

CURRICULUM VITAE



Rahman Bin Wagiran
Pensyarah Kanan
JabatanKejuruteraan Elektrik dan Elektronik
Universiti Putra Malaysia,
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Education

1. M.Sc. Microelectronics, 1987, University of Durham, UK
2. B.Sc. (Hons), Electronics, 1984, Universiti Kebangsaan Malaysia.

Areas of Interest

1. Hybrid Sensor Technology

Professional Qualification/Membership/Affiliation

1. Professional Technologist (Ts/P.Tech) – PT17100018, Malaysia Board of Technologists (MBOT)
2. Graduate Technologist – GT17100314, Malaysia Board of Technologists (MBOT)
3. Life Member (00035), Treasurer (2012 - 2015), Treasurer (2015-2018), Treasurer (2018-2021), Malaysian Society for Engineering and Technology (MySET)
4. Life Member (00551), Institut Fizik Malaysia (IFM)

Appointments

Position	Duration
1. Deputy Dean, Faculty of Engineering, Universiti Putra Malaysia	1 st August 2009 – 31 st July 2012
2. Head, Quality Assurance Unit, Faculty of Engineering, Universiti Putra Malaysia	April 2007 – 28 Feb 2009

Publications

Journals (30 recent journals)

1. Hamid Farahani, **Rahman Wagiran** and Gerald Urban, "MgO-Doped (Zr,Sr) TiO₃ Perovskite Humidity Sensors: Microstructural Effects on Water Permeation", Proceedings 2017, 1, 408 (ISSN 2504-3900)
- 2.
3. Hamid Farahani, **Rahman Wagiran** and Mohd Nizar Hamidon, "Humidity Sensors Principle, and Fabrication Technologies: A Comprehensive Review", Sensors 2014, Vol. 14(5), pp. 7881-7939, 2014.
4. Helmi Wasoh, Lee Yook Heng, Fatimah Abu Bakar, **Rahman Wagiran**, Abu Bakar Salleh, Nor Azah Yusof, Norhisam Misron and Fatin Hazimah Abdul Rahman, "A Simple Capacitive Biosensor Device for Histamine Measurement," Sensor Review, Vol. 32(3), pp. 245-250, 2012.
5. Ching Mai Keow, Fatimah Abu Bakar, Abu Bakar Salleh, Lee Yook Heng, **Rahman Wagiran**, Shafiquzzaman Siddiquee, "Screen-printed Histamine Biosensor Fabricated from the Entrapment of Diamine Oxidase in a Photocured Poly (HEMA) Film", Int. J. Electrochem. Sci., Vol. 7, pp. 4702-4715, 2012.
6. M.H.Shahrokh Abadi, M.N.Hamidon, Abdul Halim Shaari, Norhafizah Abdullah, **Rahman Wagiran** and Norhisam Misron "Nanocrystalline SnO₂-Pt Thick Film Gas Sensor for Air Pollution Applications", Sensors & Transducers Journal, Vol. 125 (2), pp. 76-88, 2011.
7. R. Sanusi, A. I. Abdul Rahim, **R. Wagiran**, R. Sidek and M. R. Yahya, " Scalable MIM Capacitor

- Model Development Using Fourth Order Polynomial Equation”, International Journal of Engineering and Technology, Vol. 8, No. 1, pp. 25-29, 2011.
8. M.H. Shahrokh Abadi, Mohd. Nizar Hamidon, Abdul Halim Shaari, Norhafizah Abdullah and **Rahman Wagiran**, “SnO₂/Pt Thin Film Laser Ablated Gas Sensor Array,” Sensors 2011, Vol. 11(8), pp. 7724-7735, 2011.
 9. M.H. Shahrokh Abadi, M.N. Hamidon, Abdul Halim Shaari, Norhafizah Abdullah, Norhisam Misron and **Rahman Wagiran**, “Characterization of Mixed $x\text{WO}_3(1-x)\text{Y}_2\text{O}_3$ Nanoparticles Thick Film for Gas Sensing Application,” Sensors 2010, Vol. 10(5), pp. 5074-5089, 2010.
 10. M.H. Shahrokh Abadi, **R. Wagiran**, M.N. Hamidon, A. H. Shaari, N. Abdullah, N. Misron and M. Malekzadeh “Thick Film Nanosized Metal Oxide SnO₂ Doped With Y₂O₃ for Gas Sensing Applications,” International Journal of Engineering and Technology, Vol. 6, No. 2, pp. 60-65, 2009.
 11. A. Jalar, M.F. Rosle, S. Abdullah, M.A.A Hamid, I. Ahmad, **R. Wagiran** and A. R. Daud, “Surface Topographical Characterization of Gold Aluminide Compound for Thermosonic Ball Bonding”, International Journal of Engineering and Technology, Vol. 6, No. 1, pp. 1-8, 2009.
 12. M.H. Shahrokh Abadi, M.N. Hamidon, **R. Wagiran**, A.H. Shaari, N. Misron and N. Abdullah, “Effect of Yttria on Gas Sensitivity of Tungsten Trioxide”, Sensors & Transducers Journal, Vol. 104 (5), pp. 76-86, 2009.
 13. M. Norhisam. A. Norrimah, **R. Wagiran** and R.M. Sidek, N. Mariun and H. Wakiwaka, “Consideration Of Theoretical Equation For Output Voltage Of Linear Displacement Sensor Using Meander Coil And Pattern Guide”, Elsevier Journal of Sensors and Actuators A: Physical, 147, pp. 470-473, 2008.
 14. M. Norhisam, A. Norrimah, **R. Wagiran**, Roslina M. Sidek, N. Mariun, H. Wakiwaka : Basic Characteristic of Linear Displacement Sensor Using Meander coil and Pattern Guide, Journal of Industrial Technology, Vol. 17, No. 1, 2008.
 15. Ching Mai Keow, Fatimah Abu Bakar, Abu Bakar Salleh, Lee Yook Heng and **Rahman Wagiran** and Low Sim Bean, “An Amperometric Biosensor for the Rapid Assessment of Histamine Level in Tiger Prawns (*Penaeus monodon*) Spoilage”, Journal of Food Chemistry 105, pp. 1636 – 1641, 2007.
 16. Norazlina Othman, Fatimah Abu Bakar, Abu Bakar Salleh¹, Lee Yook Heng and **Rahman Wagiran**, A Preliminary Investigation On A Histamine Biosensor Constructed From Diamine Oxidase Immobilised Onto an Oxygen Probe, Malaysia Journal of Analytical Sciences, Vol. 10, No. 1, pp. 137-142, 2006.
 17. **R. Wagiran**, W. S. Wan Zaki, S. B. Mohd Noor, A. H. Shaari and I. Ahmad, Characterization Of Screen Printed BaTiO₃ Thick Film Humidity Sensor, International Journal of Engineering and Technology, Vol. 2, No. 1, pp. 22-26, 2005.
 18. Wan Suhaimizan Wan Zaki, **Rahman Wagiran**, Samsul Bahari Mohd Noor, Abdul Halim Shaari, “Fabrication and Characterization of Screen Printed BaTiO₃ Thick Film Humidity Sensor”, Journal of Solid State Science and Technology Letters, Vol. 12, No. 1 (Suppl.), pp. 87, 2005.

Conference Proceedings (30 recent Conference Proceedings)

1. Abadi, M.H. Shahrokh; Hamidon, M.N.; Shaari, Abdul Halim; Abdullah, Norhafizah; **Wagiran, Rahman**; Misron, Norhisam, “Development of Nanocrystalline Laser Ablated Thick Film Array Gas Sensor” IEEE International Conference on Semiconductor Electronics (ICSE2010), Malaysia, June 2010, pp. 88-91
2. Khakpour, R., Hamidon, M.N., **Wagiran, R.**, Bahadorimehr, A.R., “Design of Auto Control Interface Circuit for Thick Film Heater Gas Sensor,” International Conference on Electronic

Devices, Systems & Applications (ICEDSA 2010) , April 2010, pp. 101-104.

3. R. Khakpour, M.N. Hamidon and **R. Wagiran**, "Design Interface Circuits for Thick Film Heater for a Gas Sensor Resistor," IEEE Student Conference on Research and Development (SCORed2009), November 2009, pp. 311-315
4. Chin May Ji, **R. Wagiran**, M.H. Shahrokh Abadi, M.N. Hamidon and N. Mison , "A fully temperature controlled test chamber for the application of gas sensor characterization," IEEE Student Conference on Research and Development (SCORed2009), November 2009, pp. 495-500.
5. M.H.Shahrokh Abadi, **R.Wagiran**, M.N.Hamidon, A.H.Shaari, N.Abdullah and N.Mison, " Effect of relative humidity on detection of methane/butane in 0.9wo30.1y2o3 nanostructure films," IEEE Regional Symposium on Micro and Nano Electronics (RSM2009), Malaysia, August 2009, pp 616-619.

Books (If any)

1. **Rahman Wagiran**, Megat Johari Megat Mohd Noor, Mohd Rasid Osman, Desa Ahmad, Mohd Saleh Jaafar, Abdul Ghani Liew Abdullah, Napsiah Ismail dan Nor Kamariah Noordin, "Sistem Pengurusan Kualiti Pendidikan Tinggi (PUTRA 3Q): Dokumen Mandatori Mengikut Standard MS ISO9001:2000, penerbit Universiti Putra Malaysia, ISBN 983-3455-20-4 (jil. 1), 2005.
2. Abdul Ghani Liew Abdullah, Megat Johari Megat Mohd Noor, Mohd Rasid Osman, **Rahman Wagiran**, Desa Ahmad, Mohd Saleh Jaafar, Napsiah Ismail dan Nor Kamariah Noordin, "Sistem Pengurusan Kualiti Pendidikan Tinggi (PUTRA 3Q): Perkhidmatan Berdasarkan Keperluan Pelanggan, penerbit Universiti Putra Malaysia, ISBN 983-3455-21-2 (jil.2), 2005.
3. Mohd Rasid Osman, Megat Johari Megat Mohd Noor, **Rahman Wagiran**, Desa Ahmad, Mohd Saleh Jaafar, Abdul Ghani Liew Abdullah, Napsiah Ismail dan Nor Kamariah Noordin, "Sistem Pengurusan Kualiti Pendidikan Tinggi (PUTRA 3Q): Pengurusan Untuk Penambahbaikan, penerbit Universiti Putra Malaysia, ISBN 983-3455-22-0 (jil.3), 2005.
4. Megat Johari Megat Mohd Noor, Mohd Rasid Osman, Abdul Ghani Liew Abdullah, **Rahman Wagiran** and Azlan Abdul Aziz, "ISO 9001 Quality Management System – An Interpretation for Higher Education, June 2004. Publisher Federation of Engineering Institutions of Islamic Countries. p. 175, ISBN 983-41705-1-3, 2004.
5. R.J. Smith, "Elektronik: Litar dan Peranti", translated by Abdul Rahman Ramli, **Rahman Wagiran** dan Sahbudin Shaari, Dewan Bahasa dan Pustaka, Kuala Lumpur, 1995.

Research Grants

No	Project Title	Amount (RM)	Year	Source of Fund
1.	UPMH/UPMCS/Project MyQuest Perlaksanaan Sistem Penilaian Kualiti dan Kesetaraan Kolej Swasta (MyQUEST)	910,000	2016-2017	Kementerian Pengajian Tinggi Malaysia
2.	FRGS Kajian Pembangunan Instrument Penarafan Kolej Komuniti	484,000	2011 - 2012	Kementerian Pengajian Tinggi Malaysia
3.	UPMH/UPMCS/Project MyQuest Kajian Pembangunan Sistem Pengukuran Kualiti	1,113,990	2010-2011	Kementerian Pengajian

(MyQuest)-BGS

Tinggi
Malaysia

4.	UPMH/UPMCS/Project OBE Projek Perintis Membina Sistem Pengurusan Outcome Based Education	250,000	2010- 2011	Kementerian Pengajian Tinggi Malaysia
5.	06-01-04-SF0608 Design and Fabrication of Environmental Gas Sensor Using Screen Printing Technique	113,000	2006- 2008	MOSTI Sciencefund
6.	02-03-03-059K A new low power circuit of universal serial bus transceiver for embedded systems.	84,000	2004- 2006	MOSTI Competitive Fundamental Research Grant
7.	50208-99-32 Hybrid Microelectronics Smart Sensors for Bio- industrial Application	10,000	1999	UPM Short Term Research Grant
8.	50208-97-23 Synthesis of Two-Terminal Negative Resistance	10,000	1997	UPM Short Term Research Grant

Awards/Recognition(Current)

No.	Name of awards	Title	Award Authority	Award Type	Year
1.					

Professional Services/Consultation

No	Year	Title	Authority	Amount
1.				

Student Supervision

MS with thesis (Main Supervisor)

No.	Name	Title	Status
1.	Shideh Rostampour (GS39773)	Thick Film Sensor	Ongoing
2.	Hamid Barzabadi Farahani (GS28950)	Synthesis and Fabrication of Nanocomposite Magnesia Doped Barium Strontium Titanate for Thick Film Humidity Sensor.	Graduated
3.	Wan Suhaimizan Wan Zaki	Design and Fabrication of BaTiO ₃ Humidity Sensor Using Thick Film Screen Printing	Graduated



No.	Name	Title	Status
		Technique.	
4.	Ruhizan Liza Ahmad Shauri,	Optical Transmission-Based Water Turbidity Measurement System	Graduated
5.	Lee Seng Siong	ALU Circuit Design Mix Logic Styles Technique	Graduated
6.	Nurul Amziah Md Yunos	Design of p-i-n Diode Detector	Graduated
7.	Lee Chu Liang	Design and Development of Microdevices	Graduated
8.	Toh Hong Ting	The study of Devices Reliability in CMOS IC Design	Graduated

