, MN Berhan, MS Selamat TR Jaafar, M Sudin ed(s). Brake pad and disc material. University Publication Centre (UPENA). ISBN. 9789833644914.

8.2 Journals

1. Siti Sarah MOHD PUZI, Zul Hilmi CHE DAUD, Zainab ASUS, Saiful Anuar ABU BAKAR, Nurulakmar ABU HUSAIN and **Mohd Kameil ABDUL HAMID**, "Contribution of Heat Generation During Charging on Thermal Behaviour of Lithium-Ion Battery for HEVs Application" International Journal of Engineering & Technology (IJET), 7 (3.7) (2018) 666-668. (DEC 2018)
2. MAA Salleh, **MK Abdul Hamid**, ZH Che Daud, AR Abu Bakar, SA Abu Bakar, "Tribological Analysis On Palm Fatty Acid Distillate (Pfad) As Alternative Transmission Fluid For Clutch Application" Jurnal Teknologi, Volume 79, Issue 7-4, 2017.
3. Binfa Bongfa, S Syahrullail, **MK Abdul Hamid**, PM Samin, Barnabas Atuci, HE Ajibili, "Maximizing the Life of Lubricating Oils for Resources and Environmental Sustainability through Quality Monitoring in Service" Indian Journal of Science and Technology, vol. 9, page 48, 2017
4. M. Kchaou, A.R. Mat Lazim, **M.K. Abdul Hamid**, A.R. Abu Bakar, Experimental studies of friction-induced brake squeal: influence of environmental sand particles in the interface brake pad-disc", Tribology International 110 (2017) 307-317
5. Ahmad Fawwaz Abdul Aziz, **Mohd Kameil Abdul Hamid**, "External particle shape analysis and its effect on tribological performance of disc Brake", Jurnal Teknologi, Volume 78, Issue 9, 2016, Pages 29-33
6. A.R. Mat Lazim, M. Kchaou, M.K. Abdul Hamid, A.R. Abu Bakar, "Squealing Characteristics Of Worn Brake Pads Due To Silica Sand Embedment Into Their Friction Layers", Wear 358-359 (2016) 123-136.
7. Bongfa, B., Syahrullail, S., **Abdul Hamid, M.K.** and Samin, P. "Suitable additives for vegetable oil-based automotive shock absorber fluids: an overview", Lubrication Science (2016) 28(6), 381-404.
8. Muhammad Faiz Fadzli Abdul Mokti, **Mohd Kameil Abdul Hamid** and Abdul Rahim Abu Bakar, "Humidity and Water Effect on Wear Characteristics of Disc Braking System", Applied Mechanics and Materials, Vol. 819 (2016) pp. 612-617.
9. Mohamad Shahidan bin Daud, **Mohd Kameil bin Abdul Hamid**, "Tribological Study of Engine Oil Lubricant Characteristics and its Performance on 660cc Engine", Journal of Transport System Engineering 2 : 1 (2015), 37-40.

10. A.A. Huzaini, **M.K. Abdul Hamid**, M.R. Abdul Rahman, "Tribological Characteristics Study of Continuous Variable Transmission Oil and Standard Automatic Transmission Oil", *Journal of Transport System Engineering* 2:2 (2015) 56-59.
11. A.A. Asik, **M.K. Abdul Hamid**, "Study of Tribological Characteristics of Continuous Variable Transmission Oils", *Journal of Transport System Engineering* 2:3 (2015) 11-14.
12. **M.K. Abdul Hamid**, N.I. Shasudin, A.R. Mat Lazim, A.R. Abu Bakar, "Effect of Brake Pad Design On Friction and Wear with Hard Particle Present", *Jurnal Teknologi (Sciences & Engineering)*, 71 (2014), pp. 135-138.
13. S. Hussain, **M.K. Abdul Hamid**, A.R. Mat Lazim, A.R. Abu Bakar, "Brake wear particle size and shape analysis of non-asbestos organic (nao) and semi metallic brake pad", *Jurnal Teknologi (Sciences & Engineering)*, 71 (2014), pp. 129-134
14. Ahmad Razimi Mat Lazim, Abd Rahim Abu Bakar, **Mohd Kameil Abdul Hamid** and Izzat Mohd Asri, "Influence of Silica Sand Particles on Disc Brake Squeal Noise", *Applied Mechanics and Materials* Vol. 471 (2014) pp. 81-85.
15. Mohd Razmi Ishak, Abd Rahim Abu Bakar, Subki Shamsudin, Muhammad Husaini Maskak and **Mohd Kameil Abdul Hamid**, "Experimental Investigation of Low Speed Disc Brake Judder Vibration" *Applied Mechanics and Materials* Vol. 471 (2014) pp. 25-29.
16. M. A. Nasaruddin, **M. K. Abdul Hamid**, A. R. Mat Lazim and A. R. Abu Bakar, "Effects of External Hard Particles on Brake Noise of Disc Braking System", *Applied Mechanics and Materials* Vol. 388 (2013) pp. 213-216.
17. **M.K. Abdul Hamid**, S. Samion and G.W. Stachowiak, "Effects of Hard Particles on Friction Coefficients and Particle Embedment in Brake System during Hard Braking", *AIP Conference Proceedings*, 1440 (2012), pp. 905-913.
18. M. K. Abdul Hamid, G.W. Stachowiak, "Effects of External Hard Particles on Brake Friction Characteristics during Hard Braking", *Jurnal Teknologi (Sciences & Engineering)*, 58 (2012), pp. 53-58.
19. Mat Lazim, A., **Abdul Hamid, M.**, Jamaluddin, M., and Abu Bakar, A., "The Effect of Road Grit Particles on Brake Pad Surface Topography under Squealing Condition," *SAE Technical Paper* 2012-01-1821, (2012), doi: 10.4271/2012-01-1821.
20. Ahmad Razimi Mat Lazim, **Mohd Kameil Abdul Hamid** and Abd Rahim Abu Bakar, "Effects of Pad Surface Topography on Disc Brake Squeal", *Applied Mechanics and Materials* Vol. 165 (2012) pp. 58-62.
21. Matthias Edric Bengsoon, Abd Rahim Abu Bakar and **Mohd Kameil Abdul Hamid**, "Structural Modification of Disc Brake Judder Using Finite Element Analysis", *Applied Mechanics and Materials* Vol. 165 (2012) pp. 68-72
22. **M.K. Abdul Hamid** and G.W. Stachowiak, "The Effects of Grit Particle Size on Frictional Characteristics of Automotive Braking

- System", *Advanced Materials Research Vols. 189-193*, (2011) pp. 3511-3516.
23. **M.K. Abdul Hamid** and G.W. Stachowiak, "Effect of Hard Particle Grit Size on Friction Coefficients and Embedment of Automotive Braking System, *Jurnal Mekanikal*, 29, pp. 1-18, December 2009.
 24. A.R. AbuBakar, H Ouyang, and **MKA Hamid**. "Modelling and Simulation of Disc Brake Contact Analysis and Squeal", *Jurnal Kebangsaan UKM*, No. 20 pp. 163-173, 2008.
 25. A.R. Abu Bakar, H Ouyang and **MKA Hamid**. "A New Prediction Methodology of Dynamic Contact Pressure Distribution for a Disc Brake" *Jurnal Teknologi*, Vol. 45 (A), pp. 1-11, 2006.
 26. Abd Rahim Abu Bakar, **Mohd Kameil Abdul Hamid**, Afandi Dzakaria, Badri Abdul Ghani and Maziah Mohamad, "Stability Analysis of Disc Brake Squeal Considering Temperature Effect", *Jurnal Mekanikal*, No. 22, pp. 26-38, December 2006.

8.3 International and National Conferences

1. **MKA Hamid**, F Samwil, ZHC Daud, SAA Bakar, AR Abu Bakar, "Slurry effect on wear characteristics of brake pads" *Proceeding of Asia International Conference on Tribology 2018*, Sarawak, September 2018.
2. **M.K. Abdul Hamid**, A.R. Abu Bakar, Brake corrosion problem and its effect on tribological characteristics of brake performance, *9th International Meeting on Advances in Thermofluids (9th IMAT 2017)*, January 2017.
3. Megat Abdul Azim, S. and Mohd Kameil, A. H., Study of Tribological Behaviour on PFAD as Alternative Transmission Fluid For Clutch Application, *Second Multidisciplinary Conference on Mechanical Engineering (McME 2017)*, October 2017.
4. **M.K. Abdul Hamid**, A.R. Abu Bakar, "Effect of the Particle Angularity on Friction Coefficients and Grit Embedment of Brake Pad Material", *Proceeding of Malaysian International Tribology Conference 2015*, Penang, November 2015.
5. M.A. Nasaruddin, **M.K. Abdul Hamid**, A.R. Mat Lazim and A.R. Abu Bakar, "Road Particle Effects on squeal noise of Disc Braking System", *7th IMAT Conference Proceeding*, Swiss Garden Hotel, Kuala Lumpur, November 2014
6. M.F.F. Abdul Mokti, **M.K. Abdul Hamid** and A.R. Abu Bakar, "Humidity and Water Effect on Wear Characteristics of Disc Braking System", *7th IMAT Conference Proceeding*, Swiss Garden Hotel, Kuala Lumpur, November 2014
7. **M.K. Abdul Hamid**, A.M. Kaulan, S. Samion, A.R. Abu Bakar, "Frictional Characteristics under Corroded Brake Discs", *Proceeding of Malaysian International Tribology Conference 2013*, Kota Kinabalu, November 2013.

8. **M.K. Abdul Hamid**, G.W. Stachowiak, S. Samion, A.R. Abu Bakar, "Study of External Particles on Friction Coefficients and Grit Embedment of Brake Friction Material", Proceeding of Malaysian International Tribology Conference 2013, Kota Kinabalu, November 2013.
9. Mohd Razmi Ishak, Abd Rahim Abu Bakar, Subki Shamsudin, Muhammad Husaini Maskak and **Mohd Kameil Abdul Hamid**, "Experimental Study of Disc Brake Judder", Proceeding of National Conference on Noise, Vibration and Comfort (NVC2012), Malaysia, 2012
10. M.A. Nasaruddin, **M.K. Abdul Hamid**, A.R. Mat Lazim and A.R. Abu Bakar, "Effects of External Hard Particles on Brake noise of Disc Braking System", 5th IMAT Conference Proceeding, Pulau Bentan, Indonesia, November 2012
11. **M.K. Abdul Hamid** and G.W. Stachowiak, "Study of Frictional Characteristics and External Hard Particle Embedment in Automotive Braking System during Hard Braking", Proceeding of Regional Tribology Conference 2011, Langkawi, November 2011.
12. **M.K. Abdul Hamid**, G.W. Stachowiak and S. Samion, "Effects of Hard Particles on Friction Coefficient and Particle Embedment in Brake System during Hard Braking", 4th IMAT Conference Proceeding, Melaka, October 2011
13. Ahmad Razimi Mat Lazim, **Mohd Kameil Abdul Hamid** and Abd Rahim Abu Bakar, The Effects of Pad Surface Topography on Disc Brake Squeal', Regional Conference of Automotive Research ReCAR2011 Proceeding, Kuala Lumpur, December 2011.
14. S. Syahrullail, J.Y. Wira, **A.H.M. Kameil**, W.N. Fawwaz, Wear Characteristic of RBD Palm Olein using Four-ball Tribotester', 4th IMAT Conference Proceeding, Melaka, October 2011
15. **M.K. Abdul Hamid** and G.W. Stachowiak, "Effects of Hard Particles and Grit Embedment on Frictional Characteristics of Automotive Braking System", ASIATRIB 2010 Tribology Congress, Perth, December 2010.
16. **M.K. Abdul Hamid** and G.W. Stachowiak, "Hard Particle Effects on Frictional Characteristics of Automotive Braking System" Regional Conference of Vehicle Engineering and Technology' (Rivet2008), July 2008.
17. Abd Rahim Abu Bakar, **Mohd Kameil Abdul Hamid**, Afandi Dzakaria and Badri Abdul Ghani, "Numerical analysis of disc brake squeal considering temperature-dependent friction coefficients" RiVET 2006.
18. A R Abu Bakar, **M.K.A. Hamid** and K. Zakaria. "Finite Element Analysis of Disc Brake Squeal" Conference on Automotive Technology, International Advanced Technology Congress 2005, Putrajaya.
19. AR AbuBakar, H Ouyang, D Titeica and **MKA Hamid**. "Modelling and Simulation of Disc Brake Contact Analysis and Squeal" Proceedings of National Conference on Noise, Vibration and Comfort (NVC2005), Malaysia, pp. 1-10, 2005.

9.0 Professional Developments

9.1 Courses/ Trainings Attended

1. Effective Communication using Social Network, Computer Lab, CTL UTM, 27 May 2015
2. CDIO Learning Innovation Workshop, CTL - FKM UTM, 26-27 Aug. 2014
3. Assessment & CQI Course, Seminar Room, FKM UTM, 15 May 2014
4. Open Courseware (OCW) Workshop, Ancasa Resort All Suites, Port Dickson, 8-10 March 2013
5. EAC Assesment workshop, Marriot Hotel, 26 May 2013
6. Bengkel Pemurnian Kertas Kerja Kejuruteraan Sarjana (Automotif), UTM, 12 Sept. 2013
7. SAR Report workshop, UTM, 18 Sept. 2013

10.0 Grants

10.1 Grants Received

1. FRGS – Project Leader. Investigation into the performance of palm mid olein as a fluid lubricant in journal bearings in terms of oil film pressure, temperature, thickness and friction coefficient, 1/1/2019 – 31/12/2020. RM 82 440.
2. GUP 1 – Project Leader. Development of vegetable oil-based engine lubricant with enhanced thermophysical and tribological properties. 1/2/2018 – 31/1/2020. RM 47 000.
3. GUP 2 – Project Leader. Friction and wear study of cast iron material lubricated with palm fatty acid distillate with pin-on-disk tribotester. 1/10/2016 -30/9/2017. RM20 000.