

CURRICULUM VITAE

1. Personal Particulars

Name: Robiah Ahmad
Nationality: Malaysia
Occupation: Lecturer
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Address: UTM Razak School of Engineering and Advanced Technology
UTM Kuala Lumpur, 54100 Jalan Sultan Yahya Petra, Kuala Lumpur, Malaysia

2. Academic and Professional Working Experience

- **Associate Professor**, UTM Razak School of Engineering and Advanced Technology, Universiti Teknologi Malaysia, December 2010 – present
- **Associate Professor**, Fakulti Kejuruteraan Mekanikal, Universiti Teknologi Malaysia, May 2004 - December 2010
- **Visiting Post Graduate Student**, Department of Computing and Electrical Engineering, Herriot-Watt University, Edinburgh, United Kingdom. September – October 2001.
- **Assistant Lecturer and Senior Lecturer** – Fakulti Kejuruteraan Mekanikal, UTM Skudai. December 1990 – December 2010.
- **Assistant Lecturer** – Fakulti Kejuruteraan Elektrik, Universiti Teknologi Malaysia, Kuala Lumpur. 5 December 1988 – December 1990.

3. Academic Qualifications

- Ph.D. (Mechanical Engineering) - Universiti Teknologi Malaysia, Malaysia, 2004
- M.Sc. (Information Technology for Manufacture) - University of Warwick, United Kingdom, 1992
- B.Sc. (Electrical Engineering) - University of Evansville, Indiana, USA, 1988
- B.Sc. (Engineering Management) - University of Evansville, Indiana, USA, 1988

4. Professional Membership

- **Senior member**, Institute of Electrical and Electronics Engineers IEEE
- **Member**, IEEE Instrumentation and Measurement Society
- **Member**, IEEE Women in Engineering Society
- **Member**, IEEE Sensors Council
- **Member**, IEEE Special Interest Group on Humanitarian Technology (SIGHT)
- **Member**, Board of Engineers Malaysia
- **Graduate Member**, Institute of Engineers Malaysia. Membership No. 16537
- **Past Associate Member**, Institute of Mechanical Engineer (IMechE). Membership No. **80145119**
- **Member** IEEE, Membership No: 92423928.
- **Member**, Malaysia TRIZ Innovation Association
- **Past Member**, International Society for Horticultural Science (ISHS)

5. Plenary / Invited Speakers

- “Effect of Different LED Parameters on Growth of Brassica Chinensis Using Improved IoT Platform”. **Keynote Speaker**. 1st Symposium of Future Telecommunication Technologies (SOFFT), 13-14 October 2017. Telkom University, Bandung Indonesia.
- “Engineering design and optimization using Evolutionary Computation”. **Plenary Speaker**. Workshop IUT Saint Malo/LGCGM Renne. IUT Saint Malo. France. 15 – 20 October 2017
- “STEM Research Through Artificial Light in Agriculture”. **Invited Speaker**. STEM Forum @UTMKL. 8 April 2017. Organized by National STEM Movement.
- “Curriculum Development – Course Outcome (CO) and Assessment”. **Invited Speaker** for Curriculum Development organized by High Level Aviation Academy (HLAA) and GIAD Industrial Group, Sudan. 13 – 16 February 2017.
- “Air Quality Monitoring Speaker”. **Speaker** of ASEAN IVO Forum 2016, Pan Pacific Hanoi, Vietnam. 24 November 2016. Organized by National Institute of Information and Communications Technology (NICT), Japan

- “Modeling and optimization using Evolutionary Computation.” **Invited Speaker** for Post Graduate Seminar , Kookmin University, South Korea. 23 March 2016

6. Administrative Experience

- Deputy Dean (Research, Innovation, Community and Engagement), UTM Razak School of Engineering and Advanced Technology, UTM Kuala Lumpur. 1 August 2016 - present
- Information Technology Manager, UTM Razak School of Engineering and Advanced Technology, UTM Kuala Lumpur. 1 July 2014 – 30 June 2016.
- Engineering Doctorate Program Coordinator, UTM Razak School of Engineering and Advanced Technology, UTM Kuala Lumpur. 1 September 2013 – 31 August 2014
- IGDS (Integrated Graduate Development Scheme) Program Coordinator, University of Warwick and BATC, UTM Kuala Lumpur, 2011

7. Research Activities and Funding

- Head**, An optimisation model of oil palm biomass supply chain for sustainable power generation in Malaysia. Professional Development Research University Grant (Post Doctoral). Vote No. Q.J130000.21A2.03E4. 2 February 2018 -31 December 2019. **RM137,600.00**
- Head**, A tuned NSGA-II for Optimizing JIT Distribution Networks. Professional Development Research University Grant (Post Doctoral). Vote No. Q.J130000.21A2.03E4. 1 January 2017 -31 December 2017. **RM65,000.00**
- Head**, Investigation of heat thermal performance of optimized integrated piezoelectric and magnetic fans for microelectronics cooling system. FRGS MOHE. Vote No. R.K130000.7840.4F850. 1 August 2016-31 July 2019. **RM114,700.00**
- Member**, optimized optical receiver utilizing silicon based avalanche photodiode for millimeter-wave applications. Q.K130000.2640.12J75. GUP Tier 2, **RM20,000.00**. 1 October 2016 – 31 December 2017
- Member**, Managing heat transfer of the two-phase flow environmentally freindly refrigerant in a microchannel through optimization. GUP Tier 1. **RM43,961.00**. 1 April 2014 – 31 May 2016
- Member**, An Adaptive Soft Frequency Reuse (Sfr) In Multichannel And Multicellular Networks. FRGS, MOHE, RM76,200.00 16 December 2013 – 15 June 2016.
- Member**, Two-phase flow boiling heat transfer, pressure drop and flow pattern of natural refrigerants in microchannels. AUN SEED JICA CRC. 1 May 2013 – 15 march 2015. **USD50,000.00**
- Member**, Multi-objective optimization using modified genetic algorithm for supply chain network, GUP Tier 2, RM50,000. 1/12/2012 – 30/6/2014
- Head**, Horticulture crop growth response and flowering production in controlled environment for vertical farming method under artificial periodic sun lighting system, GUP tier 1, **RM200,000.00**. 1/12/2012 – 31/6/2015
- Head**, Optimization and characterization of LED light spectrum for superior photosynthetic response in naturally ventilated tropical greenhouse (NVTG), FRGS MOHE, Vote No: , **RM44,000**. 1 April 2012 till 30 September 2014.
- Head**, Optimization of Microchannel Heat Sink with Rectangular Cross Section using Multi-objective Optimization, Razak School Grant, Vot. 4B026, **RM50,000.00**. 15 Mei 2011 till 14 Mei 2013

8. Publications (for recent 5 years)

Thesis

- Robiah Ahmad. Identification of Discrete-Time Dynamics Systems using Modified Genetic Algorithm. Universiti Teknologi Malaysia. October 2004
- Robiah Ahmad. Databases for Computer Integrated Manufacturing. University of Warwick, UK. 1992.

Book

Hishamuddin Jamaluddin. Mohd. Shafiek Yaacob. Robiah Ahmad. 2011. **Introduction to Control Engineering**. UTM Press. Skudai, Johor

Book Chapter

- 'Alyaa Mazlan, Robiah Ahmad, Norliza Mohamed. 2016. Prevention of Musculoskeletal Disorder among Hotel Housekeeper in Klang Valley Area, Pp 96-119. Pustaka Sistem Pelajaran Sdn. Bhd., Malaysia
- Nurul Najwa Ani, Ahmad Nizar Harun, Saiful Farhan M Samsuri, Robiah Ahmad. Effect of Red and Blue Lights on Photomorphogenesis in Brassica chinensis. The Malaysia-Japan Model on Technology Partnership. Pp 49-58, 2015. Springer Japan.
https://www.researchgate.net/profile/Khairuddin_Hamid/publication/283494877_The_Malaysia-Japan_Model_on_Technology_Partnership/links/563ac8d808aeed0531dcbd77/The-Malaysia-Japan-Model-on-Technology-Partnership.pdf#page=60
- Normah Mohd-Ghazali, Oh Jong-Taek, Nuyen Ba Chien, Kwang-Il Chi, Nor Atiqah Zolpakar, and Robiah Ahmad. Multiobjective Optimization of Microchannels with Experimental Convective Heat Transfer Coefficient of Liquid Ammonia. A. Moonis et al. (Eds.): Lecture Notes in Artificial Intelligence (Subseries of Lecture Notes in Computer Science). 8481 LNAI (Part I), pp. 470-478. Springer International Publishing Switzerland (2014). **Scopus**
- Ashkan Memari, Abd Rahman Bin Abdul Rahim, Robiah Binti Ahmad. Production Planning and Inventory Control in Automotive Supply Chain Networks. A. Moonis et al. (Eds.): Lecture Notes in Artificial Intelligence (Subseries of Lecture Notes in Computer Science). 8481 LNAI (Part I), pp. 430-439. Springer International Publishing Switzerland (2014). **Scopus**
- Ahmed Mohammed Adham, Normah Mohd-Ghazali, and Robiah Ahmad. 2013 Multi-objective Optimization Algorithms for Microchannel Heat Sink Design. Contemporary Challenges & Solutions in Applied AI, Studies in Computational Intelligence 489 M. Ali et al. (Eds.) pp. 169 - 174. Springer. Switzerland. **Scopus**

International Journal (IF/Scopus)

2018

- An optimization Study of A Palm Oil-based Regional Bio-energy Supply Chain under carbon Pricing and Trading Policies. **Clean Technologies and Environmental Policy**. (2018). 20:113-125. Ashkan memari, Robiah Ahmad, Abd. Rahman Abdul Rahim, Mohammad Reza Akbari Jokar.
<https://link.springer.com/article/10.1007%2Fs10098-017-1461-7>. **IF:3.31**
- High Potential of Magnet on Performance of Dual Piezoelectric Fans in Electronics Cooling System. **Indonesian Journal of Electrical Engineering and Computer Science**. (2018). 10(2). Pp 606 – 616. ISSN: 2502-4752, DOI: 10.11591/ijeecs.v10.i2.pp469-479. **Scopus**
- RF Energy Harvesting in Multiple Sources in Wireless Mesh Network. **Indonesian Journal of Electrical Engineering and Computer Science**. (2018). 10(2). Pp 469 – 479. ISSN: 2502-4752, DOI: 10.11591/ijeecs.v10.i2.pp606-616. **Scopus**

2017

- Optimizing a Just-In-Time logistics network problem under fuzzy supply and demand: two parameter-tuned metaheuristics algorithms. Ashkan Memari, Robiah Ahmad, Abd. Rahman Abdul Rahim, Adnan Hassan. **Neural Computing and Application**. DOI 10.1007/s00521-017-2920-0. Article In Press.
<https://link.springer.com/article/10.1007/s00521-017-2920-0>. **IF:2.505**
- A Tuned-NSGA-II to optimize the total cost and service level for a just-in-time distribution network. Ashkan Memari, Abd. Rahman Abdul Rahim, Adnan Hassan, Robiah Ahmad. **Neural Computing and Applications**. Vol. 28, Issue 11. Pp 3413-3427. <https://link.springer.com/article/10.1007/s00521-016-2249-0>. **IF:2.505**
- Extreme learning machine based optimal embedding location finder for image steganography. Hayfaa Abdulzahra Atee. Robiah Ahmad. Norliza Mohd Noor. Abdul Monem S. Rahma. Yazan Aljeroudi. PloS ONE. **Q1. IF: 3.057**. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0170329>
- Advanced Encryption Standard Algorithm Versus Extreme Learning Machine Based Weight: A Comparative Study. Hayfaa A. Atee. Robiah Ahmad. Norliza Mohd Noor. Abidulkarim K. Ilijan. **ARNP Journal of Engineering and Applied Sciences**. VOL. 12, NO. 3, FEBRUARY 2017. **Scopus**.
http://www.arnpjournals.org/jeas/research_papers/rp_2017/jeas_0217_5696.pdf
- Optimization of the Stack Unit in a Thermoacoustic Refrigerator. Nor Atiqah Zolpakar, Normah Mohd-Ghazali & Robiah Ahmad. **Journal Heat Transfer Engineering**. Volume 38, 2017 431-437. **IF: 1.016 Q3**.
<http://www.tandfonline.com/doi/pdf/10.1080/01457632.2016.1195138?needAccess=true>

2016

- The Effects Of Continuous Lighting (CL) Method On The Growth Development Of Brassica Chinensis For Led Plant Factory In WSN Application. Ahmad Nizar Harun, Robiah Ahmad, Norliza Mohamed. **Jurnal Teknologi**. 78: 12–3 (2016) 23–30. **Scopus**

- <http://www.jurnalteknologi.Utm.My/Index.Php/Jurnalteknologi/Article/View/10019/5988>
- Fluorescent Light (FL), Red Led And Blue Led Spectrums Effects On In Vitro Shoots Multiplication. Nurul Syahirah Azmi, Robiah Ahmad. Rusli Ibrahim. **Jurnal Teknologi** 78:6–6 (2016) 93–97. **Scopus** <http://www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/9032/5374>
 - A Fuzzy Logic Controller To Line Starting Performance Synchronous Motor For A Crane System Using Vector Control. Birowo, Robiah Ahmad, Hairi Zamzuri, Agus Priyono. **Jurnal Teknologi** . 78:6–6 (2016) 81–86. **Scopus**. <http://www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/9032/5374>
 - A novel extreme learning machine-based cryptography system. Hayfaa Abdulzahra Atee. Robiah Ahmad. Norliza Mohd Noor. Abdul Monem S. Rahma. Muhammad Samer Sallam. **Security and Communication Network**. IF=0.806. 9:5472–5489. <http://onlinelibrary.wiley.com/doi/10.1002/sec.1711/abstract>
 - A combined crypto-stego system using dynamic encryption assisted intensity color steganography. Hayfaa Abdulzahra Atee. Robiah Ahmad. Norliza Mohd Noor. Illijan A. K. **International Journal of Control Theory and Application**. Volume 9, Issue 30. Pp 175-184. **Scopus**
 - Carbon-capped Distribution Planning: A JIT Perspective. Ashkan Memari, Abd. Rahman Abdul Rahim, Nabil Absi, Robiah Ahmad, Adnan Hassan. **Computers & Industrial Engineering**. Volume 97, July 2016, Pages 111–127. <http://www.sciencedirect.com/science/article/pii/S0360835216301188>. IF:2.623
 - Experimental investigations of the performance of a standing wave thermoacoustic refrigerator based on multi-objective genetic algorithm optimized parameters. Nor Atiqah Zolpakar, Normah Mohd-Ghazali, Robiah Ahmad. **Applied Thermal Engineering**. Volume 100, 5 may 2016. Pp. 296 -303. <http://www.sciencedirect.com/science/article/pii/S1359431116301612>. IF:2.739
 - Optimization of the friction factor and frictional pressure drop of R22 and R290. Ghazali, N., Yousif, Q. A., Parmitran, A. S., Novianto S. and Ahmad, R. **International Journal of Technology**. 7:2. Pp 227 – 234. <http://www.ijtech.eng.ui.ac.id/index.php/journal/article/view/2989>. **Scopus**
 - A literature Review on Green Supply Chain Modelling for Optimizing CO2 Emission. Ashkan Memari, Abd Rahman Abdul Rahim, Robiah Ahmad, Adnan Hassan. **Int. J. Operational Research**. Vol.m26. No. 4. 2016. Pp. 509 – 525. **Scopus**
 - Modeling of the Minimized Two-phase Flow Frictional Pressure Drop in a Small Tube with Different Correlations. Qais Abid Yousif, Normah Mohd-Ghazali, Nor Atiqah Zolpakar, Sentot Novianto, Agis Sujiantro Pamitran, Robiah Ahmad. **Jurnal Teknologi**. 78: 6–11 (2016) 109–115. www.jurnalteknologi.utm.my. eISSN 2180–3722. **Scopus**

2015

- Perturbation parameters tuning of multi-objective optimization differential evolution and its application to dynamic system modeling. Zakaria, M. Z., Jamaluddin, H., Ahmad, R., Harun, A., Hussin, R., Khalil, A., N., M., Naim, M. NK. M., Annuar, A. F. **Jurnal Teknologi**. 2015. Volume 75, Issue 11. Pp 77 – 90. <http://www.jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/5335>. **Scopus**
- Comparison of optimized thermal performance of square and circular ammonia-cooled microchannel heat sink with genetic algorithm. Normah, G. M., Oh, J. T., Chien, N. B., Choi, K., -I., Robiah, A., **Energy Conversion and Management**. Volume 102. Pp 59- 65. <http://www.sciencedirect.com/science/article/pii/S0196890415001132>. IF:4.38
- Performance optimization of a microchannel heat sink using the Improved Strength Pareto Evolutionary Algorithm (SPEA2). Adham, A. M., Mohd-Ghazali, N., Ahmad, R. **Journal of Engineering Thermophysics**. 1 February 2015. 24:1. Pp 86 – 100. <http://link.springer.com/article/10.1134%2FS1810232815010087>. IF:0.556

2014

- Neural Network Modeling and Identification of Naturally Ventilated Tropical Greenhouse Climates. Robiah Ahmad. md. Norazlan Md. Lazin. Saiful Farhan Mohd Samsuri. **WSEAS TRANSACTIONS on SYSTEMS and CONTROL**. Vol. 9, 2014. pp 445-453. <http://wseas.org/cms.action?id=7651>. **Scopus**
- Modeling Automotive Palm Oil Biodiesel Engine using Multi-Objective Optimization Differential Evolution Algorithm. Robiah Ahmad. Mohd. Zakimi Zakaria. Azuwir Mohd. Nor. Hishamuddin Jamaluddin. **WSEAS TRANSACTIONS on SYSTEMS and CONTROL**. Vol. 9, 2014. pp 500-513. <http://wseas.org/cms.action?id=7651>. **Scopus**
- Optimization of a Rectangular Microchannel Heat Sink Using Entropy Generation Minimization (EGM) and Genetic Algorithm (GA), Ahmed Mohammad Adham, Normah Mohd-Ghazali, Robiah Ahmad, **Arabian Journal for Science and Engineering**, Springer, 10.1007/s13369-014-1253-x, Print ISSN 1319-8025, Online ISSN 2191-4281, Vol 39 (10) 2014, pp 7211-7222. IF:0.367

<http://connection.ebscohost.com/c/articles/97875241/optimization-rectangular-microchannel-heat-sink-using-entropy-generation-minimization-egm-genetic-algorithm-ga>

- Optimization of nanofluid-cooled microchannel heat sink, Ahmed Mohammed Adham, Normah Mohd-Ghazali, and Robiah Ahmad, **Thermal Science**, 2014, DOI:10.2298/TSCI130517163A. <http://thermalscience.vinca.rs/online-first/1175>. IF:1.093

2013

- Optimization of thermal performances and pressure drop of rectangular microchannel heat sink using aqueous carbon nanotubes based nanofluid. Salma Halefadi, Ahmed Mohammed Adham, Normah Mohd-Ghazali, Thierry Maré, Patrice Estellé, Robiah Ahmad. **Applied Thermal Engineering**. 62 (2014). 492-499. <http://www.sciencedirect.com/science/article/pii/S1359431113005632>. IF:2.739
- Triple tube ammonia evaporator design for domestic absorption refrigerators. Ahmed Mohammed Adham, Normah Mohd-Ghazali, Mikdam M. Saleh, Robiah Ahmad. **Heat Transfer Research**. 44(7), 665-689 (2013). http://dl.begellhouse.com/references/46784ef93dddff27_30dafd2b5. IF:0.206
- Thermal and hydrodynamic analysis of microchannel heat sinks: A review Ahmed Mohammed Adham, Normah Mohd-Ghazali, Robiah Ahmad. **Renewable and Sustainable Energy Reviews** 21 (2013) 614-622. <http://www.sciencedirect.com/science/article/pii/S1364032113>. IF:8.050
- Artificial neural networks for automotive air-conditioning systems performance prediction, Haslinda Mohd. Kamar, **Robiah Ahmad**, Nazri Kamsah, Ahmad Faiz Mohamad Mustafa, **Applied Thermal Engineering**, 50 (2013) 63-70. <http://www.sciencedirect.com/science/article/pii/S135943111200>. IF:2.739

International Journal (non-citation index)

2017

- Metaheuristic Algorithms: Guidelines for Implementation. Support Systems. Ashkan Memari, Robiah Ahmad, Abd. Rahman Abdul Rahim. **Journal of Soft Computing and Decision**. Vo. 4(6). December 2017 pp. 1-6
- A Case Study on the Link of Gender Diversity Towards Organizational Effectiveness. M. L.Lim, Robiah Ahmad, Norzaida Abas. **Journal of Advanced Research in Business and Management Studies**. 1(2017). Pp. 10-20. ISSN: 2462-1935
- RF energy harvesting with multiple sources and co-channel interference assisted. **Journal of Advanced Research in Business and Management Studies**. 8(2). 2018. Pp 50 – 55. ISSN: 2462-1935

2016

- Effects of Two-Phase Flow Friction Factor Correlations on the Optimal Pressure Drop-Martinelli Parameter Pair in a Mini-Channel. Normah Mohd Ghazali, Agus Sunjarianto Pamitran, Oh Jong-Taek, Robiah Ahmad, Muhammad Khairul Fitkry Rabin. **Applied Mechanics and Materials**. 819. Pp 309-313. <http://www.scientific.net/AMM.819.309>
- Characteristics of Two-Phase Flow Heat Transfer of R-22 and R-290 in Horizontal Circular Small Tube. Agus Sunjarianto Pamitran, Ulfi Khabibah, Normah Mohd-Ghazali, Robiah Ahmad, Kiyoshi Saito. **Applied Mechanics and Materials**. Vol. 819 (2016). Pp 181 – 185. <http://www.scientific.net/AMM.819.181>
- Optimal Frictional Pressure Drop and Vapor Quality Relationship of Ammonia and R22 in Two-Phase Flow. Normah Mohd Ghazali, Oh Jong-Taek, Robiah Ahmad, Nor Atikah Zolpakar. **Applied Mechanics and Materials**. 819 (2016). Pp 314 – 318. <http://www.scientific.net/AMM.819.314>
- Multi-Layer Micro Channels System: Interpretation and Developments. Husain Zaidan, Normah Mohd Ghazali, Robiah Ahmad. **Applied Mechanics and Materials**. Vol. 819 (2016). Pp 171 – 175. <http://www.scientific.net/AMM.819.171>
- Single-objective optimization of a thermoacoustic refrigerator. Nor Atikah Zolpakar, Normah Mohd-Ghazali, Robiah Ahmad. **Applied Mechanics and Materials**. Vol. 819 (2016). Pp. 88 – 93. <http://www.scientific.net/AMM.819.88>

2015

- Dynamic System Modeling of Flexible Beam System using Multi- Objective Optimization Differential Evolution Algorithm. Mohd. Zakimi Zakaria, Mohd Sazli Saad, Hishamuddin Jamaluddin, Robiah Ahmad. **Applied Mechanics and Materials** Vol. 695 (2015) pp 605-608.

<http://www.scientific.net/AMM.695.605>

- Cryptography and Image Steganography Using Dynamic Encryption on LSB and Color Image Based Data Hiding. **Middle-East Journal of Scientific Research**. Hayfaa Abdulzahra Atee, Robiah Ahmad, Norliza Mohd Noor. 2015. 23:7. Pp 1450 – 1460. [http://www.idosi.org/mejsr/mejsr23\(7\)15/33.pdf](http://www.idosi.org/mejsr/mejsr23(7)15/33.pdf)

2014

- Simultaneous Optimization of Four Parameters in the Stack Unit of a Thermoacoustic Refrigerator. Nor Atiqah Zolpakar, Normah Mohd-Ghazali, Robiah Ahmad. **International Journal of Air-Conditioning and Refrigeration**. 22(2) 2014. 1450011-1-6. DOI:10.1142/S2010132514500114, Print ISSN: 2010-1325, Online ISSN: 2010-1333. <http://www.worldscientific.com/doi/abs/10.1142/S2010132514500114>

2013

- EFFECT OF PENALTY FUNCTION PARAMETER IN OBJECTIVE FUNCTION OF SYSTEM IDENTIFICATION, M.F. Abd Samad, H. Jamaluddin, R. Ahmad, M.S. Yaacob and A.K.M. Azad. **International Journal of Automotive and Mechanical Engineering (IJAME)** ISSN: 2229-8649 (Print); ISSN: 2180-1606 (Online); 2013. Volume 7, pp. 940-954

PUBLICATION JOURNAL FOR 2012 AND BELOW

Indexed Journal

- Thermal performance of ammonia-cooled microchannel heat sink, Ahamed Adhm, Normah Mohd-Ghazali, **Robiah Ahmad**, **International Review of Mechanical Engineering International Review of Mechanical Engineering (I.RE.M.E.)**, Vol. 6, N. 4 May 2012, pp 828-836. **Scopus**
- Structure Optimization of Neural Network for Dynamic System Modeling Using Multi-objective Genetic Algorithm, S. M. R. Loghmanian, H. B. Jamaluddin and Robiah Ahmad, **Neural Computing and Application**. Volume 21, Issue 6, September 2012, Pages 1281-1295. <http://link.springer.com/article/10.1007%2Fs00521-011-0560-3>. **IF:2.505**
- Optimization of ammonia-cooled rectangular microchannel heat sink using multi-objective non dominated sorting genetic algorithm (NSGA2), Ahamed Adhm, Normah Mohd-Ghazali, Robiah Ahmad, **Heat Mass Transfer** (2012) 48:1723–1733. <http://link.springer.com/article/10.1007/s00231-012-1016-8>
- Comparison between multi-objective and single-objective optimization for the modeling of dynamic systems, Mohd Z Zakaria, Hishamuddin Jamaluddin, Robiah Ahmad and Sayed MR Loghmanian, . Proc. IMechE. Part I: **J. Systems and Control Engineering**, 226(7) 2012, pp. 994–1005. **IF:0.374**
- Application of Memetic Algorithm in Modeling Discrete-time Dynamics Systems. Robiah Ahmad, Hishamuddin Jamaluddin, Mohd. Azlan Hussain. **Mechanical Systems and Signal Processing**. 22(2008). Pp. 1595 – 1609. **IF: 1.74**. <https://www.sciencedirect.com/science/article/pii/S0888327008000277>
- Modeling Structure Selection for a Discrete-time Non-linear System using Genetic Algorithm. Robiah Ahmad, Hishamuddin Jamaluddin and Mohamed Azlan Hussain. Proceedings of the Institution of Mechanical Engineers. Part I. **Journal of Systems and Control Engineering**. 2004. Vol 218. Part I. pp. 85 – 98. <http://journals.sagepub.com/doi/abs/10.1177/095965180421800203>. **IF:0.374**
-

Non-Indexed Journal

- Deterministic Mutation-based Algorithm for Model Structure Selection in Discrete-Time System Identification. Md Fahmi Abd Samad. Hishamuddin Jamaluddin. Robiah Ahmad. Mohd Shafiek Yaacob. Abul K. M. Azad. **International Journal of Intelligent Control and Systems**. 6(3). September 2011. Pp. 182 – 190. <https://www.semanticscholar.org/paper/Deterministic-Mutation-Based-Algorithm-for-Model-in-SAMAD-Jamaluddin/150d6cb1ca2182d48eb44440b87b07bc44d7d11c>
-
- Neural Network Structural Optimization Using Elitist Non-dominated Sorting Genetic Algorithms (NSGA_II).s. Mohamad Reza Loghmanian. Robiah Ahmad and Hishamuddin Jamaluddin. **International Journal of Computer Sciences and Engineering Systems**. 5(3). July 2011. pp. 171 – 181. ISSN 0973-4406. <http://www.serialsjournals.com/serialjournalmanager/pdf/1330324704.pdf>
- Radial Basis Function (RBF) for Non-linear Dynamic System Identification. Robiah Ahmad and Hishamuddin Jamaluddin. **Jurnal Teknologi**. 36(A). Jun 2002. Pp. 39 – 54. <https://jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/561/551>
- Orthogonal Least Square Algorithm and Its Application for Modelling Suspension System. Robiah Ahmad and Hishamuddin Jamaluddin. **Jurnal Teknologi**. 34(A). Jun 2001. Pp. 71 – 84.

<https://jurnalteknologi.utm.my/index.php/jurnalteknologi/article/view/629>

- Biomechanical Study and Analysis on Human Motion using Piezoelectric Sensor for Scavenging Energy, Nurul Atailah and Robiah Ahmad. **Jurnal Mekanikal**. December 2010. No. 30. Pp 30 – 45.
<https://jurnalmekanikal.utm.my/index.php/jurnalmekanikal/article/view/101>

International Conferences / Proceedings

- Fadhilah Abdul Razak, Robiah Ahmad, Shamsul Sarip. An investigation of magnet parameters on the performance of dual piezoelectric fans (DPF) in electronics cooling system. **Proceedings of the 4th IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)**. 28-30 November 2017, Putrajaya, Malaysia
- Khairul Nizam Puniran, Robiah Ahmad, Shamsul Sarip. **Proceedings of the 4th IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA)**. 28-30 November 2017, Putrajaya, Malaysia
- Zainaf Abu Seman, Robiah Ahmad, Habibah@Norehan Haron. Module Intervention for Supporting Students Problem Solving Skills in Technical Vocational Education and Training. **Regional Conference in Engineering Education 2017**. 13 – 16 November 2017. Kuala Lumpur, Malaysia.
- Zainaf Abu Seman, Roselainya Abdul Rahman, Robiah Ahmad. Enhancing Students' Problem Solving Skills in Technical and Vocational Education and Training. **Regional Conference in Engineering Education 2016**. 10 August 2016. Kuala Lumpur, Malaysia.
- Ahmad Nizar Harun, Robiah Ahmad, Norliza Mohamed, 'WSN Application in LED Plant Factory Using Continuous Lighting (CL) Method', **IEEE Conference on Open Systems (ICOS2015)**, Melaka, Malaysia, 24-26 August, 2015.
- Nurul Syahirah Azmi, Robiah Ahmad, Rusli Ibrahim. Effect of LED lights, plant growth regulator and photoperiod on shoot production of in vitro propagated Rosa spp. **IEEE 2015 International Conference on Smart Sensors and Application (ICSSA)**. Kuala Lumpur Malaysia. 26-28 May 2015
- Ahmad Nizar Harun, Robiah Ahmad, Norliza Mohamed. Plant Growth Optimization using Variable Intensity and Far Red LED Treatment in Indoor Farming. **IEEE 2015 International Conference on Smart Sensors and Application (ICSSA)**. Kuala Lumpur Malaysia. 26-28 May 2015
- Hussain Zaidan, Robiah Ahmad, Normah Mohd Ghazali. Optimization of Multilayer Microchannel Heat Sink using Genetic Algorithm. **IEEE 2015 International Conference on Smart Sensors and Application (ICSSA)**. Kuala Lumpur Malaysia. 26-28 May 2015
- Zainaf Abu Seman, Roselainya Abdul Rahman, Robiah Ahmad. Identifying Students' Awareness and Difficulties in Acquiring Decision Making Skill for Engineering Technology Education. **International Conference on Society, Education and Psychology**. 10 -11 May 2014. Kuala Lumpur, Malaysia. DOI: 10.7763/IPEDR. 2014. V 78. 16. <http://www.ipedr.com/list-105-1.html>
- Zainaf Abu Seman, Roselainya Abdul Rahman, Robiah Ahmad. Understanding of Students' Problem Solving Approach and Challenges in Obtaining Problem Solving Skills. **5th International Graduate Conference on Engineering, Science and Humanity**. 19 -21 August 2014. University Teknologi Malaysia, Skudai. Johor.
- Nurul Syahirah Azmi, Robiah Ahmad, Rusli Ibrahim. Effects of Red and Blue (RB) LED on the in vitro Growth of Rosa Kordesii in Multiplication Phase. **2014 2nd International Conference on Agriculture and Biotechnology IPCBEE** vol. 79 (2014) © (2014) IACSIT Press, Singapore DOI: 10.7763/IPCBEE. 2014. V79. 4
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- Ahmad Nizar Harun, Robiah Ahmad, Norliza Mohamed. Far Red Flowering Control Treatment for Brassica Chinensis in Indoor Farming Utilizing Wireless Sensor Network. **14th International Conference on Robotics, Control and Manufacturing Technology (ROCOM '14)**. 23-25 April 2014. Kuala Lumpur, Malaysia.
- Robiah Ahmad, Md. Norazlan Md. Lazin, Saiful Farhan Mohd Samsuri. Parametric and Non-parametric Identification of Naturally Ventilation Tropical Greenhouse Climates. **14th International Conference on Robotics, Control and Manufacturing Technology (ROCOM '14)**. 23-25 April 2014. Kuala Lumpur, Malaysia.
- Mohd Zakimi Zakaria, Azuwir Mohd Nor, Hishamuddin Jamaluddin, Robiah Ahmad. Multi-Objective Optimization Using Differential Evolution for Modeling Automotive Palm Oil Biodiesel Engine. **14th International Conference on Robotics, Control and Manufacturing Technology (ROCOM '14)**. 23-25 April 2014. Kuala Lumpur, Malaysia.
- Hayfaa Abdulzahra, Robiah Ahmad, Norliza Mohd Noor. Combining Cryptography and Steganography for Data Hiding in Images. **13th International Conference on Applied Computer and Applied Computational Science (ACACOS '14)**. 23-25 April 2014. Kuala Lumpur, Malaysia

- Normah Mohd-Ghazali, Oh Jong-Taek, Nuyen Ba Chien, Kwang-Il Chi, Nor Atiqah Zolpakar, and Robiah Ahmad. Multiobjective Optimization of Microchannels with Experimental Convective Heat Transfer Coefficient of Liquid Ammonia. *The 27th international conference on industrial, engineering & other applications of applied intelligent systems (IEA/AIE)*. June 3-6, 2014. Kaohsiung, Taiwan
- Ashkan Memari, Abd Rahman Bin Abdul Rahim, Robiah Binti Ahmad. Production Planning and Inventory Control in Automotive Supply Chain Network. *The 27th international conference on industrial, engineering & other applications of applied intelligent systems (IEA/AIE)*. June 3-6, 2014. Kaohsiung, Taiwan
- Ahmad Nizar Harun, Nurul Najwa Ani, Robiah Ahmad, Nurul Syahirah Azmi. (2013) Red and Blue LED with Pulse Lighting Control for Brassica Chinensis. *2013 IEEE Conference on Open Systems (ICOS)*, Sarawak, Malaysia. 2-4 December 2013.
- Nurul Najwa Ani, Ahmad Nizar Harun, Saiful Farhan M. Samsuri and Robiah Ahmad. (2013) Effect of Red and Blue Lights on Photomorphogenesis in Brassica Chinensis. *2nd The Malaysia-Japan Academic Scholar Conference 2013 (MJASC 2013)*, Tokyo, Japan, 8-9 November 2013.
- Simultaneous Optimization of Four Parameters in the Stack of a Thermoacoustic Refrigerator, Nor Atiqah Zolpakar, Normah Mohd-Ghazali, Robiah Ahmad. *Proceedings of the 3rd International Conference of Saving Energy in Refrigeration and Air-Conditioning (ICSERA 2013)*, 23-24 October 2013, Yeosu, Korea
- PV/Thermal Progress: Research and Application. N. N. A. Rahim, Robiah Ahmad, Abd Rahman Abdul Rahim, . *Proceedings of the 3rd International Conference of Saving Energy in Refrigeration and Air-Conditioning (ICSERA 2013)*, 23-24 October 2013, Yeosu, Korea
- Optimized cooling of microchannels with gaseous ammonia, Normah Mohd-Ghazali, Robiah Ahmad, Ahmed M. Adham, *Proceedings of the 3rd International Conference of Saving Energy in Refrigeration and Air-Conditioning (ICSERA 2013)*, 23-24 October 2013, Yeosu, Korea
- Cooling of Microchannel Heat Sinks With Gaseous Coolants, Ahamed Adhm, Normah Mohd-Ghazali, Robiah Ahmad. *Procedia Engineering* 56 (2013) 337 – 343
- Ahmed Mohammed Adham, Normah Mohd-Ghazali and Robiah Ahmad. Multi-objective Optimization Algorithms for Microchannel Heat Sink Design. *The 26th international conference on industrial, engineering & other applications of applied intelligent systems (IEA/AIE)*. 17-21 June 2013. Amsterdam, The Netherlands.

Proceedings 2012 and Below

- Hourly Reference Evapotranspiration Modeling by using System Identification and Differential Evolution Approach in Southern Peninsular of Malaysia, Mohd Zakimi Zakaria, Hishamuddin Jamaluddin, Robiah Ahmad and Saiful Farhan Mohd Samsuri, *2nd International Malaysia-Ireland Joint Symposium on Engineering, Science and Business (IMiEJS)*, 18-20 June 2012, Putra World Trade Center Kuala Lumpur, Malaysia.
- Evapotranspiration prediction using system identification and genetic algorithm, Robiah Ahmad, Saiful Farhan Mohd Samsuri, Mohd Zakimi Zakaria, *Proceedings of the IASTED Asian Conference Modelling, Identification, and Control (AsiaMIC 2012)*, April 2 - 4, 2012 Phuket, Thailand. Scopus, DOI: 10.2316/P.2012.769-053
- Optimization of microchannel heat sink with rectangular cross section using multi-objective genetic algorithm. Ahamed Adhm, Normah Mohd-Ghazali, Robiah Ahmad. *4th Int. Meeting of Advances in Thermofluids (IMAT)*. 3 – 4 October 2011, Melaka, Malaysia
- Development of Energy Harvesting Device using Piezoelectric Material. Mohd. Hanipah Hashim and Robiah Ahmad. *Fourth international Conference on Modeling, Simulation and Applied Optimization (IEEE)*. 19-21 April 2011, Kuala Lumpur. Scopus
- Effects of Genetic Algorithm Parameters on Multiobjective Optimization Algorithm Applied to System Identification Problem. Mohd Zakimi Zakaria, Hishamuddin Jamaluddin and Robiah Ahmad. *Fourth international Conference on Modeling, Simulation and Applied Optimization (IEEE)*. 19-21 April 2011, Kuala Lumpur. Scopus

9. Intellectual Property

- Copyright No. LY2017001965. Modified Algorithm for Model Structure Selection in System identification

10. Awards

- a) **Bronze**, Hari Inovasi Nuklear Malaysia, 16-17 November 2017
- b) **Anugerah Penulis Dalam Jurnal Berindeks**, Citra Karisma UTM 2017

- c) **Most Cited Papers** Award 2014-2016 for Journal Applied Thermal Engineering, ELSEVIER. IF: 3.444 for 2016.
- d) **Silver Medal**, Malaysia Technology Exposition (MTE) 2014
- e) **University Staff Excellent Award**, 2005 and 2013
- f) International MyTRIZ Competition, **Merit Prize Awards** 2013
- g) **Bronze**, 15th Industrial Art and Technology Exhibition (INATEX) 2013

11. Supervision – Professional Development Research University (PDRU)

No.	Name	Title	Grant No.	Duration	Outputs
1	Ashkan Memari, PhD	A tuned NSGA-II for Optimizing JIT Distribution Networks	Q.J130000.21A2.03 E46	1 January 2017-31 December 2017	2 Q2 papers
2	Ashkan Memari, PhD	An optimisation model of oil palm biomass supply chain for sustainable power generation in Malaysia	Q.J130000.21A2.04 E15	2 February 2018 -31 December 2019	5 Q1/Q2 papers

12. Supervision (By Research - Graduated)

No.	Name	Title	PhD / EngD / MPhil	Graduated
1	Ahmad Nizar Harun	Effects of Light Emitting Diodes parameters on plant growth of Bracissca Chinensis using improved Internet of Things Platform	PhD (Main)	14 February 2018
2	Qais Abid Yousif	Minimization of the Two-phase Frictional Pressure Drop in Small Channel with Environmentally Friendly Refrigerant	PhD (Co-SV)	21 March 2018
3	Hayfaa Abdulzahra Atee	Extreme learning machine (ELM) based cryptography and steganography systems	PhD (Main)	4 July 2017
4	Nor Atiqah Zolpakar	Optimization of Thermoacoustic Refrigerator with Genetic Algorithm	PhD (Co-SV)	16 January 2017
5	Ashkan Memari	Bi-Objective optimization model for a carbon cap Just-In-Time Distribution Network	PhD (Co-SV)	7 April 2016
6	Nurul Syahirah Azmi	In vitro enhancement of roses shoot multiplication using selected LED light	MPhil (Main)	7 April 2016
7	Nurul Najwa Ani	Characterization of light emitting diode on plant growth and photomorphogenesis in Brassica chinensis	MPhil (Main)	9 November 2015
8	Mohd Zakimi bin Zakaria	Multi-objective model structure optimization using differential evolution for dynamic systems modelling	PhD (Co-SV)	19 July 2013
9	Ahmad Mohammed Adham	Optimization of an ammonia-cooled rectangular microchannel heat sink using genetic algorithm	PhD (Co-SV)	13 March 2013
10	Saiful Farhan Mohd Samsuri	Modeling of environmental climates inside naturally ventilated tropical greenhouse	MPhil (Main)	6 July 2011
11	Md. Fahmi Abd. Samad@Mahmod	Evolutionary computation for model structure selection in system identification	PhD (Co-SV)	8 July 2009

8. Supervision (PhD and Master By Research – On-going)

No.	Name	Title	PhD / EngD / MPhil	Status Active
1	Zuriati Janin	Modified PID control structure for glycerin bleaching process	PhD	Semester 2/16

2	Fadhilah Abdul Razak	Optimization of Integrated Radial Piezoelectric Fan with Magnetic Fan for Electronic Cooling System	PhD	Semester 7/16
3	Khairul Nizam Puniran	A Multi-Source with Co-Channel Interference Assisted on Decode-and-Forward Relaying Network via RF Energy Harvesting.	EngD	Semester 8/16 – Thesis Submission Notice
4	Birowo	Starting current reduction of vector control based synchronous motor using genetic algorithm	PhD	Semester 8/16
7	Sh Zainaf Wan Abu Seman	An integration of final year project and theory of inventive problem solving to enhance students' problem solving skills	PhD	Semester 12/16 – Thesis Submission Notice
8	Saiful Farhan Mohd Samsuri	Multiobjective model structure optimization for multivariable modeling of dynamic system	PhD	Semester 13/16
9	Naurah Jasmin Sahid	Thermal Performance for Integrated Piezoelectric and Magnetic Fans for Electronic Cooling	MPhil	Semester 3/8
11	Hussein Abd Zaidan	Optimization of a stacked microchannel heat sink using thermal resistance model with genetic algorithm	PhD (Co-SV)	Passed Viva and Correction Thesis

9. Supervision (Master by Taught Course)

No.	Name	Title	Program	Graduated
1	Muhammad Budiman Che Omar, FKM	Modeling of human motion through motion captured data using non-linear identification	MSc. Mechanical Engineering	December 2007
2	Hafizi Lukman	Estimation in Spot Welding Parameters Using Genetic Algorithm	MSc. Mechanical Engineering	1 January 2018
3	Md. Norazlan Md. Lazin @Md. Lazim, FKM	Natural Ventilation Greenhouse (NVTG) Modeling and Simulation	MSc. Mechanical Engineering	22 May 2010
4	Mohd Hanifah bin Hashim, FKM	Development of Energy Harvesting Device using Piezoelectric Material	MSc. Mechanical Engineering	20 December 2010
5	Azida Mohamed Burhan, Warwick University, UK	Improvement on Service Design and Delivery for Unifi	MSc. Engineering Business Management	March 2012
6	Hedwin A/L Michael	Safety Awareness Among Sub-Contractors in HM Builders Sdn. Bhd.	Executive Master Occupational Safety and Health	2 October 2013
7	Mohd Suhaimi Abdul Razak		Executive Master Occupational Safety and Health	12 February 2014
8	Raja Mohd Kamal Raja Zulkifli	Tool for Monitoring Procurement Process for Performance Measurement	Executive Master Occupational Safety and Health	12 February 2014
9	Muhammad Fairuz Razali	A Study on Changes in Transitioning into Agile Methodology in Software Development Projects	MSc. Engineering Business Management	18 February 2015
10	Saiful Tarmaji	Penambahbaikan Risiko Ergonomik Semasa Aktiviti Tarik Kable di Tapak Pembinaan	Executive Master Occupational Safety and Health	5 August 2015

11	Mohamad Tarmizi Ismail	Determining Issues and Analyzing Strategies on Electrical Power Distribution System and Reliability in Rural Area	MSc. Engineering Business Management	15 February 2016
12	'Alya binti Mazlan	Preventing Musculoskeletal Disorders Among Hotel Housekeepers in Klang Valley Area	Executive Master Occupational Safety and Health	15 February 2016
13	Muhamad Zakuan Abdullah	Fire Action Plan in Pusrawi International College of Medical Sciences (PICOMS)	Executive Master Occupational Safety and Health	3 August 2016
14	Nurul Nadia Matdiah	Chemical Hazards in a Secondary School Laboratory	Executive Master Occupational Safety and Health	3 August 2016
11	Nurul Syarafina binti Shahrir	Flood Disaster Prediction Model in Kuala Kangsar Perak	MSc. System Engineering	3 August 2016
12	Lim Mei Ling	Gender Diversity Towards Organizational effectiveness in An Oil And gas Company	MSc. Engineering Business Management	1 March 2017

10. Bachelor of Engineering (Mechanical Engineering)

- 41 Projects Supervision

11. Examiners Post-graduate Research Students

No.	Name	Title	Date	PhD / MPhil	Internal / External
1	Hayati Mukti Asih	Capacity Planning for Mixed-load Tester under Demand and Testing Time Uncertainty	30 April 2018	PhD	External
2	Noor Fadhilah Mat Ros	Parametric identification of flexible beam system using evolutionary algorithm	5 February 2018	MPhil	External
3	Nima Fouladi Nejad	Towards realism in an intelligent agent's driving behavior	8 December 2017	PhD	Internal
4	Muhamad Shukri Hadi	Intelligent vibration controller using evolutionary swarm algorithm for flexible structures	30 August 2017	PhD	Internal
5	Abdulkarim Kadhim Ilijan	Flexible Multi-Objective Optimization Framework for Message Scheduling in ISA100.11a	9 August 2017	PhD	Internal
6	Isaac Lim Sing Seng	Development of a TRIZ Based Design Methodology for Innovative Eco-Efficient Products	21 July 2017	PhD	External-Monash University
7	Mohd Ismifaizul Mohd Ismail	Vibration detection of leaks in water pipelines using wireless three-axis accelerometer sensors	1 March 2017	MPhil	Internal
8	Faizir Ramlie	Characterization Of Bee Algorithm Into The Mahalobis_Tagichi System For Classification	1 December 2016	PhD	Internal
9	Zahriah Sahri	Fault Diagnosis of Power Transformer using Dissolved Gas Analysis Datasets with Missing Values	9 November 2016	PhD	Internal
10	Noraishikin Zulkarnain	Improving Vehicle Ride And Handling Using Novel Control Strategy For An Active Anti-Roll Bar System	29 October 2015	PhD	Internal

11	Siti Rusyida binti Rohim	The relationship between neck muscle strength and duration of computer work among women employees	23 May 2015	MPhil	External - UM
12	Hayati Mukti Asih	Improving mixed-load machine utilization and optimizing batch size using hybrid simulation approach	6 March 2014	MPhil	External - UTeM
13	Lim Ke Sin	WIP Control in the semiconductor industry	6 May 2014	MPhil	External - UTeM
14	Siti Marsilawati Mohamed Esivan	Prediction of Lactic Acid Concentration Using Artificial Neural Network	21 October 2011	MPhil	Internal
15	Cheah Hun Wah	Improvement of Intel Penang Mask Design Engineering Business Operation Through Total Quality Management	30 March 2011	MEBM, Warwick University	Internal
16	Amin Noshadi	Intelligent Active Force Control of 3-RRR Planar Parallel Manipulator	9 February 2011	MPhil	Internal
17	Ali Abdulhussain Madloom Al-Khafaji	System Identification of Flexible Plate Structure for Development of Vibration Control Algorithm	October 2010	MPhil	Internal

12. Post Graduate Examination

- Chairman of MPhil Viva Panels for Zati Hazira. 27 November 2014
- Chairman of MPhil Viva Panels for Mohd Hanif Mat Noor. 13 August 2015
- Chairman of MPhil Viva Panels for Mohd. Helmi Md .Yusof
- Chairman of the MPhil Viva Panels for Nurhanis Mohd Sharif. 4 November 2016

13. Subjects Taught

UTM Razak School (2010 - present)

Undergraduate

SME 1203 Statics
SME 1213 Dynamics
SRI 3205 Industrial Design 6
SMJE 3153 Control Engineering
SMJE 4243 Control Systems Design (MJIIT)

Postgraduate

MRSL 1113 Systems Engineering and Analysis
MDE 1914 Research Methodology
MDE 2453 Supply Chain Management
MDE/MRSE 2183 Special Topics - System Engineering
MANN 1013 System Engineering
UDP/ULP/URSP 0010 Research Methodology
URSP 0013/MDE 1914 Research Methodology

Mechanical Engineering Faculty, Skudai (1990 - 2010)

Undergraduate

SME 1203 - Statics
SME 1213 - Dynamics
SME 3242 - Instrumentation
SME 3233 - Control Engineering
SME 3252 - Mechatronics

Postgraduate

MMJ 1223 - Instrumentation, Measurement and Control

14. Committee and Special Assignment

International Level

- Vice-Chair, IEEE International Conference on Smart Instrumentations, Measurement and Applications (ICSIMA 2018), 28 – 30 November 2018, Songkla, Thailand
- Chair, International Conference on Smart Sensors and Applications (ICSSA 2018), 24 – 26 July 2018, Kuching, Sarawak, Malaysia
- Chair, IEEE International Conference on Smart Sensors and Applications (ICSSA 2015), 26 – 28 May 2015, Kuala Lumpur, Malaysia

National Level

- Chair, IEEE Instrumentation and Measurement Society Malaysia Chapter 2018-current
- Treasurer, IEEE Instrumentation and Measurement Society Malaysia Chapter 2016-2017

University Level

- Member, Senate for JKTS Research and Innovation
- Internal Auditor for Self-Accreditation UTM

Faculty Level

- Task Force, Innovation and Commercialization UTM Razak School
- Task Force MyRA II Audit Documentation UTM Razak School
- Pengerusi OSHE Fakulti

Special Assignment

- Judge for Final Year Project (FYP) Seminar, Kuliyyah of Engineering, International Islamic University Malaysia. 22 May 2018 and 26 January 2016
- Internal Auditor. Diploma in Electrical Engineering (Mechatronics). Pusat Pengajian Diploma SPACE, UTM
- Internal Auditor and Validation. Program Kerjasama UTM. Kolej Pahang Skills Development Centre, 27 March 2017.
- Internal Auditor. Dokumen Audit Pemantauan. Program Ijazah Sarjana Muda Teknologi serta Pendidikan (Kejuruteraan Mekanikal), Fakulti Pendidikan, UTM, April 2015
- Penilai Luar Kenaikan Pangkat Jawatan Professor Madya Dr Fahmi UTeM

15. Professional Courses Attended

Name of course	Organizer	Venue	Date
Patent Search and Patent Drafting Workshop	ICC UTM Razak School and Mark & Clerks (Malaysia)	UTM Kuala Lumpur	5-6 September 2017
Patent Drafting Workshop	MINDS and Platcom	Thotbox Training Center, PJ	27 July 2016
TRIZ Level 3	MyTRIZ, MDeC, INTEL		
TRIZ for Instructor	MyTRIZ, MDeC, INTEL	Cyberjaya	6-7 December 2012
TRIZ Level 2 Practitioner	MyTRIZ, MDeC, INTEL		
TRIZ Level 1 Practitioner	MyTRIZ, MDeC, INTEL		
SRI International's Venture Plan Essentials Boot Camp (5 days)	SRI International and UTM	Renaissance Hotel, Bangi	15 – 19 April 2013
Real-time control design (From modeling to implementation)	Solutions 4U and FKE UTeM	UTeM	30-31 October 2012
Professional Development Programme on Wireless Sensor and Actuator Network	TEKBAC Australia PTY LTD	Royale Bindatng Hotel, KL	11-12 August 2008

16. Subjects