



RESUME

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EDUCATION BACKGROUND

2011-2014	PhD (Mechanical Engineering) from RMIT University, Australia.
2002-2005	M.Sc (Mechanical) from Universiti Sains Malaysia, (USM).
1998-2001	B.Eng (Mechanical) Hons from Universiti Sains Malaysia, (USM).

CURRENT WORK

Senior Lecturer at Faculty of Mechanical Engineering (FKM), Universiti Teknologi Mara (UiTM). Teaching Heat Transfer, Numerical Methods, Fluid Mechanics, Renewable and Sustainable Energy Applications, Design and Thermodynamic courses for the undergraduate students. Also, actively supervising Master's program both research and taught courses at UiTM Shah Alam. Taught project planning and Control, Academic Literacy and Project Management courses for Masters in Engineering Management (University of Sunderland) at SEGi College Subang Jaya on a part time basis. Also involved in the research activities particularly in the application of heat transfer analysis in Nanofluids, Electronic Packaging, Thermoelectricity, Thermal Comfort in Vehicles and Buildings, Computational Fluid Dynamics and Internal Combustion Engines Research. Head of Alternative Energy Research Centre (AERC) at Faculty of Mechanical Engineering , UiTM Shah Alam

WORKING EXPERIENCE

September 2007- Present	Full time Senior Lecturer at Faculty of Mechanical Engineering, Universiti Teknologi Mara,(UiTM) Shah Alam, Selangor, Malaysia.
2017-2018	Part time lecturer at PSB Academy Singapore (University of Portsmouth UK Mechanical Engineering Program in Myanmar)
2018	Part time lecturer at Quest International University Ipoh
January 2011 – February 2014	Tutor at RMIT University, Australia
October 2009 – Present	Part time lecturer at SEGi College Subang Jaya (University of Sunderland UK Mechanical Engineering Program)
2007-2010	Part time lecturer at Help University Malaysia (University of Hertfordshire Mechanical Engineering Program)
January 2006 – December 2007	Tutor at Open University Malaysia, (OUM).
August 2005- August 2007	Full time Lecturer at Mechanical Department at Universiti Industri Selangor, (UNISEL).
March 2004- August 2005	Full time Lecturer at Mechatronics and Automobiles Department at Kolej WIT , Ipoh.
March 2001- January 2004	Tutor at Universiti Sains Malaysia, (USM)
March 2000- June 2000	Trainee Engineer at Palm Oil Mill, Taiko Plantations. (KLK Berhad)

SKILLS

1. Computer Skills: MS Office & Teams, GMeet, Webex, Matlab, Fluent, Ansys and CFX.
2. Able to speak and write fluently in Malay, English, Mandarin, Cantonese and Punjabi.
3. Good communication skills and willingness to work with others as team.
4. Resourceful, highly committed and trustworthy.
5. Creative, adaptable to fast changing environment and fast learner.

LIST OF GRANTS

No	Project Title	Status	Role	Grant Type	Duration	Level	Total (RM)
1	THERMAL AND ELECTRICAL CHARACTERIZATION FORMULATION OF HIGH-EFFICIENCY THERMOELECTRIC WASTE HEAT ENERGY HARVESTING WITH PHASE CHANGE MATERIAL FOR BATTERY-LESS AND SELF-POWERED INTERNET-OF-THINGS (IOT) SENSORS	Active	Project Leader	Geran Penyelidikan Khas (GPK)	2020-2022	UNIVERSITY	20000
2	FEASIBILITY STUDY OF MINI HYDRO POWER STATION AT REGASIFICATION PLANT	Active	Member	LESTARI (LESTARI)	2020-2022	UNIVERSITY	20000
3	DUAL SOLAR THERMAL SYSTEM FOR PRODUCTION OF FRESH WATER AND GENERATION OF POWER	Active	Project Leader	LESTARI (LESTARI)	2019-2021	UNIVERSITY	20000
4	ENERGY AUDIT AND RENEWABLE ENERGY RECOMMENDATION AT CONSERVATION	Active	Member	LESTARI (LESTARI)	2019-2021	UNIVERSITY	20000
5	THERMAL-ELECTRICAL EMPIRICAL FORMULATION OF THERMOELECTRIC	Active	Project Leader	LESTARI (LESTARI)	2019-2021	UNIVERSITY	30000
6	A MODULAR THERMOELECTRIC GENERATOR SYSTEM FOR EFFECTIVE	Active	Member	PROTOTYPE RESEARCH GRANT SCHEME (PRGS)	2019-2020	NATIONAL	110000
7	PV COOLING USING NATURAL CONVECTION	Completed	Member	PUBLIC PRIVATE RESEARCH NETWORK (PPRN)	2019	NATIONAL	48000
8	AUTOMOTIVE EXHAUST HEAT RECOVERY USING THERMOELECTRIC GENERATORS	Active	Project Leader	RESEARCH ENTITY INITIATIVE (REI)	2018-2020	UNIVERSITY	32000
9	INVESTIGATION ON AERODYNAMIC PERFORMANCE OF OPTIMIZED PEDESTRIAN CRASH FRIENDLY SEDAN	Active	Member	LESTARI (LESTARI)	2016-2020	UNIVERSITY	20000
10	EXPERIMENTAL INVESTIGATIONS ON THE SOLAR STILL FRESH WATER PRODUCTION VIA SHAPE OPTIMISATION OF THE	Completed	Member	LESTARI (LESTARI)	2016-2018	UNIVERSITY	20000
11	POWER GENERATION FROM SALINITY GRADIENT SOLAR POND USING THERMOELECTRIC GENERATORS	Completed	Project Leader	RESEARCH ACCULTURATION GRANT SCHEME (RAGS)	2015-2017	NATIONAL	53000
12	SIMULTANEOUS HEAT RECOVERY AND POWER GENERATION USING HEAT PIPE THERMOELECTRIC GENERATOR	Completed	Member	LESTARI (LESTARI)	2015-2018	UNIVERSITY	20000
13	COMBUSTION AND FLAME SPEEDS ANALYSIS ON HIGHER-LOWER MOLECULAR WEIGHT ALCOHOLS	Completed	Member	FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	2015-2018	NATIONAL	130200
14	ENERGY BALANCE MODEL OF AN ELECTRIC HYDROGEN PROPULSION SYSTEM WITH ENERGY REGENERATION	Completed	Member	RESEARCH ACCULTURATION GRANT SCHEME (RAGS)	2014-2017	NATIONAL	80000
15	NUMERICAL AND ANALYTICAL STUDY OF COMPAT HYDROGEN PEM FUEL CELLS	Completed	Member	FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	2010-2013	NATIONAL	47300
16	NEW FLOW FIELD CONFIGURATION AND PROCESS VISUALIZATION OF A POLYMER ELECTROLYTE MEMBRANE FUEL CELL	Completed	Member	FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)	2010-2012	NATIONAL	37000
17	LABORATORY SIMULATION ON A FREE FLOWING RIVER WATER POWERED	Completed	Project Leader	EXCELLENCE FUND (DKCM)	2010-2010	UNIVERSITY	
						TOTAL	707500.00

LIST OF CONSULTANCY PROJECT

No	Title	Client	YEAR	Cost (RM)
1	THERMOFLUID AND MATERIALS SELECTION	SEGI COLLEGE SUBANG JAYA	2019	4000
2	TECHNICAL EVALUATION AND REVIEW FOR DEVELOPMENT OF 9.9MWAC LARGE SCALE SOLAR FARM	BANK PEMBANGUNAN MALAYSIA BERHAD	2019	43354
3	RENEWABLE ENERGY SUMMER PROGRAMME 2019 (UTM-JAYABAYA UNIVERSITY INDONESIA)	UNIVERSITAS JAYABAYA INDONESIA	2019	2000
4	DESIGN AND SUSTAINABILITY 2018	PSB ACADEMY SINGAPORE	2018	13000
5	DESIGN AND SUSTAINABLE DEVELOPMENT	STAR MYR PTE LTD	2017	13000
6	MAINTENANCE AND SCHEDULING FOR CEMENT INDUSTRY	WBK TECHNICAL TRAINING ACADEMY SDN BHD	2016	3000
			TOTAL	78354

LIST OF INDEXED JOURNALS

1. M.F. Remeli and **B. Singh**. "Car Exhaust Waste Heat Recovery using Hexagon Shaped Thermoelectric Generator" Journal of Applied Engineering Design and Simulation, 2021(accepted)
2. **B. Singh**, W.A.N.W. Mohamed*, M.N.F. Hamani, K.Z.N.A. Sofiya, M.F. Mohamed. "Enhancement of low-grade heat waste heat recovery from a fuel cell using a thermoelectric generator module with swirl flow" Energy, 236, 2021.
3. W.A.N.W. Mohamed, **B. Singh**, M.F. Mohamed, A.M. Aizuwan, A.B.M. Zubair "Effects of fuel cell vehicle waste heat temperatures and cruising speeds on the outputs of a thermoelectric generator energy recovery module." International Journal of Hydrogen Energy, 2021.
4. M.S. Naghavi , A. Esmaeilzadeh , **B. Singh** , B.C. Ang , T.M. Yoon , K.S. Ong, "Experimental and numerical assessments of underlying natural air movement on PV modules temperature." Solar Energy 216 , 610–622, 2021.
5. Nor Amelia Shafikah Mat Noh, **Baljit Singh Bhathal Singh**, Muhammad Fairuz Remeli, Amandeep Oberoi, "Internal Combustion Engine Exhaust Waste Heat Recovery Using Thermoelectric Generator Heat Exchanger." Journal of Advanced Research in Fluid Mechanics and Thermal Sciences 82, Issue 2, 15-27, 2021.
6. Himanshu Jindal, Amandeep Singh Oberoi, Inderjeet Singh Sandhu, Mansi Chitkara, **Baljit Singh**, "Graphene for hydrogen energy storage - A comparative study on GO and rGO employed in a modified reversible PEM fuel cell." International Journal of Energy Research, 2020.
7. Mohd Noor Hariz Mohd Hilmin, Muhammad Fairuz Remeli, **Baljit Singh**, Nor Dalila Nor Affandi, "Thermoelectric power generations from vehicle exhaust gas with TiO₂ nanofluid cooling." Thermal Science and Engineering Progress 18 , 2020.
8. Raihan Abu Bakar, **Baljit Singh**, Muhammad Fairuz Remeli, and Ong Kok Seng, "Experimental Electrical Characterisation of Thermoelectric Generator using Forced Convection Water Cooling", Journal of Mechanical Engineering, 17(1), 1-17, 2020.
9. Sulaiman M Saufi, **Singh B**, Mohamed, WANW, "Experimental and theoretical study of thermoelectric generator waste heat recovery model for an ultra-low

- temperature PEM fuel cell powered vehicle”, *Energy*, Pergamon, 179, 628-646, 2019.
10. Omar Mohd Shaharil, **Singh Baljit**, Remeli Muhammad Fairuz, “Motorcycle Waste Heat Energy Harvesting Using Thermoelectric Generators”, *Journal of Electronic Materials*, Springer US, 2019
 11. Dhillon Amardeep Singh, Said Rahaini Mohd, Krishnan Nagen, Hossain Shouquat, **Singh Baljit**, “Development of monitoring system with IoT technology for harvested energy from burning process”, *Journal of Mechanical Engineering*, 8(1), 215-228, 2019.
 12. Mohd Shatar Nursyahirah, Rahman Abdul, Azizi, Mohd Muhtazaruddin, Mohd Nabil Salim, Shaikh, Zaki Sheikh Ahmad, **Singh Baljit**, Muhammad-Sukki, Firdaus, Bani, Nurul Aini, Saudi, Mohd, “Performance Evaluation of Unconcentrated Photovoltaic-Thermoelectric Generator Hybrid System under Tropical Climate” Sustainability Multidisciplinary Digital Publishing Institute, 11, 22, 6192, 2019.
 13. Nijhawan Parag, Oberoi Amandeep Singh, **Singh Baljit**, “A Novel Design for a Solar PV-Wind Hybrid System to Improve Renewable Energy Harnessing—a theoretical study on Indian Subcontinent”, *International Journal of Engineering and Technology (IJET)*, 1112-1118, 2018.
 14. Tijani Alhassan Salami, Tahir Amer Farhan Bin Md, Kubenthiran Jeeventh, **Singh Baljit Singh Bhathal**, “Thermal Energy Recovery from a Grid Connected Photovoltaic-Thermal (PVT) System Using Water as Working Fluid, *International Journal of Engineering & Technology*, 7, 4.36, 389-393, 2018.
 15. Kamarulbaharin ZA, Adzhar MAM, Azmi AM, **Singh BSB**, Masdek NRN, Salleh Z, “Experimental investigations on the effect of inverted cone condenser plate material and tilt angle on the solar still production under Malaysia conditions”, *International Journal of Recent Technology and Engineering (IJRTE)*, 3171-3174, 2018.
 16. V. Kausalyah, M.R Noor Ilya, Nur Azia, Shasthri, S.B.S. Baljit “Experimental Investigation on the Aerodynamic Performance of Optimised Pedestrian Crash Friendly Sedan Front End Profiles”, *International Journal of Engineering & Technology*, 7 (3.17), 277-280, 2018.
 17. Kamarulbaharin ZA, Safie MA, Azmi, AM, **Singh BSB**, “Experimental Investigations on the Performance of a Single Slope Solar Still Coupled with Shallow Solar Pond under Malaysian Conditions”, *International Journal of Engineering & Technology*, 7, 4.26, 159-162, 2018.
 18. Tan Lippong, Date Abhijit, Houshya, Shadi, **Singh Baljit**, Ding L, Zhang Bingjie, “A comparative study of firefighters’ clothing using organic and inorganic phase change material”, *J Mech Eng SI*, 4,5, 84-97, 2017.
 19. Remeli Muhammad Fairuz, Rosli Mohd Arif Fikri Bin, **Singh Baljit Singh Bhathal**, “Investigation of the Thermosyphon Performance for Different Working Fluids”, *Journal of Mechanical Engineering Vol SI 4(5)*, 144-152, 2017.

20. Tan Lippong, Date Abhijit, Zhang Bingjie, **Singh Baljit**, Ganguly, Sayantan,, ‘A comparative case study of remote area power supply systems using photovoltaic-battery vs thermoelectric-battery configuration’, Energy Procedia, Elsevier, 110, 89-94, 2017.
21. Tan Lippong, Date Abhijit, Fernandes Gabriel, **Singh, Baljit**, Ganguly Sayantan, “Efficiency gains of photovoltaic system using latent heat thermal energy storage”, Energy Procedia, Elsevier, 110, 83-88, 2017.
22. Remeli Muhammad Fairuz, **Singh Baljit**, Affandi Nor Dalila Nor, Ding Lai Chet, Date Abhijit, Akbarzadeh Aliakbar, “Investigation of Counter-Flow in a Heat Pipe–Thermoelectric Generator (HPTEG)”, Journal of Electronic Materials, Springer, 46, 5, 3115-3123, 2017.
23. Ding LC, Akbarzadeh A, **Singh B**, Remeli MF, “Feasibility of electrical power generation using thermoelectric modules via solar pond heat extraction”, Energy Conversion and Management, Pergamon, 135, 74-83, 2017.
24. **Singh Baljit**, Baharin Gomes‘Aadilia, Remeli Muhammad Fairuz, Oberoi Amandeep, Date Abhijit, Akbarzadeh Aliakbar, “Experimental analysis of thermoelectric heat exchanger for power generation from salinity gradient solar pond using low-grade heat”, Journal of Electronic Materials, Springer US, 46, 5, 2854-2859, 2017.
25. Dee S, **Singh B**, Remeli MF, Tan L, Oberoi A, “Concentrated Solar Thermal Thermoelectric Power Generation under Natural and Forced Convection Cooling”, Pertanika Journal of Science And Technology, Universiti Putra Malaysia Press Serdang, Malaysia, 25, 123-132, 2017.
26. Nuraida ‘Aadilia Baharin, Idznie Faidhi Muhaimin Yazit, **Baljit Singh A/L Bhathal Singh**, Muhammad Fairuz Remeli “Construction and Operations of First Salinity Gradient Solar Pond in Malaysia”, Journal of Mechanical Engineering, 4(5), 217-235, 2017.
27. Kaur Wandeeep, Balakrishnan Vimala, **Singh Baljit**, “Social Media Sentiment Analysis of Thermal Engineering Students for Continuous Quality Improvement in Engineering Education”, Journal of Mechanical Engineering, 14, 263-272, 2017.
28. Remeli Muhammad Fairuz, Date Abhijit, Orr Bradley, Ding Lai Chet, **Singh Baljit**, Affandi Nor Dalila Nor, Akbarzadeh Aliakbar, “Experimental investigation of combined heat recovery and power generation using a heat pipe assisted thermoelectric generator system”, Energy conversion and management, Elsevier, 111, 147-157, 2016.
29. **Singh Baljit**, Remeli Muhammad Fairuz, Chet Ding Lai, Oberoi Amandeep, Date Abhijit, Akbarzadeh Aliakbar, “Experimental investigation on effect of adhesives on thermoelectric generator performance” Journal of Electronic Materials, Springer, 44, 6, 1864-1869, 2015.
30. Remeli Muhammad Fairuz, Tan Lippong, Date Abhijit, **Singh Baljit**, Akbarzadeh Aliakbar, “Simultaneous power generation and heat recovery using a heat pipe assisted thermoelectric generator system”, Energy Conversion and management Elsevier, 91, 110-119, 2015.

31. Chet Ding Lai, **Singh Baljit**, Remeli Muhammed Fairuz, Date Abhijit, Singh Randeep, Akbarzadeh Aliakbar, "Prospects of power generation from geothermal energy using thermoelectric modules ", Prospects, 19,25, 2015.
32. Remeli MF, Verojporn, K, **Singh B**, Kiatbodin L, Date A, Akbarzadeh A, "Passive heat recovery system using combination of heat pipe and thermoelectric generator",Energy Procedia, Elsevier, 75, 608-614, 2015.
33. **Singh Baljit**, Saoud Altenaijy, Remeli Muhammed Fairuz, Ding Lai Chet, Date Abhijit, Akbarzadeh Aliakbar, "Design and construction of a simple thermoelectric generator heat exchanger for power generation from salinity gradient solar pond", Jurnal Teknologi, 76, 5, 2015.
34. Remeli MF, Kiatbodin L, **Singh B**, Verojporn K, Date A, Akbarzadeh A, "Power generation from waste heat using heat pipe and thermoelectric generator", Energy Procedia, Elsevier, 75, 645-650, 2015.
35. Oberoi Amandeep Singh, **Singh Baljit**, Singh Navdeep, "Solid Carbon-based Electrode for Hydrogen Fuel Cell with Dual Proton and Electron Conductivity" International Journal of Computer Applications, 975, 8887. 12-16, 2015
36. **Singh Baljit**, Date Abhijit, Akbarzadeh Aliakbar, "The effects of temperature difference and compressive force to the electrical characterization of peltier cell for artificial concentrated solar power thermoelectric application". Journal of Mechanical Engineering, Faculty of Mechanical Engineering & UiTM Press, 11, 115-30, 2014.
37. Orr B, **Singh B**, Tan L, Akbarzadeh A, "Electricity generation from an exhaust heat recovery system utilising thermoelectric cells and heat pipes", Applied Thermal Engineering, Pergamon, 73, 1, 588-597, 2014.
38. **Singh Baljit**, Gomes J, Tan Lippong, Date, Abhijit Akbarzadeh, A, "Small scale power generation using low grade heat from solar pond", Procedia engineering, Elsevier, 49, 50-56, 2012.
39. Md Saad Junaidah, **Singh Baljit**, Narayana PA, "Experimental investigations of palm oil based associative with petrol on performance and emission of four stroke engine", Journal of Mechanical Engineering Faculty of Mechanical Engineering (FKM) and UiTM Press, 8, 2, 2011.

LIST OF INDEXED CONFERENCES AND PROCEEDINGS

1. Muhammad Fairuz Remeli, Nurfarah Ezzah Bakaruddin, Syahar Shawal, Hazran Husin, Muhammad Fauzi Othman and **Baljit Singh**, “Experimental study of a mini cooler by using Peltier thermoelectric cell.” IOP Conf. Series: Materials Science and Engineering 788 , 2020.
2. Aneurin Nanggar Anak Nyandang, **Baljit Singh**, Muhammad Fairuz Remeli, Raihan Abu Bakar, Amandeep Oberoi. “The Effect of Cooling Method in Parabolic Solar Dish Concentrator.” Applied Mechanics and Materials, ISSN: 1662-7482, Vol. 899, pp 11-2, 2020.
3. Wandeep Kaur, Vimala Balakrishnan, **Baljit Singh**, “Improving Teaching and Learning Experience in Engineering Education using Sentiment Analysis Techniques.” IOP Conf. Series: Materials Science and Engineering 834, 2020.
4. Nur Athirah Suhaimi, **Baljit Singh** and Muhammad Fairuz Remeli, “Experimental study on waste heat recovery system of an internal combustion engine using thermoelectric technology,” IOP Conf. Series: Earth and Environmental Science 463, 012141, 2020.
5. Syed Muhammad Faris Syed Mahizan, **Baljit Singh**, Aneurin Nanggar Nyandang, Nuraida Aadilia Bahrin, Muhammad Fairuz Remeli, and Amandeep Oberoi, “Salinity gradient solar pond construction and maintenance”, AIP Conference Proceedings ,2157, 1 10.1063/1.5126590.2019.
6. Nur Athirah Suhaimi, **Baljit Singh**, and Muhammad Fairuz Remeli, “Experimental Study on Waste Heat Recovery System of an Internal Combustion Engine Using Thermoelectric Technology”, 2nd International Conference on Sustainable Energy and Green Technology, December 2019, Bangkok, Thailand.
7. K Julaihie, R Abu Bakar, **B Bhathal Singh**, M Remeli and A Oberoi, “Low Grade Heat Power Generation using Thermoelectric Generator”, International Conference on Sustainable Energy and Green Technology 2018 IOP Conf. Series: Earth and Environmental Science 268, , 2019.
8. Remeli MF, **Singh B**, Amirah N, Meon MS, Fadilla WN, “Solar Distillation Thermoelectric Power Generation”, IOP Conference Series: Earth and Environmental Science, IOP Publishing, 268, 1, 12022, 2019.
9. Mahizan Syed Muhammad Faris Syed, **Singh Baljit**, Nyandang Aneurin Nanggar, Bahrin Nuraida Aadilia, Remeli Muhammad Fairuz, Oberoi Amandeep, “Salinity gradient solar pond construction and maintenance”, AIP Conference Proceedings, AIP Publishing LLC 2157, 1, 20055, 2019.
10. Nyandang Aneurin Nanggar, **Singh Baljit Singh**, “An Experimental Study of the Effect of Cooling Method in Parabolic Solar Dish Concentrator for Power Generation using Thermoelectric Generator”, 2019 International UNIMAS STEM 12th Engineering Conference (EnCon), IEEE, 2019.
11. Nurul Najwa Md Nasir, **Baljit Singh**, Raihan Abu Bakar, Muhammad Fairuz Remeli, Aneurin Nanggar, Amandeep Oberoi “Performance Enhancement of Solar Photovoltaic Cooling by Using Water Sprinkler”, CSSR 2018.

12. **Baljit Singh**, Raihan Abu Bakar, Muhammad Fairuz Remeli, Aneurin Nanggar, Amandeep Oberoi, "CFD Analysis on Heat Transfer Enhancement of Thermoelectric Generator Heat Exchanger for Low Grade Heat Power Generation", GTSD 2018.
13. Date Abhijit, **Singh Baljit**, Heidari Shahin, Remeli Muhammad Fairuz, "Importance of Making Student Aware of Interconnections and Relevance of Topics", 2018 IEEE 10th International Conference on Engineering Education (ICEED), IEEE, 59-62, 2018.
14. Date Abhijit, **Singh Baljit**, Remeli Muhammad Fairuz, "Final year research project course for engineering: course coordinators reflection", 2018 IEEE 10th International Conference on Engineering Education (ICEED), IEEE, 24-29, 2018.
15. Junifadhizah Julaihia, Nuraida , Aadilia Baharina, **Baljit Singh Bathal Singh**, Fairuz Rameli, Amandeep Oberoi, "Car exhaust heat recovery using thermoelectric generator", 1st International Conference on New Frontiers in Engineering, Science & Technology NFEST-2018.
16. De Souza Gabriel Fernandes, Tan Lippong, **Singh Baljit**, Ding Lai Chet, Date Abhijit, "Experimental study of a sustainable hybrid system for thermoelectric generation and freshwater production", AIP Conference Proceedings, AIP Publishing LLC, 1828, 1, 20020, 2017.
17. Baharin Nuraida'Aadilia, Arzami Amir Afiq, **Singh Baljit**, Remeli Muhammad Fairuz, Tan, Lippong, Oberoi Amandeep, "Passive flow heat exchanger simulation for power generation from solar pond using thermoelectric generators", AIP Conference Proceedings AIP Publishing LLC, 1828, 1, 20021, 2017.
18. Sulaiman M Saufi, Mohamed WANW, **Sing, B**, Ghazali M Fitrie, "Validation of a waste heat recovery model for a 1kW PEM fuel cell using thermoelectric generator", IOP Conference Series: Materials Science and Engineering, IOP Publishing, 226, 1, 12148, 2017.
19. Abdullah Bulan, Venkatason Kausalyah AP, Ahmad Mohamad Ali, Singh, **Baljit Singh AL Bhathal**, Abdullah Abdul Halim, Saad Nor Hayati, Kasolan, Salmiah, "Distribution TUA-CDIO element in learning outcome (LO5-LO9) for engineering subjects", 2016 IEEE 8th International Conference on Engineering Education (ICEED), 91-95, 2016.
20. Remeli Muhammad Fairuz, **Singh Baljit**, Akbarzadeh Aliakbar, "Passive power generation and heat recovery from waste heat", Advanced Materials Research, Trans Tech Publications Ltd, 1113, 789-794, 2015.
21. **Singh Baljit**, Remeli Muhammad Fairuz, Pedemont Alex, Oberoi Amandeep, Akbarzadeh Aliakbar, "Thermal heat storage gain of salinity gradient solar pond using evacuated tube solar collectors", Advanced Materials Research, Trans Tech Publications Ltd, 1113, 800-805, 2015.
22. Oberoi Amandeep Singh, Andrews John, **Singh Baljit Singh Bathal**, "Effects of Humidification on Proton and Electron Conductivity of an Activated Carbon–Nafion Composite Electrode", Proceedings of the International Conference on

- Research and Innovations in Mechanical Engineering, Springer , 465-474, 2014.
23. **Singh Baljit**, Remeli Fairuz, Oberoi Amandeep, Tan Lippong, Date Abhijit, Akbarzadeh Aliakbar, “Electrical power generation from low grade heat of salinity gradient solar pond using thermo electric generators”, Proceedings of the 52nd annual conference, Australian Solar Energy Society (Australian Solar Council), Melbourne. ISBN 948-0, 2014.
 24. Remeli M, Date, Abhijit **Singh, Baljit**, Tan Lippong, Akbarzadeh Aliakbar, “Power generation and heat recovery using heat pipe thermoelectric generator (HPTEG)”, Proceedings of SOLAR 2014 Conference & Expo 9-Jan, 2014.
 25. **Baljit Singh**, Jaisatia Varthani, Poong Zui Kok, Amandeep Oberoi, Abhijit Date, Aliakbar Akbarzadeh, “Design and Fabrication of a Control Flow Mechanism for Flushing Fresh Water System for RMIT University Solar Pond”. IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2014).
 26. **Baljit Singh**, “Power Generation Using Low Grade Heat from Solar Pond and Thermoelectric Generators”, Higher Degree Research Student Conference, RMIT University, Melbourne, Australia, 2014.
 27. **Baljit Singh**, Fairuz Remeli, Ding Lai Chet, Amandeep Oberoi, Abhijit Date, Aliakbar Akbarzadeh, “Power Generation from Salinity Gradient Solar Pond Using Thermoelectric Generators”, 2014 Renewable Energy and Green Technology International Conference (REEGETECH), 2014.
 28. **Baljit Singh**, Fairuz Remeli, Amandeep Oberoi, Lippong Tan, Abhijit Date, Aliakbar Akbarzadeh, “Electrical Power Generation from Low Grade Heat Of Salinity Gradient Solar Pond Using Thermoelectric Generators”, Solar2014: The 52nd Annual Conference of the Australian Solar Council, 2014.
 29. **Singh, Baljit**, Varthani Jaisatia, Remeli Muhammed Fairuz, Tan Lippong, Akbarzadeh Aliakbar, “Experimental investigation of power generation from salinity gradient solar pond using thermoelectric generators for renewable energy application”, Applied Mechanics and Materials, Trans Tech Publications Ltd, 393, 809-814, 2013.
 30. **Baljit Singh**, Bradley Orr, Muhammed Fairuz Remeli, Lippong Tan, Abhijit Date, Aliakbar Akbarzadeh “Power Production by Thermoelectric Cells Using Engine Exhaust Gas”, 11th International Heat Pipe Symposium (11th IHPS), Beijing, China, June 9-12, 2013.
 31. Muhammed Fairuz Remeli, Abhijit Date, **Baljit Singh**, Lippong Tan, Aliakbar Akbarzadeh, “Combined Thermosyphon Thermoelectric Model (TTM) for Waste Heat Recovery And Power Generation”, 11th International Heat Pipe Symposium (11th IHPS), Beijing, China, June 9-12, 2013.
 32. Lippong Tan, **Baljit Singh**, Amandeep Oberoi, Abhijit Date, P.A.Aswatha Narayana, “Numerical Studies of PCM Melting Effects Using Different Number Of Aluminum Spiral Fillers”, Proceedings of the Fortieth National Conference on Fluid Mechanics and Fluid Power, National Institute of Technology, Hamirpur, India, December 12-14, 2013.

33. Remeli Muhammed Fairuz, Date Abhijit, **Singh Baljit**, Tan Lippong, Akbarzadeh Aliakbar, "Combined Thermosyphon Thermoelectric Model (TTM) for Waste Heat Recovery And Power Generation", Proc. of 11th International Heat Pipe Symposium (11th IHPS), 2013.
34. **Singh, Baljit**, Tan Lippong, Ezriq Zed, Narayana PA Aswatha, "Small parabolic solar cooker for rural communities in Malaysia", 2012 IEEE International Conference on Power and Energy (PECon), 116-120, 2012.
35. Tan Lippong, **Singh Baljit**, Date Abhijit, Akbarzadeh Aliakbar, "Sustainable thermoelectric power system using concentrated solar energy and latent heat storage", 2012 IEEE International Conference on Power and Energy (PECon) IEEE, 105-109, 2012.
36. Lippong Tan, **Baljit Singh**, Abhijit Date, P.A. Aswatha Narayana, 'Numerical Studies of PCM Melting Behaviors In Latent Heat Storage Configurations Under Different Heat Fluxes', Proceedings of the Thirty Ninth National Conferences on Fluid Mechanics and Fluid Power SVNIT Surat, Gujarat, India, December 13-15, 2012.
37. Lippong Tan, **Baljit Singh**, Abhijit Date, Aliakbar Akbarzadeh "Sustainable Thermoelectric Power System Using Concentrated Solar Energy and Latent Heat Storage", 2012 IEEE International Conference on Power and Energy (PECon), 2012.
38. **Baljit Singh**, Lippong Tan, Zed Ezriq, P.A. Aswatha Narayana, "Small Parabolic Solar Cooker for Rural Communities in Malaysia", 2012 IEEE International Conference on Power and Energy (PECon), 2012.
39. T Lippong, **B Singh**, A Date, and A Akbarzadeh, "Sustainable thermoelectric power system using concentrated solar energy and latent heat storage," Power and Energy (PECon), 2012 IEEE International Conference, 105-109, 2012
40. **Singh Baljit**, Tan Lippong, Date Abhijit, Akbarzadeh Aliakbar, "Power generation from salinity gradient solar pond using thermoelectric generators for renewable energy application", 2012 IEEE International Conference on Power and Energy (PECon) IEEE, 89-92, 2012.
41. **Baljit Singh**, "Small Scale Power Generation Using Low Grade Heat from Solar Pond and Thermoelectric Generators", Higher Degree Research Student Conference, RMIT University, Melbourne, Australia, 2012.
42. **Baljit Singh**, Abhijit Date & Aliakbar Akbarzadeh "Power Generation From Solar Pond Using Thermoelectric Generator", Gan Institute of Energy Conference, Melbourne, Australia, 2012.
43. Amandeep Singh Oberoi, John Andrews and **Baljit Singh Bathal Singh**. "Effects of Humidification on Proton and Electron Conductivity of an Activated Carbon–Nafion Composite Electrode", Proceedings of the International Conference on Research and Innovations in Mechanical Engineering ICRIME-2013.
44. Umar Al-Faruq Ramlan, **Baljit Singh** & Aswatha Narayana, "The Aerodynamics Analysis of A Hydrogen Fuel Cell Powered Go-Kart Using Computational Fluid

- Dynamics (CFD)", Proceedings of the 38th National Conference on Fluid Mechanics and Fluid Power December 15-17, MANIT, Bhopal, 2011.
45. Saad Junaidah Md, **Singh Baljit**, Narayana PA Aswatha, "The effect of fuel additives on performance and emission of four stroke engine". 2010 International Conference on Science and Social Research (CSSR 2010), IEEE, 1218-1222, 2010.
 46. MS Bharath, **Singh Baljit**, Narayana PA Aswatha, "Performance Studies Of Catalytic Converter Used In Automobile Exhaust System", 37th National & 4th International Conference on Fluid Mechanics, 2010.
 47. Ahmad Azlan Asri, **Baljit Singh** & Aswatha Narayana, "CFD And Wind Tunnel Testing For A Rear Car Spoiler", International Conference on Advances in Mechanical Engineering (ICAME), 2010.
 48. Mohd Harissudin B Kusni, **Baljit Singh** and P.A.Aswatha Narayana, "Experimental Investigation of Thermal Performance Of Heat Pipe With Varying Angle", International Conference on Advances in Mechanical Engineering (ICAME), 2010.
 49. Mohd Fahmi Zakariaa, Aswatha Narayanab, **Baljit Singh Bhatal Singh**, Che Faridah Mat Taib, "Computational Fluid Dynamics (CFD) studies on 2008 and 2009 wing regulations on formula one car for tandem conditions", International Conference on Advances in Mechanical Engineering (ICAME), 2010.
 50. Izzuddin Ali, **Baljit Singh**, P.A.Aswatha Narayana, Jaisatia Varthani, "Computational Fluid Dynamic Analysis On Minichannel Electronic Cooling Device", International Conference on Advances in Mechanical Engineering (ICAME), 2010.

BOOKCHAPTER:

1. Lecture Notes in Mechanical Engineering,
Topic: Effects of Humidification on Proton and Electron Conductivity of an Activated Carbon–Nafion Composite Electrode-page 465.
Amandeep Singh Oberoi, John Andrews and Baljit Singh Bhathal Singh
Publisher: Springer India 2014.
2. Energy and Environment Security in Developing Countries.
Topic: Solar Thermal in Malaysia
Publisher: Springer (Ongoing-2020.)
3. Greenvengers
Topic: Air conditioning and LED savings.
Publisher: UiTM Publisher (Ongoing-2020.).

POSTGRADUATE SUPERVISION

PhD by Research

1. Kubenthiran Jeeventh (**Main Supervisor**)
Experimental Analysis of PV Thermal System Using Mono and Hybrid Nanofluids (2021-) **Ongoing.**
2. Muhammad Hadrami Bin Hamdan (**Co- Supervisor**)
High efficiency Fuel Cell Energy Recovery System for Simultaneous Electrical Power Generation and Hydrogen Preheating (2021-) **Ongoing**

MSc by Research

1. Muhammad Amirul Nadim Bin Zarizi (**Co- Supervisor**)
Thermoelectric Generator in Cooling Channel (2021-) **Ongoing**
2. Nuraida "Aadila Bt Baharin (**Main Supervisor**)
Power Generation from solar pond using thermoelectric generators. (2016-2019). **Completed**
3. Muhammad Saufi B Sulaiman. (**Co Supervisor**)
Waste Heat Recovery From a fuel cell using TEG to improve system energy efficiency. (2017-2019). **Completed**
4. Raihan Abu Bakar (2017169757) (**Main Supervisor**)
Experimental Study on the Performance of Solar Thermoelectric Generator. (2017-2019). **Completed.**
5. Jeeventh Kubenthiran (2017819968). (**Co Supervisor**)
Analysing the effect of Nanofluid and Operating Parameters on A Novel Solar Thermal Collector PV/T System. (2017-2020). **Completed.**
6. Aneurin Nanggar Anak Nyandang (2018633038). (**Main Supervisor**)
Sun tracking Concentrated Solar Thermal Thermoelectric Power Generator. (2018-2020). **Ongoing.**

MSc by Dissertation

1. Aishah Naqiah (**Main Supervisor**)
CFD analysis for automotive exhaust heat recovery using thermoelectric generators heat exchanger for improving the efficiency based on changes in baffle distances (2021)-**Ongoing**
2. Irma Amalia Putri BT Yusop (**Main Supervisor**)
Applicability of Modern Tools for High Voltage OHL Maintenance : An Assessment of Common to Modern Technology. (2021-) **Completed.**
3. Syamsul Anwar Bin Ahmad (**Main Supervisor**)
Impact of Third Party Inspection Agency (TPA) on Customer Satisfaction Mediated by Quality and Safety in Industrial Market Segment. (2019-2020) **Completed.**
4. Muhamad Burhan Bin Mohd Zaki (**Main Supervisor**)
Optimisation of Material Tracking in Offshore Installation Projects. (2020-2021)-**Completed.**

UNDERGRADUATE THESIS SUPERVISION

2008

1. **AIR FLOW MODELLING IN A ROOM**
Md Shariel Hussein B Abd Majid(2005755939)
2. **HEAT TRANSFER SIMULATION IN A DESKTOP COMPUTER WITH HEAT GENERATING COMPONENTS USING CFD**
Zulfadli Kamaruddin (2005757087)

2009

1. **HEAT PIPE AS EFFICIENT HEAT TRANSFER DEVICE**
Mohd Shahidin B Mat Hussin (2006869087)
2. **FLUID FLOW ANALYSIS OVER A TRUCK TRAILER COMBINATION**
Hasrul Ezwan B Ab Rahman(2005607218)
3. **MODELLING FLOW AND HEAT TRANSFER AROUND A SEATED HUMAN MODEL**
Mohd Salahuddin Bin Muhmed (2005757110)
4. **DRAG & LIFT COEFFICIENT OF A CONCEPT CAR WITH CLOSED AND OPEN WINDOWS**
Nik Muhammad Yazid B Mohd Ariffin (2005606865)
5. **HEAT TRANSFER SIMULATION OF CPU WITH RESPECT TO HEAT GEOMETRY COMPONENTS**
Wan Fathiah Bt Abdul Mulok (2005748649)
6. **DETERMINATION OF CALORIFIC VALUE OF WASTE COOKING OIL AS ALTERNATIVE FUEL ENGINE**
Mohd Shafeq B Kamso (2005607648)
7. **HEAT DISSIPATION ON MOTHERBOARD**
Mohd Hairil Azhar B Mohd Noor(2005389044)
8. **CASE STUDY ON LIGHTING SYSTEM AT FACULTY OF MECHANICAL ENGINEERING IN UiTM SHAH ALAM**
Jaslinda B Basri (2006130849)

2010

1. **THERMAL PERFORMANCE ANALYSIS OF HEAT EXCHANGER WITH PERFORATED PIN FINS**
Mohd Noorhafiz Bin Shahidin(2006689867)
2. **CFD AND WIND TUNNEL TESTING FOR A REAR CAR SPOILER**
Ahmad Azlan Bin Asri(2007271166)
3. **FIBER OPTIC LIGHTING SYSTEM**
Muhammad Firdaus Bin Maidin(2006134831)
4. **COMPUTATIONAL FLUID DYNAMIC ANALYSIS ON MINICHANNEL ELECTRONIC COOLING DEVICES.**
Izzuddin Ali Bin Sidek Ali(2006688878)
5. **COMPUTATIONAL FLUID DYNAMIC ANALYSIS OF TRUCK TRAILER COMBINATION ON DRAG REDUCTION**

- Mohamad Tajudin Bin. Sallehudin(2006134873)
6. **THE EFFECT OF FUEL ADDITIVES ON PERFORMANCE AND EMISSION OF FOUR STROKE ENGINE.**
Junidah Bt Md SaaD(2006130851)
 7. **TO INVESTIGATE THE EFFECTS OF THE DEPTH OF GOLF BALL DIMPLE TO ITS TRAJECTORY USING CFD**
Nik Mohammad Sukri Bin Nik Soh(2006216672)
 8. **DESIGN OF SOLAR AIR CONDITIONING**
Mohd Farhan Bin Samsudi(2006134893)
 9. **EXPERIMENTAL INVESTIGATION ON HEAT PIPES AS EFFICIENT HEAT TRANSFER DEVICE**
Mohd. Harisuddin Bin Kusni(2006689611)
 10. **EXPERIMENTAL INVESTIGATION OF NANOFLUIDS IN LAMINAR AND TURBULENT DEVELOPING FLOW IN A PIPE**
Mohd. Nidzomuddin B Md Daud(2006689643)
 11. **DEVELOPMENT OF SOLAR COOKER IN MALAYSIA**
Roslan Bin Rosli(2007270938)
 12. **THE AERODYNAMICS ANALYSIS OF A CONCEPTUAL DESIGN HYDROGEN FUEL CELL POWERED GO-KART USING CFD**
Umar Al Faruq Bin Ramlan (2007271086)
 13. **CONCEPTUAL DESIGN OF A HYDROGEN PEM FUEL CELL POWERED VEHICLE**
Mohd Ezzri Rezza Bin Isa(2007270994)
 14. **DESIGN AND FABRICATION OF SOLAR LANTERN FOR RURAL APPLICATION**
Aznoor Bt Semaon (2006131657)
 15. **APPLICATION OF HEAT PIPE FOR COOLING**
Ahmad Zuhairi Azreen Bin Zulkipli (2006154953)
 16. **LABORATORY SIMULATION ON A FREE FLOWING WATER POWERED GENERATOR OF 5KW**
Surhini Bt Wan Husin(2006131659)
 17. **CFD ANALYSIS OF VARIABLE FLOW FIELD DESIGN OF PEM FUEL CELL BIPOLAR PLATE**
Amir Rafie Bin Mohd Radzi(2007271164)
 18. **VERTICAL HEAT PIPE FOR HEAT RECOVERY**
Roy Ajali (2007290962)
 19. **EXPERIMENTAL INVESTIGATION INTO CONVECTIVE HEAT TRANSFER OF NANOFLUID AT THE ENTRANCE REGION UNDER LAMINAR FLOW CONDITIONS**
Mohd Firdaus Bin Che Mat (2006882168)

2016

1. **CONSTRUCTION AND OPERATION OF FIRST SALINITY GRADIENT SOLAR POND IN MALAYSIA**
Idznie Faidhi Muhaimin Bin Yazit (2013712717)
2. **DESIGN AND FABRICATION OF ATMOSPHERIC WATER GENARTOR USING THE PELTIER CELL**

- Mohammad Fareed Bin Aminuddin (2012811892)
3. **LOW HEAD WATER TURBINE FOR RURAL APPLICATION**
Haziman Bin Zainuddin (2012611844)
 4. **SMALL SCALE ELECTRICITY GENERATION FROM A PORTABLE BIOMASS COOK STOVE USING THERMOELECTRIC GENERATORS**
Mohd Aniq Syauqi Bin Zulkifli (2012236718)
 5. **CONCENTRATED SOLAR THERMAL THERMOELECTRIC POWER GENERATOR**
Stepahnie Anak dee (2012891972)
 6. **THE PRODUCTION AND CHARACTERIZATION OF ALGAE BASED BIOFUEL**
Phyliscia Audrey Anak Philip
 7. **WASTE HEAT POWER GENERATION USING THERMOELECTRIC GENERATOR**
Muhammad Fahmi Bin Amran (2013250906)
 8. **ELECTRICAL CHARACTERISATION OF PELTIER CELL FOR POWER GENERATION**
Wan muhammad Zulhanafiah Bin Wan Yusof(2012885134)
 9. **POWER GENERATION FROM SOLAR POND USING THERMOELECTRIC GENERATORS**
Amir Afiq Bin Arzami (2011483222)
 10. **THEORITICAL MODELLING OF SALINITY GRADIENT SOLAR POND FOR MALAYSIA**
Muhamamd Fazreen Bin Ahmad Azhar (2011251726)
 11. **VEHICLE EXHAUST HEAT RECOVERY USING THERMOELECTRIC GENERATOR**
Mohd Qamarulzaman Bin Mohd Nor (2012304101)

2017

1. **ATMOSPHERIC WATER GENEARTOR USING PELTIER CELL**
Camillus Daeryl Anak Jelema (2014255236)
2. **CAR EXHAUST HEAT RECOVERY SYSTEM USING THERMOELECTRIC GENERATOR**
Junifadhizah Binti Julaihi(2014655594)
3. **CONCENTRATED SOLAR THERMAL POWER GENERATOR**
Aneurin Nanggar Anak Nyandang (2013271312)
4. **SALINITY GRADIENT SOLAR POND : DESIGN, ESTABLISHMENT AND MAINTENACE**
Mohd Zulfadli Bin Mansor (2014661782)
5. **SOLAR CONCENTRATION POWER GENERATION USING FRESNEL LENS AND THERMOELECTRIC GENERATOR**
Mohamad Syafiq Azre Bin Hashim(2014298346)
6. **CFD SIMULATION OF THERMOELECTRIC GENERATOR HEAT EXCHANGER FOR POWER GENERATION**
Auni Najiha Binti Mokhtar (2014655408)

7. **SMALL SCALE ELECTRICITY GENERATION FROM A PORTABLE BIOMASS COOK STOVE USING THERMOELECTRIC GENERATOR**
Ikhtiaruddin Bin Azam(2013142147)
8. **EXPERIMENTAL INVESTIGATION ON AERODYNAMIC PERFORMANCE OF OPTIMISED PEDESTRIAN CRASH FRIENDLY SEAN FRONT END PROFILES**
Noor Ilya Binti Muhammad Rusdi(2014640092)
9. **POWER GENERATION FROM LOW GRADE HEAT USING THERMOELECTRIC GENRATOR**
Noor Shahirah Binti Shahar(2014607938)

2018

1. **CONCENTRATED SOLAR ENERGY FOR DESALINATION AND POWER GENERATION**
Nursyahirah Bt Mohd Shatar (2014622644)
2. **ENERGY ANALYSIS FOR LIGHTING WATER PUMP AND ELEVATOR MOTOR AT BANDAR BARU KLANG CONDOMINIUM**
Shafiq Anuar Bin Saleh@Zainol (2011568981)
3. **EXPERIMENTAL STUDY ON ENHANCEMENT OF PV WITH PASSIVE AND ACTIVE COOLING**
Larry Brooke (2014309749)
4. **CFD ANALYSIS OF IN POND THERMOELECTRIC HEAT EXCHANGER FOR POWER GENERATION FROM SOLAR POND**
Muhamad Shahmi Bin Mohamed Shukri(2013913489)
5. **CFD ANALYSIS ON HEAT TRANSFER ENHANCEMENT OF THERMOELECTRIC GENERATOR HEAT EXCHANGER FOR LOW GRADE HEAT POWER GENERATION**
Muhammad Yusri Bin Abu Haris (2015859272)
6. **PASSIVE COOLING SYSTEM FOR HIGHER EFFICIENCY PV OPERATION**
Mohd Fadzil Bin Yaakob (2014246234)
7. **BIOMASS COOKSTOVE WITH THERMOELECTRIC GENERATOR**
Mohd amin Bin Mahadzir (2014642006)
8. **ACOUSTIC SIGNAL ANALYSIS OF TURBULENT GAS FLOW IN PIPES**
Muhammad Ikmalnor Bin Mustafa Kamal (2015839182)
9. **LOW GRADE HEAT POWER GENERATION BY USING THERMOELECTRIC GENERATORS**
Khairunisa Binti Julaihie(2015298366)
10. **DEVELOPMENT OF SOLAR PHOTOVOLTAIC PANELS ON PASSIVE COOLING TO INCREASE THE EFFICIENCY OF PHOTOVOLTAIC PANELS**
Muhammad Faiz Bin Zolkipli (2014433162)
11. **SOLAR CONCENTRATOR POWER GENERATION USING THERMOELECTRIC GENERATOR**

- Alif Syazril Bin Shipulizan (2015282908)
- 12. SALINITY GRADIENT SOLAR POND: CONSTRUCTION AND MAINTENANCE**
Syed Muhammad Faris Bin Syed Mahizan (2014439936)
- 13. ATMOSPHERIC WATER GENERATOR USING PELTIER CELL**
Siti Nabilah Binti Mohd Jamil (2015217194)
- 14. THERMOELECTRIC GENERATOR ELECTRICAL AND THERMAL CHARACTERISTICS TEST RIG**
Nur Afifah Binti Kamarudzman (2015217382)
- 15. LOW GRADE HEAT POWER GENERATION BY USING THERMOELECTRIC GENERATOR**
Nur Fathin Binti Mohd Jamil (2014403932)
- 16. SOLAR PHOTOVOLTAIC COOLING USING WATER TYPE FORCED CONVECTION METHOD: A CASE STUDY IN UITM SHAH ALAM**
Nurul Najwa Binti Mohd Nasir (2014235122)
- 17. FORCED CONVECTION COOLING OF PHOTOVOLTAIC PANEL USING PELTIER CELL**
Nur Shazwani Binti Alidza (2015839554)
- 18. EXHAUST WASTE HEAT UTILIZATION FROM AUTOMOBILE ENGINE USING THERMOELECTRIC GENERATORS**
Clerance Juan Anak Cernelius (2015834042)

2019

- 1. ELECTRIC POWER GENERATION OF SOLAR POND USING COMBINATION OF THERMOSYPHON AND THERMOELECTRIC MODULES**
Muhammad Arif Aiman Bin Mohd Jaiman (2015250222)
- 2. EXPERIMENTAL STUDY ON WASTE HEAT RECOVERY FROM AN INTERNAL COMBUSTION ENGINE USING THERMOELECTRIC TECHNOLOGY**
Nur Athirah Bt Suhaimi (2015270474)
- 3. EFFECT OF TEMPERATURE AND ADDITION OF SLUDGE ON PRODUCTION OF BIOGAS FROM FOOD WASTE**
Muhammad Ajwad Bin Ali (2015298508)
- 4. EXPERIMENTAL STUDY ON INCORPORATION OF THERMOELECTRIC MODULES WITH EVACUATED TUBE HEAT PIPE SOLAR COLLECTORS**
Hazim Izzuddin Bin Mohd Sahir (2015283486)
- 5. ELECTRIC POWER GENERATION FROM THERMOELECTRIC CELLS USING SOLAR DISH CONCENTRATOR AND ITS COOLING METHOD**
Muhammed Hazwan Asyraf Bin Muhammed Nizam (2015259094)
- 6. THERMAL AND ELECTRICAL CHARACTERISATION OF THERMOELECTRIC GENERATOR**
Mohamad Noor Risyam Bin Selamat (201623004)

7. **ELECTRICAL PERFORMANCE OF BIOMASS COOKSTOVE INTEGRATED WITH THERMOELECTRIC GENERATOR**
Muhammad Asyraf Bin Mustapha(2016804028)
8. **MOTORCYCLE WASTE HEAT ENERGY HARVESTING USING THERMOELECTRIC GENERATOR**
Mohd Shahril Bin Omar (2015834602)

2020

1. **THE STUDY OF PASSIVE CONVECTION TO INCREASE THE EFFICIENCY OF PHOTOVOLTAIC PANELS**
Muhammad Naim Bin Rasiman (2015116463)
2. **UTILIZING UNTAPPED POTENTIAL OF ENERGY FROM MUDA DAM TO PEDU DAM BY INSTALLING SMALL HYDRO POWER AT SALONG TUNNEL KEDAH.**
Muhammad Aiman Bin Ja' Afar (2016229842)
3. **EXPERIMENTAL STUDY ON THE DRYING EFFECT OF INNOVATIVE SOLAR DRYER FOR AGRICULTURE PRODUCTS UNDER MALAYSIA TROPICAL CLIMATE**
Mohammed Syukur Bin Amir Abdullah (2017331861)
4. **AN EXPERIMENTAL EVALUATION OF THE GREEN FAÇADE IN HOT AND HUMID CLIMATE**
Nur Alia Syazwani Binti Rosli (2017771635)
5. **SOLAR DESALINATION**
Nurmina Bt Usman (2017548197)
6. **THERMAL ELECTRIC GENERATOR ON EXHAUST SYSTEM**
Wan Akmal Fikri Bin Wan Ahmad Zamri (2014478104)

2021

1. **SOLAR CONCENTRATOR POWER GENERATION USING THERMOELECTRIC GENERATOR**
Nurul Damia Binti Mohd Anuar (2018400722)
2. **WASTE HEAT POWER GENERATION FROM AUTOMOBILE EXHAUST HEAT USING THERMOELECTRIC GENERATOR**
Nur Safwani binti Sa'ilal (2018441482)
3. **BIOMASS COOKSTOVE ENERGY CONVERSION USING TEGS**
Nurul Adlina Binti Saifullah (2018292056)
4. **PV COOLING USING SOLAR CHIMNEY**
Nadhras Husna Binti Mohd. Salleh (2018292588)
5. **GREEN FAÇADE AND VERTICAL GARDEN FOR UiTM BUS STOP: DESIGN AND ANALYSIS**
Nur'ain Maisara Binti Ramli (2018250182)

6. SALINITY GRADIENT SOLAR POND: MAINTENANCE AND OPERATION

Siti Zahirah Haziqah Binti Maseri (2018400598)

FACULTY PARTICIPATION AND APPOINTMENTS:

1. Head of Contingent for College of Engineering Invention, Innovation And Design Exposition (IIDEX 2021).
2. Member of Task Force for new syllabus Mechatronic Engineering Technology Program. 2021.
3. Committee member for faculty research and innnovation committee, 2021-2023.
4. Evaluating Panel for Final Year Project 1 (MEC601), FKM 2020.
5. Advisor for UiTM Eco Planet Society, FKM, 2021-2023.
6. Visiting lecturer for Industrial Training FKM Students 2020
7. Visiting lecturer for Industrial Training FKM Students 2019.
8. Faculty representation for 91st UiTM Convocation ceremony 2019.
9. Panel for Defence for proposal Dissertation for Industrial Project I (MEM798). 2019.
10. Fasilitator for Universitas Jayabaya Indonesia Summer School Program at Faculty of Mechanical Engineering UiTM 2019.
11. Panel for Examination Vetting MEC451 Thermodynamics FKM. 2019.
12. Advisor for UiTM Eco Planet Club Faculty of Mechanical Engineering UiTM 2019.
13. Chairman for Symposium Academia-Industry Collaboration : Experience, Expectation & Technical Dialogue 2019 by Faculty of Mechanical Engineering UiTM 2019.
14. Commitee member for JMECHE publication for Faculty of Mechanical Engineering UiTM 2019.
15. Commitee member for research commitee for Faculty of Mechanical Engineering UiTM 2019.
16. FYP 2 Second Examiner for FKM Final Year students 2019.
17. Visiting lecturer for Industrial Training FKM Students 2018.
18. Panel for presentation for Dissertation for Industrial Project I (MEM798). 2019.
19. Chairman for research proposal defence for EM750 Nurul Farhana 2018.
20. Advisor for UiTM Eco Planet Club Faculty of Mechanical Engineering UiTM 2018.
21. Panel for Examination Vetting MEC451 Thermodynamics FKM. 2018.
22. Commitee member for proof read Faculty of Mechanical Engineering UiTM 2018.
23. FYP 2 Second Examiner for FKM Fianl Year students 2018.
24. Commitee member for Measurement and Analysis for AKNC 2018.
25. Evaluation panel for Master's student EM750 Nur Azia Izaty Faculty of Mechanical Engineering UiTM 2018.

26. Panel for Examination Vetting MEC500 Numerical Methods and Applications FKM. 2018.
27. Panel for Examination Vetting MEC451 Thermodynamics FKM. 2018.
28. Committee member for Research and iMETA Faculty of Mechanical Engineering UiTM 2018.
29. Member for Energy accounting center for Asian Energy Management Scheme (AEMAS) certification by Faculty of Electrical Engineering, UiTM 2018-2020.
30. Committee member for Publication, Research and Consultancy Faculty of Mechanical Engineering UiTM 2016-2017
31. Working Team member for Outcome Based Education (OBE) for EM 704 Master in Engineering Management Faculty of Mechanical Engineering UiTM 2016-2017.
32. FYP 1 Assessor Panel for FKM Final Year project 1 students 2016
33. Facilitator for MEM799 Industrial Project II Clinic program Faculty of Mechanical Engineering UiTM 2016-2017.
34. Committee member for Professional and training for staff Faculty of Mechanical Engineering UiTM 2016-2017.
35. Committee member for Publication (Distribution) Faculty of Mechanical Engineering UiTM 2016-2018.
36. Chairman for Dissertation for Industrial Project II (MEM799). 2017
37. Adhoc Accreditation Task Force dan Self Assessment Report for EM220 Faculty of Mechanical Engineering UiTM 2017.
38. FYP 1 Assessor Panel for FKM Final Year project 1 students 2017.
39. FYP 2 Second Examiner for FKM Final Year students 2017.
40. Minute taker for Master's Viva Session at Faculty of Mechanical Engineering UiTM for Master's EM750 candidate Siti Mariana Hosnie 2017.
41. Chairman for Dissertation for Industrial Project II (MEM799). 2017.
42. Chairman for Dissertation for Industrial Project I (MEM798). 2017.
43. Panel for Examination Vetting MEC451 Thermodynamics FKM. 2017.
44. Committee member for special project on student entrepreneurship and employability Faculty of Mechanical Engineering UiTM 2017.
45. Committee member for programs award for 5th International Conference on Advances in Mechanical Engineering (ICAME) 2017.
46. Committee member for Publication unit Faculty of Mechanical Engineering UiTM 2017-2018.
47. Dissertation Panel for Industrial Project 1 (MEM798) Master in Engineering Management (EM704). 2017.
48. Minute taker for Master's Viva Session at Faculty of Mechanical Engineering UiTM for Master's EM750 candidate Nor Irwan Bin Abd Halim 2017.
49. Panel for Examination Vetting MEC500 Numerical Methods and Applications FKM. 2017.
50. Facilitator for FKM Resume clinic 2016.
51. Assessor Panel for FYP 2 Faculty of Mechanical Engineering UiTM 2016.
52. Member for Task force Team i-CGPA vs CDIO Faculty of Mechanical Engineering UiTM 2016-2017.

53. Minute taker for Doctorate Viva Session at Faculty of Mechanical Engineering UiTM for Doctoral candidate Irnie Azlin 2016.
54. FYP 2 Second Examiner for FKM Fianl Year students 2016.
55. Panel for Examination Vetting MEC451 Thermodynamics FKM. 2016.
56. Member of Outcome Base Education (OBE) Committe Faculty of Mechanical Engineering UiTM 2016.
57. Committee member sponsorship for Research innovation Symposium and exposition 2015.
58. Panel for Examination Vetting MEC451 Thermodynamics FKM. 2015
59. Panel for Defence for Research Doctoral Proposal EM950, 2015.
60. Visiting lecturer for Industrial Training FKM Students 2015.
61. Chairman for Dissertation for Industrial Project II (MEM799). 2015.
62. Chairman for Dissertation presentation Master in Engineering Management (MEM799) – 2015.
63. FYP 2 Supervisor for FKM Fianl Year students 2015.
64. Chairman for Dissertation for Industrial Project I (MEM798). 2015.
65. Dissertation Panel for Industrial Project 1 (MEM798) Master in Engineering Management (EM704). 2015.
66. FYP 2 Second Examiner for FKM Fianl Year students 2015
67. Panel for 1st Postgraduate Colloquium Faculty of Mechanical Engineering UiTM 2015.
68. Committee member for Research Innovation Symposium & Exposition (RISE) 2015.
69. Committee member for Quality Self Assesment for self review report Faculty of Mechanical Engineering UiTM 2015.
70. Committee member for International Conference on Advances in Mechanical Engineering (ICAME 2010).
71. Faculty of Mechanical Engineering Publication and Newsletter Committee
72. Committee member for Training Unit (FKM) (2010).
73. Committee member for Research and Consultancy (FKM) (2010).
74. Committee member for IID FKM (2010).
75. Assessor panel for postgraduate (EM780), semester December 09- April 10 dan semester July 10- November 10 (2010).
76. Committee member for International Conference on Advances in Mechanical Engineering (ICAME 2009).
77. Faculty of Mechanical Engineering Publication and Newsletter Committee Ahli Jawatankuasa Latihan (FKM) (2009-2011)
78. Faculty of Mechanical Engineering representative to International Book Fair 2009.
79. Faculty of Mechanical Engineering representative to UTeM for lab and workshop visit. (2009).
80. Committee member for PERODUA ECO CHALLENGE FKM. (2009)
81. Course coordinator MEC551 (Thermal Engineering) (2009-2011).
82. Committee member for Anugerah Kualiti Naib Canselor (AKNC) Faculty of Mechanical Engineering.(2008-2011).

83. Faculty of Mechanical Engineering Publication and Newsletter Committee. (2008-2009).
84. Panel of judge for invention program Integrated Eng Carnival (IEC 2008)
85. Faculty of Mechanical Engineering representative to Politeknik Seberang Perai Miniature Steam Power Plant study. (2008).
86. Panel of judge for KJM613 (Capstone Project) (2008).
87. Faculty of Mechanical Engineering Exam Management Committee. (2007).
88. Assistant Editor Journal of Mechanical Engineering (JMechE) (2007-2011).

UNIVERSITY PARTICIPATION AND APPOINTMENTS:

1. Head of Expert Task Force “Rainwater Harvesting” under University Green Center (UGC) UiTM 2020-2021
2. Member of Expert Task Force “Say no to Single Use Plastic” under University Green Center (UGC) UiTM 2020-2021
3. Associate Member Solar Research Institute (SRI), Universiti Teknologi MARA, UiTM.
4. Facilitator for Strategic Planning Workshop for Green Technology and Sustainable Development (GTSD) UiTM 2019.
5. Ranking Champion for Faculty of Mechanical Engineering UiTM appointed by Vice Chancellor UiTM 2019-2021.
6. Chief Committee member for Logistic and Services for 1st International Conference on Green Technology and Sustainable Development (GTSD) UiTM 2019.
7. Product pitching committee for Invention, Innovation & Design Exposition 2019 (IIDEX 2019).
8. Product pitching committee for Invention, Innovation & Design Exposition 2018 (IIDEX 2018).
9. Product pitching committee for Invention, Innovation & Design Exposition 2017 (IIDEX 2017).
10. Editorial member for language for Scientific Research Journal (SRJ), UiTM. 2017.
11. Assessor panel for UiTM internal grant 2016-2019.

TRAININGS

1. Webinar session on ““Corresponding Author - What Are My Responsibilities?” by Faculty of Hotel & Tourism Management UiTM June 2021.
2. ETAC New Panel Evaluators Workshop, BEM. Mac 2021.
3. One-week Short-term Staff Training Program on "Recent Trends in Energy Conversion Technologies" (SSTP-RTECT 2020).
4. IR 4.0 Reskilling Program by MAARi, 2020.

5. Strategic Planning Workshop for Green Technology and Sustainable Development (GTSD) UiTM 2019.
6. Workshop on UiTM Ranking Strategy 2019.
7. Workshop on HICoE Instrument form and explanation by RMC UiTM 2019.
8. Workshop on Clean cooling- the new frontier market by Herriot Watt University 2018.
9. Strategies to publish in high impact journals and improving citations at Sunway University 2018.
10. Energy Institute Forum in UK. 2018.
11. Electrical efficiency and conservation act and safety of solar PV Systems installed in Malaysia by MEPA and ICEM 2018
12. Workshop on building nation towards clean energy: Guidelines & promotion of solar PV technologies at Monash University Malaysia 2018.
13. Journal editors grooming workshop UiTM 2018.
14. 4th National Workshop on Ocean Energy: Techno-Economics of Renewable Energy & Blue/Green Financing, UTM KL, 2018.
15. 4 days Expert course on Energy efficiency and Solar Thermal Technology by UNIDO Malaysia 2018.
16. Building Nation towards clean energy: Guidelines and promotion of Solar PV technologies workshop organized by Monash University Malaysia.2018.
17. Language evaluator for e-content MEC641 Computational Fluid Dynamics MOOC450 2017-2018.
18. 2 days user training on energy efficiency and solar thermal at Hotel Hatten, Melaka, Malaysia by UNIDO 2017.
19. Technical Workshop on Photovoltaics Solar System: Future and Challenges organized by Energy Institute Malaysia. 2017.
20. Workshop on Writing a great paper and getting it published in a research journal by Elsevier Publishing Connect at UiTM 2016.
21. Workshop on Talent Accelerated Leadership Excellent Series (TALES) at ILD UiTM 2016.
22. Advanced Web Development Workshop at Faculty of Mechanical Engineering. 2015.
23. Project Management e-Grad School Australia. 2014.
24. Global Sustainability e-Grad School Australia. 2014.
25. Critical and Creative Thinking e-Grad School Australia. 2013.
26. PhD Research Methodology 2011
27. Team Building Faculty of Mechanical Engineering, UiTM Shah Alam at Pulau Jerejak, Penang, 2011.
28. Objective Based Education (OBE) Workshop at Faculty of Mechanical Engineering, UiTM Shah Alam. 2010
29. Pra-PTK UiTM Training workshop 2010.
30. Creative Thinking course at Faculty of Mechanical Engineering, UiTM Shah Alam. 2009.
31. EAC Evaluators Training Workshop by Board of Engineers Malaysia (BEM).2009.

32. Half day workshop on Engineering Education-International Perspective at Marriot Putrajaya organized by Board of Engineers Malaysia (BEM). 2009
33. Training Workshop on i-Learn Portal UiTM 2008
34. General Induction Module course UiTM 2008
35. English for effective Teaching 2008.

APPRECIATION CERTIFICATES

1. Appreciation by Pejabat Program Pra Pendidikan Tinggi UiTM for PPR CSR Program, 2020
2. Appreciation certificate for development of new course Committee member of Sustainability UiTM, 2020.
3. Appreciation certificate for development of new course (MEC682: Solar energy Technologies and Applications) by FKM, UiTM, 2020.
4. Appreciation letter as Advisor for UiTM Eco Planet Student Society 2020.
5. Appreciation letter for final exam preparation for Faculty of Mechanical Engineering UiTM 2019.
6. Appreciation letter for Committee for Symposium on Academia-Industry Collaboration organized by Faculty of Mechanical Engineering, UiTM Shah Alam 2019.
7. Appreciation letter for Product pitching committee for Invention, Innovation & Design Exposition 2019 (IIDEX 2019).
8. Appreciation letter for Facilitator for Strategic Planning Workshop GTSD 2019.
9. Appreciation letter for Student Advisor for Basketball team for SAF 2019.
10. Appreciation letter for low failure rate for MEC 551 Thermal engineering by Faculty of Mechanical Engineering UiTM 2019.
11. Appreciation letter for final exam preparation for Faculty of Mechanical Engineering UiTM 2018.
12. Appreciation letter for EK performance presentation and reporting under GTSD Core UiTM 2018.
13. Appreciation certificate for successful evaluation of MEC 641 Computational Fluid Mechanics by UiTM Vice Chancellor 2017.
14. Appreciation letter for Assessor Panel for FYP 2 Faculty of Mechanical Engineering UiTM 2018.
15. Appreciation letter for reviewer for Green Technology and Sustainable Development (GTSD) 2018.
16. Appreciation letter for Product pitching committee for Invention, Innovation & Design Exposition 2018 (IIDEX 2018)
17. Appreciation letter for Facilitator for High Impact Journal Preparation Workshop 2018.

18. Appreciation letter for WWF Malaysia for nature conservation support in Malaysia 2018.
19. Appreciation letter for Presenter for PV cooling seminar at Universiti Tunku Abdul Rahman (UTAR) 2018.
20. Appreciation letter for EK Group Energy Conservation for Automotive Research Group by Conference of Green Technology and Sustainable Development (GTSD) 2018.
21. Appreciation letter for participation as EK group in Conference on Green Technology and Sustainable Development (GTSD) 2018.
22. Appreciation letter for successful handling of semester Final exam Faculty of Mechanical Engineering UiTM 2017.
23. Appreciation letter for Assessor Panel for FYP 2 Faculty of Mechanical Engineering UiTM 2017.
24. Appreciation letter for assessor panel for UiTM internal Lestari and GIP grant 2017.
25. Appreciation letter for CQI-CDL workshop Faculty of Mechanical Engineering UiTM 2017.
26. Appreciation letter for Publication Committee for 5th International Conference on Advances in Mechanical Engineering (ICAME 2017).
27. Appreciation letter for final exam preparation for Faculty of Mechanical Engineering UiTM 2017.
28. Appreciation letter for AIMS workshop Faculty of Mechanical Engineering UiTM 2017.
29. Appreciation letter for Product pitching committee for Invention, Innovation & Design Exposition 2017 (IIDEX 2017)
30. Appreciation letter for Evaluation of MEC641 Computational Fluid Dynamics for UiTM MOOC 2017.
31. Appreciation letter for FYP Supervisor Day Faculty of Mechanical Engineering UiTM 2017.
32. Appreciation letter for Product pitching committee for Invention, Innovation & Design Exposition 2016 (IIDEX 2016).
33. Appreciation letter as reviewer for technical paper for Special issues of Pertanika Journal of Science & Technology (JST) 2016.
34. Appreciation letter for Student Advisor week Faculty of Mechanical Engineering UiTM 2016.
35. Appreciation certificate for Maintenance, Planning and Scheduling Course consultant for WBK Training Academy 2016.
36. Appreciation letter Facilitator for FKM Resume clinic 2016.
37. Appreciation letter for Assessor Panel for FYP 2 Faculty of Mechanical Engineering UiTM 2016.
38. Appreciation letter for successful handling of semester Final exam Faculty of Mechanical Engineering UiTM 2016.
39. Appreciation certificate for 2014 student volunteer RMIT University Open Day.
40. Appreciation certificate for 2013 student volunteer RMIT University Open Day.

41. Appreciation certificate for 2012 student volunteer RMIT University Open Day.
42. Appreciation letter for Secretariat for International Conference on Advances in Mechanical Engineering (ICAME 2010).
43. Appreciation letter for Participant for Conference on Aerospace and Mechanical Engineering organized by World Engineering Congress 2010.
44. Appreciation letter for Secretariat for International Conference on Advances in Mechanical Engineering (ICAME 2009).
45. Appreciation letter for Participant for International Conference on Advances in Mechanical Engineering (ICAME 2009).
46. Appreciation letter for Prime Ministers Quality Award 2008.
47. Appreciation letter for Participant for Academic conference 2008: FKM towards world class faculty.

EDITORIAL BOARD MEMBER

1. Innovative Scientific Research Professional Malaysia (ISRPM) Convention of Innovative Technological Scientific Research.
2. International Convention on Innovative Scientific Research Strategies (ICISRS 2018).
3. Editorial member for language for Scientific Research Journal (SRJ), UiTM. 2017.
4. Jurnal Teknologi Special Issue: Energy and Environment 2015.
5. Editorial Board Member of Renewable Energy Research 2018-2020.

CONFERENCE COMMITTEES

1. Session Chairman for World Congress on Science, Engineering and Technology, WCOSET 2021.
2. Session Chairman for Technical Dialogue Symposium on Academia-Industry Collaboration organized by Faculty of Mechanical Engineering, UiTM Shah Alam 2019.
3. Session Chairman 1st International Conference on Green Technology and Sustainable Development (GTSD 2019).
4. Technical and Logistic Committee 1st International Conference on Green Technology and Sustainable Development (GTSD 2019).

5. Chairman for 5th International Conference on Knowledge Collaboration in Engineering (ICKCE), India, 2018.
6. Session Chair for Innovative Scientific Research Professional Malaysia (ISRPM) 2017.
7. Session Chair 5th International Conference on Advances in Mechanical Engineering (ICAME 2017).
8. Session Chair 3rd International conference on Science & Social Research (CSSR 2016)
9. Co Session Chair 3rd International Conference on Advances in Mechanical Engineering (ICAME 2015).
10. Co Session Chair International Conference on Advances in Mechanical Engineering (ICAME 2010).

AWARDS

1. Finalist for 5th Asian Science Diplomats Awards 2021
2. Excellent Service Award (APC) 2019 by Universiti Teknologi MARA (UiTM).
3. PhD Scholarship to RMIT University by UiTM and Ministry of Higher Education Malaysia. 2011-2015.
4. High Impact Publication Award during Faculty of Mechanical Engineering, UiTM Shah Alam Dean's Quality Award 2020.
5. International Collaboration for Publication Award by Faculty of Mechanical Engineering, UiTM Shah Alam, 2020.
6. Local Collaboration for Publication Award by Faculty of Mechanical Engineering, UiTM Shah Alam, 2020.
7. Excellent Researcher Award by Faculty of Mechanical Engineering, UiTM Shah Alam, 2020.
8. High Impact Publication Award during Faculty of Mechanical Engineering, UiTM Shah Alam Dean's Quality Award 2018
9. Innovative Scientific Technological Researcher & Dedicated Best Academician Award 2018.
10. Excellence award in teaching and learning for Thermal Engineering (MEC551) by Faculty of Mechanical Engineering, UiTM Shah Alam 2017.
11. Scopus Indexed Journal Vice Chancellor Award by UiTM 2017.
12. Certificate of Outstanding Contribution in Reviewing by Elsevier 2017.
13. Innovative Scientific Technological Researcher & Dedicated Best Academician Award 2017
14. Co- Chairperson 5th International Conference on Advances in Mechanical Engineering (ICAME 2017).
15. Best Paper Award for paper presented at 3rd International conference on Science & Social Research (CSSR 2016).
16. Best Paper Award for paper presented at International conference on Advances in Mechanical Engineering. (ICAME 2015)
17. High Impact Publication Award during Faculty of Mechanical Engineering, UiTM Shah Alam Dean's Quality Award 2015.
18. UiTM Vice Chancellor congratulatory letter on completion of PhD Degree. 2015.

19. Overall Champion Vice Chancellor Quality Award (Faculty of Mechanical Engineering) 2010.

INVITED TALKS/SEMINAR/ JUDGING

1. Invited talk under 5 star Research Interest group (RiG) Weekly Sharing session, Research Nexus UiTM September 2021.
2. Jury International Exhibition & Symposium On Productivity, Innovation, Knowledge & Education (I-Spike 2021).
3. Project Design and Exhibition (ProDEx 2020)- Sustainable Lifestyle-Judge/Jury KTAR University College 2020.
4. Invention & Innovation Exhibition, 'InoTech 2020', Asia Pacific University.- Judge/Jury.
5. Jury/Judge for Innovations Competition and exhibition (Creations de UiTM 2020) at Pusat Asasi UiTM, Dengkil, Selangor. 2020.
6. Interview panel for Scholarship sponsorship under Ministry of Education, Malaysia for Public Higher Education Institution. 2019
7. Panel for Workshop on National Solar Thermal Roadmap by UNIDO 2019.
8. PV cooling: Increased efficiency and longer life span seminar at Universiti Tunku Abdul Rahman (UTAR) 2018.
9. Chief guest of honor for International Convention on Innovative Scientific Research Strategies at Puncak Alam, UiTM. 2018
10. Invited talk on Energy for 4th National Workshop on Ocean Energy: Techno-Economics of Renewable Energy & Blue/Green Financing, UTM KL, 2018.
11. Judge for Science Carnival School Category SJKT Ladang Ebor 2018.
12. Judge for Young Scientist program at SJKT Ladang North Hummock 2018.
13. Keynote Speech UTAR R&D Colloquium 2017.
14. Chief guest of honor for International Convention on Innovative Scientific Research Strategies at Kuala Lumpur. 2017.
15. Invited talk on Power Generation from SGSP using TEG at Institute of Engineer Malaysia (IEM) 2016.

EXTERNAL ASSESSOR FOR UNIVERSITIES AND COLLEGES

1. Appointment of National Project Committee for Development of UNIDO Industry Standard – Solar Thermal Systems 2021
2. Appointment for Engineering Technology Program accreditation (BEM) for UTHM, 2021.
3. Appointment as external assessor for Mechanical Engineering Program for INTI International College Penang 2021-2023.
4. Appointment as Observer for Accreditation visit to UNIKL MFI by Board of Engineers Malaysia, 2021.
5. Appointment as external assessor for Mechanical Engineering Program for INTI International College Penang 2018-2020

6. Appointment as external assessor for MSc in Engineering Management Program (University of Sunderland, UK) for SEGi College Subang Jaya 2017-2021.
7. Appointment as external assessor for Foundation in Science Program for SEGi College Subang Jaya 2017-2021

REVIEWER APPOINTMENTS

1. International Conference on Biomechanics and Medical Engineering 2018 (ICBME 2018).
2. 5th International Conference on Advances in Mechanical Engineering (ICAME 2017).
3. Technical paper for Special issues of Pertanika Journal of Science & Technology (JST) 2016.
4. Special Issue on Robotic, Mechatronics and Computer Engineering 76(8), Jurnal Teknologi 2015.
5. Special Issue on Advances in Systems Engineering for Advanced Mechatronics 76(4), Jurnal Teknologi 2015.
6. Special Issue on Tribology, Fluid Dynamics and Engineering Mechanics for Advanced Mechatronics 76(10), Jurnal Teknologi 2015.
7. Special Issue on Advances in Aerospace & Automotive 75(8), Jurnal Teknologi 2015.
8. Special Issue on Energy and Environment 76(5), Jurnal Teknologi 2015.
9. Reviewer for Green Technology and Sustainable Development (GTSD) 2018.
10. Reviewer for Journal of Mechanical Engineering UiTM.
11. Reviewer for Journal of Renewable Energy.
12. Reviewer for Journal of Solar Energy.
13. Reviewer for Journal of Energy Conversion and Management.
14. Reviewer for Journal of Applied Thermal Energy.
15. Reviewer for Journal of Energy.
16. Reviewer for Journal of Heliyon..
17. IOP Conference series: Materials Science and Engineering.
18. International Journal of Green Energy.

CONFERENCES

1. 3rd International Congresses Of Engineering Sciences And Technology (CICITEC), 2021, Tijuana, Mexico.
2. World Congress on Science, Engineering and Technology (WCOSSET 2021), Virtual conference by FKM, UiTM, 2021.
3. International Conference on Technology and Quality Management of Tertiary Education 2021 (ICTQM-Ted 2021).
4. The 5th International Symposium on Fluid Mechanics and Thermal Sciences (5th IS-FMTS), 2020.

5. Virtual Conference on Trends in Mechanical Engineering Analysis, Tools and Applications, 2020.
6. e-Colloquium UiTM – Afridat UG Webinar Renewable Hydrogen Energy Systems, 2020.
7. UiTM - MSU Joint Colloquium The Role of Universities in SDG-13 on Climate Change, 2020.
8. Asian Conference on Thermoelectrics and the Southeast Asia Conference on Thermoelectrics, 2020.
9. 6th International Conference on Advances in Mechanical Engineering (ICAME) at Pacific Sutera Hotel, Kota Kinabalu, Sabah, Malaysia. 2019.
10. 1st International Conference on Green Technology & Sustainable Development (GTSD), Shah Alam, Malaysia. 2019
11. International Conference on Sustainable Energy and Green Technology (SEGT), Bangkok, Thailand. 2019.
12. 1st International Conference on New Frontiers in Engineering, Science and Technology, New Delhi, India. 2018.
13. IEEE 10th International Conference on Engineering Education (ICEED), Kuala Lumpur, Malaysia. 2018
14. Conference of Green Technology & Sustainable Development (GTSD), Shah Alam, Malaysia. 2018.
15. International Conference on Biomechanics and Medical Engineering (ICBME), Kuala Lumpur, Malaysia. 2018.
16. 5th International Conference on Science & Social Research (CSSR) at Kota Kinabalu, Malaysia. 2018.
17. International Conference on Sustainable Energy and Green Technology (SEGT), Kuala Lumpur, Malaysia. 2018.
18. Convention of Innovative Technological Scientific Research Strategies in Science-Engineering-Management Applications and Medical Technology 2017
19. 5th International Conference on Advances in Mechanical Engineering (ICAME) at Ao Nang Villa Resort, Krabi, Thailand. 2017.
20. 2nd International Symposium on Green and Sustainable Technology (ISGST) UTAR Kampar, Malaysia. 2017.
21. 3rd International Conference on Science & Social Research (CSSR) at The Everly, Putrajaya, Malaysia. 2016.
22. 4th International Conference on Advances in Mechanical Engineering (ICAME) at Patra Jasa Bali Resort, Bali, Indonesia. 2015.
23. 1st International Symposium on Green and Sustainable Technology (ISGST) UTAR Kampar, Malaysia. 2015.
24. World Geothermal Congress 2015 Melbourne, Australia, 2015.
25. 2nd International Conference on Global Sustainability and Chemical Engineering (ICGSCE) Kuala Lumpur, Malaysia. 2014.
26. Colloquium on Humanities, Science and Engineering (CHUSER), Penang, Malaysia. 2014.
27. 40th National conference on fluid mechanics and fluid power (FMFP) Hamirpur, India, 2013.

28. IEEE International Conference on Power and Energy (PECON), Sutera Harbor Resort, Kota Kinabalu, Malaysia. 2012.
29. 39th National Conferences on Fluid Mechanics and Fluid Power (FMFP), Gujarat, India, 2012.
30. 38th National Conference on Fluid Mechanics and Fluid Power (FMFP), India. 2011.
31. International Conference on Advances in Mechanical Engineering (ICAME), Shah Alam, Malaysia. 2010.
32. International Conference on Science & Social Research (CSSR) at Seri Pacific Hotel, Kuala Lumpur, Malaysia. 2010.
33. Conference on Aerospace and Mechanical Engineering, World Engineering Congress, Kuching, Sarawak, Malaysia. 2010.
34. International Conference on Advances in Mechanical Engineering (ICAME), Shah Alam, Malaysia. 2009.

DESIGN AND INNOVATION COMPETITION

1. International Exhibition & Symposium on Productivity, Innovation, Knowledge, Education & Design (i-SPiKE 2021), UiTM Kedah. Gold Award.
2. Virtual Innovation & Invention Challenge College of Engineering 2021 (IICCE2021), College of engineering, UiTM, Bronze Medal.
3. 2nd Multimedia Innovation Competition MICOM 2020, Gold Medal.
4. Virtual Innovation Competition (VIC2020), Silver Award.
5. 9th International Innovation, Invention and Design Virtual Competition (INDES2020), Silver Award.
6. Invention, Innovation & Design Exposition (IIDEX) UiTM 2018 Bronze Medal.
7. 1st Digitized International Invention, Innovation & Design competition (DIID Johor), 2018. Silver Medal.
8. Invention, Innovation & Design Exposition (IIDEX) UiTM 2017. Silver Medal.
9. 5th International Innovation, Invention & Design UiTM Perak. 2016. Bronze Award.
10. Research Innovation Symposium & Exposition (RISE) 2015. Bronze Medal.

PROFESSIONAL MEMBERS

1. Institute of Engineer Malaysia (IEM)-Member since 2018
2. Institute of Engineer Malaysia (IEM)-Companion Member 2017-2018
3. Malaysian Board of Technologist (MBOT)- Professional Technologist since 2018
4. Board of Engineer Malaysia (BEM)- Professional Engineer since 2018
5. Energy Institute UK- Associate Member since 2017
6. Fellow-Society of Innovative Educationalist & Scientific Research Professional (Chennai) since 2018.
7. Australian Institute of Energy- Student Member-2012.
8. International Association of Computer Science and Information Technology (IACSIT)- Member since 2007

9. International Association of Engineers (IAENG)- Member since 2007.

LEADERSHIP

1. Head of Expert Task Force “Rainwater Harvesting” under University Green Center (UGC) UiTM 2020-2021
2. Head of Alternative Energy Research Center (AERC) Faculty of Mechanical Engineering, UiTM. 2016-Present.
3. Head of Research Initiative group (RiG) Excellence Entity Tier 5 UiTM -Energy Conservation for Automotive Research Group. 2016-Present.
4. Resource Person at Faculty level for Thermofluid Lab 1 (MEC454).
5. Resource Person at Faculty level for Technologist in Society (MEK603).
6. Honorary Treasurer for Energy Institute Malaysia Branch (2017- Present)
7. Committee Member (Ad-Hoc) Engineering Education and Technical Division, Institute of Engineer Malaysia (IEM)-2019-2021.

THESIS EXAMINER

1. Noor Azah Binti Ab Halim
Adoption Robotic Process Automation (RPA) in Maxis (Specification to complex budget management)
Master in Engineering Management (MEM798)- **Internal Examiner**
2. Azalan Bin Ahmad
Design And Development New Optimize 90 MVA 132/33 kV Power Transformer to Reduce Total Cost Of Ownership (TCO).
Master in Engineering Management (MEM798)- **Internal Examiner**
3. Nurul Hidayah binti Ramlan
Management of Right NDT Inspection for Efficient Aircraft Maintenance.
Master in Engineering Management (MEM798)- **Internal Examiner**
4. Mohamad Afiq bin Misman
Combustion Strategies in Gasoline Engine to Improve Engine Performance And Emission
Master in Mechanical Engineering (MEC702) – **Internal examiner**
5. Nurul Hidayah Bt Ramlan
Management of Right NDT Inspection for Efficient Aircraft Maintenance
Master in Engineering Management (MEM798)- **Internal Examiner**
6. Azalan Bin Ahmad
Design and Development of New Optimise 90 MVA 132/33 KV Power Transformer to Reduce Total Cost of Ownership
Master in Engineering Management (MEM798)- **Internal Examiner**
7. Noor Azah Bt Ab Halim
Adoption Robotic Process Automation in Maxis- Specification to complex Budget Management.
Master in Engineering Management (MEM798)- **Internal Examiner**

8. Ir Diana Mohd Yasin.
Operation and maintenance of water cooled chiller air conditioning system using failure mode and effect analysis (FMEA).
Master in Engineering Management (EM703)-**Internal Examiner**
9. Anuar Bin Hashim
Improvement in Maintenance management for thermal energy storage in engineering complex-A case study.
Master in Engineering Management (MEM798) -**Internal Examiner**
10. Nurhasanah Binti Ismail
The effect of basic parameters and the addition of helical tapes in a hot tube on the performance of the Ranque-Hilsch vortex tube model A20400.
Master in Mechanical Engineering by research (EM780)- **Internal Examiner**
11. Nur Hidayah Binti Mohd Razif
Heat transfer analysis for ammonia water mixture heat exchanger of an energy recovery system.
Master in Mechanical Engineering by research (EM750)- **Internal Examiner**
12. Khadijah Binti Hamzah
A study on Manganese oxide thin film as solar absorption layer for solar cell application using aerosol assisted chemical vapor deposition technique.
Master in Mechanical Engineering by research (EM750)- **Internal Examiner**
13. Seth Iskandar Bin Haji Abdul Majid.
Technology selection for IMO tier III SOX emission regulation.
Master in Engineering Management (EM703)-**Internal Examiner**
14. Siti Sabariah Binti Norazan
Metering design system for energy management.
Master in Engineering Management (EM703)-**Internal Examiner**
15. Norain Binti Shahrom
Designing and fabricating membrane filtration tester.
Master in Engineering Management (EM703)-**Internal Examiner**
16. Irfan Bin Abdullah Khalit
Experimental assessment on failure of fire resistant roller shutter.
Master in Engineering Management (EM703)-**Internal Examiner**
17. Mohamed Aiman Hafifi Bin Mohd Hafez
Energy Performance Improvement at Putrajaya Building
Master in Engineering Management (EM704)-**Internal Examiner**
18. Fazli Bin Nordin
Industry 4.0 Implementation of BIM in MEP Design & Construction of MRT Line 2 station.
Master in Engineering Management (EM704)-**Internal Examiner**
19. Shahril Bin Zulkifly
Determination of LPG tank welding rejection quality at downstream oil and gas construction industry.
Master in Engineering Management (EM704)-**Internal Examiner**
20. Elmy Syafiq Bin Mohd Saapiai
Rain Attenuation effect on 5GHz microwave link.
Master in Engineering Management (EM704)-**Internal Examiner**

21. Muhammad Khairul Bin Nordin
Assessment and Determination of variances in diesel inventory at power stations in Sabah.
Master in Engineering Management (EM704)-**Internal Examiner**
22. Muhammad Saufi Bin Shamsudin
ADAS: Malaysian perceptions and introduction
Master in Engineering Management (EM704)-**Internal Examiner**

TEACHING

POSTGRADUATE:

1. MSc Mechanical Engineering (Mixed Mode): Advanced Numerical Analysis
MEC706
24/02/2020 Until 31/07/2020.
2. MSc Mechanical Engineering (Mixed Mode): Advanced Numerical Analysis
MEC706
25/02/2019 Until 30/06/2019.
3. Msc in Engineering Management (University of Sunderland UK)-Part time at SEGi College Subang Jaya :
 - i) Research Skills and Academic Literacy.
 - ii) Decision Support for Management.
 - iii) Project Management Planning & Control.
 - iv) Project Risk and Quality Management
2017-2018.

UNDERGRADUATE:

Year/ semester	Course code & Name	Credit Points/ Units	Total formal classroom contact hours per semester	Size, Hours of contact per week
2008/ DEC'07 - APR '08	HEAT TRANSFER KJM531	3	42 hrs/semester (x3)	Size : 93 students Lecture : 3 hrs/week
2008/ Jul' 08 - Nov '08	HEAT TRANSFER KJM531	3	42 hrs/semester(X3)	Size : 83 students Lecture : 3 hrs/week
2009/ DEC'08 - APR '09	HEAT TRANSFER KJM531	3	42 hrs/semester(x3)	Size : 82 students Lecture : 3hrs/week
2009/ JUL '09 - NOV. '09	THERMAL ENGINEERING MEC 551	3	42 hrs/semester(x3)	Size : 92 students Lecture : 3 hrs/week
2010/ Dec '09 - Apr. '10	THERMAL ENGINEERING MEC 551)	3	42 hrs/semester(x2)	Size : 67 students Lecture : 3 hrs/week
2010/ JUL '10 - NOV. 10	THERMAL ENGINEERING MEC 551	3	42 hrs/semester(x3)	Size : 97 students Lecture : 3hrs/week
2009/ JUL'09 - NOV '09	LAB FLUID MEC554	1	28 hrs/semester(X2)	Size : 56 students LAB : 2 hrs/week
2010/ JUL'10 - NOV 10	LAB THERMO MEC554)	1	28 hrs/semester(X2)	Size : 58 student Lab: 2 hrs/week
Sept 2015- Dec 2015	THERMAL ENGINEERING (MEC 551)	3	42 hrs/semester(x2)	Size : 57 students Lecture : 3 hrs/week
Sept 2015- Dec 2015	RENEWABLE ENRGY AND SUSTAINABLE SYSTEM (MEC655)	3	42 hrs/semester	Size : 28 students Lecture : 3 hrs/week
March 2015- July 2015	THERMAL ENGINEERING (MEC 551)	3	42 hrs/semester	Size : 30 students Lecture : 3 hrs/week
March 2015- July 2015	RENEWABLE ENRGY AND SUSTAINABLE SYSTEM (MEC655)	3	42 hrs/semester	Size : 28 students Lecture : 3 hrs/week

Year/ semester	Course code & Name	Credit Points/ Units	Total formal classroom contact hours per semester	Size, Hours of contact per week
March 2015- July 2015	LAB THERMO (MEC554)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
Sept 2015- Dec 2015	NUMERICAL METHODS & APPLICATIONS (MEC500)	3	42 hrs/semester	Size : 28 students Lecture : 3 hrs/week
Sept 2015- Dec 2015	FLUID MECHANICS 2 (MEC442)	3	42 hrs/semester(x2)	Size : 61 students Lecture : 3 hrs/week
March 2016- July 2016	THERMAL ENGINEERING (MEC 551)	3	42 hrs/semester(x2)	Size : 60 students Lecture : 3 hrs/week
March 2016- July 2016	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
March 2017- July 2017	NUMERICAL METHODS & APPLICATIONS (MEC500)	3	42 hrs/semester(x2)	Size : 60 students Lecture : 3 hrs/week
March 2017- July 2017	LAB THERMO (MEC554)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
Sept 2017-Jan 2018	THERMAL ENGINEERING (MEC 551)	3	42 hrs/semester(x2)	Size : 60 students Lecture : 3 hrs/week
Sept 2017-Jan 2018	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
March 2018- July 2018	NUMERICAL METHODS & APPLICATIONS (MEC500)	3	42 hrs/semester(x2)	Size : 60 students Lecture : 3 hrs/week
March 2018- July 2018	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
Sept 2018-Jan 2019	THERMAL ENGINEERING (MEC 551)	3	42 hrs/semester(x2)	Size : 60 students Lecture : 3 hrs/week
Sept 2018-Jan 2019	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week

Year/ semester	Course code & Name	Credit Points/ Units	Total formal classroom contact hours per semester	Size, Hours of contact per week
March 2019- July 2019	THERMAL ENGINEERING (MEC 551)	3	42 hrs/semester	Size : 30 students Lecture : 3 hrs/week
March 2019- July 2019	RENEWABLE ENRGY AND SUSTAINABLE SYSTEM (MEC655)	3	42 hrs/semester	Size : 28 students Lecture : 3 hrs/week
March 2019- July 2019	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
Sept 2019- January 2020	Engineer in Society (MEC600)	3	42 hrs/semester(x2)	Size : 58 students Lecture : 3 hrs/week
Sept 2019- January 2020	LAB THERMO (MEC454)	1	28 hrs/semester(X2)	Size : 30 students Lab: 2 hrs/week
March 2020- July 2020	Thermal Engineering (MEC551)	3	42 hrs/semester	Size : 31 students Lecture : 3 hrs/week
March 2020- July 2020	Fluids and Heat (KJM 442)	3	42 hrs/semester	Size : 30 students Lecture : 3 hrs/week
March 2020- July 2020	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
Sept 2020- January 2021	Engineer in Society (MEC600)	3	42 hrs/semester(X2)	Size : 65 students Lecture : 3 hrs/week
Sept 2020- January 2021	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
March 2021- July 2021	LAB THERMO (MEC454)	1	28 hrs/semester	Size : 30 students Lab: 2 hrs/week
March 2021- July 2021	Engineer in Society (MEC600)	3	42 hrs/semester(X2)	Size : 65 students Lecture : 3 hrs/week

REFEREES

1. Prof Ir Muhammad Azmi Ayub
Dean,
School of Mechanical Engineering,
College of Engineering,
Universiti Teknologi MARA,
40450 Shah Alam,
Selangor, Malaysia.
E-mail: muhammadayub@salam.uitm.edu.my
Tel no: + 603-5543 5218
2. Prof Ir Jamaluddin Mahmud
Professor
School of Mechanical Engineering,
College of Engineering,
Universiti Teknologi MARA,
40450 Shah Alam,
Selangor, Malaysia.
E-mail: jm@salam.uitm.edu.my
Tel no: + 603-5543 6257
3. Prof Aliakbar Akbarzadeh
Professor,
School of Engineering,
Mechanical and Automotive Engineering,
Bundoora Campus,
RMIT University,
Melbourne, Australia.
E-mail: aliakbar.akbarzadeh@rmit.edu.au
Tel no: + 61 99256079