

CURRICULUM VITAE



Abdul Aziz Bin Hairuddin
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Universiti Putra Malaysia,
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Education

A. Institution of Higher Learning

1. Ph.D. Mechanical Engineering (Combustion Modelling of an Internal Combustion Engine), 2014, University of Southern Queensland, Australia.
Thesis title: Implementation of Conditional Moment Closure in a Zero-Dimensional Model for HCCI Engines and Comparison with Experiment
2. B. Eng. (Mechanical Engineering) (1st Class Honour), 2008, Universiti Teknologi Malaysia
3. Diploma in Mechanical Engineering (1st Class Honour), 2005, Universiti Teknologi Malaysia.

B. School

1. SPM (7A), Sekolah Menengah Teknik Slim River (2001)
2. PMR (7A), Sekolah Menengah Khir Johari Tanjung Malim (1999)

Areas of Interest

1. Automotive Engineering (Internal Combustion Engine)
2. Combustion Modelling
3. Computational Fluid Dynamics (CFD)
4. Energy
5. Thermofluids

Professional Qualification / Membership / Affiliation

1. Graduate Engineer, Board of Engineer Malaysia (BEM) (GE102851A)
2. Member, The Combustion Institute Australia and New Zealand Section (CI ANZ)
3. Member, Society of Automotive Engineers (SAE) (6116626327)
4. Secretary, Southeast Asia Automotive Interest Group (SAIG), 2020 – 2021
5. Chairman, Southeast Asia Automotive Interest Group (SAIG), 2021 – 2022

Working Experiences

Position	Duration
1. Associate Professor, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia	1 July 2019 – to date
2. Senior Lecturer, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia	9 May 2014 – 30 June 2019
3. Tutor, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, UPM	Jan 2009 – 8 May 2014
4. Media Development Engineer, Intel Technology Sdn. Bhd.	Dec 2007 – Dec 2008
5. Research Assistant, Faculty of Science, Universiti Pendidikan Sultan Idris (UPSI)	2005

Appointments / Administrative Work

Position	Duration
1. Head of Thermodynamics Laboratory	2018 to date
2. Academic Coordinator I, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia	22 October 2015 to 31 December 2020
3. Academic Coordinator II, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia	22 July 2014 to 22 October 2015
4. Treasurer, Committee of Welfare and Social, Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia	8 August 2014 to date
5. Member, Committee of Curriculum Review (2016-2020), Department of Mechanical and Manufacturing Engineering, Faculty of Engineering, Universiti Putra Malaysia	9 January 2014 to 2016

Publications

Journals (30 recent journals)

1. Hesham Ahmed, Azizan As'arry, Abdul Aziz Hairuddin, Mohd Khair Hassan, Liu Yun Yun & C.U. Erasmus, 2022, IEEE Access, *Accepted for publication*, (IF = **3.476**, JCR 2021, **Q2**)
2. Cut Vira, Abdul Aziz Hairuddin & Norkhairunnisa Mazlan, 2022, Promising use nanoparticles in the base fluid of a system (preparation, stability test and critical analysis): A review, *Materials Today: Proceedings*, *Accepted for publication*, (Indexed by **Scopus**).
3. H.M. Tobib, **A.A. Hairuddin***, A.A. Nuraini, M.A.A Mossa, M.M. Noor & S.I. Ayob, 2021, An Experimental Study of The Performance of a Homogeneous Charge Compression Ignition (HCCI) Engine Fueled with Palm Oil Based Biodiesel, *Automotive Science and Engineering*, vol. 11, Issue 2, pp. 3602-3625, ISSN 2717-2023, Iran University of Science & Technology (Indexed by **Google Scholar**).
4. Salmi Samsudin, Nuraini Abdul Aziz, **Abdul Aziz Hairuddin** & Siti Ujila Masuri, 2021, Developing Sub-Bituminous Coal Sintering Ratio for Predicting Coal Ash Slagging Factors, *International Journal of Technology*, vol. 12, issue 4, pp. 791-801, ISSN 2087-2100, Universitas Indonesia (Indexed by **Scopus**).
5. Salmi Samsudin, Nuraini Abdul Aziz, **Abdul Aziz Hairuddin** & Siti Ujila Masuri, 2021, A Study on Bituminous Coal Base Acid Ratio to the Slagging Factor at Large Scale Boiler, *International Journal of Heat and Technology*, vol. 39, issue 3, pp. 833-840, ISSN 0392-8764, Int Information & Engineering Technology Assoc, Canada. (JCR 2020, **Q4**).
6. Fnyees Alajmi, Amer Alajmi, Ahmed Alrashidi, Naser Alrashidi, Nor Mariah Adam & **Abdul Aziz Hairuddin***, 2021, Development of Solar Powered Biodiesel Reactor for Kuwait Sheep Tallow, *Processes*, vol. 9, 1623, pp. 1-16, ISSN 2227-9717, MDPI (IF = **2.753**, JCR 2020, **Q2**).
7. Lai Lai Win, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Lili Nurliyana Abdullah, Hwa Jen Yap, Hideo Saito & Norhisham Seyajah, 2021, Development of Marker-less Augmented Reality Application with Smart Glasses in Automobile Engine Assembly, *Nanoscience and Nanotechnology Letters*, pp. 1-31, ISSN 1941-4900, American Scientific Publishers (IF = **1.128** JCR 2020, **Q4**).
8. Lai Lai Win, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Lili Nurliyana Abdullah, Hwa Jen Yap, Hideo Saito & Norhisham Seyajah, 2021, Recent Academic Success of Virtual Reality in Nanoscience, Nontechnology, Education and Training Sectors, *Nanoscience and Nanotechnology Letters*, NNL-20-807, pp. 1-53, ISSN 1941-4900, American Scientific Publishers (IF = **1.128** JCR 2020, **Q4**).
9. S. Salmi, A.A Nuraini, **H. Abdul Aziz** & M. Siti Ujila, 2021, Thermal Process, Technical Review and Performance Improvement for Operational of Ultra-Supercritical Coal Fired Power Plant, *Solid State Technology*, vol. 64, Issue 2, pp. 4404-4417, ISSN 0038-111X (Indexed by **Scopus**).
10. Hassan Sadah Muhssen, Siti Ujila Masuri, Barkawi Bin Sahari & **Abdul Aziz Hairuddin**, 2021, Design improvement of compressed natural gas (CNG)-Air mixer for diesel dual-fuel engines using computational fluid dynamics, *Energy*, vol. 216, issue February 2021, ISSN 0360-5442, Elsevier (IF = **6.082**, JCR 2019, **Q1**)
11. Md Insiat Islam Rabby, Siti Ujila Masuri, Ahmad Syakir Fariz Samsul Kamal, Zulkifle Leman,

- Abdul Aziz Hairuddin & Nuraini Abdul Aziz**, 2021, Flow Characteristics of Disk Bypass Pipeline Inspection Gauge (PIG) in Natural Gas Pipelines using Computational Fluid Dynamics, *CFD Letters*, vol. 13, issue 4, ISSN 2180-1363, Penerbit Akademia Baru (Indexed by **Scopus**).
12. Nadia Abdul Rani, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Siti Azfanizam & Abdul Rahman Hemdi, 2020, Augmented reality: capabilities and challenges in machining industry aligned with industry 4.0, *Advances in Materials and Processing Technologies*, pp. 1-9, ISSN 2374-068X, Taylor and Francis (Indexed by **Scopus**).
 13. Lai Lai Win, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Lili Nurliyana Abdullah, Hwa Jen Yap, Hideo Saito & Norhisham Seyajah, 2020, Immersive Virtual Reality Application Development Using HTC Vive and High-end Laptop, *Nanoscience and Nanotechnology Letters*, vol. 12, pp. 1-5, ISSN 1941-4900, American Scientific Publishers (Indexed by **ERA**).
 14. Ali Jaber Abdulhamed, Maithem Hussein Rasheed, Hanaa Kadhim Kareem, Nor Mariah Adam, Mohd Zainal Abidin Ab-Kadir & **Abdul Aziz Hairuddin**, 2020, Design and Performance Testing of a Parabolic Trough Collector Including Deformation Test of the Receiver Tube, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, vol. 67, issue 2, pp. 47-65, ISSN 2289-7879, Penerbit Akademia Baru (Indexed by **Scopus**).
 15. Bagus, M.A., As'arry, A., Abas, H.A.A.M., **Hairuddin, A.A.** & Hassan, M.K., 2020, Vibration control of FSAE quarter car suspension test rig using magnetorheological damper, *Indonesian Journal of Electrical Engineering and Computer Science*, vol. 17, issue 3, pp. 1281-1288, ISSN 2502-4752 (Indexed by **Scopus**).
 16. A.A. Nuraini, S. Salmi & **H.A. Aziz**, 2020, Efficiency and boiler parameters effects in sub-critical boiler with different types of sub-bituminous coal, *Iranian Journal of Science and Technology-Transactions of Mechanical Engineering*, vol. 44, issue 1, ISSN 2228-6187 (**IF = 0.727** JCR 2018, **Q4**).
 17. Ali Jaber Abdulhamed, Nor Mariah Adam, Mohd Zainal Abidin Ab-Kadir & **Abdul Aziz Hairuddin**, 2020, Flow and Thermal Mechanisms in Receiver Tube of Parabolic Trough Collectors with Rings Axially Connected Together and Radially Connected to the Inner Tube Surface, *Journal of Engineering and Applied Sciences*, vol. 15, issue 3, pp. 762-772, ISSN 1816-949X, Medwell Journals (Indexed by **Others**).
 18. Nuraini, A.A., Salmi, S. & **Hairuddin, A.A.**, 2019, Energy audit of subcritical plant performance with different types of subbituminous coal, *Journal of Mechanical Engineering Research and Development (JMERE)*, vol. 42, issue 4, pp. 264-268, ISSN 1024-1752 (Indexed by **Scopus**).
 19. Hassan Sadah Muhssen, Siti Ujila Masuri, Barkawi Sahari & **Abdul Aziz Hairuddin**, 2019, Computational fluid dynamics investigation of air-gas premixing controller mixer designed for CNG-diesel dual-fuel engines, *CFD Letters*, Penerbit Akademia Baru, vol. 11, issue 6, pp. 47-62, ISSN 2180-1363 (Indexed by **Scopus**).
 20. Amer Eid Salem Eid Thafnan Alajmi, Nor Mariah Adam, **Abdul Aziz Hairuddin** & Luqman Chuah Abdullah, 2019, Fuel atomization in gas turbines: A review of novel technology, *International Journal of Energy Research*, vol. 43, issue 8, pp. 3166-3181, ISSN 0363-907X (**IF = 3.009** JCR 2018, **Q2** Energy & Fuels, **Q1** Nuclear Science & Technology).
 21. M.A.A. Mossa, **A.A. Hairuddin***, A.A. Nuraini, J. Zulkiple & M.T. Hasyuzariza, 2019, Effects of hot exhaust gas recirculation (EGR) on the emission and performance of a single-cylinder diesel engine, *International Journal of Automotive and Mechanical Engineering (IJAME)*, vol. 16, Issue 2 (June 2019), pp. 6660-6674, ISSN 2229-8649 (Indexed by **Scopus**).
 22. Pshtiwan Mohammad Sharif, **A. Aziz Hairuddin***, Azizan As'arry, Khairil Anas Md. Rezali & Saman M. Shareef, 2019, Development of evaporative intercooler heat exchanger for vehicle charge air enhancement using CFD simulation, *Journal of Mechanical Engineering & Sciences (JMES)*, vol. 13, issue 4 (December 2019), pp. 6195-6217, ISSN 2289-4659 (Indexed by **Scopus**).
 23. Lai Lai Win, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Lili Nurliyana Abdullah, Yap Hwa Jen, Hideo Saito & Norhisham Seyajah, 2018, Virtual Reality Application in Engineering Assembly Education: A Review, *Journal of Engineering and Science Research*, vol. 2, issue 6, pp. 17-23, ISSN 2289-7127 (Indexed by **Google Scholar**).
 24. Hassan A. Aljaberi, Nuraini Abdul Aziz & **A. Aziz Hairuddin***, 2018, CFD modeling and experimental validation of different piston crown designs in an HCCI engine fueled with iso-octane, *Journal of Engineering and Applied Sciences*, vol. 13, issue 12, pp. 4286-4299, ISSN 1816-949X (Indexed by **Scopus**).
 25. Hassan A. Aljaberi & **A. Aziz Hairuddin***, Nuraini Abdul Aziz, 2018, Effect of fuel injection strategies on performance and emissions in HCCI engines: A review, *International Review of Mechanical Engineering (I.RE.M.E.)*, vol. 12, issue 4 (April 2018), pp. 341-353, ISSN 1970-8734

(Indexed by **Scopus**).

26. Ali Jaber Abdulhamed, Nor Mariah Adam, Mohd Zainal Abidin Ab-Kadir & **Abdul Aziz Hairuddin**, 2018, Review of solar parabolic-trough collector geometrical and thermal analyses, performance, and applications, *Renewable and Sustainable Energy Reviews*, vol. 91, issue August 2018, pp. 822-831, (**IF = 8.050** JCR 2017, **Q1**).
27. Ahmed M.R.N. Alrashidi, Nor Mariah Adam, **Abdul Aziz Hairuddin** & Luqman Chuah Abdullah, 2018, A review on plasma combustion of fuel in internal combustion engines, *International Journal of Energy Research*, vol. 42, issue 5, pp. 1813-1833, ISSN 0363-907X (**IF = 2.598** JCR 2017, **Q2** Energy & Fuels, **Q1** Nuclear Science & Technology).
28. Alsanossi M. Aboghrara, M.A. Alghoul, B.T.H.T. Baharudin, E.M. Elbreki, A.A. Ammar, K. Sopian & **A.A. Hairuddin**, 2018, Parametric study on the thermal performance and optimal design elements of solar air heater enhanced with jet impingement on a corrugated absorber plate, *International Journal of Photoenergy*, vol. 2018. (**IF = 1.277** JCR 2017, **Q3**)
29. Alajmi FSMDA, **Hairuddin AA***, Adam NM & Abdullah LC, 2018, Recent trends in biodiesel production from commonly used animal fats, *International Journal of Energy Research*, vol. 42, issue 3, pp. 885-902, ISSN 0363-907X (**IF = 2.598** JCR 2017, **Q2** Energy & Fuels, **Q1** Nuclear Science & Technology).
30. Hassan A. Aljaberi, **A. Aziz Hairuddin*** & Nuraini Abdul Aziz, 2017, The use of different types of piston in an HCCI engine: A review, *International Journal of Automotive and Mechanical Engineering (IJAME)*, vol.14, Issue 2 (June 2017), pp. 4348-4268, ISSN 2229-8649 (Indexed by **Scopus**).
31. Alsanossi M. Aboghrara, B.T.H.T. Baharudin, M.A. Alghoul, Nor Mariah Adam, **A.A. Hairuddin** & Husam A. Hasan, 2017, Performance analysis of solar air heater with jet impingement on corrugated absorber plate, *Case Studies in Thermal Engineering*, vol. 10, pp. 111-120 (Indexed by **Scopus**)
32. Radhwan Ali, Nuraini Abdul Aziz & **Abdul Aziz Hairuddin**, 2017, A review of effect the LPG fuels addition on the emissions and performance in compression ignition engine, *Journal of Engineering and Applied Sciences*, vol. 12, Issue 9, pp. 2427-2436 (Indexed by **Scopus**)
33. Abduhamed, A.J., Adam, N.M., **Hairuddin, A.A.**, Kareem, H.K. 2016, Design and fabrication of a heat exchanger for portable solar water distiller system, *International Food Research Journal*, vol. 23, pp. s15-s22. (Indexed by **Scopus**).
34. **A. Aziz Hairuddin***, Talal Yusaf & Andrew P. Wandel 2016, Single-zone zero-dimensional model study for diesel-fuelled homogeneous charge compression ignition (HCCI) engines using Cantera, *International Journal of Automotive and Mechanical Engineering (IJAME)*, vol. 13, Issue 2 (September 2016), pp. 3309-3328, ISSN 2229-8649. (Indexed by **Scopus**)
35. A. J., Alkhakani, N. M., Adam, **A. A. Hairuddin** & H. K., Alsabahi 2015, Effect of tube thickness for shell and tube heat exchanger in portable solar water distiller, *International Journal of Engineering Research & Technology (IJERT)*, vol. 4 (November 2015), pp. 37-42, ISSN 2278-0181. (Indexed by **PubMed**)
36. Muhamad Syukri bin Abdul Khalid, Radhiyatul Hikmah binti Abu, Siti Ujila binti Masuri & **Abdul Aziz bin Hairuddin** 2015, Effect of initial concentration and solution temperature on adsorption of calcium-HEDP scale inhibitor, *Australian Journal of Basic and Applied Sciences*, vol. 9 (July 2015), Issue 23, pp. 376-379, ISSN 1991-8178. (Indexed by **EBSCO**)
37. **Hairuddin, AA***, Wandel, AP & Yusaf T 2014, An introduction to a homogeneous charge compression ignition (HCCI) engine, *Journal of Mechanical Engineering and Sciences (JMES)*, vol. 7 (December 2014), pp. 1042-1052, ISSN 2289-4659. (Indexed by **Scopus**)
38. **Hairuddin, AA***, Yusaf, T & Wandel, AP 2014, A review of hydrogen and natural gas addition in diesel HCCI engines, *Renewable and Sustainable Energy Reviews*, vol. 32(April 2014), pp. 739-61. ISSN 1364-0321 (**IF = 8.050** JCR 2017, **Q1**)
39. **Hairuddin, AA***, Wandel, AP & Yusaf, T 2013, The effect of different heat transfer models on a diesel homogeneous charge compression ignition (HCCI) engine, *International Journal of Automotive and Mechanical Engineering (IJAME)*, vol. 8, pp. 1305-17, ISSN 2229-8649. (**IF = 0.146**)

Conference Proceedings: Indexed (30 recent)

1. Salmi Samsudin, Nuraini Abdul Aziz, **Abdul Aziz Hairuddin** & Siti Ujila Masuri, 2022, Deviation of SO₂ and NO₂ from coal combustion to the coal gross calorific value, in *International Symposium on Advanced Materials and Processing 2021 (ISAMP 2021)*, AIP Conference Proceeding, vol. 2496, issue 060002, ISSN 0094-243X, AIP Publishing (Indexed by **Scopus**).

2. M. Norhafana, M.M. Noor & **A.A. Hairuddin**, 2020, Concentration measurement on preparation of blending SiO₂ nano biodiesel, *IOP Conference Series: Materials Science and Engineering*, vol. 736, issue 2, ISSN 1757-8981, IOP Science (Indexed by **ERA**).
3. M. Norhafana, M.M. Noor, F.Y. Hagos & **A.A. Hairuddin**, 2020, Diesel and various blending nanoparticles based diesel, fuel properties study, *IOP Conference Series: Materials Science and Engineering*, vol. 788, issue 2020, ISSN 1757-8981, IOP Science (Indexed by **ERA**).
4. M. Norhafana, M.M. Noor, **A.A. Hairuddin**, S. Harikrishnan, K. Kadirgama & D. Ramasamy, 2020, The effects of nano-additives on exhaust emissions and toxicity on mankind, *Materials Today Proceedings*, vol. 22, issue 2020, pp. 1181-1185, ISSN 2214-7853, Elsevier (Indexed by **ERA**).
5. M.S.M. Alias, **A.A. Hairuddin***, M.K. Hassan & K.A.M. Rezali, 2019, A review of hydrogen addition in an HCCI engine fueled with biofuels, *AIP Conference Proceeding Series*, vol. 2059, issue 1, ISSN 0094-243X, American Institute of Physics (Indexed by **Scopus**).
6. Pshtiwan Mohammad Sharif, **A. Aziz Hairuddin***, A. As'arry, K.A.M. Rezali, M.M. Noor, M. Norhafana, Muntasser A.A. Mossa & S.M. Shareef, 2019, International regulation of vehicle emissions control rules and its influence on academic engine development experimental study and vehicle manufacturing, *IOP Conference Series: Materials Science and Engineering*, vol 469, issue 1, ISSN 1757-899X, IOP Publishing (Indexed by **Scopus**).
7. Pshtiwan M. Sharif, **A. Aziz Hairuddin***, A. As'arry, K.A.M. Rezali, M.M. Noor, M. Norhafana & S.M. Shareef, 2019, Nano gas bubbles dissolve in gasoline fuel and its influence on engine combustion performance, *IOP Conference Series: Materials Science and Engineering*, vol 469, issue 1, ISSN 1757-899X, IOP Publishing (Indexed by **Scopus**).
8. **A. Aziz Hairuddin***, Hasyuzariza M. Tobib, Fariza Zulkifli & M.M. Noor, 2019, The performance of a single-cylinder diesel engine fuelled with egusi based biodiesel, *IOP Conference Series: Materials Science and Engineering*, vol 469, issue 1, ISSN 1757-899X, IOP Publishing (Indexed by **Scopus**).
9. Hasyuzariza M. Tobib, Rostam Hamzah, Muntasser A.A. Mossa, **A. Aziz Hairuddin*** & M.M. Noor, 2019, The performance of an HCCI-DI engine fuelled with palm oil- based biodiesel, *IOP Conference Series: Materials Science and Engineering*, vol 469, issue 1, ISSN 1757-899X, IOP Publishing (Indexed by **Scopus**).
10. Hasyuzariza M. Tobib, **A. Aziz Hairuddin***, Nuraini Abdul Aziz, M.M. Noor, J. Zulkiple & Muntasser A.A. Mossa, 2019, An experimental investigation on the combustion and performance of an HCCI-DI engine, *AIP Conference Proceeding Series*, vol. 2059, issue 1, ISSN 0094-243X, American Institute of Physics (Indexed by **Scopus**).
11. M. Norhafana, M.M. Noor, Pshtiwan M. Sharif, F.Y. Hagos, **A.A. Hairuddin***, K. Kadirgama, D. Ramasamy, M.M. Rahman, R. Alenezi & A.T. Hoang, 2019, A review of the performance and emissions of nano additives in diesel fueled compression ignition-engines, *IOP Conference Series: Materials Science and Engineering*, vol 469, issue 1, ISSN 1757-899X, IOP Publishing (Indexed by **Scopus**).
12. M. Norhafana, M.M. Noor, **A.A. Hairuddin***, F.Y. Hagos, S.I. Ayob, K. Kadirgama & D. Ramasamy, 2019, An experimental study of the performance and emission characteristics of a compression Ignition (CI) engine fueled with palm oil based biodiesel, *AIP Conference Proceeding Series*, vol. 2059, issue 1, ISSN 0094-243X, American Institute of Physics (Indexed by **Scopus**).
13. Noor, MM, **Hairuddin, AA***, Wandel, AP & Yusaf, TF 2012, Modelling of non-premixed turbulent combustion of hydrogen using conditional moment closure method, *IOP Conference Series: Materials Science and Engineering*, 36 (1). pp. 1-17. ISSN 1757-899X (Indexed by **Scopus**).
14. **Hairuddin, AA***, Wandel, AP & Yusaf, T 2010, 'Hydrogen and natural gas comparison in diesel HCCI engines -a review', in the 2010 Southern Region Engineering Conference (SREC2010), pp126-133, 11-12 Nov 2010, Toowoomba, Australia (Indexed by **Scopus**).

* Corresponding or Senior Author

Conference Proceedings (30 recent)

1. Lai Lai Win, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Lili Nurliyana Abdullah, Hwa Jen Yap, Hideo Saito & Norhisham Seyajah 2019, Modelling of Engine Components for Immersive Virtual Reality Application, International Conference on Advances in Mechanical and Manufacturing Engineering (ICAM2E), 21-23 October 2019, Langkawi, Malaysia.
2. Lai Lai Win, Faieza Abdul Aziz, **Abdul Aziz Hairuddin**, Lili Nurliyana Abdullah, Hwa Jen Yap,

- Hideo Saito & Norhisham Seyajah 2019, Immersive Virtual Reality Development for Automobile Engine Assembly, International Conference on Advances in Mechanical and Manufacturing Engineering (ICAM2E), 21-23 October 2019, Langkawi, Malaysia
3. **A.A. Hairuddin** & M.A. Shafanejad 2018, Improvement of engine performance of a single-cylinder compression ignition engine using 3d-printed helical thread intake manifold, in the Proceedings of Mechanical Engineering Research Day 2018 (MerD2018), 3rd May 2018, Melaka, Malaysia.
 4. Zulkiple, J & **Hairuddin, AA** 2016, 'Recent advancement of HCCI technology using biodiesel as a potential alternative fuel', in the 2nd International Conference on Automotive Innovation and Green Energy Vehicle (AiGEV2016), 2-3 August 2016, Cyberjaya, Malaysia
 5. Salmi Samsudin, Nuraini Abd Aziz & **Abdul Aziz Hairuddin** 2016, 'Fuel switching from bituminous to sub-bituminous coal at thermal coal power plant', in An International Multi-Disciplinary Graduate Conference of Terengganu (GraCe2016), 5 November 2016, Kuala Terengganu, Malaysia.
 6. A.J. Alkhakani, N. M. Adam, **AA, Hairuddin** & H. K. Alsabahi 2015, 'Design and fabrication of heat exchanger for portable solar water distiller system', in the 7th International Conference on Sustainable Agriculture for Food, Energy and Industry (ICSAFEI2015), 25-27 August 2015, Serdang, Malaysia
 7. **Hairuddin, AA**, Wandel, AP & Yusaf, T 2013, 'Implementation of CMC in a 0-D single-zone model of a diesel HCCI engine', in the Proceedings of the Australian Combustion Symposium (ACS2013), 6-8 Nov 2013, Perth, Australia.
 8. **Hairuddin, AA**, Wandel, AP & Yusaf, T 2013, 'A homogeneous charge compression ignition engine: an introduction', in the 3rd Malaysian Postgraduate Conference (MPC 2013), 4-5 Jul 2013, Sydney, Australia.
 9. Noor, MM, **Hairuddin, AA**, Wandel, AP & Yusaf, TF 2011, 'Implementation of conditional moment closure using the Taylor expansion and finite differences', in the 1st International Conference of Mechanical Engineering Research (ICMER 2011), 5-8 Dec 2011, Kuantan, Malaysia.
 10. **Hairuddin, AA**, Yusaf, TF & Wandel, AP 2011, 'Predicting the combustion behaviour of a diesel HCCI engine using a zero-dimensional single-zone model', in the Australian Combustion Symposium 2011 (ACS 2011), 29 Nov-1 Dec 2011, Newcastle, Australia.

h-index (Google Scholar) : 11

h-index (Scopus) : 9

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Intellectual Property (IP)

Year	Title	Authors	Type
2020	Cold Intake Air Temperature Using Evaporative Shell-and-tube Heat Exchanger	Pshitiwan Sharif, Abdul Aziz Hairuddin , Azizan As'arry, Khairil Anas Md Rezali	Copyright
2021	Intake air cooling device	Muhammad Usman Ikhtiar, Abdul Aziz Hairuddin , Azizan As'arry, Khairil Anas Md Rezali	Patent (PI 20210072 36)

Research Grants

Summary

	Leader (UPM)	Member
Total (Accumulated) (RM)	253,000	4,742,168

Year	Project Title	Amount (RM)	Source of Fund
2021-2023	Electric generation by using the Homogeneous Charge Compression Ignition (HCCI) engine	25,000	IPS (Putra Grant: Leader)
2019-2022	Engineering Knowledge Transfer Units to Increase Student's Employability and Regional Development	4,511,868	Erasmus+ United (EU: Member)
2019-2021	Simulation of Bypass PIG	44,100	Eureka Efektif Sdn Bhd (Member)
2019-2020	Design, development and testing of a software architecture and control design system for an ECAS control system	28,000	APM through UPM Consultancy & Services Sdn,Bhd (Member)
2017-2019	The effect of low intake air temperature of internal combustion engine using improved heat exchanger	20,000	IPS (Putra Grant: Leader)
2016-2018	Fundamental study of nano-diesel blend fuels in ultra-low emission homogeneous charge compression ignition engine	98,200	FRGS (UMP: Member)
2016-2018	The effect of different type of piston in an HCCI engine performance fuelled with gasoline using CFD	20,000	IPS (Putra Grant: Leader)
2016-2018	Semi-active suspension control for formula car using Magnetho-Rheological Fluid (MRF)	60,000	IPM (Putra Grant: Member)
2016-2018	Fundamentals study on the performance of a homogeneous charge compression ignition engine (HCCI) fueled with palm oil and algae-based biofuels.	60,000	IPM (Putra Grant: Leader)
2015-2018	A fundamental study of knocking behaviour in a homogeneous charge compression ignition (HCCI) engine fuelled with palm oil and egusi based biodiesel	128,000	FRGS (Leader)

Professional Services

Consultations

Year	Title	Authority	Amount
2018	Study on the Palm Oil Biodiesel	KLK Oleo	USD 30
2015	Evaluation of manuscript titled "Kereta Elektrik: Teknologi dan Pasaran Global 2030"	Dewan Bahasa dan Pustaka	RM 700

Journal / Conference Editorial Board

Year	Journal/Conference	Position	Organiser
2021-2022	The 2 nd SAIG-UNITED International Conference 2022	Chairman	Faculty of Engineering, UPM
2019-date	International Journal of Automotive Engineering and Technologies	Editorial Board Member	DergiPark Akademik, Turkey
2019	International Conference on Advances in Mechanical and Manufacturing Engineering 2019 (ICAM2E2019)	Committee Member	Faculty of Engineering, UPM
2018	Progress in Energy and Fuels	Editorial Board Member	Pisco Med Publishing, Singapore
2015	The 7 th International Conference on Sustainable Agriculture for Food, Energy and Industry (ICSAFEI 2015)	Committee Member	Faculty of Engineering, UPM
2014	Advances in Mechanical and Manufacturing Engineering	Editor	Trans Tech Publication

Journal / Conference Referee / Reviewer

Year	Journal / Conference Name
2022	Applied Thermal Engineering
2022	International Journal of Thermodynamics (DergiPark)
2022	GMSARN International Journal
2022	International Journal of Ambient Energy
2022	International Journal of Engine Research
2022	Journal of Engineering Research (Korea)
2021	International Journal of Thermodynamics (DergiPark)
2021	Energy Conversion Management: X (Elsevier)
2021	GMSARN International Journal
2021	International Journal of Engine Research (SAGE)
2021	International Journal of Ambient Energy (Taylor & Francis)
2021	Journal of Engineering Research (Kuwait University)
2021	Journal of Science and Technology (PERTANIKA)
2021	Journal of Thermal Engineering (Yildiz Technical University Press)
2020	International Journal of Automotive Engineering and Technologies
2019	Energy Conversion and Management (Elsevier)
2019	Journal of Science and Technology (PERTANIKA)
2019	International Conference on Computational Methods in Engineering and Health Sciences
2018	International Journal of Integrated Engineering
2018	PERTANIKA Journal
2018	Journal of Advanced Manufacturing Technology (JAMT)
2018	International Conference on Clean Energy and Technology
2018	Engineering Technology International Conference
2017	Introp Research Colloquium
2017	Journal of Mechanical Engineering (JMeche)
2017	PERTANIKA Journal
2017	Journal of Mechanical and Engineering Sciences (JMES)
2017	FEIIC International Journal for Engineering and Technology
2016	World Research & Innovation Convention on Engineering & Technology
2016	Journal of Applied Science and Process Engineering (JASPE)
2016	International Journal of Automotive and Mechanical Engineering (UMP)
2016	15 th Asian Congress of Fluid Mechanics
2015	3rd International Conference on Recent Advances in Automotive Engineering & Mobility Research (ReCAR)
2015	International Journal of Automotive and Mechanical Engineering (IJAME)
2015	International Journal of Automotive and Mechanical Engineering (IJAME)
2015	Fuel Processing Technology (2015 JCR Impact Factor: 3.352), Elsevier
2015	3 rd International Conference on Mechanical Engineering Research
2015	PERTANIKA Journal, Universiti Putra Malaysia
2015	Dewan Bahasa dan Pustaka (DBP)
2014	Fuel Processing Technology (2014 JCR Impact Factor: 3.019), Elsevier
2014	Fuel Processing Technology (2014 JCR Impact Factor: 3.019), Elsevier
2013	International Journal of Automotive and Mechanical Engineering (IJAME)
2013	Renewable and Sustainable Energy Reviews (2014 JCR Impact Factor: 5.510), Elsevier
2012	Reviewer for 2 nd Malaysian Postgraduate Conference (MPC2012), Gold Coast, Australia

Grant Evaluator

Year	Title	Organization
2022	Thermal Radiation modelling using liquid and solid based fuels for fire assessment application	UPM (GPB)
2021	Design of Organic Rankine Cycle (ORC) as waste heat recovery system for micro-cogeneration	UPM (GPB)
2021	Synthesis and characterization of biochar derived from oil palm frond (OPF) and application as catalyst for biodiesel production	UPM-Kyutech

2021	New invention of non-depleted renewable energy technology using centrifugal force	UPM-MOSTI
2020	Design and testing of cost-effective heat sink fins with improved thermal hydraulic performance for large scale solar ophotovoltaic (LSSPV) plants in Malaysia	UPM (IPS)
2017	Characterization of heat transfer losses in free-piston linear generator	Universiti Teknologi Petronas

Awards

Year	Name of awards	Title	Award Authority	Award Type
2022	FYP Open Day	The effects of nanoparticles blended refrigerant to the performance of a refrigeration system	Universiti Putra Malaysia	Silver
2021	Excellent service awards (APC)	Service Award	Universiti Putra Malaysia	Service
2021	Certificate of excellent service	Service Award	Universiti Putra Malaysia	Service
2020	Certificate of excellent service	Service Award	Universiti Putra Malaysia	Service
2019	Certificate of excellent service	Service Award	Universiti Putra Malaysia	Service
2018	Excellent Award in Teaching	Teaching Award	Universiti Putra Malaysia	Teaching
2018	Best Paper Award	Development of evaporative intercooler heat exchanger for vehicle using CFD simulation	International Conference on Automotive Innovation and Green Energy Vehicle (AiGEV2018), Universiti Malaysia Pahang	Publication
2018	FYP Open Day	The performance of a variable air intake manifold for a four-stroke SI engine (Ahmad Iffan Zailani: 177281)	Faculty of Engineering, Universiti Putra Malaysia	Gold
2017	Excellent Service Award	Service Award	Universiti Putra Malaysia	Service
2016	Excellent Award in Teaching	Teaching Award	Universiti Putra Malaysia	Teaching
2016	Excellent Service Award	Service Award	Universiti Putra Malaysia	Service
2015	Excellent Service Award	Service Award	Universiti Putra Malaysia	Service
2015	Excellent Award in Teaching	Teaching Award	Universiti Putra Malaysia	Teaching

2015	FYP Open Day	Performance comparison of a compression ignition engine fuelled with diesel and biodiesel using CFD, Ooi Chung Wee (161419)	Faculty of Engineering, Universiti Putra Malaysia	Bronze
2014	1 st Place: USQ Publication and Excellence Awards	A review of hydrogen and natural gas addition in diesel HCCI engines	University of Southern Queensland, Australia	Publication

Recognitions

Year	Recognition	Type	Organization
2022 - 2024	External Examiner	Program of Diploma in Mechanical Engineering	Universiti Teknologi Malaysia (UTMSPACE)
2020	Keynote Speaker	21st International Conference on Science, Engineering and Technology (ICSET-2020)	Vellore Institute of Technology, India
2020	Technical Expert	Kolaborasi bersama Team Ecovaliants untuk Young Innovators Challenge (YIC) 2020	SMK King George V
2019	Technical Expert (Design)	Land Rover 4x4 in Schools National Challenge 2018 (International 2nd)	SMK King George V (Land Rover, UK)
2018	Invited Speaker	Outcome Based Education (OBE) Workshop	Kolej Vokasional Betong
2018 - 2021	External Panel of Curriculum Review	Program of Diploma in Mechanical Engineering	Universiti Teknologi Malaysia (UTMSPACE)
2018	Technical Expert (Design)	Land Rover 4x4 in Schools National Challenge 2018 (National Winner)	SMK King George V
2017	Technical Expert	Land Rover 4x4 in Schools National Challenge 2017	SMK King George V
2017	Technical Expert	Program F1 in Schools, National Competition	SMK Putrajaya Presint 16
2016	Technical Expert	International Competition at Intel Isef Science Fair, Phenix, Arizona, United States, title Spixhaust	Kolej Tunku Kurshiah
2016	Fasilitator	Program Kecemerlangan Teknologi Bersama UPM	SMK King George V
2016	Technical Expert	Program F1 in Schools, National Competition	SMK King George V
2016	Academic Program Assessor	Program of Diploma in Mechanical Engineering	Universiti Teknologi Malaysia

Development of Student Personality

Year	Activities	Position	Organiser
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2019	Year Two Project Expo	Lecturer	M2EC Student Club
2019	Inbound Mobility Program HDU China-UPM	Lecturer	Faculty of Engineering, UPM and M2EC Student Club
2019	Mechy 3in1 Gathering	Guest Lecturer	M2EC Student Club
2019	Mechanical Final Year Dinner	Guest Lecturer	M2EC Student Club
2018	Mechanical Welcoming Dinner	Guest Lecturer	M2EC Student Club
2018	Putra Motorsport Team	Technical Advisor	Faculty of Engineering, UPM
2017	Mechanical Final Year Dinner	Guest Lecturer	M2EC Student Club
2017	Mechanical Welcoming Dinner	Guest Lecturer	M2EC Student Club
2016	Putra Motorsport Team	Technical Advisor	Faculty of Engineering, UPM
2016	Students Final Year Project Exhibition	Assessor	Faculty of Engineering, UPM
2016	Mechy Games	Guest Lecturer	Faculty of Engineering, UPM
2016	Fight Back Clinique 2.0	Guest Lecturer	Faculty of Engineering, UPM
2015	KMP Motorsport Team	Technical Committee Member	Faculty of Engineering, UPM
2014	Student's Final Year Project Carnival	Committee Member	Faculty of Engineering, UPM
2014	Mechy Games	Guest Lecturer	UPM
2014	38 th UPM Convocation	Guest Lecturer	UPM
2014	Debate in welcoming ceremony for new students	Judge	UPM
2014	Charity program with 'Rumah Penyayang Bestari'	Guest Lecturer	JKMP UPM
2014	Shell EcoMarathon 2015	Advisor	UPM

Teaching					
No	Semester	Courses	Number of Students	Credit Hour	Score (/5)
1.	1 14/15	EMM3804 Thermodynamics and Fluid Mechanics Laboratory (A1)	31	1(0+1)	4.46
2.	1 14/15	EMM3804 Thermodynamics and Fluid Mechanics Laboratory (A2)	27	1(0+1)	4.66
3.	1 14/15	EMM3104 Dynamics	19	3(3+0)	4.29
4.	2 14/15	EMM3304 Applied Fluid Mechanics	54	3(2+1)	4.36
5.	1 15/16	EMM4206 Thermal Power	26	3(3+0)	4.74
6.	1 15/16	EMM3302 Fluid Mechanics	66	3(3+0)	4.72
7.	2 15/16	EMM3304 Applied Fluid Mechanics	45	3(2+1)	4.75
8.	1 16/17	EMM3302 Fluid Mechanics	75	3(3+0)	4.69
9.	1 16/17	EMM3103 Statics	48	3(3+0)	4.68
10.	2 16/17	EMM4208 Internal Combustion Engine	17	3(3+0)	4.93
11.	2 16/17	EMM3304 Applied Fluid Mechanics	43	3(2+1)	4.78
12.	1 17/18	EMM3103 Statics	48	3(3+0)	4.86
13.	1 17/18	EMM3305 Fluid Mechanics I	27	3(3+0)	4.71
14.	2 17/18	EMM4208 Internal Combustion Engine	16	3(3+0)	4.34
15.	2 17/18	EMM3306 Fluid Mechanics II	30	3(3+0)	4.81
16.	1 18/19	EMM3103 Statics	60	3(3+0)	4.74

17.	2 18/19	EMM4208 Internal Combustion Engine	18	3(3+0)	4.97
18.	2 18/19	EMM3214 Thermodynamics II	51	3(3+0)	4.76
19.	1 19/20	EMM3305 Fluid Mechanics I	28	3(3+0)	4.72
20.	2 19/20	EMM4209 Internal Combustion Engine	17	3(3+0)	4.75
21.	2 19/20	EMM3214 Thermodynamics II	32	3(3+0)	4.62
22.	1 20/21	EMM3305 Fluid Mechanics I	61	3(3+0)	4.72
23.	2 20/21	EMM3214 Thermodynamics II	29	3(3+0)	4.8
24.	2 20/21	EMM4209 Internal Combustion Engine	17	3(3+0)	4.7
25.	1 21/22	EMM3305 Fluid Mechanics I	52	3(3+0)	4.84
26.	2 21/22	EMM3214 Thermodynamics II	56	3(3+0)	4.82
27.	2 21/22	EMM4209 Internal Combustion Engine	16	3(3+0)	5.0
TOTAL			77		

Student Supervision

Summary:

	Chairman		Member	
	Ongoing	Graduated	Ongoing	Graduated
PhD	7	2	7	4
Master (by research)	1	4	2	4
Master (by course)	0	17		
Bachelor	0	13		

PhD (Chairman)

No.	Name	Title	Status
1.	Fnyees S M D A Alajmi (GS43322)	Development of solar powered biodiesel reactor from animal waste of sheep tallow	Graduated (2019)
2.	Pshtiwan Mohammad Sharif Shwan (GS47937)	A novel design of air-cooled intake system	Graduated (2021)
3.	Mohd Firdaus Dzulkafli (GS49480)	The effect of air-assisted port fuel injector on the performance of an HCCI engine fueled with waste cooking oil-based biodiesel	Ongoing
4.	Mohd Shahrudin bin Mohd Alias (GS51888)	The effect of helical air intake manifold on the performance of an HCCI engine	Ongoing
5.	Mohamad Firzan Bin Ahmad Harazi (GS55966)	Development of novel continuous variable air intake manifold for a spark-ignition engine	Ongoing
6.	Khidmatgar Abdulqhadar (GS56631)	An experimental study on the effect of hydrogen addition on the performance of HCCI engine fueled with palm oil-based biodiesel	Ongoing
7.	Ikhtiar Muhammad Usman (GS56922)	The performance of a novel heat exchanger on the cold air intake system for a spark-ignition engine	Ongoing
8.	Nik Muhammad Hafiz bin Nik Ab Rashid (GS58241)	The effect of different piston crown designs on the performance of an HCCI engine	Ongoing
9.	Muntasser Abdulabbas Mossa (GS57867)	The performance of an HCCI engine with different compression ratio and intake pressure	Ongoing

PhD (Member)

No.	Name	Title	Status
1.	Alsanossi Mohamed Aboghrara	Numerical and experimental investigation to develop solar air heater with impinging jets on	Graduated (18/01/18)

PhD (Member)

No.	Name	Title	Status
	(GS35903)	corrugated plate	
2.	Amer Alajmi (GS43324)	Investigation of the influence of using ultrasonic atomization in gas turbine combustor	Graduated (2019)
3.	Ahmad Alrashidi (GS43323)	The influence of the merger between the jet fuel and technology of plasma on a combustion chamber of gas turbine	Graduated (2022)
4.	Ali Jaber Abdulhamed (GS47885)	Portable water distiller with improved heat exchanger	Graduated (10/01/19)
5.	Hesham Ahmed Abdul Mutaleb Abas (GS49090)	MRF fluid for automotive suspension system	Ongoing
6.	Lai Lai Win (GS51671)	Development of augmented reality for training purposes of internal combustion engine	Ongoing
7.	Nadia Hanim Abd Rani (GS53369)	Augmented and virtual reality for learning process	Ongoing
8.	Salmi Samsudin (GS56546)	Efficiency and boiler parameters effects in sub-critical boiler with different types of sub-bituminous coal	Ongoing
9.	Muhammad Anis Khaliquzzama (GS59765)		Ongoing
10.	Liu Yunyun (GS59795)		Ongoing
11.	Ahmad Mortaza (GS60711)		Ongoing

Master with thesis (Chairman)

No.	Name	Title	Status
1.	Hassan Abdulhadi Jasim (GS40856)	The effects of different type of piston in an HCCI engine performance fuelled with gasoline using CFD	Graduated (2016)
2.	Naser A Z S Alrashidi (GS46346)	The performance of micro-gas turbine fueled with animal based biofuel.	Graduated (17/06/19)
3.	Muntasser Abdulabbas Mossa (GS47857)	The performance of HCCI engines fueled with biofuels	Graduated (2019)
4.	Hasyuzariza Muhamad Tobib (GS48217)	The effect of exhaust gas recirculation on the performance of palm oil based biodiesel HCCI engine	Graduated (2020)
5.	Vira Cut (GS60796)	The nano blended refrigerant effect on the air conditioning system	Ongoing

Master with thesis (Member)

No.	Name	Title	Status
1.	Hassan Sadah Muhssen (GS39557)	Development of CNG mixer	Graduated (2017)
2.	Ali Jaber Abdulhamed (GS41633)	The heat exchanger performance on a solar assisted water heater	Graduated (2016)
3.	Radhwan Ali Abd Al-Reda (GS42865)	Effects of injection spray angle on an HCCI engine performance	Graduated (2017)
4.	Salmi Samsudin (GS44607)	Fuel switching from bituminous to sub-bituminous coal at thermal coal power plant	Graduated (2018)
5.	Abo Tabik Sarah Haleem Talib (GS53455)	Development of MRF damper	Ongoing

No.	Name	Title	Status
6.	Rabby Md Insiat Islam (GS55006)	Simulation of Bypass PIG	Thesis submitted

Master by course work (Chairman)

No.	Name	Title	Status
1.	Hari Prasad Kumarasamy (GS39345)	Implementation of sustainable manufacturing processes in Malaysia	Graduated (2015)
2.	Parisa Keyhani Boroojeni (GS37356)	Effects of layer orientation on dimensional accuracy, surface roughness and mechanical properties of parts manufactured by 3D printer	Graduated (2015)
3.	Khaled Abdullah M. Aboshlesha (GS40408)	The performance of a diesel engine with hydrogen as an additive	Graduated (2016)
4.	Masood Alheblow (GS40344)	The performance of exhaust gas recirculation on a single-cylinder diesel engine	Graduated (2016)
5.	Hsen Abdalmbi Msaud Alazrq (GS40199)	The performance of exhaust gas recirculation on a single-cylinder gasoline engine	Graduated (2016)
6.	Mohamed Hussin Abdullah Altaher (GS42328)	The performance of exhaust gas recirculation on a single-cylinder engine fueled with biodiesel	Graduated (2017)
7.	Haikal Qusyairi Bin Halim (GS43669)	A study of refrigeration system performance using nanofluids	Graduated (2017)
8.	Mahdi Yousefi (GS46149)	The performance of algae-based biodiesel on homogeneous charge compression ignition engine	Graduated (2017)
9.	Mohammed Amin Shafanejad (GS46236)	Improvement of engine performance of a single cylinder compression ignition engine using 3D-Printed helical thread intake manifold	Graduated (2017)
10.	Sheet Hasan (GS45563)	The performance of an HCCI engine operated with hot EGR	Graduated (2018)
11.	Fariz Izuan Bin Ya'cob (GS46958)	The performance of an Used Cooking Oil (UCO) Based Biodiesel on an HCCI-DI engine	Graduated (2019)
12.	Rostam Bin Hamzah (GS46689)	The performance of A Palm Oil Based Biodiesel On an HCCI-DI engine	Graduated (2018)
13.	Usman Monday (GS48311)	Development of a water management model for African countries (Nigeria)	Graduated (2019)
14.	Nur Aizat Ali (GS53081)	The effect is spiral intake air on the homogeneous charge compression ignition engine	Graduated (2019)
15.	Kanti Bhusan Roy (GS51803)	Performance analysis and vulnerability of the power sector in Bangladesh	Graduated (2020)
16.	Wahidaton Nisa (GS52154)	The effect of swirl on the performance of a Homogeneous Charge Compression Ignition (HCCI) engine using computational fluid dynamics (CFD).	Graduated (2021)
17.	Jangu Karimulla Sadiq (GS56624)	The performance of palm oil and cooking oil-based biodiesel on an HCCI engine	Graduated (2021)

Bachelor (Chairman)

No.	Name	Title	Status
1.	Ooi Chung Wee (161419)	Performance Comparison of a Compression Ignition Engine Fuelled with diesel and Biodiesel using CFD	Graduated (2015)
2.	Fariza Binti Zulkifli (162035)	Characterisation of Egusi Based Biodiesel	Graduated (2015)
3.	Muhammad Amin Zainal (170875)	Design of intake manifold to improve the performance of a single cylinder spark ignition	Graduated (2016)

No.	Name	Title	Status
4.	Muhamad Hafiy Naim Bin Ismail (173825)	engine Improvement on air restrictor design in intake manifold of a four-cylinder spark ignition engine of a Formula SAE car	Graduated (2017)
5.	Meor Ilyasa' Hariz Bin Meor Zainal (171045)	A study of different intake manifold designs for a single cylinder spark ignition engine using computational fluid dynamics (CFD)	Graduated (2017)
6.	Zuhaidi Bin Rozlan (179783)	Study of the effect of exhaust gas recirculation (EGR) of a single-cylinder diesel engine fueled with palm oil based biodiesel	Graduated (2018)
7.	Azrul Hafiza Bin Uzalan (177368)	The Study of Effect of Exhaust Gas Recirculation on Single Cylinder Diesel Engine Fuelled with Used Cooking Oil	Graduated (2018)
8.	Ahmad Iffan Zailani (177281)	The performance of variable air intake manifold for a 4-stroke SI engine	Graduated (2018)
9.	Muhammad Alif Syafiq Bin Ahmad Khusaire (184582)	A study of the performance of a Homogeneous Charge Compression Ignition (HCCI) engine fuelled with biodiesel using computational fluid dynamics (CFD).	Graduated (2019)
10.	Muhammad Hairie Bin Yusri (183706)	Knock study of a Homogeneous Charge Compression Ignition (HCCI) engine fuelled with palm oil-based biodiesel.	Graduated (2019)
11.	Krishnaraja A/L Masalamany (169858)	Development of variable air intake manifold for a spark ignition engine.	Graduated (2020)
12.	Muhamad Arif Hakimi Muhamad Yusri (193473)	Development of electric supercharge to improve engine performance.	Graduated (2021)
13.	Nurul Atiqah Md Razi (192161)	The stability characterization of nanofluids in the lubricant of air conditioning system	Graduated (2021)

Thesis Examiner

Summary:

	Chairman	Internal	External
PhD	0	1	5
Master	2	1	4

Chairman

No.	Name	Title	Level
1.	Rohidatun binti Mahmud @ Wahab (GS40702)	Design and development of virtual and Augmented reality system to enhance learning and training in assembly process	Master (2017)
2.	Radhiyatul Hikmah Binti Abu	Establishing adsorption mechanism of synthesized nano CA-DTPMP scale inhibitor through static adsorption/precipitation experiment	Master (2019)

Internal

No.	Name	Title	Level
1.	Hadi Mahdizadeh (GS42274)	Heat transfer and flow analysis of aluminium oxide nano-particles with water injection using computational fluid dynamics	Master (2017)
2.	Albuhamdan Sadeq Salman Abed	Heat transfer and turbulent fluid flow over microscale backward-facing step.	PhD (2021)

External

No.	Name	Title	Level
1.	Law Woon Phui (UMP)	Effect of nozzle assembly, insulation and operating condition on partial combustion unit performance: Computational fluid dynamics and experimental study	PhD (2017)
2.	Selvakumaran, T. (Sathyabama University, India)	Investigation of intrinsic instability of combustion of multi-component condensed phase systems	PhD (2018)
3.	Nagaprasad, K.S. (Visvesraya Technological University, India)	A study on effect of fluid injection on diesel engine performance and emissions	PhD (2019)
4.	Mohamad Qayyum Bin Mohd Tamam (UiTM)	Fuel properties and chemical composition on engine performance and emissions profile for gasoline engine	Master (2019)
5.	Yusuf Abdi Abubakar Hassan (IIUM)	Development of Zinc Oxide/Silicon Dioxide Semi-conductive Thermoelectric Generator (STEG)	Master (2020)
6.	Ibrahim Babangida Dalha (UTP)	Experimental Investigation and Optimization of Biogas Intake and Mixing Regimes in Dual-Fuel RCCI Combustion	PhD (2021)
7.	Enoch Abraham (UNITEN)	Effect of Engine Operating Altitude, Temperature and Humidity towards Traction Force on Wheels	Master (2021)
8.	Hawa Anak Ringkai (UNIMAS)	Investigation on Mixing Performance and Droplet Generation of Dissimilar Liquids through T-junction and Offset T-junction Microchannels	Master (2022)
9.	Milad Fakourdabbaghi (UTP)	Numerical Investigation and Optimization of the Crank-Rocker Engine Ignition Timing Based on Performance and Combustion Characteristics	PhD (2022)

Training / Seminar Attended

Year	Name of Training / Seminar	Organiser	Level	Location
2022	Virtual Reality (VR) Workshop for Beginner	CADe UPM	University	UPM
2019	3rd United Training on Engineering Knowledge Transfer	Erasmus United	International	Universitas Sumatera Utara
2019	2nd United Training on Engineering Knowledge Transfer	Erasmus United	International	Universiti Teknikal Malaysia Melaka
2019	1st United Training on Engineering Knowledge Transfer	Erasmus United	International	Universitas Udayana, Bali
2015	EAC Training for IHL	Engineering Accreditation Council (EAC)	National	Bangi
2015	Program Transformasi Minda	Pendaftar/CADe	University	UPM
2015	Putra Blast	Faculty of Engineering	Faculty	UPM
2015	Introduction to Supervision	SGS UPM	University	UPM
2015	Preparing Your Students for Examinations	SGS UPM	University	UPM
2015	Students Diversity VS Teaching Approaches	CADe UPM	University	UPM
2014	Energy for Tomorrow Forum	International New York Times	International	Kuala Lumpur



2014	Kursus Teaching Portfolio Development	CADe UPM	University	OSH Hall,UPM
2014	Seminar Kerjaya Selaku Pensyarah	Faculty of Engineering	University	UPM
2014	Installation of TeeKay Pipe Coupling	TeeKay	Industry	Putrajaya
2012	Dissertation Writing Workshop	USQ	University	Toowoomba
2012	Extinction Predictors in Turbulent Spray Combustion	USQ	University	Toowoomba
2012	Thesis Writing using Word 2010	USQ	University	Toowoomba
2012	LabView and Data Acquisition Training	USQ	University	Toowoomba
2011	CFD Training using ANSYS	USQ	University	Toowoomba

Activities and Contribution Outside Official Duty

Year	Details	Position
2015	Badminton Tournament for Serdang Youth	Committee Member