

## CURRICULUM VITAE



Assoc. Prof. Dr Mohd Nizar Hamidon  
 Department of Electric and Electronic Engineering  
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 Universiti Putra Malaysia,  
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### Education

1. Ph.D Electric and Electronic Engineering (Wireless Sensor), 2005, University of Southampton, UK
2. M.S. (Microelectronic), 2001, Universiti Kebangsaan Malaysia, Malaysia
3. B.Sc Physics, 1995, Universiti Malaya, Malaysia.

### Areas of Interest

1. Electron Devices
2. Sensor Technology
3. Nanotechnology
4. Wireless System

### Professional Qualification/Membership/Affiliation

1. Advisory Committee of IEEE Electron Devices Society Malaysia Chapter 2015-now
2. Chair of IEEE Electron Devices Society Malaysia Chapter, 2013-2014
3. Treasurer of IEEE Electron Devices Society Malaysia Chapter, 2006 –2012
4. Member, Institute of Electrical and Electronics Engineers (IEEE)
5. Member, Institute of Electronics, Information and Communication Engineering (IEICE)
6. Member, Malaysian Solid State Science and Technology Society

### Appointments

Position	Duration
1. Director, Institute of Advanced Technology, UPM	September 2017 until now
2. Deputy Director, Institute of Advanced Technology, UPM	June 2012 - September 2017
3. Head of Laboratory, Institute of Advanced Technology, UPM	April 2011– June 2012

### Experience

#### Committee member for Conferences

1. 2006 IEEE International Conference on Semiconductor Electronics (ICSE 2006)
2. World Engineering Congress 2007 (WEC 2007)
3. 2007 IEEE Regional Symposium on Microelectronics (RSM 2007)
4. 2008 IEEE International Conference on Semiconductor Electronics (ICSE 2008)
5. 2009 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2009)
6. 2010 IEEE International Conference on Semiconductor Electronics (ICSE 2010)
7. Asia Pacific Symposium on Applied Electromagnetics and Mechanics (APSAEM 2010)
8. 2010 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS 2010)
9. 2011 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2011)
10. 2012 IEEE International Conference on Semiconductor Electronics (ICSE 2012)
11. 2014 IEEE International Conference on Semiconductor Electronics (ICSE 2014)
12. 2016 IEEE International Conference on Semiconductor Electronics (ICSE 2016)
13. 2017 IEEE International Conference on Semiconductor Electronics (ICSE 2017)

### Chairperson of Conference

1. Session Chair, 2007 IEEE Regional Symposium on Microelectronics (RSM 2007)
2. Chair, IEEE Student Conference on Research and Development (SCORED 2009)
3. Session Chair, 11<sup>th</sup> International Symposium on Advanced Materials (ISAMPK 2009)
4. Session Chair, 2010 IEEE International Conference on Semiconductor Electronics (ICSE 2010)
5. Session Chair, 2010 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS 2010)
6. Session Chair, 2011 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2011)
7. Chair, 2013 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2013)
8. Session Chair, 2014 IEEE International Conference on Semiconductor Electronics (ICSE 2014)
9. Chair, 2015 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2015)
10. Session Chair, 2016 IEEE International Conference on Semiconductor Electronics (ICSE 2016)
11. Chair, 2017 IEEE Regional Symposium on Micro and Nanoelectronics (RSM 2017)

### Teaching

EEE 3102 Semiconductor Devices  
 EEE 3105 Digital Circuits  
 EEE 3502 Communication Engineering  
 EEE 4205 Microsystem and Sensor  
 EEE 4208 Advanced Semiconductor Devices  
 EEE 5204 Sensors Design and Applications  
 KEE 5214 Advance Digital System Design

## Publications

### Journals

#### 2018

1. M. Asnawi, S. Azhari, **M.N. Hamidon**, I. Ismail, I.H. Hasan, "Synthesis of carbon nanomaterials from rice husk via microwave oven," " Journal of Nanomaterials, Vol. 2018, pp.1-5, 2018 (IF: 1.871) Q2
2. M. Husham, **M.N. Hamidon**, Z. Hassan, A.F. Ahmad and A.A. Al-Dulaimi, "Effect of deposition time on the characteristics of nanocrystalline cds thin films and photodetection properties," Journal of Nanoelectronics and Optoelectronics 13 (4), pp. 484-492, 2018 (IF: 0.497) Q4
3. I.M. Rusni, A. Ismail and **M.N. Hamidon**, "Sensitivity enhancement of chemical sensor using aligned-gap split ring resonator," Journal of Fundamental and Applied Sciences Vol. 10 (6S),pp. 471-48, 2018
4. M.M. Syazwana, A.N. Hapishah, R.S. Azisa, Z. Abbas and **M.N. Hamidon**, "Grain growth effects on magnetic properties of Ni<sub>0.6</sub>Zn<sub>0.4</sub>Fe<sub>2</sub>O<sub>4</sub> material prepared using mechanically alloyed nanoparticles," Results in Physics, Vol. 9 (2018), pp. 842–850, 2018 (IF : 0.946) Q3

#### 2017

5. A. Termeh Yousefi, S. Azhari, A. Khajeh, **M.N. Hamidon**, H. Tanaka, "Development of haptic based piezoresistive artificial fingertip: Toward efficient tactile sensing systems for humanoids," Materials Science and Engineering C, Vol. 77(2017), pp. 1098–1103, 2017 (IF: 4.164) Q2
6. N. Kure, **M.N. Hamidon**, M.S. Mamat, H.M. Yusoff, S. Azhari, M. Isa and Z. Yunusa, " Simple microwave-assisted synthesis of carbon nanotubes using polyethylene as carbon precursor" Journal of Nanomaterials, Vol. 2017, pp.1-4, 2017 (IF: 1.871) Q2
7. A. Mansor, R. Shamsuddin, N. Mohd Adzahan and **M.N. Hamidon** "Performance of uv pasteurization with quartz glass sleeve on physico-chemical properties and microbial activity of pineapple juice" Journal of Food Process Engineering, Vol. 40(1), no. e12263, 2017 (IF:1.370) Q3
8. W.Z. Wan Hasan, F.R M. Rashidi, **M.N. Hamidon** and Y. Wahab, "Design of readout circuit for piezoresistive pressure sensor using nodal array approach reading technique," Pertanika J. Sci. & Technol., Vol. 25 (S), pp 215-224, 2017 (Indexed in SCOPUS)
9. M. Norhisam, M.K. Roslan, A. Ishak and **M.N. Hamidon**, "Metal shape detection and evaluation using giant magneto resistance system," Pertanika J. Sci. & Technol., Vol. 25 (S), pp. 197-204,

- 2017 (Indexed in SCOPUS)
10. Kamilu Iman Usman, **M.N. Hamidon**, Siti Fatimah Abd Rahman and Guan Ling Sim, "Silicon nanowire interface circuit for dna detection," *Pertanika J. Sci. & Technol.*, Vol. 25 (S), pp 251-258, 2017 (Indexed in SCOPUS)
  11. **M.N. Hamidon**, Guan Ling Sim and Kamilu Iman Usman, "Sensitivity study of graphene nanoribbon with nh<sub>3</sub> at room temperature," *Pertanika J. Sci. & Technol.*, Vol. 25 (S), pp 259-266, 2017 (Indexed in SCOPUS)
  12. M. Husham, **M.N. Hamidon**, Z. Hassan and A.A. Al-Dulaimi, "Effect of deposition time on the characteristics of chemically bath deposited nanocrystalline cds thin films and photodetection properties," *Journal of Nanoelectronics and Optoelectronics*, Vol. 12, pp. 1-9, 2017 (IF: 0.497) Q4
  13. M. Husham, **M.N. Hamidon**, S. Paiman, A.A. Abuelsamen, O.F. Farhat, Ahmed Aldulaime, "Synthesis of ZnO nanorods by microwave-assisted chemical-bath deposition for highly sensitive self-powered UV detection application," *Sensors and Actuators A*, Vol. 263(2017), pp. 166-173, 2017 (IF: 2.499) Q1
  14. S. Azahari, H. Tanaka, **M.N. Hamidon**, A.T. Yousefi, A. Khajeh, K. Nicodemus and M.M. Bigdeli, "Fabrication of piezoresistive based pressure sensor via purified and functionalized cnts/pdms nanocomposite: toward development of haptic sensors," *Sensors and Actuators A*, Vol. 266(2017), pp. 158-165 (IF: 2.499) Q1
  15. A. Sabah, **M.N. Hamidon**, S.M. Yousif, A. Ismail and I.H. Hasan, "New method to estimate the permittivity of dielectric materials using mstps," *Journal of Superconductivity and Novel Magnetism*, Vol. 30 (12), pp.3577-3580, 2017 (IF: 1.180) Q3
  16. V. Thangasamy, N.A Kamsani, **M.N Hamidon**, S.Jahari Hashim, Z. Yusoff and M.F. Bukhori, "Digital-controlled multimode multiband power amplifier with multiple gated transistor," *IETE Technical Review*, Vol. 34(1), pp. 48-57, 2017 (IF: 1.304) Q2

## **2016**

17. S.F.A. Rahman, N.A. Yusof, U. Hashim, R. Hushiarian, **M.N. Hamidon** , R.M. Zawawi and M.F.M. Fathil, "Enhanced sensing of dengue virus dna detection using o<sub>2</sub> plasma treated-silicon nanowire based electrical biosensor," *Analytica Chimica Acta*, Vol. 946 (2016), pp. 74-85, 2016 (IF: 4.712) Q1
18. F.Larki, A. Dehzangi, S.H. Md Ali, S.D. Hutagalung, M. S. Islam , **M.N. Hamidon**, P. Susthitha Menon N V Visvanathan, A. Jalar, J. Hassan and B.Y. Majlis, "Study of the side gate junctionless transistor in accumulation region" *Microelectronics International*, Vol. 33 (2), pp. 61-67, 2016 (IF:0.519) Q4
19. N. Lottivand, V. Abdolzadeh and **M.N. Hamidon**, "Artificial olfactory system with fault-tolerant sensor array," *ISA Transactions*, Vol. 63(2016), pp. 425-435 (IF: 2.984) Q1
20. M. Ehsani, **M.N. Hamidon**, A. Toudeshki, M. H. Shahrokh Abadi and S. Rezaeian, "Co<sub>2</sub> gas sensing properties of screen printed la<sub>2</sub>o<sub>3</sub>/sno<sub>2</sub> thick film," *IEEE Sensors Journal*, Vol. 16(18), pp. 6839-6844, 2016 (IF: 1.889) Q2
21. S. Sabah, N.B. Sulaiman, N.A. Yunus, **M.N. Hamidon** and N.H.B. Hamid, "Read operation performance analysis of modified crossbar array structures with self-rectifying memristive device model, *International Journal of Control Theory and Applications*, Vol. 9(31), pp 53-61, 2016 (Indexed in SCOPUS)
22. N. Kure, **M.N. Hamidon**, M.S. Mamat, H.M. Yusoff, S. Azhari, M. Isa and I.H. Hasan, "Synthesis of carbon nanosturctures (cns) using domestic microwave oven", *International Journal of Advances in Science Engineering and Technology*, Spl. Issue-3, pp. 155-157, March 2016
23. M. Ali, S. Abdul Rashid, **M.N. Hamidon** and F. Md Yasin, " The growth kinetics of multilayer graphene grown on al<sub>2</sub>O<sub>3</sub> substrate by chemical vapour deposition," *Procedia Engineering* 148, pp. 1295-1302, 2016 (Indexed in SCOPUS)
24. M. K. Roslan, N. Misron, I. Aris, **M.N. Hamidon** and K. Tashiro, "Magnetic imaging concept using giant magnetoresistance (gmr) sensor," *International Journal of Computer Technology and Applications (IJCTA)*, Vol. 9(5), pp. 2415-2421, 2016 (Indexed in SCOPUS)

## **2015**

25. N.H. Bateni, **M.N. Hamidon**, K.A. Matori and A. Arab, "P-E hysteresis loop evaluation and

- dielectric studies of ceramic obtained from white rice husk ash for electronic applications," *Journal of Materials Science: Materials in Electronics*, Vol.26, pp. 6157–6162, 2015 (IF:1.569) Q2
26. Z. Yunusa, S. Abdul Rashid, **M.N. Hamidon**, Ismayadi Ismail, M. H. Syed and S. Rahmaninan, "Synthesis of  $\gamma$ -tip graphitic nanoribbons from alcohol catalytic chemical vapor deposition on piezoelectric substrate," *Journal of Nanomaterials*, Vol. 501, pp. 754768, 2015 (IF: 1.611) Q2
  27. S.H.Girei, A.A. Shabaneh, H.N. Lim, **M.N. Hamidon**, M.A. Mahdi and H.H. Yaacob, "Tapered optical fiber coated with grapheme based nanomaterials for measurement of ethanol concentrations in water," *Journal of Optical Review*, pp. 1-8, 2015 (IF:0.546) Q4
  28. A. Sabah, **M.N. Hamidon**, A. Ismail and A.R. Hasan Alhawari, "Gain enhancement of a microstrip patch antenna using a reflecting layer," *International Journal of Antennas and Propagation*, Vol. 2015, Article ID 975263, 2015 (IF:0.827) Q3
  29. N. Lottivand, **M.N. Hamidon** and V. Abdolzadeh "Fault tolerant architecture for artificial olfactory system," *Measurement Science and Technology*, Vol.26(5), 055101, 2015 (IF:1.352) Q2
  30. V. Thangasamy, N. Ain Kamsani, **M.N. Hamidon** and M. Faiz Bukhori, "Low power 18t pass transistor logic ripple carry adder," *IEICE Electronics Express*, Vol. 12(6), pp. 1-12, 2015 (IF:0.391) Q3
  31. Z. Yunusa, **M.N. Hamidon**, A. Ismail, M. Mohd Isa, M.H. Yaacob, S. Rahmanian, S.A. Ibrahim and A. A. Shabaneh, "Development of a hydrogen gas sensor using double saw resonator system at room temperature," *Sensors*, MDPI, Vol. 15(3), pp. 4749-4765, 2015 (IF:2.048) Q1
  32. N. Khoshsirat, N.A.M Yunus, **M.N. Hamidon**, S. Shafie and N. Amin, "Analysis of absorber layer properties effect on cigs solar cell Nperformance using scaps," *Optik-International Journal for Light and Electron Optics*, Vol. 126 (7), pp. 681-686, 2015 (IF:0.730) Q3
  33. N.H. Azeman, N.A. Yusof, J. Abdullah, R. Yunus, **M.N. Hamidon** and R. Hajian, "Study on the spectrophotometric detection of free fatty acids in palm oil utilizing enzymatic reaction," *Molecules*, MDPI, Vol. 20, pp. 12328-12340, 2015 (IF:2.095) Q3
  34. N. Khoshsirat, N.A.M Yunus, **M.N. Hamidon**, S. Shafie and N. Amin, "Analysis of Absorber and Buffer Layer Band Gap Grading on CIGS Thin Film Solar Cell Performance Using SCAPS," *Pertanika Journal of Science and Technology*, Vol. 23(2), pp. 241-250, 2015 (Indexed in SCOPUS)
  35. V. Thangasamy, N. Ain Kamsani, **M.N. Hamidon**, S.J. Hashim, M.F. Bukhori, Z. Yusoff and V. Thiruchelvam, "A multiband cmos rf power amplifier with double secondary transformer matching," *International Journal of Applied Engineering Research*, Vol. 10(24), pp. 44341-44346, 2015
  36. A.M.M. Ghazali, W.Z.W. Hasan, **M.N. Hamidon**, A.H. Sabry, S.A. Ahmed and C. Wada, "An accurate wireless data transmission and low power consumption of foot plantar pressure measurements," *Procedia Computer Science*, Vol. 76, pp. 302-307, 2015 (Indexed in SCOPUS)
  37. M.F. Hamadani, M. Isa and **M.N. Hamidon**, "Integration of sigma-delta adc with sinc filter on fpga," *Journal of Engineering and Applied Sciences*, Vol. 10(2), pp. 16-21, 2015

## **2014**

38. A. Mansor, R. Shamsudin, N. Mohd Adzahan and **M.N. Hamidon**, "Efficacy of ultraviolet radiation as non-thermal treatment for the inactivation of *salmonella typhimurium* TISTR 292 in pineapple fruit juice," *Agriculture and Agricultural Science Procedia*, Vol. 2, pp. 173 – 180, 2014
39. N.H. Bateni, **M.N. Hamidon**, K.A. Matori, S. Pojrapai and P. Kantha, "Electrical evaluation of ceramic obtained from white rice husk ash and soda lime silica glass for electronic applications," *Journal of Materials Science: Materials in Electronics*, Vol. 25(12), pp. 5491-5295, 2014 (IF:1.966) Q2
40. N.A. Kamsani, V. Thangasamy, **M.N. Hamidon**, N. Sulaiman and M.F. Bukhori, "Q and Frequency Tunable Second Order LC Bandpass Filter for Long Term Evolution (LTE) Receiver," *Mitteilungen Klosterneuburg* 03/2015; 64(3):234-245, 2014 (IF: 0.03) Q4
41. I. Mat Rusni, A. Ismail, A.R. Hasan Alhawary, **M.N. Hamidon** and N. A. Yusof, "Aligned-gap and centered-gap rectangular multiple split ring resonator for dielectric sensing application", *Sensors*, MDPI, Vol. 14, pp. 13134-13148(7), 2014 (IF:2.048) Q1
42. H. Farahani, R. Wagiran and **M.N. Hamidon**, "Humidity Sensors Principle, Mechanism, and Fabrication Technologies: A Comprehensive Review," *Sensors*, MDPI, Vol. 14(5), pp. 7881-7939, 2014 (IF:2.048) Q1

43. F. Lark, A. Dehzangi, S.H. Md Ali, A. Jalar, M. S. Islam, **M.N. Hamidon** and B.Y. Majlis, "Effect of geometric parameters on the performance of p-type junctionless lateral gate transistors," PLOS ONE Journal, Vol. 9(4), 2014 (IF:3.71) Q1
44. M. Ehsani and **M. N. Hamidon**, "Influence of Pt Doping on the Sensing Mechanism of La2O3/SnO2 Thick Film for CO2 Gas," International Journal of Applied Electronics in Physics & Robotics, vol. 2, no. 1, pp. 6-7, 2014.
45. M.R. Shokrani, M. Khoddam, **M.N. Hamidon**, N.A. Kamsani, F. Rokhani and S. Shafie, " An RF Energy Harvester System Using UHF Micro-power CMOS Rectifier based on a Diode Connected CMOS Transistor", The Scientific World Journal, Vol. 2014, 2014 (IF:1.73) Q1
46. Z. Yunusa, **M.N. Hamidon** and A.Kaiser, " Gas sensors: a review", Sensors & Transducers Journal, Vol. 168(4), pp. 61-75, 2014 (Indexed in SCOPUS)
47. V .Thangasamy, N. Ain Kamsani, **M.N. Hamidon**, M. Faiz Bukhori, "An overview of RF power amplifier techniques and effect of transistor scaling on its design parameters," International Journal of Applied Engineering Research, Vol. 9(2), pp. 257-276, 2014 (Indexed in SCOPUS)
48. N.H. Bateni, **M.N. Hamidon**, K.A. Matori, "Effect of soda-lime-silica glass addition on the physical properties of ceramic obtained from white rice husk ash," Journal of the Ceramic Society of Japan, Vol. 122(1422), pp. 161-165, 2014 (IF:0.94) Q3

### **2013**

49. R. Khakpour, **M.N. Hamidon**, G.A.E. Vandenbosch, "Development of an auto-calibrated interfacing circuit for thick film multi-gas sensor," Sensors and Actuators A, Vol. 204 , pp. 48-57, 2013 (IF:1.841) Q1
50. M. Ehsani, **M.N. Hamidon** and L.K. Pah, "Influence of pt on structural and morphological properties of la2o3 / sno2thick film", Research Journal of Chemistry and Environment, Vol. 17(10), pp. 35-40, 2013 (IF:0.636) Q3
51. F. Larki, A. Dehzangi, E.B. Saion, A. Abedini, S.D. Hutagalung, A.M. Abdullah and **M.N. Hamidon**, "Simulation of transport in laterally gated junctionless transistors fabricated by local anodization with an atomic force microscope," Phys. Status Solidi A, pp. 1-6, 2013 (IF:1.469) Q2
52. Y. Hezarjaribi and **M. N. Hamidon**, "Reactive ion etching of 4h-sic using sf6/o2 for mems application," The International Journal Of Engineering And Science, Vol. 2(2), pp. 87-92, 2013
53. F. Larki, A. Dehzangi, J. Hassan, S.D. Hutagalung, E.B. Saion, **M.N. Hamidon**, A.M. Abdullah and A. Abedini, " Pinch-off effect in p-type double gate and single gate junctionless silicon nanowire transistor fabricated by atomic force microscopy nanolithography," Nano Hybrids, Vol. 4, pp. 33-45, 2013
54. S. Mohammady, R. M.Sidek,, P.Varahram, **M.N. Hamidon**, N.Sulaiman, "A low complexity selected mapping scheme for peak to average power ratio reduction with digital predistortion in ofdm systems," International Journal of Communication Systems, Vol.26(4), pp. 481-494, 2013 (IF:0.712) Q3
55. A. Dehzangi, F. Larki, J. Hassan, S.D. Hutagalung, E.B. Saion, **M.N. Hamidon**, A.M. Abdullah, A. Kharazmi, S. Mohammadi and B.Y. Majlis, " Fabrication of p-type double gate and single gate junctionless silicon nanowire transistor by atomic force microscopy nanolithography," Nano Hybrids, Vol. 3, pp. 93-113, 2013
56. M.H. Chong, H. Jaafar, W.Z.W. Hassan, S. Shafie, **M.N. Hamidon**, 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, Vol. 47(3), pp. 902-910, 2013 (Indexed in SCOPUS)
57. Y. Hezarjaribi and **M. N. Hamidon**, " Theoretical formulaion to evaluate capacitance for before And after touch point mems capacitive pressure sensors," The International Journal Of Engineering And Science, Vol. 2(1), pp. 278-286, 2013

### **2012**

58. F.Larki, A. Dehzangi, A. Abedini, A.M. Abdullah, E.B. Saion, S.D. Hutagalung, **M.N. Hamidon** and J. Hassan, "Pinch-off mechanism in double-lateral-gate junctionless transistors fabricated by scanning probe microscope based lithography,"Beilstein Journal of Nanotechnology, Vol. 3(1), pp. 817-823, 2012 (IF:0.8)
59. A. Dehzangi, F. Larki, S.D. Hutagalung, E.B. Saion, A.M. Abdullah, **M.N. Hamidon**, B.Y. Majlis, M. Navaseri, A. Kharazmi, and S. Kakooei, "Numerical investigation and comparison with experimental characterization of side gate p-type junctionless silicon transistor in pinchoff state,"

- Micro & Nano Letters, Vol.7(9), pp. 981-985, 2012 (IF:0.944)
60. N. Lotfivand, **M.N. Hamidon**, M. Mohd Isa, N. Sulaiman, V. Abdolzadeh, "A review of the present state of art in fpga-based adders," Life Science Journal, Vol. 9(2), pp 1234-1238, 2012 (IF:0.073)
  61. A. Dehzangi, A.M. Abdullah, F. Larki, S.D. Hutagalung, E.B. Saion, **M.N. Hamidon**, J. Hassan and Y. Gharayebi, "Electrical property comparison and charge transmission in p-type double gate and single gate junctionless accumulation transistor fabricated by AFM nanolithography," Nanoscale Research Letter, Vol. 7, (381), pp. 2-23, 2012 (IF:2.76)
  62. L. Lombigit, **M.N. Hamidon**, R. Wagiran and N. Sulaiman, "Low Cost front-end readout electronic for instrumentation used in neutron experiments," International Journal of the Physical Sciences, Vol.7 (20), pp. 2812-2817, 2012 (IF:0.5)
  63. F. Larki, S.D. Hatagalung, A. Dehzangi, E.B. Saion, Alam Abedini, M.Abdullah, **M.N. Hamidon** and J. Hassan, "Electronic transport properties of junctionless lateral gate silicon nanowire transistor fabricated by atomic force microscope nanolithography," Microelectronics and Solid State Electronics, Vol. 1(1), pp 15-20, 2012

## **2011**

64. A. Dehzangi, F. Larki, E.B. Saion, S.D. Hatagalung, M.Abdullah, **M.N. Hamidon** and J. Hassan, "Study the characteristic of p-type junction-less side gate silicon nanowire transistor fabricated by atomic force microscopy lithography," American Journal of Applied Sciences, Vol. 8, No. 9, pp. 872-877, 2011 (Indexed in SCOPUS)
65. M.J. Sarraf, **M.N. Hamidon**, M. M. Isa, A. Ismail and A.R. Zarabi, "Interfacing sawr for wireless high temperature applications," Sensors & Transducers Journal, Vol. 130, No. 7, pp. 11-22, 2011 (Indexed in SCOPUS)
66. M.H. Shahrokh Abadi, **M.N. Hamidon**, R. Wagiran, A.H. Shaari, and N. Abdullah, "SnO<sub>2</sub>/Pt Thin Film Laser Ablated Gas Sensor Array," Sensors, MDPI, Vol. 11(8), pp. 7724-7735, 2011 (IF:1.771)
67. Y.Hezarjaribi, **M.N.Hamidon**, R.M.Sidek, S.H.Keshmiri, R.S.A.Raja Abdullah and A.R.Bahadorimehr, "Evaluation for diaphragm's deflection for touch mode mems pressure sensors," International Arab Journal of Information Technology, Vol. 8, No. 2, pp. 144-146, 2011 (IF:0.065)
68. M.H.Shahrokh Abadi, **M.N.Hamidon**, R.Wagiran, A.H.Shaari, N.Mison and N.Abdullah, "Nanocrystalline sno<sub>2</sub>-pt thick film gas sensor for air pollution applications", Sensors & Transducers Journal, Vol. 125 (2), pp. 76-88, 2011 (Indexed in SCOPUS)

## **2010**

69. P.Varahram, S.Mohammady, **M.N. Hamidon**, R.M.Sidek and S.Khatun, "An improvement method for reducing power amplifiers memory effects based on complex gain predistortion," Australian Journal of Basic Applied Science, Vol. 4, No. 7, pp. 2059-2067, 2010 (Indexed in SCOPUS)
70. P.Varahram, S.Mohammady, **M.N.Hamidon**, R.M.Sidek and S.Khatun, "Complex gain predistortion in wcdma power amplifiers with memory effects," International Arab Journal of Information Technology, Vol. 7, No. 3, pp. 333-340, 2010 (Indexed in ISI)
71. M.H. Shahrokh Abadi, **M.N. Hamidon**, R. Wagiran, A.H. Shaari, N. Mison and N. Abdullah, "Characterization of mixed xwo<sub>3</sub>(1-x)y<sub>2</sub>o<sub>3</sub> nanoparticles thick film for gas sensing application," Sensors, MDPI, Vol. 10(5), pp. 5074-5089, 2010 (IF:1.87)
72. S. Mohammady, P. Varahram, R.M. Sidek, **M.N. Hamidon** and N. Sulaiman, "Efficiency improvement in microwave power amplifiers by using complex gain predistortion technique," IEICE Electronics Express, Vol. 7, No. 23, pp 1721-1727, 2010 (IF:0.571)
73. S. Mohammady, P. Varahram, R.M. Sidek, **M.N. Hamidon** and N. Sulaiman, "FPGA implementation of the complex division in digital predistortion linearizer," Australian Journal of Basic Applied Science, Vol. 4, No. 10, pp. 5028-5037, 2010 (Indexed in SCOPUS)
74. Zeyad Assi Obaid, Nasri Sulaiman, M.H. Marhaban and **M.N. Hamidon**, "Analysis and performance evaluation of pd-like fuzzy logic controller design based on matlab and fpga," IAENG International Journal of Computer Science, Vol. 37, no. 2, 2010 (Indexed in SCOPUS)
75. M.Rahimi, S.S.Jamuar, **M.N. Hamidon**, M.R.Ahmad, S.A.Mousavi and M.Bayat, "An optimized 2.4ghz vco circuit design and simulation with high-q mems lc-tank," International Journal of

Electronics and Communications, Vol. 64, pp 413-424, 2010 (IF:0.371)

76. Zeyad Assi Obaid, Nasri B Sulaiman, M.H. Marhaban and **M.N. Hamidon** "Implementation of multistrukture pid-like fuzzy logic controller using fpga" IEICE Electronics Express, Vol. 7, No. 3, pp.132-137, February 2010 (IF:0.48)

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75. P. Varahram, S.S.Jamuar, S.Mohammady and **M.N.Hamidon** , " Power amplifiers linerazation based on digital predistortion with memory effects used in cdma applications," 5<sup>th</sup> International Conference on Microwave and Millimeter Wave Technology (ICMMT 2007), China, pp. 1-5, April 2007 (Indexed in SCOPUS)
76. M.AI-Amri, **M.N.Hamidon**, M.F.Rasid and A.AI-Zaben, "The characteristics of korotkoff sounds using the instantaneous frequency method," WSEAS International Conf. on Signal Processing, USA, pp. 125-128, March 2007
77. M.S.Razali, A.Ismail, M.A.Mahdi and **M.N.Hamidon**, "Compact 'butterfly' microwave ultra-wideband filter," Asia-Pacific Conference on Applied Electromagnetics 2007 (APACE2007), Malaysia, December 2007 (Indexed in SCOPUS)
78. M. Rahimi, S.S. Jamuar, **M.N.Hamidon** and M.R.Ahmad, " Design. simulation and modeling of rf mems inductor with high q factor," 2007 IEEE Regional Symposium on Microelectronics (RSM2007), Malaysia, pp. 101-105, December 2007
79. S.A.Mousavi, **M.N.Hamidon** and R.M. Sidek, " Design and simulation of one-port saw-resonator," 2007 IEEE Regional Symposium on Microelectronics (RSM2007), Malaysia, pp. 48-51, December 2007
80. Y. Hezarjaribi, **M.N.Hamidon** and A.S.Tamsir, " Touch mode mems capacitive pressure sensors operating at high temperature," 2007 IEEE Regional Symposium on Microelectronics (RSM2007), Malaysia, pp. 400-403, December 2007
81. M.H.Shahrokh Abadi, **M.N.Hamidon**, R.Wagiran and R.M.Sidek, " Finite element analysis of packaging surface acoustic wave resonator based on gapo4 at high temperature applications," World Engineering Congress 2007 (WEC2007), pp. 147-155, August 2007

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82. M.H.Shahrokh Abadi, **M.N.Hamidon** and M.Malekzadeh, "Replacing defective rtds in high power electromotors using saw temperature sensor," The 6<sup>th</sup> Asian Control Conference (ASCC 2006), Indonesia, July 2006
83. M.H.Shahrokh Abadi, **M.N.Hamidon**, R.M.Sidek and M.Malekzadeh, "Electrical analysis of high temperature saw resonator packages," 2006 IEEE International Conference on Semiconductor Electronics (ICSE 2006), Malaysia, pp. 725-731, November 2006 (Indexed in SCOPUS)

**2005**

84. **M.N.Hamidon**, V.Skarda, N.M.White, F.Krispel, R.Selic, P.Krempl, M.Binhack and W.Buff, "Metallisation for high temperature saw devices on gapo4," EUROSENSORS XXI, Spain, September 2005

**2004**

85. **M.N.Hamidon**, V.Skarda, N.M.White, F.Krispel, P.Krempl, M.Binhack and W.Buff, "Fabrication of high temperature surface acoustic wave devices for sensor applications," EUROSENSORS XVIII, Italy, September 2004

**2001**

86. **M.N.Hamidon**, B.Y.Majlis and R.Wagiran, "Analisis FTIR bagi lapisan diod p-i-n a-Si yang disediakan secara PECVD," IEEE National Symposium on Microelectronic, Malaysia, pp. 207-210, November 2001
87. **M.N.Hamidon**, B.Y.Majlis and R.Wagiran, "Fabrikasi diod p-i-n a-Si dengan kaedah PEVD," IEEE National Symposium on Microelectronic, Malaysia, pp. 185-186, November 2001

**Books**

1. **M.N. Hamidon**, S.A. Ahmad and S. Shafie, "Proceeding of 2009 IEEE Student Conference on Research and Development," December 2009, ISBN 978-1-4244-5187-6

**Chapter in Books**

1. **M.N.Hamidon** and Z.Yunusa, "Chapter 8: Sensing Materials for Surface Acoustic Wave Chemical Sensors," in Progresses in Chemical Sensor, August 2016, ISBN 978-953-51-2532-7, pp.161-179
2. S. Mohammady, Nasri Sulaiman R.M. Sidek, P. Varahram and **M.N. Hamidon**, "Chapter 6: FPGA Implementation of Inverse Fast Fourier Transform in Orthogonal Frequency Division Multiplexing Systems," in Fourier Transform – Signal Processing, April 2012, ISBN 978-953-51-0453-7, pp. 135-156
3. Zeyad Assi Obaid, Nasri Sulaiman, M.H. Marhaban and **M.N. Hamidon**, "Chapter: Design of PSO-based Optimal/Tunable PID Fuzzy Logic Controller Using FPGA," in MATLAB - A Ubiquitous Tool for the Practical Engineer, October 2011, ISBN 978-953-307-907-3
4. P. Varahram, S. Mohammady, **M.N. Hamidon**, R.M. Sidek and S. Khatun, "Chapter 9: Demonstration of a Power Amplifier Linearization Based on Digital Predistortion in Mobile Wimax," in Advanced Microwave and Millimeter Wave Technologies Semiconductor Devices Circuits and Systems, March 2010, ISBN 978-953-307-031-5, pp. 175-188

**Patent****National**

- |                 |  |
|-----------------|--|
| 1. PI2011004441 | - Film paste and its preparation thereof (Granted : MY150530)  |
| 2. PI2011003715 | - A method of reducing peak-to-average power ratio (PAPR)  |
| 3. PI2012700893 | - Dual sampling sigma delta analog to digital converter  |
| 4. PI2013701159 | - An artificial olfactory system and application thereof   |
| 5. PI2014703236 | - Graphene ribbons and a process for preparation thereof   |
| 6. PI2016703916 | - A device and a method for detecting a metallic object in a dielectric material in non-destructive test |
| 7. PI2017702141 | - A ferrite thick film antenna and a method of producing thereof   |

**International**

1. WO2013022335 – A Method of Reducing Peak-to-Average Power Ratio (PAPR)
2. 14166706.3 - An Artificial Olfactory System and Application Thereof
3. 20150000373 - An Artificial Olfactory System and Application Thereof

**Copyright****National**

1. 201612270512 - IC Design Layout of Multimode Multiband RF Power Amplifier

**Research Grants**

No	Project Title (Principal researcher)	Amount (RM)	Year	Source of Fund
1.	Fabrication of Acoustic Wave Resonator for Wireless and High Temperature Application	10,000	2007-2009	PLB
2.	Passive Components for Wireless High Temperature Sensors Applications	189,200	2008-2010	SciFund
3.	High Temperature SAW Resonator Packaging	100,000	2008-2010	FRGS
4.	Design, Simulate and Fabrication of MEMS Capacitor for Wireless Pressure Sensors	70,000	2008-2010	RUGS
5.	Integrated and Portable Device for Detection and Dielectrophoretic Separation of Microorganism	160,000	2012-2014	RUGS
6.	Surface Acoustic Wave Technology for Wireless Sensor Flammable Gas Detection	301,000	2012-2014	SciFund
7.	Ultra-Sensitive Ammonia Sensor based on Surface Acoustic Wave (SAW) with Graphene Tape	111,000	2015-2017	LEP 2.0
8.	Development of New Pressure Sensor Array for Flexible Circuit	200,000	2015-2017	IPB
9.	Carbon Based Ultra-conductor	998,800	2015-2020	NanoMITE
10.	Synthesis of Graphene Nanomaterial Using Commercial Microwave	15,000	2015-2017	IPS
11.	Silicon Nanowire Sensor Interface Circuit for Dengue Detection	14,000	2015-2017	IPS
12.	MNH Paste (Electronic Organic Paste)	70,000	2016-2018	InnoHub
13.	Investigation of Haptic Sensor System by Nanomaterials to Establish Human-Machine Interface	79,000	2017-2018	Matching Grant (Kyutech)

No	Project Title (Member)	Amount (RM)	Year	Source of Fund
1.	Design and Fabrication of Environmental Gas Sensor Using Screen Printing Techniques	110,998	2008-2010	SciFund
2.	Power Amplifiers Linearization Based on Digital Predistortion for Wireless Applications	257,800	2008-2010	SciFund
3.	Current Sensing Transformation	120,000	2009-2011	SciFund
4.	Principle on Technical Approach to the Microfluidic Device Design and Fabrication	40,000	2010-2012	FRGS
5.	Multifunctional Nanofluidic Biochip for Dengue Detection Utilizing Silicon Nanostructure	369,000	2011-2013	NND
6.	Development of High Performance RF MEMS Series Switch using CMOS Compatible Process	30,000	2012-2014	RUGS
7.	Development of An Oil Palm Fresh Fruit Bunches Fluorescence Sensor	58,000	2012-2014	PRGS
8.	Design and Prototyping of an energy-efficient OFDM modulator for Broadband Wireless Devices	186,000	2012-2014	PRGS
9.	Development of Low Power AC Electrokinetic Micropump	30,000	2012-2014	RUGS
10.	Formulation of Algorithm to Classify Distinctive Odors Pattern of Aromatic Plant Species using Hybrid Artificial Intelligence Techniques	121,500	2013-2015	FRGS
11.	Development of Prototype for Metal Ion Sensor, Exploiting Peptides and Ionophore as Recognition Elements	216,000	2013-2015	PRGS
12.	Materializing Flexible Supercapacitor	200,000	2013-2015	PRGS
13.	Fundamental Research on New Flexible Copper Indium Gallium diSelenide (CIGS) Thin Film Solar Cells Materials Fabrication and Theoretical Assessment	103,000	2014-2016	FRGS
14.	Characterization of Graphene Material in MEMS Pressure Sensor Design for Medical Application	119,000	2014-2016	FRGS
15.	Polycrystalline Ferrites Based Thick Film Paste for Improved Microstrip Patch Antenna	160,000	2014-2016	SciFund
16.	Development and Characterization of Rice Husk Silica as Sensing and Energy Harvesting Material	184,000	2015-2017	SciFund
17.	Ultra Low Power Capacitance-to-Digital Converter for Capacitive Type Pressure Sensor Array Under Diabetic-foot	109,000	2015-2017	IPB



### Awards/Recognition

No.	Name of awards	Title	Award Authority	Award Type	Year
1.	Bronze Medal	Compact 'Butterfly-Shaped' UWB Bandpass Filter	International Trade Fair - Ideas, Inventions and New Products (iENA 2008)	International	2008
2.	Silver Medal	Passive Wireless Devices and System	Pameran Reka Cipta Penyelidikan dan Inovasi (PRPI 2009)	University	2009
3.	Silver Medal	433.92 Single Port Resonator for High Temperature Applications	International Invention, Innovation and Technology Exhibition (ITEX 2010)	National	2010
4.	Bronze Medal	Low Complexity PAPR Reduction with Digital Predistortion in Orthogonal Frequency Division Multiplexing Systems	Pameran Reka Cipta Penyelidikan dan Inovasi (PRPI 2011)	University	2011
5.	Silver Medal	Thick Film Paste for Electronic Devices	Pameran Reka Cipta Penyelidikan dan Inovasi (PRPI 2012)	University	2012
6.	Silver Medal	An Artificial Olfactory System and an Application Thereof	Pameran Reka Cipta Penyelidikan dan Inovasi (PRPI 2012)	National	2013
7.	Gold Medal	Ultraviolet Pasteurizer Machine	INOVA Romania 2013	International	2013
8.	Bronze Medal	Development of Ultraviolet Pasteurize for Production of Premium Quality of Tropical Fruit Juice	MIExpo 2013	University	2013
9.	Gold Medal	Thick Film Paste for Electronic Devices	INNOVA Belgium 2013	International	2013
10.	Keynote speaker	Advanced Material for Sensor Applications	Workshop on Smart Material at 11 <sup>th</sup> International Symposium on Advanced Materials, Islamabad, Pakistan	International	8-12 Aug., 2009
11.	Keynote speaker	SAWR for Wireless Sensor Application	Workshop on Smart Sensor System, Kuala Lumpur, Malaysia	National	4-5 April 2010
12.	Invited speaker	SAWR in Wireless Sensor Application	The 12 <sup>th</sup> Takayanagi Kenjiro Memorial Symposium, Japan	International	18-19 Nov., 2010
13.	Speaker	Thick Film Technology	Seminar on Thick Film Technology	National	27 July, 2011

14.	Invited speaker	Nanotechnology for Sensors and Wireless Applications	9 <sup>th</sup> Nanoscience and Nanotechnology Conference, Turkey	International	24-29 June 2013
15.	Invited speaker	Hydrogen gas sensor using double saw resonator system	The 7 <sup>th</sup> International Conference on Engineering and Technology (ICET 2015)	National	19-20 June 2015
16.	Keynote speaker	Future trend in sensor technology	The International Physics Conference at the Anatolian Peak (IPCAP2016)	International	25-27 Feb 2016
17.	Invited speaker	New method to estimate the permittivity of dielectric materials using mstps	The 5 <sup>th</sup> International Conference on Superconductivity and Magnetism (ICSM2016)	International	24-30 April 2016
18.	Invited speaker	Nano Technology in Sensor Applications	The World Research and Innovation Convention on Engineering and Technology	National	24-25 Oct. 2016
18.	Invited speaker	Wireless System and Nonotechnology for Gas Sensor"	Electrical Engineering Excellence Seminar PSU 2017	International	7 Sept. 2017
19.	Keynote speaker	Nanotechnology for wireless gas sensor	Symposium on Applied Engineering and Sciences 2017 (SAES2017)	International	14-15 Nov. 2017
20.	Invited speaker	Graphene for Wireless Gas Sensor	The 8 <sup>th</sup> International Conference on Superconductivity and Magnetism (ICSM2018)	International	29 - 4 May 2018
21.	Attache	Attace of University Ataturk, Turkey	University Ataturk	International	2017-

### Professional Services/Consultation

#### Consultation

No	Year	Title	Authority	Amount
1.	2011-2013	Implementation of WSN – Based Structure and Infrastructure Monitoring System	Ministry of Information, Communication and Culture Malaysia	RM 4.5 juta
2.	2012-2014	Kajian Pembangunan Rangkaian Sensor Tanpa Wayar (Total Halai Solution)	Ministry of Information, Communication and Culture Malaysia	RM 2.7 juta
3.	2013	Ketua Semakan Sillibus Program Matrikulasi (Pengajian Kejuruteraan Elektrik dan Elektronik)	Ministry of Education	

			Malaysia
4.	2014	Ketua Semakan Manual Amali Program Matrikulasi (Pengajian Kejuruteraan Elektrik dan Elektronik)	Ministry of Education Malaysia
5.	2017	Fasilitator Bengkel Kerja Pemurnian Dan Pengesahan Draf Spesifikasi Kurikulum (Curriculum Specifications) Semakan Kurikulum Program Matrikulasi Kpm Fasa 2 Tahun 2017	Ministry of Education Malaysia
6.	2018	Ketua Fasilitator Bengkel Kerja Pendedahan Draf Spesifikasi Kurikulum Bagi Program Matrikulasi KPM Tahun 2018	Ministry of Education Malaysia
7.	2012-2018	Ketua Pemeriksa Peperiksaan Program Matrikulasi (Pengajian Kejuruteraan Elektrik dan Elektronik)	Ministry of Education Malaysia
8.	2012-2018	Ketua Pentaksir Soalan Peperiksaan Program Matrikulasi (Pengajian Kejuruteraan Elektrik dan Elektronik)	Ministry of Education Malaysia
9.	2015-now	Member of WG on Piezoelectric, Dielectric and Electrostatic Devices	National

#### Journal Reviewer

1	2017	Journal: Superlattices and Microstructures	Elsevier
2	2017	Pertanika J. Sci. & Technol	UPM Press
3	2017	Journal: Photonics and Nanostructures - Fundamentals and Applications	Elsevier
4	2018	Optik - International Journal for Light and Electron Optics	Elsevier

#### Student Supervision

##### PhD (Main Supervisor)

No.	Name	Title	Status
1.	Pooria Varahram (GS16874)	POWER AMPLIFIERS LINEARIZATION BASED ON COMPLEX GAIN MEMORY PREDISTORTION	Graduated 2010
2.	Yadollah Hezarjaribi (GS16736)	DESIGN AND DEVELOPMENT OF TOUCH MODE MICRO-ELECTRO-MECHANICAL SYSTEMS CAPACITIVE PRESSURE SENSOR OPERATING AT HIGH TEMPERATURE	Graduated 2010
3.	Mohammed Hadi Nezhad Shahrokh Abadi (GS18469)	DEVELOPMENT OF NANOCRYSTALLINE THICK FILM GAS SENSORS	Graduated 2011
4.	Mohammad Javadian Sarraf (GS22114)	DEVELOPMENT OF PASSIVE SYSTEM FOR HIGH TEMPERATURE WIRELESS SENSOR APPLICATIONS	Graduated 2012

<b>Student Supervision</b>			
<b>PhD (Main Supervisor)</b>			
<b>No.</b>	<b>Name</b>	<b>Title</b>	<b>Status</b>
5.	Nasser Lottivandvahed (GS27988)	FAULT-TOLERANT GAS SENSOR ARRAY ARCHITECTURE FOR ARTIFICIAL OLFACTORY SYSTEMS	Graduated 2014
6.	Zainab Yunusa (GS31782)	SURFACE ACOUSTIC WAVE GAS SENSOR FOR THE DETECTION OF FLAMMABLE GAS	Graduated 2015
7.	Anwer Sabah Mekki (GS36869)	MICROWAVE SENSOR FOR REBAR SENSING IN NON-DESTRUCTIVE TESTS	Graduated 2016
8.	Intan Helina Hasan (GS40457)	ANTTENA DEVELOPMENT USING NOVEL MATERIAL	Graduated 2018
9.	Mohammadreza Shokrani (GS26679)	PASSIVE RF ENERGY HARVESTER	Completed
10.	Saman Azhari (GS 47932)	THIN FILM SYNTHESIS FOR ELECTRON DEVICE APPLICATIONS	On-going
11.	Siti Amaniah Mohd Chachuli (GS47868)	MULTI-ARRAY GAS SENSOR	On-going
12.	Kalakuntla Nishanth Rao (GS48758)	SAW Gas Sensor	On-going

<b>PhD (Co- Supervisor)</b>			
<b>No.</b>	<b>Name</b>	<b>Title</b>	<b>Status</b>
1.	Mohammad Shahrazel Razalli (GS18132)	DESIGN AND DEVELOPMENT OF A COMPACT AND VIALESS MICROSTRIP ULTRA-WIDEBAND BANDPASS FILTER	Graduated 2010
2.	Somayah Mohammady (GS23268)	PEAK TO AVERAGE POWER RATIO REDUCTION BASED ON OPTIMUM PHASE SEQUENCE IN ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING SYSTEMS	Graduated 2012
3.	Arash Dehzangi (GS22685)	FABRICATION AND SIMULATION OF P-TYPE JUNCTIONLESS SILICON NANOWIRE TRANSISTOR USING SILICON ON INSULATOR AND ATOMIC FORCE MICROSCOPE NANO LITHOGRAPHY	Graduated 2012
4.	Farhad Larki (GS24408)	FABRICATION AND SIMULATION OF LITHOGRAPHICALLY DEFINED JUNCTIONLESS LATERAL GATE SILICON NANOWIRE TRANSISTORS	Graduated 2013
5.	Siti Fatimah Abd Rahman (GS32185)	DESIGN, FABRICATION AND CHARACTERIZATION OF SILICON NANOWIRE-BASED DNA BIOSENSOR FOR DENGUE VIRUS DNA DETECTION	Graduated 2016

<b>PhD (Co- Supervisor)</b>			
<b>No.</b>	<b>Name</b>	<b>Title</b>	<b>Status</b>
6.	Veeraiyah Thangasamy (GS36557)	DESIGN AND EVALUATION OF MULTIMODE MULTIBAND POWER AMPLIFIER IN 130NM CMOS PROCESS	Graduated 2016
7.	Nur Hidayah Azeman (GS33603)	OPTICAL DETECTION SYSTEM FOR FREE FATTY ACIDS (FFAS) IN CRUDE PALM OIL (CPO) BASED ON ENZYMATIC METHOD	Graduated 2017
8.	May Ali Muslim (GS39711)	PHYSICO CHEMICAL PROPERTIES AND GROWTH KINETICS OF MULTILAYER GRAPHENE (MLG) ON AL <sub>2</sub> O <sub>3</sub> BY CVD FOR GAS SENSING APPLICATION	Graduated 2017
9.	Izyani Mat Rusni (GS30429)	METAMATERIAL-BASED SENSOR FOR DETECTION OF BIOMOLECULES	Graduated 2017
10.	Sinan Sabah Mahmmud (GS39251)	SNEAK PATH CURRENT TOLERANT RESISTIVE CROSSBAR ARRAY STRUCTURES BASED ON SELF-RECTIFYING MEMRISTOR MODEL FOR MEMORY APPLICATIONS	Graduated 2018
11.	Mohd Firdaus Kamuri (GS35179)	PULSE FIELD DIELECTROPHORETIC SEPARATION COMBINED WITH OPTICAL DETECTION FOR BIOLOGICAL APPLICATION	Completed
12.	Aina Mardhiyah Mohamad Ghazali (GS37716)	NOVEL PLANTAR SYSTEM FOR DIABETES FOOT USING MULTI ARRAY PRESSURE SENSOR BASED ON MODIFIED WHEATSTONE BRIDGE CIRCUIT	On-going
13.	Fairuz Rizal Mohamad Ghazali (GS43309)	AN IMPROVEMENT OF MEASUREMENT ON PIEZORESISTIVE PRESSURE SENSOR ARRAY FOR FOOT PLANTAR APPLICATION	On-going
14.	Masnita Mat Isa (GS38666)	EFFICIENT HYBRID ENERGY HARVESTER FOR SENSOR NODES	On-going
15.	Mohd Khairul Hafiz Muda (GS45892)	STRUCTRONIC SYSTEM FOR AEROSPACE APPLICATIONS	On-going
16.	Amin Kajeh (GS47325)	AUTONOMOUS SELF-HEALING AND VISUALIZING DAMAGE SITES BIO-COMPOSITE WITH BIO-INSPIRED DESIGN	On-going
17.	Eliyana Ruslan (GS43849)	THE EFFICIENCY IMPROVEMENT OF RF ENERGY HARVESTING	On-going

**MS with thesis (Main Supervisor)**

No.	Name	Title	Status
1.	Mohammed Hadi Nezhad Shahrokh Abadi (GS15699)	SIMULATION ANALYSIS OF HIGH TEMPERATURE SURFACE ACOUSTIC WAVE RESONATOR	Graduated 2007
2.	Somayeh Mohammady (GS16570)	COMPARISON BETWEEN ADAPTIVE DIGITAL BASE BAND PREDISTORTION TECHNIQUE AND OTHER TECHNIQUES FOR POWER AMPLIFIER	Graduated 2008
3.	Sayed Ali Reza Mousavi (GS15687)	DESIGN OF GALLIUM PHOSPHATE SURFACE ACOUSTIC WAVE RESONATOR USING FINITE ELEMENT METHOD	Graduated 2009
4.	Jasman Jaffar (GS17369)	DEVELOPMENT OF A WATER TEMPERATURE AND PH MEASUREMENT SYSTEM FOR FISH PONDS	Graduated 2009
5.	Reza Khakpour (GS20849)	DEVELOPMENT OF AUTO-CALIBRATED INTERFACING CIRCUIT FOR THICK FILM MULTI-GAS SENSOR	Graduated 2010
6.	Lojius Lombigit (GS25920)	DEVELOPMENT AND CHARACTERIZATION OF READOUT ELECTRONICS FOR NEUTRON SCATTERING INSTRUMENTATION	Graduated 2012
7.	Maryam Ehsani (GS29147)	INFLUENCE OF PLATINUM ON THE STRUCTURAL THICK FILM GAS SENSOR BASED ON LANTHIUM OXIDE (LA <sub>2</sub> O <sub>3</sub> ) DOPED TIN(IV) OXIDE (SNO <sub>2</sub> ) FOR CARBON DIOXIDE (CO <sub>2</sub> )	Graduated 2014
8.	Nasim Heidari Bateni (GS28903)	PHYSICAL AND ELECTRICAL PROPERTIES OF CERAMIC OBTAINED FROM WHITE RICE HUSK ASH AND SODA LIME SILICA GLASS FOR ELECTRONIC APPLICATIONS	Graduated 2014
9.	Aishah Fauthan (GS33591)	SELECTIVE AREA FABRICATION OF CARBON NANOSTRUCTURES USING ALCOHOL CATALYST CHEMICAL VAPOR DEPOSITION AND SPIN ON GLASS	Graduated 2015
10.	Sarah Rezaeian (GS31293)	GAS INSPECTOR MOBILE ROBOT AS CARBON MONOXIDE SOURCE FINDER	Graduated 2015
11.	Kure Nicodemus (GS37736)	PLASMA TECHNIQUE OF CARBON NANOTUBE (CNTS) SYNTHESIS USING COMMERCIAL MICROWAVE OVEN	Graduated 2016
12.	Saman Azhari (GS36671)	FABRICATION AND CHARACTERIZATION OF CARBON NANOTUBES/ POLYDIMETHYLSILOXANE NANOCOMPOSITE FOR LOW PIEZORESISTIVE PRESSURE SENSOR	Graduated 2016

No.	Name	Title	Status
13.	A.Syed Abdul Bari (GS27082)	DESIGN OF A PIEZOELECTRIC MICROPUMP FOR A CONSTANT FLOW PROCESS	Graduated 2016
14.	Kamilu Iman Usman (GS38345)	SILICON NANOWIRE INTERFACE CIRCUIT FOR DENGUE DETECTION	Completed
15.	Sim Guan Ling (GS41454)	PACKAGING OF DOUBLE SURFACE ACOUSTIC WAVE RESONATOR AMMONIA GAS SENSOR	Completed
16.	Muhammad Asnawi bin Mohd Kusaimi (GS45135)	CARBON BASED ULTRA-CONDUCTOR	Completed
17.	Izad Syahrul Ariffin bin Mohd Ismail (GS49924)	DSSC	On-going
18.	Nur Alin binti Mohd Azhari (GS50936)	FLEXIBLE PRESSURE SENSOR	On-going

#### MS with thesis (Co- Supervisor)

No.	Name	Title	Status
1.	Maryam Rahimi (GS15734)	DESIGN OF MEMS INDUCTOR AND VARACTOR FOR LOW NOISE VOLTAGE CONTROLLED OSCILLATORS	Graduated 2009
2.	Zeyad Assi Obaid (GS21712)	DESIGN OF FIELD PROGRAMMABLE GATE ARRAY-BASED PROPORTIONAL-INTEGRAL-DERIVATIVE FUZZY LOGIC CONTROLLER WITH TUNABLE GAIN	Graduated 2010
3.	Pang Jia Hong (GS22381)	DESIGN OF RECONFIGURABLE FAST FOURIER TRANSFORM PROCESSOR USING GENETIC ALGORITHMS	Graduated 2012
4.	Farideh Abhari (GS28292)	DISTINCTIVE ANALYSIS OF FLUID FLOW BEHAVIOR OF AC ELECTROOSMOTIC MICROPUMP	Graduated 2013
5.	Hamid Barzabadi Farahani (GS28950)	SYNTHESIS AND FABRICATION OF NANOCOMPOSITE MAGNESIA DOPED BARIUM STRONTIUM TITANATE FOR THICK FILM HUMIDITY SENSOR	Graduated 2014
6.	Nima Khoshsirrat (GS31188)	EFFICIENCY ENHANCEMENT OF COPPER INDIUM GALLIUM DI-SELENIDE THIN FILM SOLAR CELL USING OPTIMIZED MATERIAL PROPERTIES	Graduated 2014
7.	Sepideh Keshan Balavandy (GS31693)	SYNTHESIS AND CHARACTERIZATION OF SILVER NANOPARTICLES MEDIATED IN GLUTATHIONE AND SODIUM ALGINATE	Graduated 2014
8.	Salamatu Aliyu Tukur (GS36395)	DETERMINATION OF PB(II) AND CR(VI) USING GOLD NANOPARTICLE AND IONOPHORE-MODIFIED SCREEN PRINTED ELECTRODE	Graduated 2015

No.	Name	Title	Status
9.	Saad Hayatu Girei (GS35036)	ETHANOL SENSOR USING TAPERED OPTICAL FIBER COATED WITH GRAPHENE-BASED NANOMATERIALS	Graduated 2015
10.	Maral Faghani Hamadani (GS30825)	SIGMA-DELTA ANALOG TO DIGITAL CONVERTER ON FIELD PROGRAMMABLE GATE ARRAY	Graduated 2015
11.	Nueraimaiti Aimaier (GS34530)	DESIGN OF A LOW-NOISE LOW-POWER FRONT-END READOUT CIRCUIT FOR NEUTRON DETECTION USING 130NM CMOS TECHNOLOGY	Graduated 2015
12.	Atikah Mansor (GS33820)	IMPROVEMENT OF ULTRAVIOLET PASTEURISER FOR PRODUCTION OF PINEAPPLE FRUIT JUICE	Graduated 2015
13.	Muhammad Kamil Roslan (GS38122)	DEVELOPMENT OF GIANT MAGNETO RESISTANCE SENSOR FOR MAGNETIC IMAGING (GMR-MI) SYSTEM	Graduated 2017
14.	Dayang Nurul Nahar Talib (GS39660)	RESISTIVE SENSOR ARRAY READOUT CIRCUIT FOR FOOT PLANTAR PRESSURE MEASUREMENT SYSTEM	Graduated 2017
15.	Alla A.F. Husain Suhayla (GS44945)	FABRICATION OF TRANSPARENT TIO <sub>2</sub> FOR DSSC APPLICATION USING ANODIZATION	Completed
16.	Nurulaini Shamsuddin (GS46210)	ADVANCED MATERIALS	On-going
17.	Nur Haziqah Abdul Aziz (GS49371)	CARBON BASED ULTRA CONDUCTOR	On-going



## BIOGRAPHY



**Mohd Nizar Hamidon** is an Associate Professor at Electrical and Electronic Engineering Department and Deputy Director of Institute of Advanced Technology at Universiti Putra Malaysia (UPM). He received the B.Sc in Physics and M.Sc in Microelectronics from Univesiti Malaya (Malaysia) and Universiti Kebangsaan (Malaysia) in 1995 and 2001 respectively. Finally, his Ph.D degrees in Electronic and Electrical Engineering from the University of Southampton (U.K.) in 2005. He joined UPM after BSc at Matriculation Center for 5 years before become UPM engineering faculty member in 2000 until now, where he in charge of research program at the department and faculty. Due to his outstanding research activities, UPM have appointed him as a Head of Functional Devices Laboratory at Institute of Advanced Technology in early 2012 but later as Deputy Director in the same year at the same institute till 2017. Now he is the Director of the institute.

His research is primarily concerned with the study of electron devices including the nanomaterials (such as oxide and carbon based) and the systems. Specifically, he has contributed significantly to the development of gas sensor system and sensor system for wireless applications. He had built a good research network with other researchers all over the world especially from Turkey, Japan, Thailand Indonesia and Kazakhstan. From the research work his working in; he had graduated 7 PhD and 13 MSc students from several different countries.

His research has been primarily funded by the Ministry of Science, Technology and Innovation Malaysia, the Ministry of High Education Malaysia and university internal funding. He had published over 150 technical papers and few book chapters related to his research area. He also had filed few national and international patents.

His also involved in consultancy work for Ministry of Information, Communication and Culture Malaysia to the Implementation of WSN – Based Structure and Infrastructure Monitoring System and also *e-halal* monitoring system.

He has given many lectures, seminars and invited talks at universities, research institutions and international conferences, and has served as a reviewer for several international conferences and journal. He has been the organizing chair and technical member for several IEEE conferences and The Past Chapter Chair for IEEE Electron Device Malaysia Chapter.