

Kamarul Hawari bin Ghazali

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Curriculum Vitae



PERSONAL IDENTITY

Name : Kamarul Hawari bin Ghazali
Sex : Male
Place/Date of Birth : Batang Kali/ September 9, 1973
Office Address : Faculty of Electrical and Electronics Engineering, Universiti Malaysia Pahang, Pekan, 25200
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EDUCATIONAL BACKGROUND

- **2005 - 2009** PHD in Electrical, Electronic and System, Universiti Kebangsaan Malaysia (UKM)
- **2002- 2003** Master in Electrical and Electronic Engineering, Universiti Teknologi Malaysia (UTM)
- **1991 - 1995** Bachelor in Electrical Engineering, Universiti Teknologi Malaysia (UTM)

CAREER HISTORY

- 1995 - 1998: Engineer, Time Cel Sdn. Bhd (subsidiary of TIME Engineering)
- 1998 - 2001: Lecturer, Institut Teknologi Perindustrian, Kumpulan Pendidikan Yayasan Pelajaran Johor (IPTS)

- 2001 - 2002: Lecturer, Politeknik Johor Bahru, Jalan Kongkong Masai, Johor
- 2002 - 2009: Lecturer at Faculty of Electrical and Electronics Engineering, Universiti Malaysia Pahang
- 2010 – 2012: Deputy Dean Research and Postgraduate Studies, Faculty of Electrical and Electronics Engineering, Universiti Malaysia Pahang
- Feb 2014 till present:
Dean of Faculty of Electrical and Electronics Engineering, Universiti Malaysia Pahang
- 1 March 2017 till present:
Professor at Faculty of Electrical and Electronic Engineering, UMP

CURRENT POSITION

- **Professor and Dean** - Faculty of Electrical and Electronics Engineering

FIELD OF SPECIALIZATION

- Machine Vision System, Image Processing, Signal Processing, Intelligent System, Vision Control, Computer Control System, Thermal Imaging Analysis (in all related applications - Electrical, Medical, Environment) and Computer Engineering

PROFESSIONAL MEMBERSHIP

- Professional Engineer (Ir) Board of Engineer Malaysia
- Corporate Member of IEM
- Member of Board of Engineer Malaysia
- Senior Member Universal Association of Computer and Electronics Engineers, UACEE (SNM1004374)
- Senior Member IEEE (SMIEEE)
- Member of IEEE Communications Society Chapter
- Member of The Institute of Engineering and Technology (IET) Malaysia

LIST OF JOURNAL PUBLICATIONS

1. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'Machine Vision System for Automatic Weeding Strategy using Image Processing Technique', American-Eurasian Journal of Agricultural & Environmental Science, ISSN : 1818 - 6769, (3): 451-458, 2008
2. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain, Saifudin Razali**, 'Scale Invariant Feature Transform Technique for Weed Classification in Oil Palm Plantation', Journal of Applied Sciences, 8(7), 1179-1187, 2008
3. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'Weed Classification for Automatic Weeding Strategy: A Comparison of Two Image Processing Techniques', International Journal of Soft Computing Applications, Issue 2 (2008), pp.62-68
4. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'Implementation of Feature Extraction Technique from Gray Level Co-Occurrence Matrix to Classify Narrow and Broad Weed in Oil Palm Plantation', European Journal of Scientific Research, Vol 20, no.1, pp.68-75, 2008
5. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'Machine Vision System for Automatic Weeding Strategy in Oil Palm Plantation using Image Filtering Technique' International Journal of Electrical and Electronics Engineering, pp. 193-197, 2009
6. **Kamarul Hawari Ghazali, Jie Ma, Rui Xiao**, 'An innovative Face Detection Based on Skin Color Segmentation', International Journal of Computer Application, Volume 34 - Number 2, pp. 6-10, October 2011

7. **Kamarul Hawari Bin Ghazali**, Rui Xiao, Jie Ma, 'An Intelligent Lane Markers Recognition And Localization System Using Improved Hough Transform', Journal of Applied Mechanics and Materials, (Volumes 121 - 126), pp. 1186-1190, October 2011
8. **Kamarul Hawari Bin Ghazali**, Jie Ma, Rui Xiao, 'Multi-Angle Face Detection Using Back Propagation Neural Network', Journal of Applied Mechanics and Materials, (Volumes 121 - 126), pp. 2411-2415, October 2011
9. Shuhairie Mohammad, **Kamarul Hawari Ghazali**, Nazriyah Che Zan, Siti Sofiah Mohd Radzi, Rohana Abdul Karim, 'Classification of Fresh N36 Pineapple Crop Using Image Processing Technique', Advanced Materials Research (Volumes 418 - 420), pp 1739-1743, December, 2011
10. Ahmed M. A. Haidar, **Kamarul Hawari** and Faisal A. F. Ibrahim², 'Electrical Defect Detection in Thermal Image', Advanced Materials Research, ISSN: 1022-6680 , (Volumes 433 - 440), pp. 3366-3370, January, 2012
11. M. N. A. Zohari, M. Z. Mohd Tumari, M. S. Saealal, **K.H. Ghazali** and M.S. Ramli 'Practical Sway Motion Control For Double Pendulum-Type Overhead Crane System', International Journal On Smart Sensing And Intelligent Systems, volumes. 5, no. 2, pp. 362-381, June 2012
12. M.Z. Mohd Tumari , M.S. Saealal , **K.H. Ghazali** and M.R. Ghazali, 'Comparative Study of Input Shaping with Different Polarities and Modes Selection in Hybrid Control Schemes of a DPTOC System', International Journal of Signal System Control and Engineering Application, Year: 2012, Volume: 5, Issue: 1, page no.: 5-13
13. R.S.K. Selvakumar, **K.H. Ghazali**, N.M.K. Yusoff, 'Framework of Multi-Microcontroller Evaluation Tool for a use of Academic Environment', International Journal of Advance Computer Science, September 2012, Volume 2, Issue 7

14. Asiegbu, G., Haidar, A. M. & **Hawari, K.** (2012). Non-destructive defect detection on electrical equipment using thermographic technology. *International Review on Computers and Software*, 7 (3), 919-927.
15. Geoffrey O. Asiegbu, Ahmed M. A. Haidar, **Kamarul Hawari**, 'A Review of Defect Detection on Electrical Components Using Image Processing Technology', *Proceedings of the Fourth International Conference on Signal and Image Processing 2012 (ICSIP 2012)*, Lecture Notes in Electrical Engineering Volume 221, 2013, pp 247-255
16. **Kamarul H. Ghazali**, Raafat Salih Hadi Alsameraai, Zeehaida Mohamed, 'Automated System for Diagnosis Intestinal Parasites by Computerized Image Analysis', *Modern Applied Science*, Vol 7, No 5 (2013)
17. G. O. Asiegbu, A. M. A. Haidar & **K. Hawari**, 'Thermal Defect Analysis on Distribution Transformer Using a RLC Network and Thermography,' *Circuits and Systems*, vol. 4, pp. 52-60, 2013.
18. **Kamarul Hawari Bin Ghazali**, Jie Ma, Rui Xiao, 'Driver's Face Tracking Based on Improved CAMShift', *International Journal of Image, Graphics and Signal Processing*, ISSN 2074-9074, Volume: 5; Issue: 1, 2013
19. Raafat Salih Hadi and Zulkeflee, Kalidin and **Kamarul Hawari, Ghazali** and Zeehaida, Mohamed, 'Automated Fecal Parasite Detection System,' *American Journal of Scientific Research*, Issue 87. pp. 87-96. ISSN 2301-2005, (2013)
20. Kian Sheng Lim, Zuwairie Ibrahim, Salinda Buyamin, Anita Ahmad, Faradila Naim, **Kamarul Hawari Ghazali**, and Norrima Mokhtar, 'Improving Vector Evaluated Particle Swarm Optimisation by Incorporating Nondominated Solutions', *The Scientific World Journal*, Volume 2013, Article ID 510763

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22. Muhammad Lazim Talib, Xio Rui, **Kamarul Hawari Ghazali**, Norulzahrah Mohd Zainuddin, Suzaimah Ramli, 'Comparison of Edge Detection Technique for Lane Analysis by Improved Hough Transform', IVIC 2013, LNCS 8237, pp. 176-183, (2013), Springer International, Publishing Switzerland
23. Sharmiza Kamaruddin, Sunardi, **Kamarul Hawari**, 'Canned Pineapple Grading Using Colour Analysis', International Journal on Latest Trends in Electronics and Electrical Engineering (IISRO Journal), Volume 1 Issue 1 2013, pp 118-122
24. Najmi Hafizi Bin Zabawi, Sunardi, **Kamarul Hawari Ghazali**, 'Parking Lot Detection Using Image Processing Method', International Journal on Latest Trends in Electronics and Electrical Engineering (IISRO Journal), Volume 1 Issue 1 2013, pp 123-128
25. Jie Ma, Rui Xiao, **Kamarul Hawari Bin GHazali**, 'Drivers face Tracking Based on Improved CAMShift for Drowsiness Detection', Applied Mathematics & Information Sciences Letters - An International Journal, Vol. 1, No. 1 (Jan. 2013), PP:19-27
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27. **Ghazali, K. H.**; Hadi, R. S.; Zeehaida, M., 'Comparison of Image Pre-Processing Approach for Classification of Intestinal Parasite Ascaris Lumbricoides Ova and Trichuris Trichiura Ova', Advanced Science Letters, Volume 20, Number 1, January 2014 , pp. 116-119(4), Publisher: American Scientific Publishers

28. A.S.N. Huda, S. Taib, **K.H. Ghazali**, M.S. Jadin, 'A new thermographic NDT for condition monitoring of electrical components using ANN with confidence level analysis', ISA Transaction, March 2014
29. Badaruddin Muhammad, Zuwairie Ibrahim, **Kamarul Hawari Ghazali**, Mohd Riduwan Ghazali, 'Performance Evaluation of Vector Evaluated Gravitational Search Algorithms Based on ZDT Test Functions', International Journal of Simulation Systems, Science & Technology, Volume 15, Number 1, Feb 2014
30. **K. H. Ghazali**, M. S. Jadin, M. Jie, and R. Xiao, "Novel automatic eye detection and tracking algorithm," Optics and Lasers in Engineering, vol. 67, pp. 49–56, Apr. 2015
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35. **Kamarul Hawari, Ghazali** and Zuwairie, Ibrahim and Faradila, Naim and Kian, Sheng Lim and Salinda, Buyamin and Anita, Ahmad and Sophan Wahyudi, Nawawi and Norrima, Mokhtar (2015), 'An Improved VEPSO Algorithm for Multi-objective Optimisation Problems', In: The Malaysia-Japan Model on Technology Partnership. Springer, Japan, pp. 253-263. ISBN 978-4-431-54438-8 (print); 978-4-431-54439-5 (online)
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39. Norliana Khamisan, **Kamarul Hawari Ghazali** and Aufa Huda Muhammad Zin, 'A THERMOGRAPH IMAGE EXTRACTION BASED ON COLOR FEATURES FOR INDUCTION MOTOR BEARING FAULT DIAGNOSIS MONITORING', ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO. 21, NOVEMBER 2015, ISSN 1819-6608

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41. Wan Nur Azhani W. Samsudin and **Kamarul Hawari Ghazali**, 'ABNORMALITY DETECTION AND LOCALIZATION USING MODIFIED SFM', ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO. 22, DECEMBER, 2015, ISSN 1819-6608, pp 17127 - 17131
42. Badaruddin Muhammad , Zuwairie Ibrahim , **Kamarul Hawari Ghazali** , Kamil Zakwan Mohd Azmi , Nor Azlina Ab Aziz , Nor Hidayati Abd Aziz, and Mohd Saberi Mohamad, 'A NEW HYBRID SIMULATED KALMAN FILTER AND PARTICLE SWARM OPTIMIZATION FOR CONTINUOUS NUMERICAL OPTIMIZATION PROBLEMS', ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO. 22, DECEMBER, 2015, ISSN 1819-6608, pp 17171 - 17176
43. M. F. Rabbi and **Kamarul Hawari Bin Ghazali**, 'ON THE COOPERATIVE AND DOPPLER DIVERSITY FOR AMPLIFY-ANDFORWARD RELAY NETWORK', ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO. 19, OCTOBER 2015, ISSN 1819-6608, pp 9048 - 9054
44. Ali Kareem Nahar, **Kamarul H Bin Gazali**, 'PAPR Reduction Based on Proposed Rotating Phase Shift Technique in MC-CDMA Using FPGA', International Journal of Communications, Network and System Sciences 8(7) (Jul 2015): 249-259.
45. Ali Kareem Nahar, and **Kamarul H. Bin Gazali**, 'LOCAL SEARCH PARTICLE SWARM OPTIMIZATION ALGORITHM CHANNEL ESTIMATION BASED ON MC-

CDMA SYSTEM', ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO 20, NOVEMBER, 2015, pp 9659-9667

46. Muhamad Faruqi Zahari, Thommy Anak Julius, Fathimah Abdul Halim, Muhammad Sharfi Najib, **Kamarul Hawari Ghazali**, and Abd. Aziz Mohd Azoddein, 'Intelligent Classification Hazardous Gas Using Sensors Array', Journal of Advance in Information Technology, Vol. 6, No. 4, pp. 233-237, November, 2015. doi: 10.12720/jait.6.4.233-237
47. Aufa Zin, **Kamarul Hawari** and Norliana Khamisan, "Early Detection of Spots High Water Saturation for Landslide Prediction Using Thermal Imaging Analysis", International Journal of Environmental Science and Development, Vol. 7, No. 1, January 2016, pp 41-45
48. M. Fazle Rabbi and **Kamarul Hawari Bin Ghazali**, CHANNEL ESTIMATION FOR AMPLIFY-AND-FORWARD RELAY, NETWORK IN HIGH DOPPLER SPREAD, ARPN Journal of Engineering and Applied Sciences, VOL. 11, NO. 7, APRIL 2016, pp 4847 - 4853
49. *Norulzahrah M. Zainudin, Suzaimah Ramli, **Kamarul H. Ghazali**, M. Lazim Talib, and Nor Asiakin Hasbullah*, 'A Study on Implementing Physiology-Based Approach and Optical Flow Algorithm to Thermal Screening System for Flu Detection', IJIEE 2015 Vol.5(1): 31-34 ISSN: 2010-3719, DOI: 10.7763/IJIEE.2015.V5.496
50. Muhamad Faruqi Zahari, Muhammad Sharfi Najib, **Kamarul Hawari Ghazali**, Mohd Razali Daud, Fathimah Abdul Halim, Abd. Aziz Mohd Azoddein, 'Classification of Ammonia in water for Oil and Gas Industry using Case Based Reasoning (CBR)', JEECIE, Vol. 1, No. 7. Jan 2016, pp 35-38

51. N. Sulaiman, A. F. Razali , M. S. Jadin, A. Abdul Hadi, M. Mustafa, and **K. H. Ghazali**, 'Development of Online Vehicle Plate Recognition System', JEECIE, Vol. 1, No. 6, Jan 2016, pp 30-34
52. Muhamad Faruqi Zahari, Muhammad Sharfi Najib, Wan Muhamad Azmi Mamat, **Kamarul Hawari Ghazali**, Fathimah Abdul Halim, Saiful Nizam Tajuddin, Erny Haslina Abd Latib, 'Gaharu Sensor: Classification Using Case Based Reasoning (CBR)', JEECIE, Vol. 1, No. 8, Jan 2016, pp 38-41
53. Fathimah Abdul Halim, Muhammad Sharfi Najib, **Kamarul Hawari Ghazali**, 'Classification of Ammonia Odor-profile Using k-NN Technique', JEECIE, Vol. 1, No. 9, Jan 2016, pp 42-46
54. Tasriva Sikandar and Kamarul Hawari Ghazali, 'A Review on Human Motion Detection Techniques for ATM-CCTV Surveillance System', Int'l Journal of Computing, Communications & Instrumentation Engg. (IJCCIE) Vol. 3, Issue 2 (2016) ISSN 2349-1469 EISSN 2349-1477

CONFERENCE PROCEEDING

1. **Kamarul Hawari Ghazali**, Mohd. Marzuki Mustafa, Aini Hussain, Asnor Juraiza Ishak, 'Texture Classification Using Contrast and Regularity Technique for Narrow and Broad Weed Discrimination', International Conference on Man-Machine Systems 2006, Langkawi Malaysia, Friday, 15 September 2006
2. Asnor Juraiza Ishak, Mohd Marzuki Mustafa, Aini Hussain and **Kamarul Hawari Ghazali**. 'A Comparison of Grey Level Co-occurrence Matrix and Histogram Techniques using Neural Network for Automatic Weed Detection', ICoMMS-073 International Conference on MAN-MACHINE SYSTEMS KUKUM, 15-16 September 2006

3. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'FFT Based Feature Extraction of RGB Images for Weed Classification' 1st International Conference On Control, Instrumentation And Mechatronics, Johor Bharu. pp: 702-706, 28th - 29th May 2007
4. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'Feature Extraction Technique Using SIFT Keypoint Descriptors', International Conference on Electrical Engineering and Informatics, Bandung Indonesia. pp: 740-744 June 17 – 19, 2007
5. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, 'Color Image Processing of Weed Classification: A comparison of two Feature Extraction Technique', International Conference on Electrical Engineering and Informatics, Bandung Indonesia. pp: 607-610 June 17 – 19, 2007
6. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain, Siti Nur Hafizah Mohd Zaid**, 'Narrow and Broad Weed Classification Using Scale Invariant Features Transform', China Ireland International Conference on Information and Communications Technologies, Dublin, Ireland. pp: 239-246 August 28th-29th 2007
7. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain**, Object Classification using Scale Invariant Feature Transform, International Conference on Engineering, Applied Sciences, and Technology, Bangkok Thailand, November 21-23, 2007
8. **Kamarul Hawari Ghazali, Mohd. Marzuki Mustafa, Aini Hussain, Slamet Riyadi**, 'Development of Real Time Machine Vision System for Automated Weeding Strategy in Oil Palm Plantation' International Conference on Robotic, Vision, Information and Signal Processing, 28-30 November 2007, Penang, Malaysia. pp: 610-614

9. **Kamarul Hawari Ghazali**, Mohd Fais Mansor, Mohd. Marzuki Mustafa and Aini Hussain, 'Feature Extraction Technique using Discrete Wavelet Transform for Image Classification', The 5th Student Conference on Research and Development –SCOReD 200711-12 December 2007, Malaysia
10. **Kamarul Hawari Ghazali**, Siti Salasiah Mokri, Mohd. Marzuki Mustafa and Aini Hussain, 'Implementation of Robust SIFT-C Technique for Image Classification' The 5th Student Conference on Research and Development –SCOReD 200711-12 December 2007, Malaysia
11. Mohd. Marzuki Mustafa, Aini Hussain, **Kamarul Hawari Ghazali**, Slamet Riyadi, 'Implementation of Image Processing Technique in Real Time Vision System for Automatic Weeding Strategy', The 7th IEEE International Symposium on Signal Processing and Information Technology, Egypt December 15-18, 2007, Cairo, Egypt
12. **Kamarul Hawari Ghazali**, Mohd. Marzuki Mustafa, and Aini Hussain, 'Machine Vision System for Automatic Weeding Strategy in Oil Palm Plantation using Image Filtering Technique', Proceedings Of World Academy Of Science, Engineering And Technology Volume 31 July 2008 ISSN 1307-6884, Vienna Austria
13. **Kamarul Hawari Ghazali**, Mohd. Marzuki Mustafa and Aini Hussain, 'Image Classification using Two Dimensional Discrete Wavelet Transform', International Conference on Instrumentation, Control & Automation, ICA2009, October 20-22, 2009, Bandung, Indonesia
14. **Kamarul Hawari Ghazali**, Rosdiyana Samad, Nurul Wahidah Arshad, Rohana Abdul Karim, 'Image Processing Analysis of Oil Palm Fruits for Automatic Grading', International Conference on Instrumentation, Control & Automation, ICA2009, October 20-22, 2009, Bandung, Indonesia

15. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'A New Development of Multi-application of Micro-controller through educational Training Systems', Malaysian Technical Universities Conference on Engineering and Technology 2009 (MUCEET'09)
16. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'MCS51® Educational Development System with IDE Approach', International Conference on Software Engineering and Computer Science 2009 (ICSECS'09)
17. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'Designing A Modular-Approach Of Multi-Microcontroller Based Educational Training System With IDE', National Conference On Postgraduate Research (NCON-PGR) 2009
18. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'Designing of Multi-Microcontroller Training System', 2nd International Conference on Electronic Computer Technology (ICECT 2010)
19. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'Designing of a Multi-Microcontroller Hardware Platform for Academic Environment: The UMP-EVT', Malaysian Technical Universities Conference on Engineering and Technology 2010 (MUCET 2010)
20. *Bakar, M.S.; Rahim, N.A.; Ghazali, K.H.*; 'Analysis Of Various PWM Controls On Single-Phase Z- Source Inverter Research And Development' (SCOREd), 2010 IEEE Student Conference on Research and Development, SCORED.2010.5704051 Publication Year: 2010 , Page(s): 448 - 451 IEEE CONFERENCES (SCOPUS) (SCOPUS-Cited Publication)
21. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'MINI 11 – Microcontroller Laboratory Hardware Platform with IDE Approach', Malaysian Technical Universities Conference on Engineering and Technology 2010 (MUCET 2010)

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23. *R.S.K. Selvakumar, K.H. Ghazali, N.M.K. Yusoff*, 'Designing of an Embedded Flexible Multi-Microcontroller Based Training System', International Conference on Advanced Infocomm Technology 2010 (ICAIT'10)
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27. *Bakar, M.S.; Rahim, N.A.; Ghazali, K.H.; Hanafi, A.H.M*, 'Z-Source Inverter Pulse Width Modulation: A Survey.'; Electrical, Control and Computer Engineering (INECCE), 2011 INECCE.2011.5953898 Publication Year: 2011 , Page(s): 313 - 316 IEEE CONFERENCES
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29. *Suzaimah Ramli, Kamarul Hawari B Ghazali, Muhammad Faiz Bin Mohd Ali , Zakaria Hifzan B Hisahuddin*, 'Human Motion Detection Framework' IEEE Control

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30. *Ahmed M. A. Haidar, Chellali Benachaiba, Faisal A. F. Ibrahim, **Kamarul Hawari**, 'Parameters Evaluation of Unified Power Quality Conditioner', 2011 IEEE INTERNATIONAL CONFERENCE on ELECTRO/INFORMATION TECHNOLOGY, Minnesota State University, USA, May 15-17 2011*
31. *Sofiah Radzi, **Kamarul Ghazali**, Azzah Mohammad AlHarpy, Faradila Naim, Nazriyah Che Zan, Shuhairie Mohammad, 'Using Bimodal Gaussian Mixture Model-Based Algorithm for Background Segmentation in Thermal Fever Mass Screening', Second World Conference on Information Technology – WCIT 2011, Turki, Procedia Computer Science (2011 Science)*
32. *R.S.K. Selvakumar, **K.H.Ghazali**, N.M.K. Nik Yusoff, 'Designing of Flexible Multi-Microcontroller Based Training System', GCSE 2011: 28-30 December 2011, Dubai, UAE, ScienceDirect Procedia Engineering 00 (2011) 1–8*
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35. ***Kamarul Ghazali**, Rui Xiao, Jie Ma, 'Road Lane Detection Using H-Maxima And Improved Hough Transform', International Conference on Computational Intelligence, Modeling and Simulation, CimSim2012, jointly organized by UK*

Simulation Society and Asia Modeling and Simulation Society, 25 -27 September 2012, Hyatt Regency, Telok Chempedak, Kuantan, pages 103-107

36. *Zuwairie Ibrahim, Badaruddin Muhammad, **Kamarul Hawari Ghazali**, Kian Sheng Lim, Sophan Wahyudi Nawawi, Zulkifli Md. Yusof*, 'Vector Evaluated Gravitational Search Algorithm (VEGSA) for Multi-Objective Optimization Problems', International Conference on Computational Intelligence, Modeling and Simulation, CimSim2012, jointly organized by UK Simulation Society and Asia Modeling and Simulation Society, 25 -27 September 2012, Hyatt Regency, Telok Chempedak, Kuantan, pages 153-160
37. *Nurul Wahidah Arshad, **Kamarul Hawari Ghazali**, Mohd Shawal Hassan*, 'Data Acquisition Process for Intelligent Traffic Light Using Vision Sensor', International Conference on Computational Intelligence, Modeling and Simulation, CimSim2012, jointly organized by UK Simulation Society and Asia Modeling and Simulation Society, 25 -27 September 2012, Hyatt Regency, Telok Chempedak, Kuantan, pages 185-190
38. *Ma Jie, **K.H Ghazali***, 'A PERCLOS-based Driver Fatigue Detection', The First International Conference on Computational Science and Information Management (ICoCSIM – 2012), December 03-05, 2012 Niagara Hotel, Parapat Toba Lake North Sumatra – Indonesia
39. *Xiao Rui, **K.H Ghazali***, 'A Lane Markers Detection system based on Improved Hough Transform', The First International Conference on Computational Science and Information Management (ICoCSIM – 2012), December 03-05, 2012 Niagara Hotel, Parapat Toba Lake North Sumatra – Indonesia
40. *S.M. Sulong, **K.H. Ghazali**, J.M. Zain, Z. Mohamed*, 'Ascaris Lumbricoides Egg Detection from Digital Microscopic Fecal Sample Images', The First International Conference on Computational Science and Information Management (ICoCSIM – 2012), December 03-05, 2012 Niagara Hotel, Parapat Toba Lake North Sumatra – Indonesia

41. *Wan Nur Azhani W. Samsudin, Kamarul Hawari Ghazali*, 'Motion Detection Using Horn-Schunck Optical Flow' International Conferences, FGCM and DCA 2012, Held as Part of the Future Generation Information Technology Conference, FGIT 2012, Gangneung, Korea, December 16-19, 2012. Proceedings
42. *R.S Hadi, K.H Ghazali*, 'Human Parasitic Worm Detection Using Image Processing Technique', 2012 International Symposium on Computer Applications and Industrial Electronics (ISCAIE 2012), December 2012, Kota Kinabalu Sabah
43. *Jadin, M.S, Ghazali, K.H., Taib, S., Huda, N.*, 'Finding ROIs in infrared image of electrical installation for qualitative thermal condition evaluation', 2012 IEEE International Conference on Control System, Computing and Engineering, PARKROYAL Penang Resort, Batu Ferringhi, Penang., 23-25 Nov. 2012, pp: 244 – 249
44. *Geoffrey O. Asiegbu, Ahmed M. A. Haidar, Kamarul Hawari*, 'A Review of Defect Detection on Electrical Components Using Image Processing Technology', The 4th International Conference on Signal and Image, ICSIP2012, Paris, France. July 7-8, 2012, pp: 247-255
45. *Sharmiza Kamaruddin, Sunardi, Kamarul Hawari*, 'Canned Pineapple Grading Using Colour Analysis', International Conference on Latest Trends in Electronics and Electrical Engineering, January, 19-20 2013, Pattaya (Thailand)
46. *Sharmiza Kamaruddin, Sunardi, Kamarul Hawari*, 'Parking Lot Detection Using Image Processing Method', International Conference on Latest Trends in Electronics and Electrical Engineering, January, 19-20 2013, Pattaya (Thailand)
47. *Siti Nurzalikha Zaini Binti Husni Zaini, Sunardi, Kamarul Hawari Bin Ghazali, Saiful Nizam Bin Tajuddin*, 'Attraction Sound in the Swiftlets House'. Proceedings of the Second International Conference on Advances in Electronic Devices and Circuits (EDC), 04-05 May, 2013, Kuala Lumpur, Malaysia

48. **K.H. Ghazali**, R.S. Hadi, M. Zeehaida, 'Comparison of Image Pre-Processing Approach for Classification of Intestinal Parasite ALO and TTO', 2013 International Conference on Internet Services Technology and Information Engineering (ISTIE 2013), 11-12 May, 2013, Bogor, Indonesia
49. **Ghazali, K.H.**, Hadi, R.S. ; Zeehaida, 'M. Microscopy image processing analysis for automatic detection of human intestinal parasites ALO and TTO', Electronics, Computer and Computation (ICECCO), 2013 International Conference on...
50. Mohd Shawal Jadin, **Kamarul Hawari Ghazali**, Soib Taib, 'Thermal condition monitoring of electrical installations based on infrared image analysis', Electronics, Communications and Photonics Conference (SIEPC), 2013 Saudi International Conference, Riyadh, 27-30 April 2013, pp: 1-6
51. Norizam Sulaiman, Sri Nor Hafidah Mohammad Jalani, Mahfuzah Mustafa, **Kamarul Hawari**, 'Development of Automatic Vehicle Plate Detection System', 2013 IEEE 3rd International Conference on System Engineering and Technology, 19 - 20 Aug. 2013, Shah Alam, Malaysia
52. Lim Kian Sheng; Zuwairie Ibrahim; Salinda Buyamin; Anita Ahmad; Ismail Ibrahim; Mohd Falfazli Mat Jusof; Faradila Naim; Mohd Zaidi Mohd Tumari; **Kamarul Hawari Ghazali**, 'Convergence and diversity evaluation for vector evaluated Particle Swarm Optimization', 2013 Proceedings of International Conference on Modelling, Identification and Control, ICMIC 2013. 2013:280-285.
53. Nazriyah Che Zan, **Kamarul Hawari Ghazali**, Shuhairie Mohammad, Siti Sofiah Mohd Radzi (Universiti Malaysia Pahang (UMP), MALAYSIA), 'ROI Segmentation Using Minimum Symmetrical Edges Distance: A Study on Josapine Pineapple', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013

54. Sharmiza Kamaruddin, Sunardi, **Kamarul Hawari Ghazali** (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Canned Pineapple Grading Using Colour Processing Technique', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013
55. Wan Nur Azhani W. Samsudin, **Kamarul Hawari b. Ghazali** (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Analysis of Motion Detection using Social Force Model', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013
56. Mohammad Syawaludin Syafiq Hassan, Mohd Razali Daud, **K.H. Ghazali**, Nurul Wahidah Arshad (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Combination of HSV and RGB Colour Space Technique for Emergency Vehicle Detection', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013
57. Hussain K. Khleaf, **Kamarul H. Bin Gazali**, Ahmed N. Abdalla (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Features Extraction Technique for ECG recording Paper', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013
58. Siti Nurzalikha Zaini Husni Zaini, Sunardi, **Kamarul Hawari Ghazali**, Saiful Nizam Tajuddin (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Application Of Speech Recognition For Swiftlet Vocalizations', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013
59. Noor Amira Syuhada Mahamad Salleh, **Kamarul Hawari Ghazali** (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Thermal Imaging Analysis of Potentially Harmful Subject for Night Vision System', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013

60. Fatin Izzwani Azman, **Kamarul Hawari Ghazali**, Rosyati Hamid, Zeehaida Mohamed (Universiti Malaysia Pahang (UMP), MALAYSIA), 'Detection and Summation of Squamous Epithelial Cells in Sputum Slide Images by Nucleus Detection', International Conference on Artificial Intelligence and Computer Science 2013, Bayview, Langkawi, MALAYSIA, 25 & 26 November 2013
61. Lazim Talib, Xio Rui, **Kamarul Hawari Ghazali**, Norulzahrah Mohd Zainuddin, Suzaimah Ramli, 'Comparison of Edge Detection Technique for Lane Analysis by Improve Hough Transform', 3rd International Visual Informatics Conference Kuala Lumpur, 13-15 November 2013
62. Kian Sheng Lim, Salinda Buyamin, Anita Ahmad, Sophan Wahyudi Nawawi, Zuwairie Ibrahim, Faradila Naim, **Kamarul Hawari Ghazali** and Norrima Mokhtar, 'An Improved VEPSO Algorithm for Multi-Objective Optimization Problems', Malaysian Japan Academic Scholar Conference, Meiji University, Tokyo Japan, 8-9 November 2013
63. **Ghazali, K.H.**, Hadi, R.S., Zeehaida, M., 'Microscopy image processing analysis for automatic detection of human intestinal parasites ALO and TTO', Electronics, Computer and Computation (ICECCO), 2013 International Conference on Electronic, Computer and Computation, Ankara, Turkey, 7-9 Nov. 2013, pp: 40-43
64. Zuwairie Ibrahim, Ismail Ibrahim, Mohd Falfazli Mat Jusof, Faradila Naim, Mohd Zaidi Mohd Tumari, Muhammad Salihin Saealal, Nurul Wahidah Binti Arshad, **Kamarul Hawari Ghazali**, Zulkifli Md. Yusof, Kamal Khalil, Muhammad Arif Abdul Rahim, Norhaliza Abdul Wahab, Sophan Wahyudi Nawawi, 'A Study of the Contribution of Nearest-Neighbour Thermodynamic Parameters to the DNA Sequences Generated by Ant Colony Optimisation', The 5th International Conference on Modelling, Identification and Control (ICMIC 2013). Cairo, Egypt, 31 August 2013.
65. Syafawati Md Yusof, **Kamarul Hawari Ghazali**, Sunardi, 'Object Tracking via Sparse Representation: A Review', Image Processing, Image Analysis and Real-

Time Imaging (IPIARTI) Symposium 2014, 30th April 2014, Universiti Malaysia Perlis (UniMAP), Pauh Putra Main Campus, Perlis, Malaysia

66. Mohd Shawal Jadin, **Kamarul Hawari Ghazali**, 'Gas Leakage Detection Using Thermal Imaging Technique', UKSIM 2014, Cambridge University (Emmanuel College), 26 - 28 March 2014, pp: 301-305
67. **Kamarul Hawari Ghazali**, Mohd Shawal Jadin, 'Detection Improvised Explosive Device (IED) Emplacement Using Infrared Image', UKSIM 2014, Cambridge University (Emmanuel College), 26 - 28 March 2014, pp: 306- 309
68. Kian Sheng Lim, Salinda Buyamin, Anita Ahmad, Sophan Wahyudi Nawawi, Zuwairie Ibrahim, Faradila Naim, **Kamarul Hawari Ghazali** and Norrima Mokhtar, 'An Improved VEPSO Algorithm for Multi-Objective Optimization Problems', Malaysia Japan Academic Scholar Conference (MJASC) 2014, 8-9 November 2014, Keio University Mita Campus, Tokyo, Japan
69. Noor Amira Syuhada Mahamad Salleh, **Kamarul Hawari Ghazali**, Fatin Izzwani Azman, 'Color Thresholding Techniques Performance for Night Vision Surveillance Using Thermal Imaging', Proceeding of the 1st International Conference on Electrical Engineering, Computer Science and Informatics, EECSI 2014, 20-21 August 2015, Royal Ambarrukmo Hotel, Yogyakarta
70. Fatin Izzwani Azman, **Kamarul Hawari Ghazali**, Rosyati Hamid, Noor Amira Syuhada Mahamad Salleh, 'Detection Technique of Squamous Epithelial Cells in Sputum Slide Images using Image Processing Analysis', Proceeding of the 1st International Conference on Electrical Engineering, Computer Science and Informatics, EECSI 2014, 20-21 August 2015, Royal Ambarrukmo Hotel, Yogyakarta

71. S. M. Yusof, **K. H. Ghazali**, Sunardi, 'Vision-Based Emergency Vehicle Tracking System by Sparse Representation', 29 – 30 November 2014, the Sheraton Bandung Hotel, Bandung, Indonesia
72. Mohammad Syawaludin Hassan, Mohd Razali Daud, **Kamarul Hawari Ghazali**, Nurul Wahidah Arshad, 'Emergency Vehicle Detection using Image Processing Technique for Smart Traffic Light System', 29 – 30 November 2014, the Sheraton Bandung Hotel, Bandung, Indonesia
73. Norliana Khamisan, **Kamarul Hawari Ghazali**, Li Ching Woon, 'Detection of Indoor Air Pollution on Wet or Moist Walls Using Thermal Image Processing Technique', Advancement in Information Technology International Conference on 16th – 18th December 2014 in Bandung, Indonesia
74. Aufa Zin, **Kamarul Hawari**, and Norliana Khamisan, Universiti Malaysia Pahang, 'Early Detection of Spots High Water Saturation for Landslide Prediction Using Thermal Imaging Analysis', 2015 5th International Conference on Environment and Industrial Innovation (ICEII 2015), Seoul, South Korea, March 10-11, 2015, HANYANG UNIVERSITY
75. **Kamarul Hawari bin Ghazali**, Mohd Shawal Jadin, Muhammad Sharfi Najib, Saiyed Rasol Tuan Muda and Suzaimah Ramli, 'Improving Plant Safety on Gas Leakage Detection using Thermal Imaging System', International Conference on Knowledge Transfer (ICKT), Putrajaya, Malaysia, 1-3 December, 2015
76. Rabbi, M. F. and Yusnita, Rahayu and **Kamarul Hawari, Ghazali** (2015) 'Time Varying Channel Estimation for Amplify-and-Forward Relay Network' In: Proceedings of the 4th International Conference on Computer Science & Computational Mathematics (ICCSCM 2015), 7-8 May 2015, Langkawi, Kedah. pp. 527-531

BOOK

- **Kamarul Hawari Ghazali**, 'Advanced Technologies', Publisher Intech Web, 2010
- **Kamarul Hawari Ghazali**, 'Computer Vision System' (2016), ISBN 978-967-0691-99-2, Publisher Universiti Malaysia Pahang
- Wan Nur Azhani W. Samsudin, **Kamarul Hawari Ghazali**, Book Chapter, Computer Applications for Communication, Networking, and Digital Contents (ISBN 978-3-642-35594-3), 2012, Publisher Springer Berlin Heidelberg
- Kamarul Hawari Ghazali, 'Teknologi Penglihatan Mesin', 2016
- LSPSO Channel Estimation in OFDM MC-Communication System Based on FPGA Paperback – January 8, 2016, by [Ali Kareem Nahar](#) (Author), [Kamarul H. Bin Ghazali](#) (Author), Publisher LAMBERT Academic Publishing

RESEARCH GRANT

1. Computer Vision Based Driver Assistance Systems-Development Of Drowsiness Detector - Project Leader, **UMP Short Grant**, RDU090352, 2009-2010, RM22965
2. Automatic Controller Design for SMI Production Station – Project Leader, **UMP Short Grant**, RDU050101, 2005 – 2006
3. Crowd Movement Detection for Automated Surveillance Camera System – Project Leader, **UMP Short Grant**, RDU 090331, 2009-2010, RM13387
4. Development of New Image Processing Alogorithm Based On Sosiology Social Force Model (Sfm) For Detecting Behavior In Crowd Video – Project Leader, **FRGS**, RDU 110101, 2011 – 2013, RM 81500

5. Development of A Machine Vision System for Oil Palm Fruits Grading–Team Member, **UMP Short Grant** , RDU070357, 2007-2008
6. Automatic Intelligent Thermal Imaging System (Aitis) In Airport For Flue Detection – Team Member, **UMP Short Grant**, RDU110319, 2011 – 2013, RM40000
7. Development Of Colour Measuring Instrument For Canned Pineapple Using Image Processing Technique – Team Member, **UMP Short Grant**, RDU110322, RM23500, 2011–2012
8. Non Destructive Test Of Pineapple Maturity Using Vision System – Team Member, **UMP Short Grant**, RDU080315, RM13387, 2009-2010
9. Integrated Network Security System For Industry Security – Team Member, **UMP Short Grant**, RDU090338, RM13387, 2009-2010
10. A Study Of Hybrid Input Shaping And Nominal Characteristic Trajectory Following (NCTF) Controller For Sway Suppression Of Overhead Crane – Team Member, **FRGS**, RDU100102, RM48000, 2010-2012
11. Bi-Directional Converter For High Power – Team Member, **UMP Short Grant**, RDU0903134, RM40000, 2010-2012
12. New Design Of High Efficiency Led Lighting System – Team Member, **UMP Short Grant**, RDU110348, RM40000, 2011-2013
13. Computational Intelligence Application To Malaysian Power System – Team Member, **UMP Short Grant**, RDU090347, 2009-2011

14. Study Of Optimization Techniques To Optimize Loses By Distributed Generation In Distribution Networks – Team Member, **FRGS**, RDU100101, RM 52240, 2010-2012
15. Non Contact Facial Screening Technique For Fever Detection Using Face Detection and Temperature Thresholding Technique – Project Leader, **Post Graduate Grant Scheme**, GRS110304, 2011-2013
16. Framework of Designing Multiple Microcontroller based Applications – Project Leader, **Post Graduate Grant Scheme**, GRS, 2011-2012
17. Ensemble Mobile Platform and Security Tools for Innovation Digital Economy Environment – Team Member, **LRGS, Kementerian Pengajian Tinggi**, RDU 110901, RM 192, 480. 27 Dec 2011 – 26 Dec 2014
18. Development of Integrated Robotic Systems for Polishing Mould in Automotive Industry Application – Team Member, **UMP Short Grant**, RDU 110323, RM 35,000. 15 July 2011 – 15 July 2013
19. Automatic Intelligent Thermal Imaging System (AITIS) in Airport for Flue Detection – Team Member, **UMP Short Grant**, RDU 110319, RM 40,000. 1 July 2011 – 1 July 2013
20. Development of an Intelligent System for Biomedical Engineering – The Automatic Detection of Intestinal Parasites and Protozoan Infections Base on Fecal Sample – Project Leader, **UMP Short Grant** , RDU 120305, RM 30,800. 1 April 2012 – 31 Mac 2014
21. Development of an Intelligent System for Biomedical Engineering – The Automatic Detection and Quantification of PUS Cells and Epithelial Cells for Sputum Quality Testing – Team Member, **UMP Short Grant**, RDU 120356, RM 23,500. 1 June 2012 – 31 Mei 2014

22. Autonomous Bomb Defusing Robot based on Vision System - Team Member, **UMP Short Grant**, RDU 120344, RM 34456. 1 June 2012 – 31 Mei 2014
23. Formulation of a New Learning and Modification of Learning Algorithm Improve Weighted Kernel Regression (WKR) for the case of Regression Problem with Limited and Noisy Training Samples – Team Member, **RAGS**, RDU 131416. 17, RM 55000, September 2013 – 16 September 2015
24. New Fast Multiscale Algorithm Based on Power Law Approximation for Pedestrian Detection – Project Leader, **FRGS**, RDU 130118, RM 80400 1 December 2013 – 30 November 2015
25. Improving Plant Safety on Gas Leakage Detection Using Thermal Imaging System – Project Leader, **KTP**, RDU141003, RM 164896, 15 February 2014 – 14 February 2016
26. Musk Lime Clarification Base on Color Image Processing – Team Member, **UMP Short Grant**, RDU 1303101, RM 15500, 1 December 2013 – 31 November 2015
27. Early Detection of Spots High Water Saturation for Landslide Prediction using Thermal Imaging Analysis – Project Leader, **UMP Short Grant**, RDU140353, RM 25,000, 25 April 2014 – 24 April 2016
28. Musk Lime Clarification Base on Color Image Processing – Team Member, **UMP Short Grant**, RDU1303101, RM 15,500, 1 December 2013 – 30 November 2015
29. Detection and Quantification of Road Surface Cracks using Digital Image Processing based on Multiscale Approach and Artificial Intelligence - Project Leader, International Grant from Ministry of Education and Culture Indonesia, Universitas Muhamadiyah Yogyakarta, UIC 151502, IDR 30 Million, 1 Dec 2015 - 1 June 2016

30. Early Detection of Spots High Water Saturation for Landslide Prediction using Thermal Imaging Analysis – Project Leader, **Postgraduate Research Scheme**, GRS 150329, RM 2500, 15 March 2015 – 14 March 2017
31. Condition Monitoring System of Motor Default using Thermal Image Processing technique - Project Leader, **Postgraduate Research Scheme**, GRS 150331, RM 3700, 15 March 2015 – 14 March 2017
32. Mathematical Model for Real Time Human Segmentation using Thermal Image Camera - Project Leader, Image Processing technique - Project Leader, **Postgraduate**, GRS 1403128, RM 4000, 25 October 2015 - 24 October 2017
33. 'A new parametric optimization model using UWB imaging through human breast for domestic and low-cost breast health check-up', Team Member, **FRGS**, RM149726, 1 July 2014 - 31 June 2017
34. 'A New Marker-less Upper Limbs Detection and Motion Tracking Algorithm Based on Kinects 3D Data', Team Member, **FRGS**, RM40295, 1 September 2013 - 31 August 2015

POSTGRADUATE SUPERVISION

PHD

1. Ma Jie, 'Drowsiness Detection for Car Driver Assisted', March 2010 – March 2014, Main supervisor (**PhD, completed**)
2. Hussain Khalef, 'Imaging Analysis of ECG Printed to Detect Heart Disease', September 2012 – October 2015: Main supervisor (**PhD, completed**)

3. Ali Kareem Nahar, ' Enhanced PAPR Reduction And Channel Estimation In Multi-Carrier Wireless Communication System And Its Implemented In FPGA', September 2013 - September 2016: Main Supervisor (**Phd, completed**)
4. Siti Sofiah Mohd Radzi, 'H1N1 Detection Using Thermal Image', January 2011 – ongoing: Main supervisor (PhD)
5. Wan Nur Azhani Binti Wan Samsudin, 'Crowd Detection Using Social Force Model', September 2011 – ongoing: Main supervisor (PhD)
6. Ezrinda binti Mohd Zaihidee, 'Development of a River Water Quality Monitoring System Using Thermal Image Analysis', February 2014 – ongoing: Main Supervisor (PhD)
7. Norliana bin Khamisan, 'Motor Fault Prediction by Thermal Imaging Method', September 2014 – ongoing: Main Supervisor (PhD)
8. Fazle Rabbi, 'Digital Signal Processing for Biomedical Application', September 2016 - ongoing: Main Supervisor (PhD)
9. Mohd Shawal Bin Jadin, 'Automatic Detection of Equipment Temperature Using Thermal Image', September 2011 – ongoing: Co Supervisor (PhD/USM)
10. Mohd Shafie Bakar, 'Design & Development Of Z-Source Converter', 2010 – ongoing: Co supervisor (PhD)

Master by Research

1. Raafat S. Hadi, 'Parasite Detection Using Image Analysis', January 2011 – September 2013, Main supervisor (**Master, completed**)

2. Xiao Rain, 'Development of Improved Technique for Road Lane Detection', Mac 2010 – April 2013 (Master, **completed**)
3. Raja Saravana, 'Design of Multiple Microcontroller Platform for Use in Academic Environment', December 2009 –2012: Main Supervisor (Master, **completed**)
4. Shuhairie Bin Mohammad, 'Automatic Grading of Pineapple Using Image Processing Technique', December 2009 – March 2013: Main Supervisor (**Master, completed**)
5. Sharmiza Binti Kamarudin, 'Development of Color Identification Method for Canned Pineapple Detection', 22 Mac 2010 – October 2016: Main Supervisor (Master, **completed**)
6. Nazriyah Binti Che Zan, 'Machine Vision System for Pineapple Sorting Index', December 2009 – October 2016: Main Supervisor (Master, **completed**)
7. Fatin Izwani, ' Sputum Smear Detection', September 2012 – October 2016: Main Supervisor (Master, **compeleted**)
8. Mohammad Fazle Rabbi, 'High Mobility Channel Estimation in Cooperative Network' , September 2015 - ongoing: Main Supervisor (Master, **Completed**)
9. Geoffrey O. Asiegbu, 'Maintenance System Using Thermal Imaging Analysis', December 2010 – July 2013: Co Supervisor (Master, **completed**)
10. Muhamad Faruqi bin Zahari, ' Intelligent Classification of Ammonia in Water for Oil and Gas Industry', September 2013 - ongoing: Co Supervisor (Master, **completed**)

11. Najmi Hafizi bin Zabawi, 'Robust Object Detection and Tracking', January 2012 – ongoing: Co Supervisor (Master, **completed**)
12. Noor Amira Syuhada binti Mahamad Salleh, 'Detection of Occluded Targets Using Thermal Imaging Spectroscopy', September 2012 – ongoing: Main Supervisor
13. Afa Huda Hashim, 'Landslide monitoring using Thermal Camera', September 2014 – ongoing: Main Supervisor (Master)
14. Tasriva Sikandar, 'Surveillance Study for ATM CCTV Monitoring', February 2016 - ongoing: Main Supervisor (Master)

UNDERGRADUATE FINAL YEAR PROJECT DISSERTATION

1. Nur Nabilah bt Mohamad Hamid, 'Motion detection for PC based security system' – Graduated 2010
2. Nice Quan, 'Drowsiness Detection for Car Assisted Driver System using image processing analysis – simulation of real time monitoring system' - Graduated 2010
3. Law Kok Sin, 'Edu_Vistec - A Software for computer vision educational kit' - Graduated 2010
4. Mariati Sabah, 'Vision system station for labeling inspection' – Graduated 2010
5. Mohamad Asrap Bin Maslan, 'Quality inspection of malay traditional food using image color processing' – Graduated 2010
6. Nor Shakila bt Mamat, 'Intelligent Alarm System For Crowd Monitoring at LRT' – Graduated 2010

7. Ani Syazana Binti Jasni, 'Drowsiness Detection For Car Assisted Driver System Using Image Processing Analysis' – Graduated 2010
8. Nam Zhen Kai, 'Quality Inspection System For Canned Pineapple' – Graduated 2010
9. Muhammad Faiz Bin Mohd Ali, 'Virtual Guard' – Graduated 2010
10. Rushdina Binti Ruslan, 'Detection of Human Parasitic Worm for Medical Diagnosis Disease' – Graduated June 2012
11. Nur Adila Binti Mamat, 'Speed Detection of Moving Vehicle Using Speed Cameras: Development of New Ideas of Speed Trap System Using CCD Camera', - Graduated June 2012
12. Siti Norhafiza Binti Othman 'New Fire Alarm System and Smoke Detector Sensor', - Graduated June 2012
13. Nor Sakinah Binti Abdul Shukor, 'Automated Car Driver Assisted – Road Lane detection and tracking using vision sensor', - Graduated June 2012
14. Mohd Hafifi Darnia bin Mat Jusoh, ' Detection Improvised Explosive Device (IED) Emplacement Using Thermal Imaging Spectroscopy', - Graduated April 2013
15. Ahmad Sabri bin Mohammad, 'An Intelligent Diagnosis System for Classification of Human Intestinal Parasite Using Microscopy Imaging Analysis', Graduated April 2013
16. Lim Wei Keong, 'Robust Feature Detection for A Mobile Robot Using Multiscale Invariant Technique' , Graduated April 2013
17. Sharifah Nurul Ain binti S. Ibrahim, 'Gas Leakage Detection Using Thermal Imaging Technique', Graduated April 2013

18. Nor Izzati binti Salleh, 'Smart Detection of Moving Robot in Robosoccer Game', Graduated April 2013
19. Jorday Tay Kok Yi, 'Smart Night Vision System for Monitoring and Preventing Intruders in Restricted Area', Graduated April 2013
20. Asmaa' Binti Mohammad Nasir, 'Analysis of Water Heating Using Thermal Image Processing Technique for Water Thermal Pollution' Graduated June 2014
21. Lau Hong Ling, 'A study of Traffic Congestion in Kuantan Town – A Proposal Solution to Implement Smart Controlling of Traffic Light System', Graduated June 2014
22. Woon Li Ching, 'Detection of Indoor Air Pollution on Wet or Moist Walls Using Thermal Image Processing Technique', Graduated June 2014

REVIEWERS

	Type	Title	Date
1	Electrical and Electronics Journal	Infrared Image Enhancement and Segmentation for Extracting the Thermal Anomalies in Electrical Equipment	2011
2	Electrical and Electronics Journal	Detection of Tuberculosis Bacilli in Tissue Slide Images using HMLP network trained by Extreme Learning Machine	2011
3	International Conference on Electrical, Control and Computer Engineering	7 Papers	2011

4	1st International Conference and Exhibition of Women Engineer 2011	4 Papers	2011
5	IEEE Colloquium on Humanities, Science and Engineering	3 Papers	2011
6	1st International Conference on Robotic Automation System 2011	2 Papers	2011
7	Journal of Medical Imaging and Health Informatics (JMIHI)	Adaptation of Mutual Information Measure by using Image Gradient Information	2012
8	Journal of Computer Science And Computational Mathematics	Comparison Between KNN and ANN Classification In Brain Balancing Application Via Spectrogram Image	2012
9	IECBES 2012 (2012 International Conference on Biomedical Engineering and Sciences)	IEEE 1 Paper	2012
10	ISTT 2012 (Mobile and Wireless Communications)	1 Paper	2012
11	7th ICCCT: 2012 International Conference on Computing and Convergence Technology (ICCIT, ICEI and ICACT)	3 Papers	2012
12	2012 IEEE International Conference on Biomedical Engineering and Sciences	Study of Normal Children Electroencephalography Signals Using Wavelet Transformation	Nov 2012
13	Mobile and Wireless Communications (ISTT)	4 papers	Sept 2012
14	SCOReD 2013	Finite Element Model Construction of a Healthy Tibio-	Sept 2013

		femoral Joint	
15	InECEE 2013	5 Papers	2013
17	Advancement in Information Technology International Conference on 16 th – 18 th December 2014 in Bandung, Indonesia		2014
18	International Journal of Computerng and Digital System - IJCDS	1 paper – ‘Application of Mobile Robots by Using Speech Recognition in Engineering’	28 Dec 2014
19	Computer Method and Programs in Biomedicine - Elsevier	1 Journal paper (manuscript number CMPB-D-14-00200)	24 June 2014
20	National Conference of TVET Innovation 2015 (NCTVETi2015)	Paper reviewer	29 - 30 April 2015

Thesis Examiner

1. Aliyu Muhammad Abdu, ‘Generic Optical Form Processing System For Multiple-Choice Answer Extraction’, Sarjana Kejuruteraan (Elektrik), Fakulti Kejuruteraan Elektrik, UTM Johor Bahru 18.10.13
2. Azrul Mahfurdz, ‘Turtle Identification and Exclude Device using Sound Technique’, PhD (Electrical Engineering), Faculty of Electrical and Electronics, Universiti Malaysia Pahang: 12.6.2014
3. Sridathan, Chairmain of VIVA-VOCE, Doctor of Philosophy (Electronic Engineering), 29.12.2014

4. Ijaz Khan, ' A Hybrid Design for Driver's Fatigue Detection', Master (Electrical Engineering), Faculty of Information and Communication Technology, UTHM: 22.6.2014
5. Razieh Khanaki / GS29822, 'Maximum Power Point Tracking Using Artificial Neural Network for Photovoltaic Standalone System', Master of Science, School of Graduate Studies, Universiti Putra Malaysia (UPM): 2014
6. Ali Abd Almisreb / 2012281702, 'Consonants Recognition and Vowels Acoustic Analysis for Arabic Phonemes Based Malay Speakers', PhD in Electronics Engineering, Fakulti Kejuruteraan Elektrik, Universiti Teknologi Mara (UiTM): 8.10.2015
7. Muhamad Nazrol Zawawi, Member of Jury for PHD Thesis of Monsieur, Doctoral School (ED STIC), University of Nice Sophia Antipolis, 24.4.2015
8. Wan Syahirah binti Wan Samsudin, 'Initial Assessment of Facial Nerve Paralyzed based on Motion Analysis using Optical Flow Method', Master of Science in Mechatronic Engineering, School of Mechatronic Engineering, UniMAP: 2015
9. Shaparas binti Daliman, ' Integrated Texture Analysis Techniques for Detection and Characterization of Oil Palm Tree Based on Remote Sensing Imagery', PhD, Faculty of Electrical Engineering, UTM, 1 June 2016
10. Nor Afiqah Zainuddin, ' Adaptive Background Modelling of Street Scene for Intelligent Surveillance System', Master of Science (Mechatronics) Engineering, Kuliyyah of Engineering, IIUM, 25 July 2016
11. Ang Teong Ong, 'Computer Machine Vision Inspection on Printed Circuit Boards Flux Defect', Engineering Doctor, Fakulti Kejuruteraan Elektrik, UTEM, 26 August 2016
12. Sivadev A/L S. Nadarajah, 'THE GUIDELINES OF PARAMETERS IN THE IMPLEMENTATION OF LOCAL MONOCULAR VISION SYSTEM FOR ROBOT SOCCER USING THE MIROSOT PLATFORM', Doctor of Philosophy, School of Mechatronic Engineering, UNIVERSITI MALAYSIA PERLIS, 2016

AWARDS AND RECOGNITION

	Award	Type	Date
1	Bronze	18 th International Invention & Technology Exhibition ITEX, Kuala Lumpur	18 th – 20 th May 2007
2	Participation	The International Exposition of Research and Invention Institutions of Higher Learning, Kuala Lumpur	8-10 October 2009
3	Silver	21 st International Invention & Technology Exhibition ITEX, Kuala Lumpur	14 - 16 May 2010
4	Bronze	22 nd International Invention & Technology Exhibition ITEX, Kuala Lumpur	20 – 22 May 2011
5	Gold	Creation, Innovation, Technology and Research Exposition, UMP	13 – 14 April 2011
6	Bronze	The International Exposition of Research and Invention Institutions of Higher Learning, Kuala Lumpur	September 2011
8	Certificate of Participation	Pencipta 2011 Malaysia, 'Smart System for Power Defect Detection'	13-15 September 2011
7	Gold	Creation, Innovation, Technology and Research Exposition (CITREX 2012), 'Development of Breast Cancer Screening and Detection System using Mammogram and Thermal Image'	26-28 March 2012
8	Silver	Creation, Innovation, Technology and Research Exposition (CITREX 2012), 'The iECGHeart – An Intelligent System to Detect 5 Major Heart Disease'	26-28 March 2012

9	Gold	International Engineering Invention and Innovation Exhibition (i-ENVEX), 'Detection and Summation of PUS Cell for Sputum Quality Testing'	26 – 29 April 2012
10	Merit Award	Research Product Category, Cendekia Bitara Award	28 April 2012
11	Certificate of Appreciation	10 Year service at Faculty of Electrical and Electronics Engineering, UMP	16 February 2012
12	Certificate of Participation	BiInnovation Awards 2012	July 2012
13	Bronze	BiInnovation Awards 2012, 'Automated System for Diagnosis Intestinal Parasites by Computerized Image Analysis'	July 2012
14	Gold	2013 International Invention & Technology Exhibition ITEX, Kuala Lumpur. Sputum Smear Detection System	May 2013
15	Gold	British Invention Show, London. Sputum Smear Detection System	October 2013
16	Silver Bronze	CITREX, Ordure profile system CITREX, Image Blending Software For Thermal Camera Enhancement	2016

INTELLECTUAL PROPERTY

1. Patent Application, 'A Method for Grading Fruits and the System Thereof', Patent Application No. PI 20093812, Date 14 September 2009
2. Patent Application, 'System for Power Fault Detection', Patent Application No. PI 2011002232, Date 19 May 2011

3. Title of Invention: A METHOD FOR DETECTING PARASITIC WORMS. Filing Date: 27-August-2013, Malaysian Certificate of Utility Innovation Application No: UI 2013701513

Consultation and Training

1. **Consultancy**, UMP Consultancy and Training Sdn. Bhd., conducting a training to Pusat Penyelidikan Teknologi Makanan Mardi, 'Hands-on Training on Creating Coding and User Interfacing for Intelligent System Application', 31 July – 1 August 2012
2. **Consultancy**, SUATECH Engineers, Energy Audit using Thermal Imaging Camera at Kemaman Center Point, Kemaman and Institut Perguruan Ilmu Khas Cheras, 21-22 May 2012
3. **Consultancy**, - Nibong Tebal Paper Mills Sdn. Bhd., FOL- Maintenance Department No.886, Jalan Bandar Baru, Sungai Kecil 14300 Nibong Tebal, SPS Pulau Pinang. Infrared Thermography Survey, 24 – 25 October 2011
4. **External Training (Instructor)**, 'Training on Machine Vision and Image Processing Using Matlab', 14 – 15 September 2011, Organized by Vision and Intelligent System Research Group (VisIS)
5. **External Training (Instructor)**, 'Training on Machine Vision and Image Processing Using Matlab', 20 October 2014, Organized by Vision and Intelligent System Research Group (VisIS)
6. **Consultancy** - Rental of Thermal Imaging Camera, Consultation, Services in Data Collection of Durian Quality Determination, August 2015, Consultation work for Institut Penyelidikan dan Kemajuan Pertanian Malaysia (MARDI), UCT150138
7. **External Training (Instructor)**, 'Training on Machine Vision for Technician'. Organized training for Diploma students Politeknik Sultan Haji Abdul Halim

Mu'adzam Shah, Kulim Kedah. Registered under UMPH vot UCT 150316, 22 Nov 2015

8. **External Training (Instructor)**, 'Training on Machine Vision for Technician'. Organized training for Sijil Kemahiran Malaysia (SKM 3) of students Kolej IVC Seberang Jaya, Penang. Registered under UMPH vot UCT 150317, 28 Nov 2015
9. Consultation to UMT Project. Measurement of material corrosion using thermal camera. Free consultation August 2016
10. Consultation to Universitas Ahmad Dahlan on Collecting Data of Gunung Merapi, Salak Pondoh and Padi. Mei 2016.

Other Activities

1. **Moderator and Speaker**, 'Proposal Research Grant Workshop', 17 November 2009, Organized by Universiti Pertahanan Nasional Malaysia
2. **Speaker**, 'Image Processing Application', 13 October 2010, Presentation at Universitas Muhammadiyah Yogyakarta, Yogyakarta Indonesia
3. **Speaker**, 'Grading Pineapple', 8 January 2010, Presentation at Lembaga Nenas Malaysia, Bandar Baru Uda, Johor
4. **Instructor**, 'Internal Training Image Processing' 16 October 2009, Organizes by Faculty of Electrical and Electronics Engineering
5. **Judge**, Creation, Innovation, Technology and Research Exposition, UMP, 2010
6. **Advisory Board**, International Conference on Advanced Science, Engineering and Information Technology (ICASEIT) 2011

7. **Panel** for Post Graduate Poster Competition 2011, Universiti Malaysia Pahang
8. **Editor**, Journal of Malaysian Technical University Network
9. **Chairman**, International Conference on Electrical, Control and Computer Engineering (InECCE) 2011
10. **Advisory Board**, 1st International Conference on Robotic Automation System 2011
11. **Committee**, National Conference on Postgraduate Research (NCON-PGR) 2012, Organized by Faculty of Electrical and Electronics Engineering, UMP
12. **Speaker**, 'Thermal Imaging in Military Application', 15 Mac 2012, Organized by Faculty of Science and Defense Technology, Universiti Pertahanan Nasional Malaysia
13. **Local Arrangement Chair**, Fourth International Conference on Computational Intelligence, Modeling and Simulation, CimSim2012, jointly organized by UK Simulation Society and Asia Modeling and Simulation Society, 25 -27 September 2012
14. **Parallel Session Chair**, , International Conference on Computational Intelligence, Modeling and Simulation, CimSim2012, jointly organized by UK Simulation Society and Asia Modeling and Simulation Society, 25-27 September 2012
15. **Parallel Session Chair**, 2nd International Conference on Emerging Trends in Computer and Image Processing (ICETCIP'2012), June 30 – July 1 2012, Bali
16. **Publication Chair**, 2nd International Conference on Electrical, Control and Computer Engineering 2013, 27 – 28 August 2013

17. **FRGS Evaluation Panel**, Appointed as a panel to evaluate grant proposal.
August 2013
18. **MARA Academic Advisory Committee** 26-30 January 2014
19. **International Program Committee Chair (Malaysia)**, 2014, The 1st International Conference on Computational Intelligence, Communication and Signal Processing (CICSP2014), Hong Kong China, Nov. 1-2 2014
20. **International Committee**, The 1st International Conference on Computational Intelligence, Communication and Signal Processing (1st CICSP2014), Hong Kong, China October.19-20, 2014
21. **Programme Assessors (PA)** For Academic Session 2014 – 2016 (UNIKL MFI) for programme **Bachelor of Engineering Technology in Industrial Automation and Robotics**
22. **Programme Assessors (PA)** For Academic Session 2014 – 2016 (UNIKL MFI) for programme **Bachelor of Engineering Technology in Mechatronics**
23. **Expert Talk**, International Conference on Advances in Computer, Electronics and Electrical Technology (CEET-2014), 2-3 August 2014, Hotel G Tower, Kuala Lumpur. Organized by Institute of Research Engineers and Doctors (IREDD)
24. **Technical Session Chair**, International Conference on Advances in Computer, Electronics and Electrical Technology (CEET-2014), 2-3 August 2014, Hotel G Tower, Kuala Lumpur. Organized by Institute of Research Engineers and Doctors (IREDD)
25. **Guest Lecturer**, Faculty of Industrial Technology, Universitas Ahmad Dahlan, Yogyakarta, Indonesia. Giving talk on 'Thermal Imaging Research and Its Applications', 19 August 2014

26. **Guest Lecturer**, Seminar on 'Basic Computer Vision with Matlab' (trainer)
Baishev University Aktobe, Kazakhstan, 4 December 2014 – 6 December 2014
27. **Technical Program Committee Members** The Second International Conference on Information, Communication and Computer Networks (ICI2CN 2015), London, United Kingdom, January 14-15, 2015
28. **Scientific Committee**, The 2015 International Conference on Science in Information Technology (ICSITech 2015), Yogyakarta
29. **International Scientific Committees**, 2015 International Conference on Computer Information Systems and Industrial Applications(CISIA2015), June 28-29, 2015, Bangkok, Thailand.
30. **Conference Committee**, IPN - IWNEST 2015 Conferences in Kota Kinabalu, Malaysia, JANUARY 9-10, 2015
31. **Deputy Chairman**, Industrial Advisory Panel Politeknik Sultan Ahmad Shah (POLISAS), 2015/2016
32. **Participant** as a coordinator of International Student Mobility Exchange Program FKEE UMP to FTI Universitas Ahmad Dahlan Yogyakarta Indonesia, 13 - 18 September 2015
33. **Technical Program Committee Member**, 2nd International Conference in Information, Communication, Computer Networks (ICI2CN 2015), London, UK, 14 - 15 January 2015

34. **CICSP 2014 International Committee**, International Conference on Computational Intelligence, Communication and Signal Processing, Hong Kong, China, 19 - 20 October 2014
35. **Program Chair**, 2nd International Conference on Electrical, Control and Computer Engineering (InECCE 2013), Kuantan, Pahang, 27 - 28 August 2013
36. **Programme Assessors (PA)** for Bachelor of Engineering Technology (Hons) in Mechatronics & Bachelor of Engineering Technology (Hons) in Industrial Automation and Robotics programme, Universiti Kuala Lumpur Malaysia France Institute (UniKL MFI), academic session 2014 - 2016
37. **Technical Committee IPN - IWNEST 2015 Conferences** Kota Kinabalu, 2015
38. **International Committee**, International Conference on Computer Information Systems and Industrial Applications, 2015
39. **Scientific Committee** ICSITech 2015
40. **ADVISOR**, International Conference on Electrical, Control and Computer Engineering, 2015
41. **DIRECTOR**, Corporate Social Innovation Project UMP, Taman Negara Gua Musang Kuala Koh, 2016
42. **Scientific Committee**, International Conference on Science in Information Technology, Balik Papan Indonesia, October 26-27, 2016
43. **International Program Committee Chair**, 2016 The 2nd International Conference on Computational Intelligence, Communication and Signal Processing Jeju Island, South Korea, March 19-20, 2016

44. **Programme Committee**, The PROGRAM of INTERNATIONAL SCIENTIFIC-PRACTICAL CONFERENCE "INTEGRATION OF EDUCATION, SCIENCE AND INDUSTRY" in the FRAMEWORK OF INTERNATIONAL EDUCATION FORUM in HONOR OF 20th ANNIVERSARY of S. BAISHEV AKTOBE UNIVERSITY June 27-28, 2016

SERVICE TO UNIVERSITY/FACULTY

1. Ahli Jawatankuasa Induk Pemilihan Majlis Perwakilan Pelajar, Universiti Malaysia Pahang Sesi 2015/2016
2. Ahli Jawatankuasa Induk Pemilihan Majlis Perwakilan Pelajar, Universiti Malaysia Pahang Sesi 2014/2015
3. Committee of Partner Evaluation for UMP Advance Education (UAE), 18 May 2015 - 17 May 2017
4. Evaluator FRGS grant proposal phase 1/2015 UMP
5. Committee of Cendekia Bitara Award 2014
6. 5S committee, Faculty of Electrical and Electronics Engineering, UMP, 2014 - 2016
7. Long Life Learning Academic Committee, UMP Advance Education (UAE), 2014 - 2016
8. Member of Academic Committee, Life Long Learning, Universiti Malaysia Pahang, 29 Mei 2014

9. Taskforce Committee Engineering Technology Program, Faculty of Electrical and Electronics Engineering, 2013
10. Taskforce Committee Diploma Program, Faculty of Electrical and Electronics Engineering, Universiti Malaysia Pahang, 2013
11. Working Committee MQA Documents for Postgraduate Studies 2013
12. Deputy Dean Research and Postgraduate Studies, 2010 – 2012
13. Senate Committee (Research and Postgraduate Studies), 2004-2005
14. Committee of Research Management (Faculty), 2010-2012
15. Committee of Postgraduate Studies (Faculty), 2010 – 2012
16. Head and founder of Vision and Intelligent System Research Group (VisIS), 2011-2013
17. Member of Centre for Environmental Research & Management (CERM), 2009-2011
18. Board of Examination (Faculty), 2011-2013
19. Committee of Academic (Faculty), 2011 - 2013
20. Committee of Human Resource Development (Faculty), 2011 – 2013
21. Member of EAC Task Force (Faculty), 2009-2011
22. Sport, Ping pong, Represent UMP at National University Sport, 2005

COMMUNITY SERVICE

1. **Participant** as a coordinator of International Student Mobility Exchange Program FKEE UMP to FTI Universitas Ahmad Dahlan Yogyakarta Indonesia, 13 - 18 September 2015
2. Member of IEM
3. Member of The Institution of Engineering and Technology (IET), (Membership Number 1100371158)
4. Senior Member, Universal Association of Computer & Electronics Engineers, SNM 1004374
5. Member of IEEE Malaysia Section
6. Member of Board of Engineer Malaysia
7. Working Group of Malaysian Renewable Energy Road Map, MOSTI, 15 Mei 2010
8. Member of Skim Rondaan Sukarela (SRS), Taman Seri Mahkota Aman, Kuantan