

CURRICULUM VITAE



Assoc. Prof. Dr. Wan Zuha Wan Hasan
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Education

1. PhD. Microelectronics, 2010, Universiti Kebangsaan Malaysia
2. MSc. Microelectronics, 2001, Universiti Putra Malaysia
3. BSc. Electronic and Computer Engineering, 1997, Universiti Putra Malaysia

Areas of Interest

1. Microelectronics
2. Sensor Technology (Pressure Sensor for Medical and Robotic & Automation Application)
3. Robotic and Automation (Mobile Robot and, Automated Machine)
4. Memory Testing includes Built-in Self-test and Self-diagnose

Professional Qualification/Membership/Affiliation

1. Head of Unit (Student Affair and Alumni) of Deputy Dean (Academic, Student Affairs, Alumni and Industry & Community Relations Division), Faculty of Engineering, 2014-2016
2. Head of Laboratory for Electrical & Electronic Engineering Laboratory, 2013
3. Head of Unit (Student Affair and Alumni) of Deputy Dean (Academic, Student Affairs, Alumni and Industry & Community Relations Division), Faculty of Engineering, 2011
4. Presiden of Social and Sport Club, Faculty of Engineering UPM, 2010-2011
5. Coordinator (HEPA) for EE Department, 2010-2011
6. Coordinator (Final Year Project) for EE Department, 2010-2011
7. Course Co-ordinator for UPM-IPTS(UNNITI College), 2009-2011
8. Team Manager for Robocon, Muroc and Robogamez, 2005-2011
9. Co-ordinator for Electrical Engineering Laboratory, 2008-2010
10. Welfare committee Member, Faculty of Engineering, UPM, 2008-2011
11. Committee Member or Majlis Minggu Perkasa Putra, 2011
12. Committee Member of Robogamez, 2008-2010, 2012-Present
13. Team Manager for Robogamez, 2009-2010
14. Team Manager for Muroc Robot, 2009-2011
15. Team Manager for MIRoC, 2012-Present
16. Team Manager for RobotWar, 2012-Present
17. Co-ordinator of Courses (BE-Electrical & Electronics) for UNITI colleges, 2009-2011
18. Committee Member of PPAUPM, 2007
19. Vice Chair of ISO, EE Department, 2001-2004
20. Vice Chair of ISO, Department of Electrical and Electronic Engineering, 2001 – 2004
21. Department Representative, Department of Electrical and Electronic Engineering, April (2001- 2004)
22. Chairman of IT Committee, Department of Electrical and Electronic Engineering, 2001- 2004
23. Chairman Procurement Committee, Department of Electrical and Electronic Engineering (2001- 2004)
24. Committee member of Student affair, Fakult of Engineering, UPM, 2001-2002
25. Committee member of Fire Drill, Fakulty of Engineering, UPM 2001- 2004
26. Coordinator for Electrical Engineering Laboratory (Store) (Mei 2001 – 2004)
27. Academic Advisor for BE (Electrical and Electronics) students
28. Internal Auditor for ISO 9001:2000, Faculty of Engineering, UPM, 2002-2004



29. Coordinator of Courses (BE-Electrical & Electronics) for colleges (PRIME, IKRAM, UNITI)
30. Examiner for Final Year Project UPM, PRIME, UNITI, 2001-2003
31. Head of Examination, Unit Program Luar (Kolej Uniti), 2001-2003
32. Visiting Lecturer for Practical Training (BE-Electrical & Electronics) for colleges (PRIME, IKRAM, UNITI)
33. Journal of Industrial Technology, SIRIM Berhad
34. Reviewer for World Engineering Congress 2007 (WEC 2009)
35. Reviewer for Asia Pacific Conference on Defence & Security Technology 2009 (DSTC 2009)
36. Reviewer for IEEE Student Conference on Research and Development (SCOREd 2009, 2010,2011, 2012)
37. Reviewer for Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM 2010)
38. Reviewer for International Conference on Intelligent and Advanced Systems (ICIAS 2011, 2012)
39. Reviewer for IEEE International Conference on Circuits and Systems (ICCAS2012,2013)
40. Reviewer for IEEE International Conference on Semiconductor and Electronic (ICSE2012)
41. Reviewer for IEEE Very Large Scale Integrated (VLSI2013)
42. IPC, International Conference on Education and Entertainment Robotics (ICEER),FIRA 2013
43. IEEE Regional Symposium on Micro and Nanoelectronics (IEEE-RSM2013)
44. IEEE Student Conference on Research and Development (SCOREd 2009)
45. Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM 2010)
46. 2010 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS 2010)
47. 2010 Workshop on Smart Sensor Systems(WSS2010)
48. 2 Days Workshop on Mobile Robot (WRM2010)
49. Session Chair, IEEE Student Conference on Research and Development (SCOREd 2009)
50. Chair, 2010 Workshop on Smart Sensor Systems(WSS2010)
51. Chair, EEE FYP Open Day 2011
52. Chair, 2010 Workshop on Mobile Robot(WMR2010)
53. Session chair FIRA RoboWorld Congress 2013
54. Session Chair, IEEE Regional Symposium on Micro and Nanoelectronics (IEEE-RSM2013)
55. Chair, International Conference on Education and Entertainment Robotics (ICEER), FIRA RoboWorld Congress 2013

Appointments	
Position	Duration
1. Honorary Secretary of PPAUPM	2013-2015
2. Auditor for PILOT Run Sistem Penarafan Kolej Komuniti KPT 2013	2013
3. Judge for National Science Challenge, (NSC2013).	2013
YSM 2013	2013
4. Judge for Creativity & Innovative Technology Competition-CITEC KSM 2013	
5. Jury for Malaysia International Robot Competition (MIRoC) UNIMAP 2013	2011
6. Advisor of IEEE Circuit and System Society Chapter, 2011- Present	2011
7. Head of Program of Sensor Technology for Advance Technology Institute (ITMA), 2011	2011
8. Head of Judge for Pertandingan Rekacipta dan Inovasi Sekolah (PRPI11), 2011	2011
9. Judge for Pertandingan Robotic (MSAE-FK), 2011	2011
10. Counselor for IEEE Student Branch , 2011	2011
11. Counselor for Robotic Club UPM, 2010 – 2011	2010-2011
12. Faculty Representative of PPAUPM 2008-2011	2008-2011
13. Chapter Chair of IEEE Circuit and System Society Chapter	2008-2010
14. Committee Member of PPAUPM	2007
15. Secretary of IEEE Circuit and System Society Chapter	2006-2008
16. Research Member, SRAM Design, UPM-MIMOS	2005-2007

Journals (30 recent journals)

1. Liakot A., Nurul Amziah, Haslina Jafar and **Wan Zuha W. H.**, “ Design of a low Cost Digital lock”, Journal of Industrial Technology, 13(2), 2004, 49-55.
2. Syed Abdul Rahman, Tan Cheng Hong, Abd Rahman Ramli, **Wan Zuha Wan Hasan**, Faisul Arif, Mohd Azrin Azau, Remote Database Uploading Using Fax, Journal of Technology Management and Entrepreneurship, May 2005 Vol2
3. Mohd. Liakot Ali, Mohd Khair Hassan, **Zuha Wan Hasan** and Tan Yar Loon Design of A, “Synthesis of 8Bit Smart Card Microprocessor Using Harvard Architecture and RISC”, Sirim Journal of Science & Technology, Vol. 14(1) 2005.
4. **Wan Zuha W.H.**, Zulkifli A.R., Samsul B.M.N., MK Hassan and Liakot Ali, Syed Abdul Rahman, “Development of on-line Speed Trap Radar Gun with Doppler Effect Principle”, Sirim Journal of Science & Technology, Vol. 14(2), 2005, 97-111
5. Syed Abdul Rahman, Tan Cheng Hong, Abd Rahman Ramli, **Wan Zuha Wan Hasan**, Mohd Azrin Azau, Faisul Arif. Transferring Paper as Web Page to Internet by Using Fax, Jurnal Teknologi Maklumat, Universiti Teknologi Malaysia, Skudai, Johor.
6. S.A.R. Al-Haddad, Mohd Wardi Azis, Salina Abd Samad Aduwati Sali, Adznan Jantan, Elsadig Ahmed, Abd Rahman Ramli, **Wan Zuha Wan Hasan**, Simulation for transmitting of MPEG-4 over Satellite Network, WSEAS Transactions on Communications, 1(5): 57-65, ISSN 1109-27. (ISI/SCOPUS)
7. **Wan Hasan Wan Zuha**, Abdul Halin Izhal, Roslina Mohd Sidek, & Othman Masuri. 2009. An Efficient Fault Syndromes Simulator for SRAM Memories. IEICE Trans, Eelectron 92(5): pp.639-646. (IF: 0.682)
8. **Wan Zuha Wan Hasan**, Izhal abd Halin, Roslina Sidek & Masuri Othman. 2008. A Fault Syndromes Simulator for Random Access Memories. European Journal of Scientific Research. 23(1): pp.13-24. (SCOPUS)
9. Julie R.R., **Wan Zuha W.H** and R.M. Sidek “Test Procedure for Neighborhood Pattern Sensitive Fault Testing and Diagnosis using March 12N Algorithm” GJET. Vol. 2 No1. 2009
10. M.I. Masnita, **W.H.W Zuha**, M.S. Roslina, and Izhal Abdul Halin, “March Based- SRAM diagnostic Algorithm for distinguishing Stuck-at and Transition Faults. IEICE Ekectronic Express 6(15): pp.1091-1097. (IF: 0.482)
11. Izhal Abd Halin, **Wan Zuha Wan Hasan** and Suhaidi Shafie, “Soil Moisture sensor and read- out circuit topology for large array development, IEICE Ekectronic Express 6(17): pp.1234-1239. (IF: 0.482)Suhaidi Shafie, Shoji Kawahito, Izhal Abd Halin and **Wan Zuha Wan Hasan**, “ Non-linearly in wide dynamic range CMOS image sensors utilizing a partial charge transfer technique” Sensor 2009(9):pp 9452-9467. (IF: 1.870)
12. Mazlina, M.K.S., A.R.N. Aliaa, H.N. Hidayati, M.S.I.S. Shima and **W.H.W. Zuha**, 2010. Design and development of an apparatus for grating and peeling fruits and vegetables. Am. J. Food Technol., 5: 385-393. (SCOPUS)
13. M.H.M Hasimi, **W.H.W.Zuha**, S. Shafie and M.H. Marhaban, “Fire Fighting Robot”, Journal of the Japan Society of Applied Electronics Mechanics, 2011
14. N. Zakaria, **W.H.W Zuha**, M.S. Roslina, and Izhal Abdul Halin, “Fault Detection with Optimum March Test Algorithm, Journal of Theoretical and Applied Information Technology (JATIT), Vol 47 (1) 2013. (SCOPUS)
15. M.H. Chong, H.Jaafar, **W.Z.W.Hasan**, S.Shafie, M.N.Hamidun, M.M. Isa and A.F. Hawary, “An Experiment of Thick Film Force Sensor using MEMS Simulation Software”, Journal of Theoretical and Applied Information Technology (JATIT), Vol 48 (1) 2013. (SCOPUS)
16. W.Z.W.Hasan, Lim Wei Chun, M.H. Marhaban, M.N. Hamidon, S. Shafie and A.Che Soh, A Smart Car Design Model Using Freescale single-chip MC9S12XS128 ICEE2013, 24-25 December 2013, Madinah Arab Saudi (will be Published on Federation’s International Journal of Engineering & Technology (IJET) 2013
17. W. Z. W. Hasan, , J.I. Asnor, Z. S. Rosnah, H.A.B. Badrul. Development of Electronic Nose for Determining Ripeness of Pineapple . will be published on Journal of Engineering Science and Technology, 2013. (SCOPUS)
18. Badrul Hisham Abu Bakar, Asnor Juraiza Ishak, Rosnah Shamsuddin, Wan Zuha Wan Hassan. Ripeness Level Classification For Pineapple Using RGB And HSI Color Map. Journal of Theoretical and Applied Information Technology (JATIT). Vol 57(3). 2013. (SCOPUS)
19. Haslina Jaafar, K.S. Beh, Nurul Amziah Md. Yunus, Wan Zuha Wan Hasan and Othman Sidek, A Comprehensive Study on RF MEMS Switch, Submitted to Journal of Micro/Nanolithography, MEMS and MOEMS, SPIE. 2013 (SCOPUS)

20. W.Z.W. Hasan, I. Halin S. Shafie, N.A. Kamsani and M. Othman, "A march-based diagnosis algorithm for coupling faults in SRAM, Submitted to IEICE Ekectronic Express 2013. (IF: 0.27)
21. Tung Li Qian, Suhaidi Shafie, Izhal Abdul Halin, Md Iqbal Saripan and Wan Zuha Wan Hasan, "A New Approach in High Dynamic range Image Reproduction on 8-bit Display", 2013 Submitted to Journal of Imaging Science (IF: 0.169)

Conference Proceedings (30 recent Conference Proceedings)

1. **Wan Hasan W.Z**, Sunaryo B.S, Wagiran R. and Ahmad M.R "Design of High Speed Multiplier with Optimised Built-in Self-test" Proceeding 2001 IEEE National symposiumon Microelectronic (NSM'2001) 12-13 November, 2001, Awana Genting Highland, Pahang, Edited by Sahbudin Shaari and BurhanudinYeop Majlis, pp 265-270. (SCOPUS)
2. **Wan Zuha W.H**, Mohd. Liakot Ali, Norfazliana R, Optimising Built-in-self Test Using K-map LFSR on Parallel Multiplier Circuit, Proc of World Engineering Congress 2002, 22-24 July 2002, Kuching, Malaysia.
3. Mumammad Nazir M.K, **Wan Zuha W.H**, Nasri S., Rahman W., Development of High Speed Booth Multiplier with Optimizer stuck-at Fault Implementation r, Proc of World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.
4. Zulkifli A.R, **Wan Zuha W. H.**, M.K. Hasan, Development of Speed Trap Programming Model Using Microcontroller, Proc of World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.
5. Md. Liakot Ali, Roslina Sidek, Alaudddin Mohd Ali, Bambang Sunaryo Suparjo, **Wan Zuha Wan Hassan**, Fault Simulation using MPMSLFSR-Based Test Pattern, Proc of World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.
6. Izhal A. H, Bambang S.S, **Wan Zuha W.H.**, Rahman W., Roslina S, A procedure of a Test Pattern Generation for CMOS Operational Amplifier Based on the Inverter Amplifier, Proc of World Engineering Congress 2002, 22-24 July 2002, Kuching Sarawak, Malaysia.
7. A. Rafa, S. Mahmood, N. Mariun, **W.Z. Wan Hasan**, and N.F. Mailah, Protection of Power Transfomer Using Microcontroller-Based Relay, 2002 Student Conference on Reasearch and Development Proceeding, SCOReD 2002, Shah Alam, Malaysia. (SCOPUS)
8. Zulkifli Abd Rahman, Wan Zuha Wan Hasan, Samsul Bahari, MK Hassan, "Speed Trap Detection with Doppler Effect", SCOReD 2003 Putrajaya Malaysia. (SCOPUS)
9. Susheel Sharma, S.S.Rajput, L.K. Mangotra, **Wan Zuha bin Wan Hasan**, S.S. Jammuar "A Simple Technique for Enhancing the Bandwidth of FGMOS Based Current Mirrors" Proceeding 2003 IEEE National symposiumon Microelectronic(NSM'2003) 9-10 Septemberr, 2001, Perlis, Malaysia (SCOPUS)
10. **Wan Zuha Wan Hasan**, Masuri Othman, " A Design of Built-in Self Repair for SRAM", Proceeding of Fifth Seminar on VLSI Design for Automotives and Basedband digital Communications, 26-27 January 2005, Shangri-la Putrajaya
11. **Wan Zuha Wan Hasan**, Masuri Othman and Bambang Sunaryo Suparjo, The Design of Memory Built-in Self Test and Repair (MBISTR) for SRAMs NSM 2005, Kuching Sarawak, Malaysia. (SCOPUS)
12. **Wan Zuha Wan Hasan**, Masuri Othman and Bambang Sunaryo Suparjo, The Design of Memory Built-in Self Test and Repair (MBISTR) for Stuck-at Faults in Sram Memories, SET 2006, Palm Garden Putrajaya.
13. **Wan Zuha Wan Hasan**, Masuri Othman and Bambang Sunaryo Suparjo, The Design of Memory Built-in Self Test and Repair (MBISTR) for Embedded SRAMs SPS 2006, Pusat Latihan Petronas Bangi.
14. **Wan Zuha Wan Hasan**,Masuri Othman and Bambang Sunaryo Suparjo, A Realistic March 12N Test And Diagnosis Algorithm For SRAM Memories ICSE 2006, Kuala Lumpur. (SCOPUS)
15. **Wan Zuha Wan Hasan**, Masuri Othman and Bambang Sunaryo Suparjo, Test and Diagnosis Procedures for Coupling Faults on SRAM Memories, WEC2007, Penang
16. Wan Zuha Wan Hasan and Masuri Othman, A Development of Programmable Built-in Self test and Selaf-diagnosis for Coupling Faults on SRAM Memories Using March Test, VLSI Group Seminar, 3 Januaryr 2008s, Shangri-la Putrajaya Malaysia
17. Julie R.R., **Wan Zuha W.H** and R.M. Sidek "12N Test Procedure for NPSF Testing and Diagnosis For SRAMs" ICSE 2008, Johor. Malaysia. (SCOPUS)
18. Julie R.R., **Wan Zuha W.H** and R.M. Sidek "Test Procedure for Neighborhood Pattern Sensitive Fault Testing and Diagnosis Using March 12N Algorithm. National Seminar Engineering and Technopreneurship, October 2008

19. **M.I. Masnita**, W.H.W Zuha, **M.S. Roslina**, and **Izhal Abdul Halin**, “SRAM fault detection and fault diagnosis for SAFs and TFs” The SAFs and TFs Functional Testing of SRAMs Memories” **SCORED 2008, Johor.Malaysia**. (SCOPUS)
20. M.I. Masnita, W.H.W Zuha, M.S. Roslina, and Izhal Abdul Halin, “SRAM fault detection and fault diagnosis for SAFs and TFs” The SAFs and TFs Functional Testing of SRAMs Memories” **SCORED 2008, Johor.Malaysia**. (SCOPUS)
21. Tung Li Qian, **W. H. Wan Zuha**, Member IEEE and I.A. Halin, “A Development of Memory Tester for SAFs” **IEEE-RSM Proc. 2009, Kota Bahru, Malaysia**. (SCOPUS)
22. Mohd. Husriif Hilmi Mohd. Khalid, **Wan Zuha Wan Hasan**, **Suhaidi Shafie**, Izhal Abdul Halin, “Addressable Soil Moisture Sensor Array for Microirrigation Systems,” **Proc. of IEEE Student Conference on Research and Development, C-16, Malaysia (Nov, 2009)** (SCOPUS)
23. Mohd Hanif Mohamad Zaini, S. Suhaidi, **W.H.W.Zuha** and M. M. Hamiruce 2010, “PID Controller Implementation with Rotary Encoder” , **Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM2010) Kuala Lumpur, Malaysia. 28-30th July 2010**
24. M.S.M Safuan and **W.H.W Zuha**, S. Suhaidi and M.M. Hamiruce, “Semi-Auto Mobile Robot Using Interface Free Controller (IFC) For Robocon 2010”, **Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM2010) Kuala Lumpur, Malaysia. 28-30th July 2010**
25. Mohd Hasimi Mohd Sidek, **W.H.W.Zuha**, S. Suhaidi and M.M. Hamiruce, “Fire Fighting Robot”, **Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM2010) Kuala Lumpur, Malaysia. 28-30th July 2010.**
26. Julie R.R., **Wan Zuha W.H** and R.M. Sidek “NPSF Detection and Diagnosis Simulator for SRAMs. **National Seminar Engineering and Technopreneurship, July 2010.**
27. Amad ud Din, Suhaidi Shafie, **Wan Zuha Wan Hasan**, Izhal Abdul Halin, “Photo Charge Efficiency of CMOS Amplifiers for Time of Light (TOF) Range Imaging”, **Conference on Electrical and Electronic Technology, World Engineering Congress 2010 (WEC 2010), Kuching, Sarawak, 2nd-5th August 2010, pp 294-299.**
28. **W.Z.W. Hasan**, I. Halin S. Shafie and M. Othman, “An efficient diagnosis march-based algorithm for coupling faults in SRAM, **RSM 2011 ,Sabah, Malaysia. (SCOPUS)**
29. **Suhaidi Shafie**, Lim Chee Weh, Izhal Abdul Halin, Maryam Isa, Wan Zuha Wn Hassan, “Design and Development of LED Driver for Low Power Traffic Signage” **Regional Symposium on Engineering and Technology 2011, pp349-354**
30. N. Zakaria, **W.H.W Zuha**, M.S. Roslina, and Izhal Abdul Halin, “Fault Detection with Optimum March Test Algorithm, **ISMS2012, Kota Kinabalu, Sabah, Malaysia, 8 – 10 February 2012. (SCOPUS)**
31. Julie R.R., R.M. Sidek and **Wan Zuha W.H** “Development of Automated Neighborhood Pattern Sensitive Fault Syndrome Generator for SRAM”, **IEEE-ICSE2012, Kuala Lumpur, September 2012. (SCOPUS)**
32. Asnor Juraiza Ishak, Rosnah Samsuddin, wan zuha wan hasan and Nurazaeera, **Design Weiht Grader for Pineapple, World Research & Innovation Convebtion on Engineering & Technology 2012, 3-5 Desember 2012, Kuala Lumpur.**
33. Ahmed M. M. ALmassri, W.Z.W.Hasan, Siti A. Ahmad, Asnor J. Ishak, **A Sensitivity Study of Piezoresistive Pressure Sensor, RSM 2013, 24-27 September 2013, Langkawi, Malaysia. (SCOPUS)**
34. W.Z.W.Hasan, Lim Wei Chun, M.H. Marhaban, M.N. Hamidon, S. Shafie and A.Che Soh, **A Smart Car Design Model Using Freescale single-chip MC9S12XS128, ICEE2013, 24-25 December 2013, Madinah Arab Saudi**
35. H.A.B. Badrul, J.I. Asnor, Z. W. H. Wan, S. Rosnah. **Development of Electronic Nose for Determining Ripeness of Pineapple . UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013), Universiti Putra Malaysia. 30th Sept – 1st Oct 2013**
36. H.A.B. Badrul, J.I. Asnor, Z. W. H. Wan, S. Rosnah. **Identification of Pineapple Ripeness Levels using Image Processing Technique. UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013), Universiti Putra Malaysia. 30th Sept – 1st Oct 2013**
37. Badrul Hisham Abu Bakar, Asnor Juraiza Ishak, Rosnah Shamsuddin, Wan Zuha Wan Hassan. **Classification of Maturity Index for Pineapple Based on Fusion Features. IEEE International Conference of Control System Computing & Engineering, 29Nov-1 Dis 2013. Submitted**
38. J.I Asnor, S. Rosnah, Z.W.H.Wan, H.A.B Badrul, **Pineapple Maturity Recognition Using RGB Extraction, World Academy of Science, Engineering and Technology 78, NewYork 2013**

Published Articles in Local News Paper

Robotic UPM, Quarter Pounder juara Robogamez 2008, KOSMO Isnin September 2008
 Memory Testing Project, Raih 6 Anugerah, Harian Metro Khamis 17 Disember 2009
 Peeler and Grater Project, UPM Cipta alat Parut, kupas, Potong Buah, KOSMO Jumaat Oktober 2008
 Robotic UPM, UPM Bolot dua Hadiah, Utusan Malaysia Isnin 4 Januari 2010
 Robotic UPM, UPM Juara Cipta Robot, Harian metro Isnin 1 Februari 2010
 Robotic UPM, UPM Lahir robot Terbaik, Harian Metro Ahad 30 Mei 2010
 Robotic UPM, UPM Pakar Robot, Harian Metro Ahad 30 Mei 2010

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Novel Plantar System for Diabetic Foot Using Multi Array Pressure Sensor on Modified Wheatstone Bridge Circuit	RM289,000	Submitted Proposal	MOSTI-E-S Fund
2.	Embedded Eletronic Board for 'DISEGANI' storage Unit	RM21,17	On Going 201	NAGASTEEL EQUIPMENT SDN BHD
3.	High Sensitivity Pressure Distribution of Polymer Based Pressure Sensor Array for Under Diabetic Foot	RM187,000	On-Going	MOHE-FRGS
4.	Intelligent Robotic Hand for Pick and Place Application with Unknown Weight Object	RM15,000	On-Going	UPM-IPS
5.	Development of a high efficiency solar-integrated power system utilizing motorized system with two-axes angle controller	RM240,000	On-Going	MOHE-PRGS
6.	Investigation and Characterization of Active Solar Power System with Angle Controller Utilizing Date and Time Based Approach	RM70,000	On-Going	MOHE-FRGS
7.	Pulsed Field Dielectrophoretic-Field Flow Fractionation (DEP-FFF) Integrated with Optical Detection on a Biochip for Biological Application	RM459,000	On-Going	Mosti
8.	Development Of Maturity Detector and Grading Machine for Pineapples Using Smart Sensor System	RM230,000	On-Going	Mosti
9.	Portable sensor for selective and specific toxic metal sutilizing peptide nanocomposite as the recognition element	RM433,600	On-Going	Mosti
10.	Design and Fabrication of a High Data Rates, Low Power Binary Phase Shift Keying Modulator for Capsule Endoscope	RM357,000	On-Going	Mosti
11.	Nanowire-based Semiconductor Sensors for Heavy Metal Ions Detection	RM498,000	On-Going	Mosti
12.	Intelligent Five-Fingered Robotic Hand Design and Development for Prosthetic Application	RM172,000	On-Going	Mosti
	Integrated and Portable Device for Detection and Dielectrophoretic Separation of Microorganism	RM160,000	On-Going	UPM

Awards/Recognition(Current)

Num	Name of awards	Title	Award Authority	Award Type	Year
1.	Champion	RobotWarIII	Robotic and Automation (Robogamez)	National	2013
2.	Best Presenter Award	Fire Fighting Robot	Malaysia University Robot Competition (MURoC)	National	2013
3.	Best Presenter Award	Fire Fighting Robot and Rope Climbing	Malaysia University Robot Competition (MURoC)	National	2011
4.	Champion	Rope Climbing and Fire Fighting Robot	Malaysia University Robot Competition (MURoC)	National	2011
5.	Microchip Special Award	Rope Climbing	Malaysia University Robot Competition (MURoC)	National	2011
6.	Best Final Year Project	Fire Fighting Robot	Malaysia University Robot Competition (MURoC)	National	2010
7.	Champion and Industry Award	Paintball Robot and Fire Fighting	Malaysia University Robot Competition (MURoC)	National	2010
8.	Best Design	Robocon	National ABU Robocon	National	2009
9.	Champion	Solve Maze	Robotic and Automation (Robogamez)	National	2008
10.	Best Ideal and Design	Robocon	National ABU Robocon	National	2005

Research Achievement

- Design and Innovation Exhibition (Fault Syndrome Simulator), 2007. Bronze Medal, UPM
- Malaysia Technology Expo (MTE) (Fault Syndrome Simulator), 2009. Silver Medal
- INNOVA BRUSSEL, (Fault Syndrome Simulator), 2009. Gold Medal
- INNOVA BRUSSEL, (Peeler and Grater), 2009. Gold Medal
- Invited speaker at The 12th Takayanagi Kenjiro Memorial Symposium, 18-19 November 2010
- Design and Innovation Exhibition (Smart Grader), 2012. Silver Medal, UPM
- Fault Syndrome Simulator (Software Copyright)
- Smart Weight Grader Machine (ID 12-00941-0101-Industrial Design)
- Smart EZ-Grader, ITEX 2013, Gold Medal

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status
1.	Aina Mardhiyah Mohammad Ghazali	Modeling on MEMs Pressure Sensor for Diabetic Foot	On Going 2013
2.	Zeyad Hashim Ismael	Data Processing of Pressure Sensor System	Provisional
3.	Ahmad H.Sabry	In sole Algorithm for Pressure Distribution Under Diabetic Foot	Provisional
4.	Mohammad Ghazali Amin Mazaheri	An on Chip Design cmos potentiostate of amperometric electrochemical sensor for heavy metal concentration detection	On Going 2011
5.	Nurul Fauzani Jamaluddin	Electromyography(Emg) Analysis On Muscle Activities In Sport	On going 2012

MS with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Zulkifli Abd Rahman	Single Chip MC68HC11 Interfacing with Speed Trap Application Via Internet	Completed 2004
2.	Muhammad Nazir Muhammad Khalid	Design of Automatic Test Pattern Generation (ATPG) for Digital Circuit Using Verilog Synopsys	Completed 2005
3.	Mohd Hasimi Mohd Sidek	Line Tracking using Phosphorus Ultraviolet Light	Ongoing VIVA 2013
4.	Norazura	Memory Testing on Single Cell SRAM	On going
5.	Ahmad M. M. Almassri	Pressure sensor Detector For Robotic Hand	Provisional
6.	Mohammed Salman Jameel	Force Sensor - Signal Processing of Multiple Inputs of Pressure Sensor	Provisional
7.	Taha Hamad Dakheel	Pressure Distribution Under The Diabetic Foot	Provisional
8.	Karrar Naji Salman Al Khanjar	Pressure Sensor - Development of Load Cell	Provisional
9.	Asaad AbdulJabbar	Pressure Sensor - Design and Development of MEMs Pressure Sensor	Provisional
10.	Mohammed Hossien Zamanian	Pressure Sensor-Characterization of Pressure Sensor Materials	Provisional
11.	Najafabadi Omar Hussein Alwan	Pressure Sensor- Development of Intelligent monitoring system for Clinical	Provisional
12.	Ahmad Aouad Delame	Pressure Sensor - Interfacing System of Robotic Hand for using Pressure Sensor	Provisional
13.	Izhal Abdul Halin	Development of Test Algorithm Based on CMOS Operational Amplifier Application Circuit	Completed 2002
14.	Norulhuda Bt Abd Rashid	Predicted Performance of Si/SiGe CMOS	Completed 2002
15.	Yeong Tak Nging	Development of An 8-Bit FPGA Asynchronous RISC Pipelined Processor for Data Eryption	Completed 2002
16.	Adel Hamad Rafa	Protection of Power Transformer Using Microcontroller-Based Relay	Completed 2002
17.	Pang Wai Leong	ALU Circuit Design Mix Logic Styles Technique	Completed 2003
18.	Lee Seng Siong	Design of 1K Asynchronous SRAM Using 0.35 Micron CMOS Technology	Completed 2004
19.	Julie Roslita Rusli	Memory Testing on NPSF	Completed 2010
20.	Masnita Mat Isa	Memory Diagnosis on Single Cell	Completed 2011
21.	Muhd Hanif Mohammad	Development of Prosthetic Hand With Microcontroller Interface	On going 2011
22.	Aishah Fauthan	A Selective Area Cnts Growth Method in Fabrication	On going 2013
23.	Badrul Hisham Abu Bakar	Ripeness Level Classification For Pineapple Using RGB And HSI Color Map	On going 2012

BS. Eng (Supervisor)

No.	Name	Title	Status
1.	Sivabalan s/o Suppiah	The Design of Anti-Theft System Using PLD Technology	Completed (May 2000)
2.	Ramanitharan s/o Annamalay	An Investigation on PC-Doctor Software	Completed (May 2000)
3.	Mohd Hisham Abdul Hamid	Faulty in Switching	Completed (May 2000)
4.	Norfazlina Romli	An Investigation of Linear Feedback Shift Register	Completed (May 2000)
5.	Mohd Redzuan	Built-in Self test and Boundary Scan for one Cell Memory Unit Using CMOS Technology	Completed (May 2001)
6.	Zulkifly Abdul Rahman	Voltage Sensor Via MC68HC11 Microcontroller	Completed (May 2001)
7.	Muhammad Zazir	Stuck-at Fault on Digital Circuit (ex-gate)	Completed (May 2001)
8.	Muhammad Khalid Haizura Hasran	Software and Hardware of Microcontroller	Completed (May 2001)
9.	Khuzaineey Ismail	Fault Detection on 8-bits Memory Unit	Completed (May 2001)
10.	Hamidun Basran	Hardware Development for Speed Trap Application	Completed Nov 2001
11.	Hamidi Abu Bakar	Software Development for Speed Trap Application	Completed Nov 2001
12.	Ang Soon Gin	ALU Design With Testing Technique Using VHDL	Completed Nov 2002
13.	Nur Azlin Mohd Yusof	Design of Speed Trap Sensor Using Ultrasonic Detector	Completed Nov 2002
14.	Hariani Sulaiman	Development of C Programming of Speed Trap Application Using Microcontroller	Completed Nov 2002
15.	Siti Hawa Mat Rodi	Design of Built-in Self-test for Instruction Decoder Circuit Using VHDL	Completed Nov 2002
16.	Imran Husni Mukthar	Design of Speed Trap Sensor Using Magnetic Sensor	Completed Nov 2002
17.	Mohd Naziha Mohd Nazir	Smart Digital Alarm Clock using Microcontroller	Completed Nov 2002
18.	Syed Mahathir Syed Azman Shah	Power Management of Robot System	Completed Mei 2003
19.	Hew Kah Way	Development of Line Tracking (A)	Completed Mei 2003
20.	Ong Kien Huei	Development of Line Tracking (B)	Completed Mei 2003
21.	Fong Kwai Fei	Coupling Fault Testing and Simulation for SRAM Memories	Completed 2008
22.	Tung Li Qian	Address Decoder Fault Simulator for SRAM Memories	Completed 2008
23.	Muhammad Iqbal Rusli	Robot Application Using C Programming	Completed 2008
24.	Mohd Aizuddin Mohd Jailani	Autonomous Robot	Completed 2010
25.	Mohd Hasimi Mohd Sidek	Fire Fighting Robot	Completed 2010
26.	Mohd Safuan Mohd Somari	Autonomous Robot	Completed 2010
27.	Lim Wei Chun	Smart Car Design (Smart Car Competition)	Completed 2011
28.	Norhairayana Md Zainal	Fire Fighting Robot(MURoC 2010)	Completed 2011
29.	Nur'ain Abd Aziz	PIC Test Jig for Robotic Application	Completed