



## CV



**DR. MOHD HANIF YAACOB**  
 Department of Computer & Communication Systems  
 Faculty of Engineering  
 Universiti Putra Malaysia  
 43400 Serdang, Selangor, MALAYSIA  
 Tel: 03-89464345 (Office) 016-3289044 (HP)  
 Email: [hanif@upm.edu.my](mailto:hanif@upm.edu.my)

Scopus Author ID: 55002214500 ORCID ID: 0000-0002-3026-3202 Researcher ID: A-9673-2010

### Nationality

Malaysian

### Academic Qualifications

- PhD in Electrical and Computer Engineering, RMIT University, Australia, 2012
- MSc Communications and Network Engineering, Universiti Putra Malaysia, Malaysia, 2002
- B.Eng. (Hons) Electronic Computer System, Salford University, UK, July 1999

### Language Proficiency

Language	Poor (1)	Moderate (2)	Good (3)	Very Good (4)	Excellent (5)
Bahasa Melayu					X
English					X
Other: Arabic		X			

### Professional Qualification/ Membership/ Affiliation

- Senior Member, Photonics Society, Institute of Electrical and Electronics Engineers (IEEE)
- Member, Australian Nanotechnology Network (ANN)

### Experience: Full-Time

- Tutor, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia (January 2000 – July 2003)
- Lecturer, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia (July 2003 – Present)

### Appointments

- July '03 – Present Lecturer, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia
- Jan '00 – Jul '03 Tutor, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia
- Oct '99 – Dec '99 Research Assistant, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia

### Administrative Duties and Other Responsibilities

- National**
  - Interview Panel of Malaysia Public Service Department King's Scholarship Award (2016)
  - Member of Nano Safety & Regulatory Standard Working Group, National Nanotechnology Directorate (NND), Malaysia Ministry of Science, Technology and Innovation (MOSTI) (2015)
  - Interview Panel of Malaysia Ministry of Education (MOE) International Scholarship (2013)
  - Member of ICT Advisory Committee for ANGKASA, Malaysia Ministry of Energy, Water and Communication (2007)
- University**
  - Head, Wireless and Photonics Network Research Centre (WIPNET), Faculty of Engineering, UPM (Mei 2016 – Mei 2018)
  - Development Coordinator, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia (Sept 2013 – 2016)
  - Chairman, Faculty of Engineering Surau, Universiti Putra Malaysia (2012 – 2015)
  - Head of Electronic Engineering Laboratory, Department of Computer and Communication Systems Engineering, Faculty of Engineering, Universiti Putra Malaysia (Aug 2011 – Aug 2013)
  - Committee Member of Department Collaboration Program with Renesas (M) Sdn Bhd (2006 – 2007)
  - Course Coordinator of Department Collaboration Program UPM-IPTS: DKTM Kolej UNITI (Jan 2012 – 2014)
  - Research Associate, Institute of Advanced Technology (ITMA), Universiti Putra Malaysia (2012 – present)
  - Secretary, Immersion Program, Faculty of Engineering, Universiti Putra Malaysia (2012 – 2013)

▪ **Industry**

1. Training Consultant, Prominent Line Sdn. Bhd. (2012 – 2015)

▪ **Community**

1. Exco, Victoria Malaysian Postgraduate Association (VMPGA), Australia 2007 – 2008
2. President, Victoria Malaysian Postgraduate Association (VMPGA), Australia 2008 - 2009
3. Vice Chairman, Parent-Teacher Association of Sekolah Rendah Integrasi Tahfiz Ilmuwan (SRITI), Bandar Baru Bangi (2012 – Mac 2014)
4. Committee Member, Parent-Teacher Association of Sekolah Rendah Integrasi Tahfiz Ilmuwan (SRITI), Bandar Baru Bangi (Mac 2014 - present)
5. Secretary, Desa Bukit Sentosa Resident Association, Bandar Baru Bangi, Selangor (2011 – present)

**Teaching Experiences**

Courses Taught: KKK3311 (Electronic Communication Theory), KKK3202 (Electrical Communication Circuit), KKK3901 (Electronic Practical 1), KKK3613 (Computer Network), KKK3918 (Industrial Training), KKK4618 (Optical Communication), KKK4616 (High Speed Network), KKK4614 (Telecommunication Network), ECC4701 (Core Network Technologies), ECC4702 (Telephony), ECC3202 (Computer Architecture), ECC3106 (Electronic Communication Circuit), ECC4704 (Digital Telephony)

Total No. of Credits Taught: 81.5 (1 credit is equivalent to 3 hours/week)

Latest Teaching Evaluation Score (ECC4704 Digital Telephony Semester 2 2015/2016): 4.65/5.00

**Areas of Interest**

- Optical Nanomaterials, Sensors and Communications

**Research Grants**

<b>Principle Researcher</b>	<b>Project Title/Sponsor/Duration</b>	<b>Amount (RM)</b>
	1. Development and Implementation of Home Environment Using Bluetooth Technology, Sciencefund MOSTI (2004-2006)	133,000
	2. Ultra-Sensitive Ammonia Sensor Based on Tapered Optical Fiber Coated with Nanostructured Thin Films, RUGS 2 UPM (2012-2014)	155,000
	3. Graduate Employability Fund for Certified Fiber Optic Technologist, MOE (2013)	90,000
	4. Investigation of Hazardous Gas Sensing Properties of Nanostructured Molybdenum Trioxide Thin Films Coated on Optical Transducer, FRGS MOHE (2014-2016)	86,000
<b>Co-Researcher</b>		
	1. Development of On-board Computer for an Unmanned Aerial Vehicle (UAV), Sciencefund MOSTI (2006-2008)	148,000
	2. ZigBee Based Non-Invasive Medical Sensors for Wireless Body Area Network, Sciencefund MOSTI (2006-2008)	196,000
	3. Design and Development of OSCDM Transponders for Metro Networks, Sciencefund MOSTI (2006-2008)	108,000
	4. Design and Development of an Integrated Tunable Laser and Amplifier, Sciencefund MOSTI (2008-2009)	207,800
	5. Development of 3-D Laser Ranger for Building Surveying, Sciencefund MOSTI (2008-2010)	220,300
	6. Design and Development of Robust Communication Model and Control System with incorporated Decentralized Renewables in Smart Grids, Sciencefund MOSTI (2012-2014)	227,200
	7. Nano-Photonic Microfiber Sensors for Low Concentration Volatile Organic Compound Detection, RUGS 1 UPM (2012-2014)	234,000
	8. All-Optical Tunable Mach-Zehnder-based Comb Filter, PRGS MOHE (2012-2014)	240,000
	9. Remote Multi-Point Strain and Temperature Sensor Utilizing Ultra-Long Raman Fiber Laser with Rayleigh Feedback, RUGS 2 UPM (2013-2014)	168,500
	10. Growth of Defect-Free Indium Phosphide Nanowires via Vapor-Liquid-Solid (VLS) Mechanism for Photovoltaics, FRGS MOHE (2013-2015)	86,000
	11. Random Scattering-Based Ultra-Long Fiber Laser for Remote, Multipoint Biosensor System, GP-IPB UPM (2013-2015)	200,000
	12. Plane-Parallel Plate Interferometrics for Surface Plasmon Resonance Sensor, FRGS (2014-2016)	110,000
	13. Investigation on the Optical Properties of Immunoglobulin M Dengue E Protein Specific and its Interaction with Dengue E Protein on Silica-based Optical Fiber, FRGS MOHE (2014-2016)	80,000
	14. Investigation of Maghemite-Reduced Graphene Oxide Nanocomposite for Heavy Metal Detection using Optical Waveguide Surface Plasmon Resonance, FRGS MOHE (2014-2016)	130,200

15. Ultra-Sensitive Ammonia Sensor based on Surface Acoustic Wave (SAW) with Graphene Tape, Look East Policy 2.0 Program MOHE (2015-2016)	110,000
16. Research on Avian-Inspired Vision-Based Relative Positioning Strategy for Formation Control of Multiple Unmanned Miniature Aerial Vehicles (MAVs), FRGS MOHE (2015-2017)	125,000
17. Investigation on Relative Intensity Noise (RIN) of a Semiconductor Laser Source to Generate Digital RIN for Laser Field Emulation, FRGS MOHE (2015-2017)	122,000
18. Development of Smart Microsurgical Device in Retinal Microsurgery Based on Optical Tactile Sensing Technique, Sciencefund MOST1 (2016 – 2018)	271,000
<b>Total Research Grants Received</b>	<b>3,448,000</b>

### Consultancy Projects

- Consultant: Technology Pre-feasibility and Feasibility Study to Develop and Manufacture Optical Media Converter for Metropolitan and Access Network Application (AJV Electronics - 2005) – RM 7,000.00.

### Student Supervisions & Examinations

- Postgraduate Student Supervision: Total 26 students – graduated (main supervisor – 2 PhD & 1 MSc, co-supervisor – 4 PhD & 8 MSc), on-going (main supervisor – 5 PhD, co-supervisor - 4 PhD & 2 MSc)
- Postgraduate Student Examiner: Total 9 students – 4 PhD & 5 MSc
- Undergraduate Student Supervision: Total 23 Undergraduate students (final year projects) – 23 completed

### Academic Reviewers

1. Secretary and Assistant Editor, IEEE LEOS Malaysian Conference on Photonics 2005
2. Reviewer, MMU International Symposium on Information and Communications Technologies (M2USIC 2005)
3. Secretary, ICT Technical Committee & Editorial Board, World Engineering Congress 2007 Jan - July 2007
4. Reviewer, IEEE Malaysia International Conference on Photonics (2011, 2012, 2013, 2014, 2016)
5. Technical Program Committee, IEEE Malaysia International Conference on Photonics (2012, 2013)
6. Reviewer, IEEE Malaysia International Conference on Intelligent and Advanced Systems (ICIAS) 2012
7. Journal Reviewer, Sensors and Actuators B: Chemical (Q1)
8. Journal Reviewer, Material Research Bulletin (Q1)
9. Journal Reviewer, Journal of Alloys and Compounds (Q1)
10. Journal Reviewer, Optics Express (Q1)
11. Journal Reviewer, ECS Solid-State Letters (Q2)
12. Journal Reviewer, Physica E: Low-Dimensional Systems and Nanostructures (Q3)
13. Journal Reviewer, Journal of Nanomaterials (ISI Index)
14. Journal Reviewer, Jurnal Teknologi (Scopus Index)
15. International Advisory Board Member, International Journal of Electroactive Materials (IJEMS), 2013 – 2015
16. Technical Program Committee Chair, 2014 International Conference on Defence and Security Technology (DSTC)
17. General Chair, IEEE Malaysia International Conference on Photonics (ICP2016)

### Professional Activities

1. Member, IEEE, USA
2. Member, SAE International, USA (2014)
3. Exco (2004, 2012) & Secretary (2013, 2014), Vice Chair (2015, 2016) IEEE Photonics Society Malaysia Chapter
4. Chair (2005, 2006), IEEE GOLD Malaysia Chapter
5. Member, Australian Nanotechnology Network (ANN)
6. Fiber Optic Association Inc. (FOA) USA – Certified Fiber Optic Technician Certificate

### Publications

- **TOTAL NUMBER OF PUBLICATIONS = 102**
  - » H-Index = 13 (Scopus), 12 (Thomson ISI), 14 (Google Scholar)
  - » Number of Citations = 536 (Scopus), 435 (Thomson ISI), 651 (Google Scholar)
  - » Journals = 51 (Q1 = 25, Q2 = 10, Q3 = 3, Q4 = 9, Non-Citation Indexed = 4), UPM Main Authorship = 27
  - » Chapter in Books = 1
  - » Conference Proceedings = 49
  - » Consultancy Report = 1
- **Journals - Citation Index**
  1. A.A.A. Bakar, M.Z. Jamaludin, F. Abdullah, **M.H. Yaacob**, M.A. Mahdi, M.K. Abdullah, "A New Technique of Real-Time Monitoring of Fiber Optic Cable Networks Transmission," Optics and Lasers in Engineering, Issue 1, vol. 45, pp.126-130, 2006. (Q2)
  2. **M.H. Yaacob**, M. Breedon, K. Kalantar-zadeh, W. Wlodarski, "Absorption spectral response of nanotextured WO<sub>3</sub> thin films with Pt catalyst towards H<sub>2</sub>," Sensors and Actuators B: Chemical, vol. 137, no. 1, pp. 115-120, 2009. (Q1)
  3. **M.H. Yaacob**, J. Yu, K. Latham, K. Kalantar-zadeh, W. Wlodarski, "Optical Hydrogen Sensing Properties of Nanostructured Pd/MoO<sub>3</sub> Films," Sensor Letters, vol 9, no. 1, pp. 16-20, 2011. (Q4)

4. E. Della Gaspera, A. Martucci, **M. Yaacob**, J. Ou, K. Kalantar-zadeh, W. Wlodarski, "WO<sub>3</sub>-Au-Pt nanocrystalline thin films as optical gas sensors," *Sensor Letters*, vol 9, no. 1, pp. 595-599, 2011. (Q4)
5. **M.H. Yaacob**, J.L. Campbell, A. Wisitsoraat and W. Wlodarski, "Gasochromic Response of Pd/NiO Nanostructured Film towards Hydrogen," *Sensor Letters*, vol 9, no. 1, pp. 898-901, 2011. (Q4)
6. A. Chapelle, **M.H. Yaacob**, I. Pasquet, L. Presmanes, A. Barnabé, P. Tailhades, J. Du Plessis and K. Kalantar-zadeh, "Structural and gas-sensing properties of CuO-Cu<sub>x</sub>Fe<sub>3-x</sub>O<sub>4</sub> nanostructured thin films," *Sensors and Actuators B: Chemical*, vol. 153 (1), pp. 117-124, 2011. (Q1)
7. J.Z. Ou, **M.H. Yaacob**, M. Breedon, H.D. Zheng, J.L. Campbell, K. Latham, J. du Plessis, W. Wlodarski and K. Kalantar-zadeh, "In-situ Raman Spectroscopy of H<sub>2</sub> Interaction with WO<sub>3</sub> Films," *Physical Chemistry Chemical Physics*, vol. 13, pp. 7330-7339, 2011. (Q1)
8. **M. Yaacob**, J. Ou, W. Wlodarski, C.S. Kim, J.Y. Lee, Y.H. Kim and J.H. Kang "Gasochromic Performance of WO<sub>3</sub> Nanorods Thin Films Fabricated with ArF Excimer Laser," *Journal of Korean Physical Society*, vol. 60 (3), pp. 393-397, 2012. (Q4)
9. J.Z. Ou, **M.H. Yaacob**, J.L. Campbell, K. Kalantar-zadeh and W. Wlodarski, "H<sub>2</sub> Sensing Performance of Optical Fiber Coated with Nano-platelet WO<sub>3</sub> Film," *Sensors and Actuators B: Chemical*, vol. 166–167, pp. 1-6, 2012. (Q1)
10. J. H. Kang, C. Oh, J. Y. Kim, **M.H. Yaacob**, J. Ou and W. Wlodarski, "Optical Sensing Properties of WO<sub>3</sub> Nanostructured Thin Films on Sapphire Substrate Towards Hydrogen," *Biomedical Engineering: Applications, Basis and Communications*, vol. 24 (2), pp. 123 – 129, 2012. (Q4)
11. **M.H. Yaacob**, M.Z. Ahmad, A.Z. Sadek, J.Z. Ou, J. Campbell, K. Kalantar-zadeh, W. Wlodarski, "Optical Response of WO<sub>3</sub> Nanostructured Thin Films Sputtered on Different Transparent Substrates Towards Hydrogen of Low Concentration," *Sensors and Actuators B: Chemical*, vol. 177, pp. 981-988, 2013. (Q1)
12. M. Z. Ahmad, A. Z. Sadek, **M. H. Yaacob**, D. P. Anderson, G. Matthews, V. B. Golovko, W. Wlodarski, "Optical Characterisation of Nanostructured Au/WO<sub>3</sub> Thin Films for Sensing Hydrogen at Low Concentrations," *Sensors and Actuators B: Chemical*, vol. 179, pp. 125 - 130, 2013. (Q1)
13. A. Wisitsoorat, M. Z. Ahmad, **M. H. Yaacob**, M. Horpratum, D. Phakaratkul, A. Tuantranont, W. Wlodarski, "Optical H<sub>2</sub> Sensing Properties of Vertically Aligned Pd/WO<sub>3</sub> Nanorods Thin Films Deposited via Glancing Angle RF Magnetron Sputtering," *Sensors and Actuators B: Chemical*, vol. 182, pp. 795-801, 2013. (Q1)
14. A. Al-Alimi, **M. Yaacob**, A. Abas, M. Mahdi, M. Al-Mansoori, and M. Mokhtar, "Simple Multiwavelength Brillouin-Erbium-doped Fiber Laser Structure based on Short SSMF," *Optics Communications*, vol. 300, pp. 8-11, 2013. (Q2)
15. A. W. Al-Alimi, **M. H. Yaacob**, A. F. Abas, M. A. Mahdi, M. Mokhtar and M. H. Al-Mansoori, "150-channel Four Wave Mixing based Multiwavelength Brillouin-Erbium Doped Fiber Laser," *IEEE Photonics Journal*, vol. 5, 2013. (Q1)
16. G. Mamdoohi, A. R. Sarmani, A. F. Abas, **M.H. Yaacob**, M. Mokhtar and M. A. Mahdi, "20 GHz spacing multi-wavelength generation of Brillouin-Raman fiber laser in a hybrid linear cavity," *Optics Express*, vol. 21, pp. 18724-18732, 2013. (Q1)
17. Muhammad Z. Ahmad, Abu Z. Sadek, Jian Z. Ou, **M.H. Yaacob**, Kay Latham, Wojtek Wlodarski, "Facile synthesis of nanostructured WO<sub>3</sub> thin films and their characterization for ethanol sensing," *Materials Chemistry and Physics*, vol. 141, pp. 912 – 919, 2013. (Q2)
18. Arafat A. A. Shabaneh, Azizi Mohd Ali, Chee Kyun Ng, Nor Kamariah Noordin, Aduwati Sali, **Mohd. Hanif Yaacob**, "Review of Energy Conservation Using Duty Cycling Schemes for IEEE 802.15.4 Wireless Sensor Network (WSN)," *Wireless Personal Communications*, vol. 77, pp. 589 – 604, 2014. (Q4)
19. G. Mamdoohi, A. R. Sarmani, **M. H. Yaacob**, M. Mokhtar, and M. A. Mahdi, "Multi-wavelength Brillouin-Raman fiber laser utilizing enhanced nonlinear amplifying loop mirror design," *Optics Express*, vol. 21, pp. 31800–31808, 2013. (Q1)
20. Nurul Fariha Lokman, Ahmad Ashrif A. Bakar, Fatimah Suja, Huda Abdullah, Wan Baihaqi Wan Ab Rahman, Nay-Ming Huang, **Mohd Hanif Yaacob**, "Highly sensitive SPR response of Au/chitosan/graphene oxide nanostructured thin films toward Pb (II) ions," *Sensors and Actuators B: Chemical*, vol. 195, pp. 458-466, 2014. (Q1)
21. Arasu P., Noor A. S. M, Shabaneh A. A., Girei S. H., Mahdi M. A., Lim H. N., Abdul Rashid H. A., **Yaacob M. H.**, "Absorbance properties of gold coated fiber Bragg grating sensor for aqueous ethanol," *Journal of the European Optical Society*, vol. 9, pp. 14018-1 – 14018-5, 2014. (Q3)
22. Ambali Taiwo, Sulaiman Taiwo, R.K.Z. Sahbudin, **M.H. Yaacob**, M. Mokhtar, "Fiber vibration sensor multiplexing techniques for quasi-distributed sensing," *Optics and Laser Technology*, vol. 64, pp. 36-40, 2014. (Q3)
23. Ambali Taiwo, S. Seyedzadeh, Sulaiman Taiwo, R.K.Z. Sahbudin, **M.H. Yaacob**, M. Mokhtar, "Performance and comparison of fiber vibration sensing using SAC-OCDMA with direct decoding techniques," *Optik*, vol. 125, pp. 4803 – 4806, 2014. (Q4)
24. Shabaneh, A. A., Girei, S. H., Arasu, P. T., Rahman, W. B. W. A., Bakar, A. A. A., Sadek, A. Z., Lim, H. N. Huang, N. M., **Yaacob, M. H.**, "Reflectance response of tapered optical fiber coated with graphene oxide nanostructured thin film for aqueous ethanol sensing," *Optics Communication*, vol. 331, pp. 320-324, 2014. (Q2)
25. A. A. Shabaneh, S. H. Girei, P. T. Arasu, S. A. Rashid, Z. Yunusa, M. A. Mahdi, S. Paiman, M. Z. Ahmad and **M. H. Yaacob**, "Reflectance Response of Optical Fiber Coated with Carbon Nanotubes for Aqueous Ethanol Sensing," *IEEE Photonics Journal*, vol. 6, pp. 1 – 10, 2014. (Q1)
26. A. W. Al-Alimi, **M. H. Yaacob**, A. F. Abas, "Nonlinear fiber loop mirror optimization to enhance the performance of Multiwavelength Brillouin/Erbium-doped Fiber Laser," *IEEE Photonics Journal*, vol. 6, pp. 1 – 10, 2014. (Q1)

27. AW Al-Alimi, **MH Yaacob**, AF Abas, "Half-linear cavity multiwavelength Brillouin-erbium fiber laser," *Journal of the European Optical Society*, vol. 9, pp. 14051 – 1 – 4, 2014. (Q2)
28. Aziz A., Lim H.N, Girei S.H, **Yaacob M.H.**, Mahdi M.A, Huang N.M and Pandikumar A., "Silver/Graphene Nanocomposite-Modified Optical Fiber Sensor Platform for Ethanol Detection in Water Medium," *Sensors and Actuators B: Chemical*, vol. 206, pp. 119-125, 2015. (Q1)
29. SA Ibrahim, NA Rahman, MH Abu Bakar, SH Girei, **MH Yaacob**, H Ahmad, MA Mahdi, "Room temperature ammonia sensing using tapered multimode fiber coated with polyaniline nanofibers," *Optics Express*, vol. 23, pp. 2837-2845, 2015. (Q1)
30. S. H. Girei, A. A. Shabaneh, P. T. Arasu, N. M. Lim, N. M. Huang, M. A. Mahdi and **M. H. Yaacob**, "Absorbance response of graphene oxide coated on tapered multimode optical fiber towards liquid ethanol," *Journal of European Optical Society (JEOS)*, vol. 10, pp.15019-1 – 5, 2015. (Q2)
31. Saad H. Girei, Arafat A. Shabaneh, Hong N. Lim, Mohd N. Hamidon, Mohd A. Mahdi and **Mohd H. Yaacob**, "Tapered optical fiber coated with graphene based nanomaterials for measurement of ethanol concentrations in water," *Optical Review*, vol. 22, pp. 385 – 392, 2015. (Q4)
32. Arafat Shabaneh, Saad Girei, Punitha Arasu, Mohd Mahdi, Suraya Rashid, Suriati Paiman and **Mohd Yaacob**, "Dynamic Response of Tapered Optical Multimode Fiber Coated with Carbon Nanotubes for Ethanol Sensing Application," *Sensors*, vol. 15, pp. 10452-10464, 2015. (Q1)
33. NF Razali, MHA Bakar, N Tamchek, **MH Yaacob**, AA Latif, K Zakaria, MA Mahdi, "Fiber Bragg grating for pressure monitoring of full composite lightweight epoxy sleeve strengthening system for submarine pipeline," *Journal of Natural Gas Science and Engineering*, vol. 26, pp. 135-141, 2015. (Q1)
34. Yusser Al-Qazwini, ASM Noor, **Mohd H Yaacob**, SW Harun, MA Mahdi, "Experimental realization and performance evaluation of refractive index SPR sensor based on unmasked short tapered multimode-fiber operating in aqueous environments," *Sensors and Actuators A: Physical*, vol. 236, pp. 38-43, 2015. (Q2)
35. Y Mustapha Kamil, MH Abu Bakar, MA Mustapa, **MH Yaacob**, A Syahir, MA Mahdi, "Sensitive and Specific Protein Sensing Using Single-Mode Tapered Fiber Immobilized with Biorecognition Molecules," *IEEE Photonics Journal*, vol. 7, pp. 1-9, 2015. (Q1)
36. NH Kamaruddin, AAA Bakar, **MH Yaacob**, MA Mahdi, MSD Zan, S Shaari, "Enhancement of chitosan-graphene oxide SPR sensor with a multi-metallic layers of Au–Ag–Au nanostructure for lead (II) ion detection," *Applied Surface Science*, vol. 361, pp. 177-184, 2016. (Q1)
37. AW Al-Alimi, NA Cholan, **MH Yaacob**, MA Mahdi, "Enhanced multiwavelength generation in Brillouin fiber laser with pump noise suppression technique," *Laser Physics*, vol. 26, pp. 065102, 2016. (Q3)
38. Y Al-Qazwini, ASM Noor, Z Al-Qazwini, **MH Yaacob**, SW Harun, MA Mahdi, "Refractive index sensor based on SPR in symmetrically etched plastic optical fibers," *Sensors and Actuators A: Physical*, vol. 246, pp. 163-169, 2016. (Q2)
39. PT Arasu, ASM Noor, AA Shabaneh, **MH Yaacob**, HN Lim, MA Mahdi, "Fiber Bragg grating assisted surface plasmon resonance sensor with graphene oxide sensing layer," *Optics Communications*, vol. 380, pp. 260-266, 2016. (Q2)
40. A Jamalud-din, **MH Yaacob**, MHA Bakar, S Hitam, "Performance of improved X-axis auto-alignment and detection for single-channel FSO system," *Photonic Network Communications*, vol. 32, pp. 1-14, 2016. (Q4)
41. Alwahib, A.A, Sadrolhosseini, A.R., An'amt, M.N., Lim, H.N., **Yaacob, M.H.**, Abu Bakar, M.H., Ming, H.N., Mahdi, M.A., "Reduced Graphene Oxide/Maghemite Nanocomposite for Detection of Hydrocarbon Vapor Using Surface Plasmon Resonance," *IEEE Photonics Journal*, vol. 8, pp. 1 - 9, 2016. (Q1)
42. A.L. Khalaf, P.T. Arasu, H.N. Lim, S. Paiman, N.A. Yusof, M.A. Mahdi and **M.H. Yaacob**, "Modified plastic optical fiber with CNT and graphene oxide nanostructured coatings for ethanol liquid sensing," *Optics Express*, vol. 25, pp. 5509-5520, 2017. (Q1)
43. Nor Akmar Mohd Yahya, Mohd Rashid Yusof Hamid, Siti Azlida Ibrahim, Boon Hoong Ong, Norizah Abdul Rahman, Ahmad Rifqi Md Zain, Mohd Adzir Mahdi, **Mohd Hanif Yaacob**, "H<sub>2</sub> sensor based on tapered optical fiber coated with MnO<sub>2</sub> nanostructures," *Sensors and Actuators B: Chemical*, vol. 246, pp. 421 – 427, 2017. (Q1)
44. AW Al-Alimi, NA Cholan, **MH Yaacob**, MA Mahdi, "Wideband multiwavelength output generation based on cascaded four-wave mixing in distributed Raman amplifier utilizing a Fabry-Pérot laser diode," *Optics & Laser Technology*, vol. 93, pp. 87-91, 2017. (Q2)
45. SC Lau, HN Lim, TBSA Ravoof, **MH Yaacob**, DM Grant, RCI MacKenzie, I Harrison, NM Huang, "A three-electrode integrated photo-supercapacitor utilizing graphene-based intermediate bifunctional electrode," *Electrochimica Acta*, vol. 238, pp. 178 – 184, 2017. (Q1)
46. A.L. Khalaf, F.S. Mohamad, N. Abdul Rahman, H.N. Lim, S. Paiman, N.A. Yusof, M.A. Mahdi and **M.H. Yaacob**, "Room temperature ammonia sensor using side-polished optical fiber coated with graphene/polyaniline nanocomposite," *Optical Material Express*, vol. 7, pp. 1858 – 1870, 2017. (Q1)
47. Mohammad Bagher Rahmani, **Mohd Hanif Yaacob**, Ylias Mohammad Sabri, "Hydrogen Sensors Based on 2D WO<sub>3</sub> Nanosheets Prepared by Anodization," *Sensors and Actuators B: Chemical*, vol. 251, pp. 57 – 64, 2017. (Q1)

## ▪ Journals – Non Citation Index

1. **Mohd Hanif Yaacob**, Ahmad Ashrif Abu Bakar, Norhana Arsad, Norshamsuri Ali, Aidi Zakarna and Mohamad Khazani Abdullah, "The Effects of a Feedback Capacitor in an Optical Receiver Designed with Transimpedance Amplifier," *Jurnal Teknologi (D) UTM*, no. 42, pp. 1-8, 2005. Indexed by Scopus
2. MT Al-Qdah, HA Abdul-Rashid, K Dimiyati, **MH Yaacob**, BM Ali, M Khazani, "CD and OBI Penalties in MOC-SCM Optical Networks in Presence of FWM," *WSEAS Transactions on Communications*, Issue 3, vol. 5, pp. 593-598, 2006. Indexed by Scopus
3. Yusser Al-Qazwini, A. S. M. Noor, T. K. Yadav, **M. H. Yaacob**, S. W. Harun, M. A. Mahdi, "Performance evaluation of a bilayer SPR-based fiber optic RI sensor with TiO<sub>2</sub> using FDTD solutions," *Photonic Sensors*, vol. 4 (4), pp. 289-294, 2014. Indexed by Scopus
4. Ali Abdulkhaleq Alwahib, AR Sadrolhosseini, HN Lim, **MH Yaacob**, MH Abu Bakar, MA Mahdi, "Study of EDC/NHS immobilization for plumbous detection using surface plasmon resonance," *Jurnal Teknologi*, vol. 78, pp. 253-256, 2016. Indexed by Scopus

## ▪ Chapter in Books

1. R. Arsat, **M. H. Yaacob**, P. L. Leow, F. K. C. Harun, K. Kalantar-zadeh and W. Wlodarski, "Electropolymerized Polyaniline Nanostructured Thin Films for Gas Sensing applications" Chapter 13, in *Progress in Process Tomography & Instrumentation System: Series 3*, UTM Press, ISBN: 978-967-354-180-5, 2011.

## ▪ Conference Proceedings

1. Z Zan, S Hitam, WAW Adnan, **MH Yaacob**, MK Abdullah, "Design of an Optical Fiber Link Employing QPSK Format with SCM Scheme," *IEEE Asia Pacific Communication Conference*, Penang, Sept 2003.
2. **MH Yaacob**, N Arsad, MA Mahdi, MK Abdullah, "Reduction of Gain Peaking using a Simple Feedback Capacitor in an Optical Front-end Receiver," *International Conference on Advances in Strategic Technologies*, Kuala Lumpur, Aug 2003.
3. A.A.A. Bakar, **M.H. Yaacob**, M.Z. Jamaluddin, N. Ali, M.A. Mahdi and M.K. Abdullah, "Fiber break monitoring system employing strong back-reflected light in optical fibers," *MMU International Symposium on Information and Communication Technologies (M2USIC 2004)*, paper TS 2C – 3, pp. 8-10, 2004.
4. M.S.Z. Abidin, A.W. Naji, M.H. Al-Mansoori, S.B.A. Anas, **M.H. Yaacob**, F.R.M. Adikan and M.A. Mahdi, "Design considerations of remotely-pumped EDFA location in repeaterless transmission systems," *MMU International Symposium on Information and Comm. Technologies (M2USIC 2004)*, paper TS 1C – 5, pp. 15-18, 2004.
5. M. S. Z. Abidin, A.W. Naji, M. H. Al-Mansoori, S. B. A. Anas, **M. H. Yaacob**, F.R.M. Adikan and M. A. Mahdi, "Optimization of Remotely-Pumped EDFA Location in Repeaterless Transmission Systems," *IEEE LEOS Malaysian Conference on Photonics 2004*, Kuala Lumpur, Sept 2004.
6. SA Aljunid, MDA Samad, **MH Yaacob**, MK Abdullah, "A Variable-Weight Code For Spectral Amplitude Coding Optical Code Division Multiple Access System," *IEEE LEOS Malaysian Conference on Photonics 2004*, KL, 2004.
7. N. Ali, M. Z. Jamaluddin, **M.H. Yaacob**, A.A.A. Bakar, M. K. Abdullah, "Analysis the Effect of Wavelength Spacing on CWDM System in the Access Network," *IEEE LEOS Malaysian Conference on Photonics 2004*, Kuala Lumpur, Sept 2004.
8. Z. Zan, M.K. Abdullah, S.A.Aljunid, **M.H. Yaacob**, S.B.A. Anas, and S. Shaari, "Design of Encoder and Decoder Modules based on Fiber Bragg Gratings (FBGs) for Spectral Amplitude Coding (SAC) Optical Code Division Multiple Access (OCDMA) System," *IEEE International Conference on Instrumentation, Communication, and Information Technology (ICICI) 2005*, Bandung Indonesia, August 2005.
9. Z. Zan, S.A. Aljunid, **M.H. Yaacob**, M.K. Abdullah and S. Shaari, "Design Configuration of Encoder and Decoder Modules for Modified Double Weight (MDW) Spectral Amplitude Coding (SAC) Optical Code Division Multiple Access (OCDMA) based on Fiber Bragg Gratings (FBGs)," *IEEE LEOS International Conference on Advanced Optoelectronics and Lasers (CAOL 2005)*, Ukraine, Sept 2005.
10. Z. Zan, S.A. Aljunid, **M.H. Yaacob**, S.B.A. Anas and M.K. Abdullah, "Design of Parallel and Serial Configurations of Encoder and Decoder Modules for Spectral Amplitude Coding (SAC) Optical Code Division Multiple Access (OCDMA) based on Fiber Bragg Gratings (FBGs)," *IEEE Malaysia International Conference on Communications 2005*, Kuala Lumpur, November 2005.
11. MN Saadat, **MH Yaacob**, RKZ Sahbuddin, S Khatun, BM Ali and RSAR Abdullah, "Bluetooth Based Wireless Remote Device Controlling and Data Acquisition," *IEEE Advanced International Conference on Telecommunications (AICT 2006)*, Guadalupe French Caribbean, February 2006.
12. Z. Zan, M.K. Abdullah, S.A. Aljunid, R.K.Z. Sahbudin, **M.H. Yaacob**, M. Mokhtar and S. Shaari, "Effects of the Power Differences in the AND Subtraction Detection Technique in SAC-OCDMA System Performance," *2006 IEEE International Conference on Semiconductor Electronics (ICSE06)*, Kuala Lumpur, 29 Nov -1 Dec 2006.
13. Z. Zan, M.K. Abdullah, S.A. Aljunid, R.K.Z. Sahbudin, **M.H. Yaacob**, M. Mokhtar and S. Shaari, "Wavelength Shifting in the Fiber Bragg Grating (FBG) Based Encoder and Decoder Modules for SAC-OCDMA System," *2006 IEEE International Conference on Semiconductor Electronics (ICSE06)*, Kuala Lumpur, 29 Nov -1 Dec 2006.

14. **M.H. Yaacob**, M. Breedon, K. Kalantar-zadeh, W. Wlodarski, "H<sub>2</sub> Absorption Spectral Response of Nanostructured WO<sub>3</sub>/Pt Films," Proceedings of the 12th International Meeting on Chemical Sensors 2008, pp. 421-422, Ohio, USA.
15. **M. H. Yaacob**, M. Breedon, K. Kalantar-zadeh, Y. Li, W. Wlodarski, "Comparative Study of the Gasochromic Performance of Pd/WO<sub>3</sub> and Pt/WO<sub>3</sub> Nanotextured Thin Films for Low Concentration Hydrogen Sensing," Proceedings of IEEE Sensors 2009, pp. 304-307, Christchurch, New Zealand.
16. **M.H. Yaacob**, A.Z. Sadek, K. Latham, K. Kalantar-zadeh, W. Wlodarski, "Optical H<sub>2</sub> Sensing Performance of Anodized Nanoporous TiO<sub>2</sub> Thin Films," Proceedings of 23rd Eurosensors 2009 - Procedia Chemistry, vol. 1, no. 1, pp. 951-954, 2009, Lausanne, Switzerland.
17. **M.H. Yaacob**, M. Breedon, W. Wlodarski, K. Kalantar-zadeh, "A systematic investigation into the gasochromic response observed in a series of Pd/WO<sub>3</sub> nanotextured thin films exposed to H<sub>2</sub>," Nano Today 2009, Singapore.
18. R. Arsat, **M.H. Yaacob**, X. He, W. Wlodarski, K. Kalantar-zadeh, "Absorption Spectral Response of Electropolymerised Nanostructured Polyaniline Thin Films Towards NO<sub>2</sub>," Nano Today 2009, Singapore.
19. **M.H. Yaacob**, J. Yu, K. Latham, K. Kalantar-zadeh, W. Wlodarski, "Optical H<sub>2</sub> Sensing Properties of Nanostructured Pd/MoO<sub>3</sub> Films," 8th Asian Conference on Chemical Sensors 2009, Daegu, Korea (presented)
20. **M.H. Yaacob**, J.L. Campbell, A. Wisitsoraat, K. Kalantar Zadeh and W. Wlodarski, "Gasochromic Response of Pd/NiO Nanostructured Film Towards Hydrogen," Proceedings of the 13th International Meeting on Chemical Sensors 2010, pp. 310, Perth, Australia.
21. **M.H. Yaacob**, J. Ou, O. Berger, W.-J. Fischer, K. Kalantar Zadeh and W. Wlodarski, "Gasochromic Response of Electron-beam Deposited WO<sub>3</sub> Thin Films Towards Low Concentrations of Hydrogen," Proceedings of the 5th Asia-Pacific Conference on Transducers and Micro-Nano Technology 2010, pp. 121, Perth, Australia.
22. E. Della Gaspera, A. Martucci, **M. Yaacob**, J. Ou, K. Kalantar-zadeh, W. Wlodarski, "WO<sub>3</sub>-Au nanocomposite thin films as optical gas sensors," Proceedings of the 13th International Meeting on Chemical Sensors 2010, pp. 287, Perth, Australia.
23. J. Ou, **M.H. Yaacob**, J.L. Campbell, H.Zheng, K. Kalantar-zadeh, W. Wlodarski, "Optical Hydrogen Sensing of Anodized Nanoporous Tungsten Trioxide Film," Proceedings of the 13th International Meeting on Chemical Sensors 2010, pp. 70, Perth, Australia.
24. J.Z. Ou, M. Consales, **M.H. Yaacob**, M. Penza, A. Cusano, W. Wlodarski, "Optical Fiber Gas Sensing Using WO<sub>3</sub> Nanostructured Layers," Proceedings of the 13th International Meeting on Chemical Sensors 2010, pp. 38, Perth, Australia.
25. J. Ou, **M.H. Yaacob**, M. Breedon, K. Kalantar-zadeh, W. Wlodarski, "H<sub>2</sub> Sensing Performance of Optical Fiber Coated with Sputtered WO<sub>3</sub> Film," European Workshop on Optical Fibre Sensors (EWOFS) 2010 - Proceedings of SPIE, vol. 7653, pp. 76530N-76530N-4, Porto, Portugal.
26. J. Ou, **M.H. Yaacob**, J.L. Campbell, K. Kalantar-zadeh, W. Wlodarski, "H<sub>2</sub> Sensing Performance of Optical Fiber Coated with Nano-platelet WO<sub>3</sub> Film," 24th Eurosensors 2010 - Procedia Engineering, vol. 5, pp. 1204-1207, Linz, Austria.
27. **M.H. Yaacob**, J. Ou, K. Kalantar-zadeh, W. Wlodarski, "Investigation of Nanostructured Tungsten Trioxide (WO<sub>3</sub>) based Optical Sensor for Hydrogen (H<sub>2</sub>) Sensing Application," IEEE Australia and New Zealand Student Congress 2010, Melbourne, Australia.
28. **M.H. Yaacob**, C.M. Oh, J.H. Kang, G. Sbverelgieri, W. Wlodarski, "Gasochromic Response of WO<sub>3</sub> Nanorods Towards Low Hydrogen Concentrations," 25th Eurosensors 2011, Athens, Greece.
29. Joonhee Kang, Chul M. Oh, **Mohd H. Yaacob**, Jian Z. Ou, Chung S. Kim, Jeong Y. Lee, Wojtek Wlodarski, "Optical H<sub>2</sub> Sensing Properties of WO<sub>3</sub> Nanostructured Thin Films on Sapphire (Al<sub>2</sub>O<sub>3</sub>) Substrate," 9th Asian Conference on Chemical Sensors 2011, Taipei, Taiwan.
30. J. Kang, C.M. Oh, C.S. Kim, J.Y. Lee, Y.H. Kim, M. Rekas, D. Flak, **M. H. Yaacob**, W. Wlodarski, "Fabrication of ZnO and WO<sub>3</sub> Nanostructured Thin Films by ArF Excimer Laser for Gas Sensing Applications," European Material Research Society (E-MRS) Meeting 2011, Strasbourg, France.
31. Wisitsoorat A., Ahmad M.Z., **Yaacob M.**, Horpratum M., Wlodarski Wojtek, "Optical H<sub>2</sub> Sensing Properties of the WO<sub>3</sub> Nanorod Thin Films Deposited via Glancing Angle RF Magnetron Sputtering," 4th International Symposium on Transparent Conductive Materials 2012, Crete, Greece.
32. S.H. Girei, A.A. Shabaneh, P.T. Arasu, S. Paiman, **M.H. Yaacob**, "Tapered Multimode Fiber Sensor for Ethanol Sensing Application," 4th IEEE International Conference on Photonics 2013, Malacca, Malaysia.
33. A.A. Shabaneh, P.T. Arasu, S.H. Girei, N.M. Huang, **M.H. Yaacob**, "Reflectance Response of Optical Fiber Sensor Coated with Graphene Oxide towards Ethanol," 4th IEEE International Conference on Photonics 2013, Malacca, Malaysia.
34. G. Mamdoohi, A. R. Sarmani, A.R. Sadrolhosseini, **M.H. Yaacob**, M. Mokhtar, M. A. Mahdi, "Multiwavelength Brillouin-Raman Fiber Laser Utilizing Enhanced Nonlinear Raman Amplified Loop Mirror Design," 4th IEEE International Conference on Photonics 2013, Malacca, Malaysia.
35. P. T. Arasu, A. A. Shabaneh, S.H. Girei, **M.H. Yaacob**, A.S.M. Noor, "Enhancement of Fiber-SPR Sensor Utilizing Graphene Oxide," 4th IEEE International Conference on Photonics 2013, Malacca, Malaysia.
36. T.A. Ambali, S. Seyedzadeh, T.L. Sulaiman, R.K.Z. Sahbudin, **M.H. Yaacob**, M. Mokhtar, "Performance Comparison of OCDMA Codes for Quasi-Distributed Fiber Vibration Sensing," 4th IEEE International Conference on Photonics 2013, Malacca, Malaysia.

37. A.W. Al-Alimi, **M.H. Yaacob**, A.F. Abas, M.A. Mahdi, M. H. Al-Mansoori, and M. Mokhtar, "Widely Tunable Multiwavelength Hybrid Brillouin-erbium Fiber laser utilizing Virtual Mirror," 4<sup>th</sup> IEEE International Conference on Photonics 2013, Malacca, Malaysia.
38. A. A. Shabaneh, S. H. Girei, P. T. Arasu, M. A. Mahdi, S. Rahmanian, S. A. Rashid, S. Paiman and **M. H. Yaacob**, "Dynamic Response of Tapered Optical Multimode Fiber Coated with Carbon Nanotubes for Ethanol Sensing Application," 7<sup>th</sup> Asia-Pacific Conference on Transducers & Micro/Nano Technologies, 2014, Daegu, South Korea.
39. S. A. Ibrahim, N. Abdul Rahman, M. H. Abu Bakar, **M. H. Yaacob**, M. A. Mahdi, "Polyaniline coated on tapered multimode fiber for ammonia sensing," 5<sup>th</sup> IEEE International Conference on Photonics 2014, Kuala Lumpur, Malaysia.
40. A. Noura, G. Mamdoohi, **MH. Yaacob**, MHA. Bakar, S.B.A. Anas, "Optimization of Hybrid Brillouin-Raman-EDF Amplification Fiber Laser in Long Distance FBG Sensor System," 5<sup>th</sup> IEEE International Conference on Photonics 2014, Kuala Lumpur, Malaysia.
41. Kuje Danjuma, Ambali Taiwo, R.K.Z. Sahbudin, M. Mokhtar, **M.H. Yaacob**, "Performance of SAC- OCDMA Codes for Multipoint Fiber Vibration Sensing," 5<sup>th</sup> IEEE International Conference on Photonics 2014, KL, Malaysia.
42. NF Razali, MH Abu Bakar, N Tamchek, **MH Yaacob**, MA Mahdi, "Temperature sensitivity comparison between bare FBG and buffered FBG," Photonics (ICP), 5<sup>th</sup> IEEE International Conference on Photonics 2014, Kuala Lumpur, Malaysia.
43. Y Mustapha Kamil, MA Mustapa, MH Abu Bakar, B Musa, A Syahir, **MH Yaacob**, MA Mahdi, "Refractive index sensor with asymmetrical tapered fiber based on evanescent field sensing," 2015 IEEE International Broadband and Photonics Conference (IBP), Bali, Indonesia.
44. Arafat Shabaneh, Saad Girei , Fatima Mohamad, Azlida Ibrahim,Ahmad Lateef, Norizah Abdul Rahman, Mohd Adzir Mahdi, Suriati Paiman, **Mohd Hanif Yaacob**, "Reflectance Response of Tapered Multimode Fiber Coated With Polyaniline for Ammonia Sensing," 4<sup>th</sup> Advanced Lasers and Photon Sources 2015, Yokohama, Japan.
45. Firdaus Kamuri, Zurina Zainal Abidin, Nurul Amziah Md Yunus, Mohd Nizar Hamidon, **Mohd Hanif Yaacob**, Suryani Kamarudin, Siti Zalikha Zhukhi, "Optimization on the preparation of microfluidic channel using dry film resist," 2015 IEEE International Conference on Smart Sensors and Application (ICSSA), Kuala Lumpur, Malaysia.
46. Yusser Al-Qazwini, ASM Noor, **Mohd H Yaacob**, MA Mahdi, SW Harun, "Influence of design parameters on the performance of a refractive index sensor based on SPR in plastic optical fibers," 2015 IEEE Photonics Conference (IPC), Virginia, USA.
47. Yusser Al-Qazwini, ASM Noor, **Mohd H Yaacob**, SW Harun, MA Mahdi, "Fabrication and Characterization of a Refractive Index Sensor Based on SPR in an Etched Plastic Optical Fiber," Eurosensors 2015, Freiburg, Germany.
48. AL Khalaf, FS Mohamad, PT Arasu, AA Shabaneh, N Abdul Rahman, HN Lim, S Paiman, NA Yusof, MA Mahdi, **MH Yaacob**, "Modified plastic optical fiber coated graphene/polyaniline nanocomposite for ammonia sensing," 6<sup>th</sup> IEEE International Conference on Photonics 2016, Kuching, Malaysia.
49. PT Arasu, ASM Noor, AL Khalaf, **MH Yaacob**, "Highly sensitive plastic optical fiber with palladium sensing layer for detection of hydrogen gas," 2016 IEEE Region 10 Symposium (TENSYP), Bali, Indonesia.

#### ▪ Consultancy Reports

1. M.K. Abdullah and **M.H. Yaacob**, Technology Pre-feasibility and Feasibility Study to Develop and Manufacture Optical Media Converter for Metropolitan and Access Network Application (2005).

#### Patent

1. Dual Core Erbium Doped Fiber Amplifier PI 20055029 (Pending)
2. Optical Fiber Sensor for Ammonia Sensing PI 2016700567 (Pending)

#### Awards & Recognitions

1. Bronze, Media Converter, UPM Research & Invention Exhibition 2003, UPM.
2. Bronze, Automatic Protection Switch, 32<sup>nd</sup> International Invention and New Product Exhibition 2004, Geneva Switzerland
3. Gold Paper, A Variable-Weight Code for Spectral Amplitude Coding Optical Code Division Multiple Access System, IEEE LEOS Malaysian Conference on Photonics 2004, Kuala Lumpur
4. Excellent Scientist Award 2004, Malaysia Ministry of Higher Education, Kuala Lumpur, October 2004
5. Gold, Optical Fiber Duplexer Module, British Invention Show 2004, London, UK
6. Gold, Optical Fiber Duplexer Module, International Exhibition on New Inventions (IENA) 2004, Nuremberg, Germany
7. Gold, Double Carrier Modulation/Differential Detection, International Exhibition on New Inventions (IENA) 2004, Nuremberg, Germany
8. 1<sup>st</sup> Place, Vehicle Collision Avoiding Device (VECAD), MSC-UPM Business Plan Competition 2004
9. 2<sup>nd</sup> Runner UP, Vehicle Collision Avoiding Device (VECAD), National MSC-Institute of Higher Learning Business Plan Competition, February 2005
10. Bronze, Development of Dual Core EDFA Based on Polarization, ITEX 2005 (16<sup>th</sup> International Invention, Innovation, Industrial Design and Technology Exhibition), Kuala Lumpur

11. Bronze, Wireless Remote Data Acquisition Using Bluetooth Technology, ITEX 2005 (16th International Invention, Innovation, Industrial Design and Technology Exhibition), Kuala Lumpur
12. Bronze, Development of Dual Core EDFA Based on Polarization, UPM Invention, Research and Innovation Exhibition 2005, UPM
13. Bronze, Wireless Remote Data Acquisition Using Bluetooth Technology, UPM Invention, Research and Innovation Exhibition 2005, UPM
14. Excellent Scientist Award 2005, Malaysia Ministry of Higher Education, Kuala Lumpur, August 2005
15. Bronze, Optical Fiber Duplexer Module, Malaysia IPTA Exhibition 2005, Kuala Lumpur
16. Gold, Bluetooth Smart Remote Control and Sensor System (BLUESS), 54<sup>th</sup> World Exhibition on Innovation, Research and New Technologies (EUREKA 2005), Brussels, Belgium
17. Silver, Multi-channel m-health System with Embedded Bluetooth and J2ME Interfaces, Engineering Research, Innovation and Commercial Exhibition, Mac 2006, UPM
18. 2005 UPM Excellent Researcher Award for International Exhibition – Universiti Putra Malaysia
19. 2006 Selangor Young Scientist Award (team member) - Selangor State Government
20. 2007 PhD Scholarship Award, Islamic Development Bank (IDB), Jeddah, Saudi Arabia
21. 2007 PhD Scholarship Award, Malaysia Ministry of Science, Technology and Innovation (MOSTI)
22. 1<sup>st</sup> Prize Best Project, IEEE Australia and New Zealand Student Congress 2010, Melbourne, Australia
23. 2012 RMIT Vice Chancellor Research Excellence Award – Team Winner
24. 2012, UPM Excellence in Teaching Award, Faculty of Engineering, Universiti Putra Malaysia
25. Gold, Highly Sensitive Ammonia Sensor using Tapered Optical Fiber Coated with Zinc Oxide Nanostructures, UPM Invention, Research and Innovation Exhibition 2016, UPM
26. Universiti Putra Malaysia Excellence Service Award – 2003, 2004, 2005, 2012, 2013, 2014, 2015, 2016
27. Bronze, Highly Sensitive Ammonia Sensor using Tapered Optical Fiber Coated with Zinc Oxide Nanostructures, ITEX 2017 (28<sup>th</sup> International Invention, Innovation, Industrial Design and Technology Exhibition), Kuala Lumpur.
28. Special ‘World News’ Coverage in Laser Focus World Magazine (April 2017) for Optics Express article “Modified plastic optical fiber with CNT and graphene oxide nanostructured coatings for ethanol liquid sensing.”
29. Selected for top 13 articles in Virtual Feature Issue ‘Multimaterial and Multifunctional Optical Fibers (MMOF)’ in Optical Material Express (2017) for article “Room temperature ammonia sensor using side-polished optical fiber coated with graphene/polyaniline nanocomposite.”

#### Other Publications and Publicities

1. Kaharudin Dimiyati and Mohd Hanif Yaacob (Editors), Proceedings of 2004 IEEE LEOS Malaysian Conference on Photonics, Bandar Baru Bangi, 2004. ISBN 983-41948-0-3.
2. Mohd Hanif Yaacob and Kin Yuen Leong (Editors), Proceedings of 2014 International Conference on Defence and Security Technology, Seri Kembangan, 2014. ISBN 978-967-960-215-9.

#### Referees:

Professor Mohd Adzir Mahdi  
 Department of Computer & Communication Systems Eng.,  
 Faculty of Engineering,  
 Universiti Putra Malaysia,  
 43400 Serdang,  
 Selangor,  
 Malaysia.  
 Email: [mam@upm.edu.my](mailto:mam@upm.edu.my)

Professor Kourosh Kalantar-Zadeh  
 School of Electrical & Computer Engineering,  
 Royal Melbourne Institute of Technology University,  
 GPO Box 2476,  
 Melbourne 3001,  
 Victoria,  
 Australia.  
 Email: [kourosh.kalantar@rmit.edu.au](mailto:kourosh.kalantar@rmit.edu.au)