

CURRICULUM VITAE



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 Jabatan Kejuruteraan Elektrikal dan Elektronik,
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Education

1. PhD. (Applied Electromagnetic), Electrical Engineering, 2006, University of Manchester, UK
2. B.Eng Electrical & Electronic Engineering, 1996, Universiti Pertanian Malaysia.

Areas of Interest

1. RF, Electromagnetic Application and Microwave Engineering
2. Microelectronic Digital Design

Professional Qualification/ Membership/ Affiliation

1. Treasurer, IEEE Malaysia 2010 - 2011
2. Treasurer, IEEE CAS Malaysia 2008
3. Co-Chair, IEEE CAS Malaysia 2009
4. Chair, IEEE CAS Malaysia 2011 - 2012
5. Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
6. Graduate Member, Board of Engineers Malaysia (BEM)

Appointments

Position	Duration
1. Senior Engineer, Sony (M) Sdn Bhd.	May 1996 - Nov 2000
2. Tutor, Department of Electrical & Electronic Engineering, UPM.	Dec 2000 - June 2006
3. Lecturer, Department of Electrical & Electronic Engineering, UPM.	July 2006 – now
4. Head of Microelectronic Group, Department of Electrical & Electronic Engineering,	July 2009 - 2011
5. Head of Alumni and Student Affair, Faculty of Engineering.	2012 - 2014

Publications

Journals

1. Alkhafaji, F.S.M., Hasan, W.Z.W., Isa, M.M., Sulaiman, N., "Robotic controller: ASIC versus FPGA - A review", Journal of Computational and Theoretical Nanoscience, 15(1), pp. 1-25 (2018).
2. Alkhafaji, F.S.M., Hasan, W.Z.W., Isa, M.M., Sulaiman, N., "A novel method for tuning PID controller", Journal of Telecommunication, Electronic and Computer Engineering, 10(1-12), pp. 33-38 (2018).



3. Alyozbaky, O.S., Ab-Kadir, M.Z.A., Izadi, M., Azis, N., Isa, M., "A new approach of core structure model for 3-phase distribution transformer", *International Transactions on Electrical Energy Systems* (2018).
4. Alyozbaky, O.S., **Isa, M.M.**, Kadir, M.Z.A.A., Izadi, M., "The response of a high voltage transformer with various geometries of core joint design", *Pertanika Journal of Science and Technology* 25(S), pp. 21-28 (2017).
5. Z Yunusa, MN Hamidon, A Ismail, **MM Isa**, MH Yaacob, S Rahmanian, "Development of a Hydrogen Gas Sensor Using a Double Saw Resonator System at Room Temperature", *Sensors* 15 (3), 4749-4765 (2015).
6. Mojtaba Ahadi, **Maryam Binti Mohd Isa**, M. Iqbal Bin Saripan, Wan Zuha Wan Hasan, "Square monopole antenna for microwave imaging, design and characterisation", *IET Microwaves, Antennas Propagation* 9(1):49 (2015).
7. Mojtaba Ahadi, **Maryam Isa**, M. Iqbal Saripan, W. Z. W. Hasan Three Dimensions Localization of Tumors in confocal microwave imaging for breast cancer", *Microwave Opt Technology Letter* 57:2917-2929 (2015).
8. Faghani M., **Isa M.M.**, Hamidon M.N., "Integration of sigma-delta ADC with sinc filter on FPGA", *Journal of Engineering and Applied Sciences*10(2) pp16-21 (2015).
9. Adedayo O.O., **Isa M.M.**, Soh A.C., Abbas Z., "Comparison of feed forward Neural Network training algorithms for intelligent modeling of dielectric properties of oil palm fruitlets", *International Journal of Engineering and Advanced Technology* (2014).
10. Adedayo O.O., **Isa M.M.**, Soh A.C., Abbas Z., "Multi-Adaptive Neuro-Fuzzy Inference System for Dielectric Properties of Oil Palm Fruitlets", *International Journal of Applied Science and Engineering* 12 (1), pp1-8 (2014).
11. Chong M.H., Jaafar H., Hasan W.Z.W., Shafie S., Hamidun M.N., **Isa M.M.**, "An experiment of thick film force sensor using mems simulation software", *Journal of Theoretical & Applied Information Technology* 47 (3) (2013).
12. Soheilirad M., **Isa M.M.**, Hojabri M., Noor S.B.M., "Modeling Simulation and Control of a Laboratory Scale Continues Stirred Tank Heater", *J. Basic. Appl. Sci. Res* 2 (5), 5362-5373 (2012).
13. Lofivand N., Hamidon M.N., **Isa M.M.**, Sulaiman N., Abdolzadeh V., "A review of the present state of art in FPGA-Based Adders", *Life Science Journal*, 9(3) pp1234-1238 (2012).
14. Mohammadi A., Ismail A., Mahdi M.A., Raja Abdullah R.S., **Isa M.M.**, Sadrolhosseini A.R. "Carbon-nanotube-based FR-4 patch antenna as a bio-material sensor", *Procedia Engineering Elsevier*, Vol 41, pp724-728 (2012).
15. Bahraminejad, B., Basri, S., **Isa, M.M.**, Hambali, Z., "Hydrogen detection in organic gas mixtures based on analyzing the transient response", *Sensors Review* 31(1), pp26-31 (2011).
16. Sarraf M.J, Hamidon M.N., **Isa M.M.**, Ismail A., Zarabi A.R., "Interfacing SAWR for wireless high temperature applications". *Sensors & Transducers Journal*, 130(7), pp11-22 (2011).
17. Bahraminejad, B., Basri, S., **Isa, M.M.**, Hambali, Z., "Application of a sensor array based on capillary-attached conductive gas sensors for odor identification", *Measurement Science and Technology*, 21,pp17, 085204 (2010).
18. Zaeri A.H., Noor S.B.M., **Isa M.M.**, Taip F.S., "Design of Integral Augmented Sliding Mode Control for Pitch Angle of a 3-DOF Bench-top Helicopter", *Majlesi Journal of Electrical Engineering* 4 (3), pp31-35 (2010).
19. Bahraminejad, B., Basri, S., **Isa, M.M.**, Hambali, Z., "Real-time gas identification by analyzing the transient response of capillary-attached conductive gas sensor", *Sensors Journal*, 10(6), pp5359-5377 (2010).
20. Bahraminejad, B., Basri, S., **Isa, M.M.**, Hambali, Z., "Evaluation of dimension effects on a capillary-attached gas sensor", *Measurement Science and Technology*, 21,pp6, 065202 (2010).
21. Bahraminejad, B., Basri, S., **Isa, M.M.**, Hambali, Z., "Single selective gas sensor for detecting flammable gases", *IEICE Electronics Express*, 6(12), pp876-882 (2009).

Conference Proceedings

1. **Isa, M.M.**, Wu, Z., "Microwave Radar Sensor as Solid Flow Counter", *IEEE High Frequency Colloquium 2004*, Manchester, pp37-40 (2004).
2. **Isa, M.M.**, Wu, Z., "Microwave Radar Sensor for Solid Flow Measurement", *36th European Microwave Conference (EuMC 2006)* 4058126 Manchester, pp1508 – 1510 (2006).



3. Bahraminejad, B., Basri, S., Hossein-B, F., **Isa, M.M.**, Hambali, Z. "Assessment of Miniaturization of Capillary-Attached Gas Sensor", IEEE Regional Symposium on Microelectronics (RSM 2007), 3-6 Dec 2007, Penang, Malaysia (2007).
4. Ismail, A., Razalli, M.S., Mahdi, M.A., Wan Darman, W.N.I., Raja Abdullah, R.S.A., **Isa, M.M.**, "Micromachined W-band Integrated Rectangular Waveguide Filter Utilising SU-8", Asia Pacific Microwave Conference (APMC 2007), 11-14 Dec 2007, Bangkok, Thailand (2007).
5. Bahraminejad, B., Basri, S., **Isa, M.M.**, Hambali, Z., "A novel approach in detecting hydrocarbons vapors", IFMBE Proceedings 21(1), pp649-652 (2008).
6. Noraishah I., Rosnah S., Mohammah Hamiruce M., **Isa M.M.**, "Relationships between dielectric and moisture content of red seedless watermelon", National Conference on Agricultural and Food Mechanization 2009, 23-25 June 2009, Renaissance Hotel Melaka (2009).
7. **Isa M.M.**, Ibrahim N., Shamsudin R., Marhaban M. H., "Sugar Content in Watermelon Juice based on Dielectric Properties at 10.45GHz", IEEE Student Conference on Research and Development 2009 (SCOReD 2009), 16-18 Nov 2009, UPM Serdang (2009).
8. MN Hamidon, SA Mousavi, **Isa M.M.**, A Ismail, MA Mahdi, "Finite Element Method on Mass Loading Effect for Gallium Phosphate Surface Acoustic Wave Resonators", Proceedings of the World Congress on Engineering 1 (2009).
9. Koay B.K., **Isa M.M.**, "Traffic light system design on FPGA", 2009 IEEE Student Conference on Research and Development (SCOReD), pp269-271, 16-18 Nov 2009, UPM Serdang (2009).
10. T.Y. Hee, **Isa M.M.**, "Design of a Mini Solar Power System", IEEE Student Conference on Research and Development 2009 (SCOReD), pp300-302, 16-18 Nov 2009, UPM Serdang (2009).
11. Syahril, M., **Isa, M.M.**, "Current sensing application by using Sigma Delta modulator based in FPGA", 2010 IEEE Student Conference on Research and Development (SCOReD 2010) Dec 2010 Malaysia, pp. 352-355 (2010).
12. Khairi B., **Isa, M.M.**, "Implementation Model of Rectangular Microstrip Antenna with Multilayer Air Gap", 2011 IEEE International RF and Microwave Conference (RFM2011), Dec 2011, Seremban, Malaysia (2011).
13. A Mohammadi, A Ismail, MA Mahdi, RSA Raja Abdullah, **Isa M.M.**, "Carbon nanotube—Poly pyrrol based microwave resonant circuit for napropamide detection", 2011 17th Asia-Pacific Conference on Communications (APCC), , 890-893 (2011).
14. OO Adedayo, **Isa M.M.**, K Budayawan, "Artificial Neural Network model for microwave propagation in water melon", 2012 IEEE International Conference on Circuits and Systems (ICCAS), 147-149 (2012).
15. R Garmabdari, S Shafie, **Isa M.M.**, "Sensory system for the electronic water meter", 2012 IEEE International Conference on Circuits and Systems (ICCAS), 223-226 (2012).
16. A Mohammadi, A Ismail, MA Mahdi, RSAR Abdullah, **Isa M.M.**, "Carbon-Nanotube-Based FR-4 Patch Antenna as a Bio-Material Sensor", 2012 International Symposium on Robotics and Intelligent Sensors (IRIS 2012), 41, 724-728 (2012).
17. TR Xian, NA Kamsani, RM Sidek, NAM Yunus, **Isa M.M.**, "Emulator development and USB implementation on SDKP16", 2012 IEEE International Conference on Circuits and Systems (ICCAS), 282-286 (2012).
18. AH Zaeri, SB Mohd-Noor, **Isa M.M.**, FS Taip, AE Marnani, "Disturbance Rejection for a 2-DOF Nonlinear Helicopter Model by Using MIMO Fuzzy Sliding Mode Control with Boundary Layer", Intelligent Systems Modelling and Simulation (ISMS), 2012.
19. R Garmabdari, S Shafie, **Isa M.M.**, A Garmabdari, "Measurement technique for bidirectional four sensor rotary encoder", International Conference Smart Instrumentation, Measurement and Applications (ICSIMA), 2013
20. Centered-gap and aligned-gap multiple split ring resonator for bio-sensing application IM Rusni, A Ismail, ARH Alhawari, M Hamidon, NA Yusof, **Isa M.M.** Micro and Nanoelectronics (RSM), 2013 IEEE Regional Symposium on, 62-65 (2013).
21. GH Tan, RM Sidek, **Isa M.M.**, S Shafie, "A low-power current bleeding mixer with improved LO-RF isolation for ZigBee application", 2013 IEEE International Conference on Circuits and Systems (ICCAS), 111-113 (2013).
22. Z Wu, HG Wang, **Isa M.M.**, CG Liu, "Laboratory evaluation of microwave Doppler velocimeter for solid flow measurements", 8th International Symposium on Measurement Techniques for Multiphase Flows (2014).



23. Tan, G.H., Sidek, R.M., **Isa, M.M.**, “Design of ultra-low voltage and low-power CMOS current bleeding mixer”, Source of the Document IEEE Asia-Pacific Conference on Circuits and Systems, Proceedings, APCCAS 2014, 7032790 pp. 344-347 (2015).
24. Amin, M., **Isa, M.M.**, Sidek, R.M., Yusof, N.A. “An embedded processing of differential pulse voltammetry (DPV) data using ARM processor “, 2015 IEEE International Circuits and Systems Symposium (ICSyS), 7394069, pp. 80-84 (2016).
25. Faghani, M., **Isa, M.**, Hamidon, M.N., Mazaheri, A., “A comparison between two different FPGA-based topologies of first order sigma-delta modulator”, 2015 IEEE International Circuits and Systems Symposium (ICSyS), 7394077, pp. 120-124 (2016).
26. Isa, M.M., Kadir, M.Z.A.A., Gomes, C., Izadi, M., Alyozbaky, O.S.H., “Analysis on magnetic flux density and core loss for hexagonal and butt-lap core joint transformers”, 2016 IEEE 2nd Annual Southern Power Electronics Conference, SPEC 2016, 7846227, pp242 (2016).
27. Hamamah, F., Ahmad, W.F.H.W., Gomes, C., Isa, M.M., Homam, M.J., “High power microwave devices: Development since 1880”, Asia-Pacific Microwave Conference Proceedings, APMC, pp. 825-828 (2018).

Research Grants

No	Project Title (Leader)	Amount (RM)	Year	Fund
1.	Novel Method for Fruit Quality Measurement using Microwave Sensor Technology (FRGS)	30,000	2006	MOHE
2.	Characterization of Fruit Moisture using Microwave Sensor (PLB)	6,000	2007	UPM
3.	Real Time Self-Automated Intelligent Hardware Implementation of Energy Efficient Green Motion Controller (Techno Fund)	77,500	2010	MOSTI
4.	Exploring the Electromagnetic Waves Technology as Green Alternative to Pesticide for Tropical Environment (RUGS)	59,000	2011	UPM
5.	Designing new antenna for ultra wide band for early breast cancer detection (RUGS)	15,000	2013	UPM
6.	Improved Aspect of Transformer Structure of the Core Against Lightning Impulse (IPB)	150,000	2015	UPM

Awards/Recognition (Current)

No.	Name of awards	Title	Award Authority	Award Type	Year
1.	R10 Chapter of the Year	Best Chapter	IEEE Circuit and System	International	2011
2.	R10 Chapter of the Year	Best Chapter	IEEE Circuit and System	International	2012
3.	Gold Medal	Dual-Sampling Sigma Delta ADC on FPGA	MIEXPO 2013	National	2013



Professional Services/Consultation

No	Year	Title	Authority	Amount
1.	2013	Microcontroller Programme	Sudan University	RM 30,000
2.	2011	Grant evaluation	Sunway College	RM20,000

Teaching Experience

No	Course Name	Organisation
1.	Instrumentation & Measurement	Department of Electrical & Electronic Engineering, UPM
2.	Digital System	
3.	Electrical and Electronic Laboratory	
4.	Microelectronic Principle	
5.	Communication Engineering	
6.	Computer Architecture	
7.	Digital Circuit	

Student Supervision

Current Student

No.	Matric No.	Name	Programme
1.	GS33249	Amin Mazaheri	PhD
2.	GS45612	Nasir Hassan Zakaria Suleiman	PhD
3.	GS47917	Hayder Abdulhasan Sadir	PhD
4.	GS45125	Falih Salih Alkhafaji	PhD
5.	GS47969	Fuad Abdullah Yahya Hamamah	PhD
6.	GS43933	Mohammed Saadi Ismael	Master

Graduated Student

No.	Matric No.	Name	Programme
1.	GS32050	Kimia Saadat	Master
2.	GS37736	Kure Nicodemus	Master
3.	GS33416	Mehran Raeisinafchi	Master
4.	GS30864	Maher Abdelaleem Abdelrazik Abdelsamie	PhD
5.	GS31293	Sarah Rezaeian	Master
6.	GS31782	Zainab Yunusa	PhD
7.	GS24572	Tan Gim Heng	PhD
8.	GS30825	Maral Faghani Hamadani	Master
9.	GS32873	Ojo Adedayo Olukayode	Master
10.	GS26524	Ahmad Mohammadi	PhD
11.	GS32994	Rasoul Garmabdari	Master
12.	GS27988	Nasser Lotfivandvahed	PhD
13.	GS25636	Mohd Syahril bin Noor Shah	Master
14.	GS22883	Ali Rafieishahemabadi	PhD
15.	GS25339	Mohammadsoroush Soheilrad	Master
16.	GS22114	Mohammad Javadian Sarraf	PhD
17.	GS22595	Amirhossein Zaeri	PhD
18.	GS20940	Oh Yun Ju	Master
19.	GS23618	Amad Ud Din	Master
20.	GS17243	Behzad Bahraminejad	PhD
21.	GS20871	Wessam Zayd Shareef	Master



Current Student

No.	Matric No.	Name
1.	GS40729	Omar Hussein Alwan
2.	GS41107	Fuad Naim Ahmed Erman
3.	GS31507	Abolfazl Azari
4.	GS35125	Muhammad Jabir
5.	GS28903	Nasim Heidari Bateni
6.	GS31188	Nima Khoshsiraf
7.	GS31792	Rebaz J. Ahmed
8.	GS31021	Halimatusaadiyah binti Rusli
9.	GS29019	Ali Basim Mahdi
10.	GS29147	Maryam Ehsani
11.	GS28292	Farideh Abhari
12.	GS25072	Tung Li Qian
13.	GS24699	Salsabila binti Ahmad
14.	GS25920	Lojius bin Lombigit
15.	GS25909	Ng Wei Shin
16.	GS22288	Masnita binti Mat Isa
17.	GS22381	Pang Jia Hong
18.	GS20918	Mohammadreza Abdollahi
19.	GS11669	Rasidah binti Sanusi

