

CURRICULUM VITAE



Dr. Haslina Jaafar
 Jabatan Kejuruteraan Elektrik dan Elektronik, Universiti Putra Malaysia,
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Education

1. Ph.D. Microelectronics (MEMS), 2014, Science University of Malaysia (USM).
2. M.Sc. Microelectronics Engineering, 2001, National University of Malaysia (UKM).
3. B.Eng. Electrical, Electronics & Systems, 1999, National University of Malaysia (UKM).

Areas of Interest

1. MEMS Sensors and Actuators
2. Flexible Electronics
3. Embedded System

Professional Qualification/Membership/Affiliation

1. Executive Committee, IEEE Circuits and Systems (CAS) Malaysia 2011-2018
2. Executive Committee, IEEE Electron Devices Malaysia (EDS) 2017-2018
3. Senior Member, Institute of Electrical and Electronics Engineers (SMIEEE)
4. Graduate Member, Board of Engineers Malaysia (BEM)
5. Member, IEEE Engineering in Medical & Biology (EMBS) Society
6. Member, IEEE Electron Devices (EDS) Society
7. Member, Malaysia Society of Engineering and Technology (MySET)
8. Member, Persatuan Pegawai Akademik UPM (PPAUPM)
9. Member, Kelab Sukan dan Sosial UPM (KSS)
10. Member, The International Society for Optics and Photonics (SPIE)
11. Member, UPM Robotic Club

Appointments

Position	Duration
1. Lab Coordinator (Microprocessor Lab)	2016 to date
2. Associate Researcher, Functional Devices Laboratory, Institute of Advanced Technology (ITMA) UPM	2018 to date 2014 to 2015
3. Academic Coordinator	2011 to 2015
4. Coordinator of Postgraduate Studies (Instrumentation)	
5. Academic Advisor	2010 to date
6. Advisor, Robotic Club, Universiti Putra Malaysia	2003-2005, 2011 to date
7. Committee, UPM Cleanroom Management (AMSF)	2013 to date
8. Adjunct Researcher, Centre for Advanced Power and Energy Research	2014 to date

Publications

Journals (30 recent journals)

1. Hazem M. M. El-Hageen, Karimeh Ibrahim Mohammad Ata, Azure CheSoh, Asnor Juraiza Ishak and **Haslina Jaafar** (2017), Radio Frequency Identification (RFID) Indoor Parking Control System, International Journal of Scientific & Engineering Research, Volume 8, Issue 11, pp (557-562).
2. Samaila Buda, Suhaidi Shafie, Suraya Abdul Rashid, **Haslina Jafaar** and Ali Khalifa (2017) Response surface modeling of photogenerated charge collection of silver-based plasmonic dye-

- sensitized solar cell using central composite design experiments, *Results in Physics* 7, pp (493-497)
3. Samaila Buda, Suhaidi Shafie, Suraya Abdul Rashid, **Haslina Jaafar** and Ali Khalifa (2017) Statistical Optimisation of Process Paqrameters on the Effeiciency on N-TiO₂ Dye Sensitized Solar Cell Response Surface Methodlogy (RSM), *Pertanika J. Science & Technology* 25 (5) pp (111-118).
 4. Samaila Buda, Suhaidi Shafie, Suraya Abdul Rashid, **Haslina Jaafar**, N.F.M Sharif (2017) Enhanced visible light absorption and reduced charge recombination in AgNP plasmonic photoelectrochemical cell, *Results in Physics* (IF:0.946), pp (2311-2316).
 5. Hussien, O., Hassan, W. Z. W. ,Soh, A. C., & **Jaafar**, (2015) An Accurate Setting for Remapping Process of Foot Plantar Pressure, *Journal of Advanced Science, Engineering and Medicine*.
 6. **H. Jaafar**, K. S. Beh, N. A. M. Yunus, W. Z. W. Hasan, S. Shafie and O. Sidek, (2014) A Comprehensive Study on RF MEMS Switch, *Microsystems Technology Journal*. (IF=0.952) DOI:10.1007/s00542-014-2276-7
 7. N. A. M. Yunus, **H. Jaafar**, I.A. Halin and N.G. Green (2014) Microfluidics Systems for Dielectrophoretic Separation of Fluoresent Particles, *ASM Journal*, Vol. 8, No. 1, ISSN 1823-6782, pp 29-35.
 8. **H. Jaafar**, M. Hidayat Zabidi, A.Che Soh, Thong Peng Hoong, Suhaidi Shafie and Siti Anom Ahmad (2014) Intelligent Guidance Parking System Using Modified Dijkstra's Algorithm. *Journal of Engineering Science and Technology*. (Scopus)
 9. Rasoul Garmabdari, Suhaidi Shafie, Alireza Garmabdari, **Haslina Jaafar** and Aisa Khoushniat Aram (2014) Labview Based Flow Rate Monitoring and Measurement Algorithm for Rotary Encoder, *Journal of Engineering Science and Technology*. (Scopus)
 10. S. Shafie, F. A. M. Fodzi, L. Q. Tung, D. X. Lioe, I. A. Halin, W. Z. W. Hasan, **H. Jaafar** (2014) Development of CMOS Imager Block for Capsule Endoscope, *Journal of Physics: Conference Series*. (Scopus)
 11. Ahmad Akmal Bin Ahmad Nadzri, Siti Anom Ahmad, Mohd Hamiruce Marhaban and **H. Jaafar** (2014). Characterization of Surface Electromyography using time domain features for determining hand motion and stages of contraction, *Australas. PhysEngSci Med*, s13246-014-0243-3, Springer. (IF=0.7)
 12. NurErniwati Farrita, **Haslina Jaafar**, Mohd Hasimi Mohd Sidek, Wan Zuha Wan Hasan and Siti Anom Ahmad, Development of Low Cost Semi-Automatic Parallel Parking System, *International Journal of Engineering and Technology*, Vol 10, No. 2. 2013.
 13. M.H. Chong, **H. Jaafar**, W.Z. Hassan, 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 47. No. 3, January 2013.
 14. Farideh Abhari, **Haslina Jaafar** and Nurul Amziah Md Yunus, "A Comprehensive Study of Micropumps Technologies", *Int. J. Electrochem. Sci.*, 7 (2012)pp. 9765 – 9780. (ISSN 1452-3981) (IF = 3.729)
 15. Nurul Amziah Md. Yunus, **Haslina Jaafar** and Jasronita Jasni, The Gradient of the Magnitude Electric Field Squared on Angled Microelectrode Array for Dielectrophoresis Applications, *Journal of the Japan Society of Applied Electromagnetic and Mechanics*, Vol. 9, September 2011. (ISSN: 0919-4452)
 16. **Haslina Jaafar**, Othman Sidek, Azman Miskam, Razi Abdul-Rahman, High Isolation and Low Loss of RF MEMS Shunt Switch, *The Applied Computational Electromagnetic Society Journal (ACES)*, Vol. 25, pp (780-786), 2010. (ISSN : 1054-4887) (IF = 0.188)
 17. **Haslina Jaafar**, Othman Sidek, Azman Miskam and Shukri Korakkottil, Design and Simulation of *Microelectromechanical System Capacitive Shunt Switches*, *American Journal of Applied Sciences*, 2 (4): 655-660, 2009 (ISSN: 1941-7020)
 18. Liakot A., Nurul Amziah and **Haslina Jaafar** "Design of a Digital Lock", *Journal of Industrial Technology*, Vol. 13(2),SIRIM, Malaysia, 2004, pp. 49 – 55.
 19. Liakot Ali, Abdur Rahman, S.M. Sapuan, M.Y. Nurul Amziah and **Haslina Jaafar**, "Global Bilal (Mu'azzin)", *Al-Nahda, Asia Pacific Islamic Journal (RISEAP)*, Malaysia, Vol. 22 No.3 (Sept – Dec 2003) pp. 43-44.

Conference Proceedings (30 recent Conference Proceedings)

1. **H. Jaafar**, Faris Fadzil, R.M.Sidek and M. N. Hamidon, Fabrication and Characterization of Carbon-based Flexible Strain Sensor, IEEE Regional Symposium of Micro and Nanoelectronics (RSM), 2017.
2. **H.Jaafar**, Suhaidi Shafie, M.N.Hamidon, NurHaziqah Abd. Aziz, Preparation and Characterization of Carbon Black-Polydimethylsiloxane (PDMS) Nano-composite, Symposium on Advanced Material and Nanotechnology (SAMN), 2017.
3. Hussien, O., Hassan, W. Z. W. ,Soh, A. C., & **Jafaar**, Investigation on Touch Area of Under Foot Pressure Based-on Weight Measurement., The 7th International Conference on Engineering and Technology (ICET, Phuket, June 19-20, 2015.
4. Hussien, O., Hassan, W. Z. W. ,Soh, A. C., & **Jafaar. H**, Fundamental references over insole plantar pressure in terms of human body weight percentage, IEEE Regional Symposium on Micro and Nanoelectronics (RSM), 2015.
5. Y.J. Yeoh, **H. Jaafar**, W. Z. W. Hassan, *3-Level Automotive Safety Warning and Alert System Using FPGA*, 2015 IEEE International Circuits and Systems Symposium (ICSyS2015), 2-4th Sept 2015, Langkawi.
6. Chin Yong Huan, **Haslina Jaafar** and Nurul Amziah Md Yunus, *Classification on MEMS Accelerometer and Device Application*, The Second International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE2014), March 18-20, 2014, Kuala Lumpur.
7. Chin Yong Huan, **Haslina Jaafar** and Nurul Amziah Md Yunus, *Design And Analysis of Capacitive Comb Acceleration Sensor for Automotive Applications*, The Second International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAEECE2014), March 18-20, 2014, Kuala Lumpur.
8. Thong Peng Hoong, Azura Che Soh, **Haslina Jaafar** and Asnor Juraiza Ishak, *Real-Time Monitoring System for Parking Space Management Services*, Proceeding ofIEEE Conference on Systems, Process & Control (ICSPC2013), 13-15 Dec 2013.
9. **Haslina Jaafar**, M. Hidayat Zabidi, Lam Phooi Shan, Azura Che Soh and Suhaidi Shafie, *Smart Guidance Parking System Using Modified Dijkstra's Algorithm*, Proceeding of UPM-KIT Symposium of Applied Engineering and Sciences (SAES2013), 30 Sept-1 Oct 2013.
10. K. S. Beh, **Haslina Jaafar**, Nurul Amziah Md. Yunus and Suhaidi Shafie, *Design and Simulation of Low Voltage RF MEMS Series Switch Array*, Proceeding ofIEEE Circuits and Systems (ICCAS2013), 18-19 September 2013.
11. **Haslina Jaafar**, Azura Che Soh, Wan Zuha Wan Hasan, Mohd Hamiruce and Shaufiq, *A Wireless Flipper Robot Using Interface Free Controller*, Proceeding ofIEEE Conference Industrial Electronics and Applications (ICIEA), 19-21 June 2013.
12. **Haslina Jaafar**, Ahmad Fariz, Siti Anom Ahmad and Nurul Amziah Md. Yunus, *Intelligent Massage Chair Based on Blood Pressure and Heart Rate*, Proceeding ofConference on Biomedical Engineering & Sciences, 17-19 Dec 2012.
13. NurErni Faritta, **Haslina Jaafar**, Mohd Hasimi and Siti Anom Ahmad, *Semi-Automatic Parallel Parking System*, Proceeding of World Research & Innovation Convention on Engineering & Technology (WRICET2012), 3-5 Dec 2012, (ISBN 978-967-960-329-3).
14. **Haslina Jaafar**, Othman Sidek, *RF MEMS shunt switch using 0.35 μ m CMOS compatible post-process fabrication*, Proceeding of 2nd Annual CEDEC Postgraduate Research Colloquium on Microelectronics Circuits, Devices and Systems (POSREC2012), 27-28 Nov 2012.
15. **Haslina Jaafar**, Lam Phooi Shan and SitiAnom Ahmad, *Development of Car Park Guidance System*, Proceeding of Regional Symposium on Engineering and Technology : Green Engineering and Technology (RSET 2011), Kuching, Sarawak, pp (274-279), 21-23 Nov 2011. (ISBN 274 978-967-5995-06-4).
16. **Haslina Jaafar**, Fong Li Nan and Nurul Amziah Md Yunus, *Design and Simulation of RF MEMS series switch*, Proceeding of 2011 IEEE Regional Symposium on Micro and Nanoelectronics (RSM), pp (437-441), 28-30 Sept 2011, Kota Kinabalu, Sabah. (ISBN 978-1-61284-845-7).
17. Siti Anom Ahmad, **Haslina Jaafar**, Mohd Hanif Mohd Zaini, Mohd Hasimi Mohd Sidek, *'Improving Mode of Delivery for First Year Undergraduate Electrical and Electronic Laboratory Course'*, Regional Symposium on Engineering and Technology, (RSET 2011), Kuching, Sarawak, 21-23 Nov 2011. (ISBN 274 978-967-5995-06-4).
18. Nurul Amziah Md. Yunus, Nicholas G. Green and **Haslina Jaafar**, *Process For The Determination of Thickness of Polymeric Microchannels for Microfluidic Applications*, Proceeding of 2011 IEEE

- Regional Symposium on Micro and Nanoelectronics (RSM), 28-30 Sept 2011, Kota Kinabalu, Sabah. (ISBN: 978-1-61284-845-7).
19. Nurul Amziah Md. Yunus, **Haslina Jaafar** and Jasronita Jasni, *The Gradient of the Magnitude Electric Field Squared on Angled Microelectrode Array for Dielectrophoresis Applications*, The 6th Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM2010), Kuala Lumpur, Malaysia, 28-30th July 2010. (ISBN 978-4-931455-16-0).
 20. **Haslina Jaafar**, Othman Sidek and Muhamad Azman Miskam, *Design and pull-in voltage of capacitive MEMS shunt switches using system-level and FEM simulation. Proceeding of International Conference on Microelectromechanical Systems (MEMS)*, (MEMS-08), Bhatkal India, SP3, 22-23 Oct. 2008.
 21. Md. Liakot Ali, Wan Zuha Wan Hasan, **Haslina Jaafar** and Nurul Amziah; Smart Opening Door System; *Intelligent System and Information Technology Symposium (ISITS 2004)*, 17 February 2004.
 22. Liakot Ali, **Nurul Amziah Md Yunus**, Haslina Jaafar, Rahman Wagiran and Evanna Low, "Implementation of Triple Data Encryption Algorithm Using VHDL", ICSE 2004, December 6 and 7, 2004, MINES Beach Resort, Kuala Lumpur.

Books (If any)

1. Proceeding of IEEE International Conference on Circuits and Systems 2013 (ICCAS 2013)
2. Proceeding of IEEE International Conference on Circuits and Systems 2012 (ICCAS 2012)
3. BukuTeks KBSM, PengajianKejuruteraanElektrikdanElektronikTingkatan 5, Dewan Bahasa dan Pustaka, 2012.
4. BukuTeks KBSM, PengajianKejuruteraanElektrikdanElektronikTingkatan 4, Dewan Bahasa dan Pustaka, 2011. ISBN : 978-983-46-0967-2
5. Proceeding of IEEE Asia Pacific Conference on Circuits and Systems 2010 (APCCAS 2010) ISBN : 978-1-4244-7455-4
6. Proceeding of Asia Pacific Symposium on Applied Electromagnetics and Mechanics 2010 (APSAEM 2010) ISBN : 978-4-931455-16-0
7. Student Conference on Research and Development SCOReD 2009. (16-18 Nov 2009) Proceedings, ISBN: 9781424451876.
8. Student Conference on Research and Development SCOReD 2003. Proceedings (IEEE Cat, No.03EX752), Page(s): 423. Publication Date: 25-26 Aug. 2003, Print ISBN: 0-7803-8173-4, INSPEC Accession Number: 8463425, Current Version Published: 05 July 2005

Chapter in Books (If any)

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	Preparation and Characterization of Carbon Nanotube-Polymer Conductive Ink for Printed Electronics (Project Leader)	50,000	2018-2020	PUTRA
2.	Carbon Based Ultra-Conductor (Researcher)	998,800	2015-2020	LRGS/UKM-UPM/NanoMITE
3.	An Algorithm of Real time Self Calibration For Pressure Sensor On Hand Glove Rehabilitation System (Researcher)	99,000	2017-2019	FRGS
4.	On-Site Calibra_on Of Pressure Sensor For Insole Application	20,000	2016-2017	GP-IPS
5.	Fundamental Research on New Flexible Copper Indium Gallium diSelenide (CIGS) Thin Film Solar Cells Materials Fabrication and Theoretical Assessment (Researcher)	103,000	2014-2016	FRGS
6.	Characterization of Graphene Material in MEMs Pressure Sensor Design for Medical Application (Researcher)	119,000	2014-2016	FRGS



7.	High Sensitivity Distribution of Polymer Based Pressure Sensor Array for Under Diabetic Foot (Researcher)	187,200	2014 – 2015	PUTRA
8.	Analog Electronics Test & Product Engineering Program (Researcher)	100,000	2012-2014	Matching grant TI - UPM
9.	Development of High Performance RF MEMS Series Switch Using IC Compatible Process (Project Leader)	30,000	2010-2013	RUGS
10.	Development of Low Power AC Electrokinetic Micropump (Researcher)	30,000	2010-2013	RUGS
11.	Principle on technical approach to micro fluidic device and fabrication (Researcher)	44,720	2010-2012	FRGS
12.	Development of SOC for Low Cost IC Testing (Researcher)	278,000	2004-2006	IRPA

Awards/Recognition(Current)

No	Name of awards	Title	Award Authority	Award Type	Year
1.	IEEE Electron Devices Society (EDS) Malaysia FYP Awards	Characterization of Latex-Graphene For Flexible Electronic Application	IEEE EDS Malaysia	FYP	2018
2.	International Innovation Festival (INNOFEST)	Smart Home Energy Monitoring System Using Arduino and SIM900	MOE, MOSTI, UTEM	Silver	2014
3.	IEEE Circuits and Systems (CAS) Innovation Awards	Smart Home Energy Monitoring System	IEEE CAS Malaysia	FYP	2014
4.	Final Year Best Project	Smart Home Energy Monitoring System	Faculty of Engineering	FYP	2014
5.	Final Year Best Design Project	Development of Universal Remote Controller For Robotic Applications	Department of Electrical & Electronics	FYP	2013

Professional Services/Consultation

No	Year	Title	Authority	Amount
1.	2018	Conference Committee (Secretary)	IEEE International Conference on Semiconductor Electronics (ICSE2018)	-
2.	2018	Judge Panel	Innovation & Technology FYP Exhibition (INOTEK2018) at UTEM, Melaka	-
3.	2017	Conference Reviewer	IEEE Regional Symposium on Semiconductor on Micro and Nanoelectronic (RSM2017)	-
4.	2017	Journal Reviewer	Journal of Engineering Science and Technology (JESTEC)	-
5.	2017	Conference Committee (Treasurer)	IEEE Regional Symposium on Semiconductor on Micro and (RSM2017)	-



6.	2017	Conference Reviewer	Symposium on Advanced Material and Nanotechnology (SAMN2017)	-
7.	2017	Conference Committee	IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia2017)	-
8.	2017	Conference Reviewer	IEEE Asia Pacific Conference on Postgraduate Research in Microelectronics and Electronics (PrimeAsia2017)	-
9.	2017	Conference Reviewer	IEEE Student Conference on Research and Development (SCOReD 2017)	-
10.	2015	Conference Reviewer	IEEE International Conference on Circuits and Systems (ICSyS2015)	-
11.	2015	Conference Reviewer	IEEE Regional Symposium on Micro and Nanoelectronics (IEEE-RSM)	-
12.	2014-2015	Secretary	IEEE International Conference on Circuits and Systems (ICSyS2015)	-
13.	2014	Technical Evaluator	IEEE Circuits and Systems Awards 2014	-
14.	2014	Judge Panel	Creative & Innovative Technology Competition (CITEC2014) – Jabatan Tenaga Manusia (JTM)	RM 300
15.	2013-2014	Journal Reviewer	Journal of Engineering Science and Technology (JESTEC)	-
16.	2014	Journal Reviewer	Research Journal of Modeling and Simulation (SciKnow Publication)	-
17.	2013	Treasurer, Conference Reviewer	IEEE International Conference on Circuits and Systems (ICCAS2013)	-
18.	2013	Conference Reviewer	8 th International Conference on Robotics, Vision, Signal Processing & Power Interfaces (ROVISP2013)	-
19.	2013	Conference Committee, Conference Reviewer	UPM-KIT (Japan) Symposium of Applied Engineering Sciences (SAES2013)	-
20.	2013	Advisor	Electric and Electronics Workshop in Rural School	-
21.	2012-2014	Advisor	Freescale Cup Intelligent Car Competition	-
22.	2012-2013	Advisor	Malaysia Innovate Design Competition	-
23.	2011-2013	Treasurer	IEEE Circuit and Systems (CAS) Malaysia Chapter	-
24.	2012	Treasurer, Conference Reviewer	IEEE International Conference on Circuits and Systems (ICCAS2012)	-
25.	2011-2013	Advisor	Malaysia International Robot Competition (MIROC)	-





26.	2005, 2011-2013	Advisor	Malaysia Robot Competition (ROBOCON)	-
27.	2011-2012	Panelist	Electric and Electronics Text book for secondary school (KBSM) – Review and Translation-Form 5	RM 2,500
28.	2010-2011	Panelist	Electric and Electronics Text book for secondary school (KBSM) – Review and Translation-Form 4	RM 2,500
29.	2010	Local Arrangement Committee	The IEEE APCCAS 2010, Asia Pacific Conference on Circuits and Systems	-
30.	2010	Conference Reviewer	3rd International Conference on Intelligent and Advanced Systems(ICIAS2010)	-
31.	2010	Local Arrangement Committee	The Asia-Pacific Symposium on Applied Electromagnetics and Mechanics 2010	-
32.	2009	Secretariat, Session Chair	Student Conference on Research and Development (SCOReD 2009)	-
33.	2003	Editorial Committee, Secretariat	Student Conference on Research and Development (SCOReD 2003)	-

Student Supervision

PhD (Main Supervisor)

No.	Name	Title	Status
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MS with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Nur Haziqah Abd Aziz	Carbon Ultraconductor	On-going
2.	Muhammad Yahya	Land slide Early Detection System using Embedded System	On-going

MS without Thesis (Main Supervisor)

No.	Name	Title	Status
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Undergraduate (Main Supervisor)



No.	Name	Title	Status
1.	Mohd Shaidee Khalid	Fabrication and Characterization of Carbon Black-PDMS Flexible Pressure Sensor	Completed
2.	Nadia Amalya Ramly	Characterization of Latex-Graphene For Flexible Electronic Application	Completed
3.	Mohd Faris Fadzil	Carbon Black-PDMS Flexible Strain Sensor	Completed
4.	Muhammad Faiz Ishak	Health Monitoring Embedded System	Completed
5.	Yoeh Yoeng Jye	Car Intelligent and Alert System I	Completed
6.	RadinYusof	Smart Home Energy Monitoring System	Completed
7.	Beh Kean Sheng	Design and Simulation of a Low Voltage RF MEMS Series Switch Array	Completed
8.	Muhammad Hidayat Zabidi	Smart Parking Guidance System	Completed
9.	Mohamad Hafizi Kasman	Development of Universal Remote Controller For Robotic Application	Completed
10.	Chong Hong Mun	Simulation of Force Sensor using Intellisuite	Completed
11.	Ahmad Fariz Ali Termizi	Control Strategy For Message Chair Based on Blood Pressure and Heart Rate	Completed
12.	NurErniwati Farrita Malek	Semi -auto Parallel Parking System	Completed
13.	Fong Li Nan	Design and Simulation of Low Voltage RF MEMS Series Switch	Completed
14.	Lam Phooi Shan	Car Park Guidance System	Completed
15.	Juliena Jafri	Calcium Sulfate (CaSO ₄) Resistive Soil Moisture Probe Design and Analysis	Completed

