

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA
FACULTY OF ELECTRICAL AND ELECTRONIC ENGINEERING**

Curriculum Vitae



1. Name	Muhammad Suhaimi Sulong
2. Position	Lecturer/Researcher
3. Address	Microelectronics and Nanotechnology Research Centre, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Johor, Malaysia.
4. Academic Qualifications	<ul style="list-style-type: none"> • M.Sc. (Microelectronics), Universiti Kebangsaan Malaysia. • B.Eng (Hons) Electrical Eng. (Computer Eng.), Universiti Tun Hussein Onn Malaysia (UTHM). • Diploma Electronic Eng. (Computer Tech.), Politeknik Ungku Omar, Perak, Malaysia. • Cert. Electronic Eng. (Computer Tech.), Politeknik Port Dickson, Negeri Sembilan, Malaysia. • Cert. Computer Studies, South Kent College (UK)
5. Research Interest	<ul style="list-style-type: none"> • Low-voltage, low-power, and high-performance integrated-circuit design, • Modelling of semiconductor devices, and • Emerging integrated-circuit technologies.
6. Professional Qualification	<ul style="list-style-type: none"> • Certificate, Occupational Safety & Health Officer, NIOSH • Certified, MS ISO/IEC17025 Internal Auditor, SIRIM • Certified, 5S Internal Auditor, MPC • Certificate, Emergency Response Team, JBPM • Certificate, Teaching and Learning, UTHM • Certified, Green Card CIDB

7. Membership in Professional Bodies	<ul style="list-style-type: none"> • Institute of Electrical and Electronics Engineers (USA) • International Association of Engineers (Hong Kong) • International Association of Online Engineering (Austria) • Board of Engineer Malaysia • Institute of Engineer Malaysia (<i>Title: Engr.</i>) • Malaysian Society of Engineering and Technology
8. Publications (Proceedings and Journal [2006-2010])	<ul style="list-style-type: none"> • Mohd Zainizan Sahdan, Muhammad Suhaimi Sulong, Marlia Mohsin, Siti Nooraya Mohd Tawil, "Teaching Mask Design for MOSFET Fabrication Using Contact Printing Method", <i>Proceeding of Malaysian Technical Universities Conference on Engineering and Technology</i>, Dec 2006, pp.216-221. • Babul Salam KSM Kader Ibrahim, Ignatius Agung Wibowo, Muhammad Suhaimi Sulong (2006). "Simulink in Engineering", <i>Learning Module</i>, UTHM Publisher. • Noraziah Romli, Hashim Saim, Muhammad Suhaimi Sulong, "A Review on MTCMOS Technique", <i>Proceeding of Students Conference on Research and Development</i>, May 2007, pp.47-59. • Muhammad Suhaimi Sulong, Ibrahim Ahmad, Lim Teck Foo, Yeap Kim Ho, "Characterization of 130nm MOSFET Device using CVIV and Focused Ion Beam", <i>Journal of Science and Technology</i>, Jld. 4, Bil.1, Jun 2007, pp.37-46. • Mohd Zainizan Sahdan, Rahmat Sanudin, Muhammad Suhaimi Sulong, Siti Hawa Ruslan, Hashim Saim, "The First Inverter Fabrication in UTHM Cleanroom using Cost Effective Mask", <i>Proceeding of World Engineering Congress</i>, Ogos 2007. • Muhammad Suhaimi Sulong, "Microelectronics Technology Fundamental", <i>Teaching Module</i>, UTHM Publisher, 2007. • Muhammad Suhaimi Sulong, Mohd Zainizan Sahdan, Hashim Saim, Siti Nooraya Mohd Tawil, Rahmat Sanudin, Marlia Morsin, "A Problem-Based Learning Approach in Teaching Mask Design for MOSFET Fabrication", <i>Proceeding of 2nd Regional Conference on Engineering Education</i>, Dec 2007, pp.308-310. • Nazirah Mohamat Kasim, Ibrahim Ahmad, Muhammad Suhaimi Sulong, Hanim Abdul Razak, "Characterization of CMOS Device with 0.24 Micron Physical Gate Length", <i>Proceeding of International Conference on Engineering Technology</i>, Dec 2007, pp.1-6(135). • Muhammad Suhaimi Sulong, Nazirah Mohamat Kasim, Hanim Abdul Razak, Hashim Saim, Noraziah Romli, "Analysis on Electrical Characteristics for 0.124 Submicron CMOS Device", <i>Proceeding of Malaysian Technical Universities Conference on Engineering and Technology</i>, March 2008, pp. 304-306. • Hanim Abdul Razak, Muhammad Suhaimi Sulong, Nazirah Mohamat Kasim, "Operational Characterization of 0.17 NMOS Device", <i>Proceeding of International Conference on Microelectronics and Nanotechnology</i>, March 2008, pp. 149-151. • Rahmat Sanudin, Muhammad Suhaimi Sulong, Mohd Zainizan Sahdan, Siti Hawa Ruslan, "Parameters of CNFET Performance", <i>Proceedings of 2nd International Conference on MEMS and Nanotechnology</i>, May 2008, pp. 206-209. • Norfaiza Fuad, Nor Surayahani Suriani, Tasiransurini Ab Rahman, Muhammad Suhaimi Sulong, Chua King Lee (2008). "Digital System

	<p>Design”, <i>Teaching Module</i>, UTHM Publisher.</p> <ul style="list-style-type: none"> • Jayidah Mat Salleh, Muhammad Suhaimi Sulong, “Characterization of 0.63 microns NMOS Device using Signatone Microprobe Station”, <i>Proceedings of National Seminar on Science and Mathematics Application</i>, Nov 2008. • Muhammad Suhaimi Sulong, Asyiatul Asyikin Jamry, Siti Maryaton Shuadah Shuib, Rahmat Sanudin, Mohd Zainizan Sahdan, Marlia Morsin, “Process and Device Simulation of 80nm CMOS Inverter using Sentaurus Synopsys TCAD”, <i>Proceedings of Symposium on Engineering and Technology</i>, Nov 2008. • Rahmat Sanudin, Marlia Morsin, Muhammad Suhaimi Sulong, “Structure Design Challenge in Nano CMOS Design”, <i>Proceedings of International Conference on Electronic Design</i>, Dec 2008. • Marlia Morsin, Mariza Elias, Mohd Zainizan Sahdan, Rahmat Sanudin, Muhammad Suhaimi Sulong, “Process and Device Simulation of 80nm CMOS Inverter using Sentaurus Synopsys TCAD”, <i>2nd Engineering Conference</i>, Dec 2008. • Lim Teck Foo, Ibrahim Ahmad, Muhammad Suhaimi Sulong, “Electrical and Material Characterization of 0.21 Micron CMOS Devices”, <i>Journal of Science and Technology</i>, May 2009 • Yeap Kim Ho, Ibrahim Ahmad, Muhammad Suhaimi Sulong, “Characterization of a 0.14 μm Submicron NMOS with Silvaco TCAD Simulator”, <i>Journal of Science and Technology</i>, May 2009, pp.1-10. • Muhammad Suhaimi Sulong, Rahmat Sanudin, Marlia Morsin, Nur Sofurah Mohd Faiz, Maziana Mohamed, “Microelectronics Technology: Theoretical to Practical via INSEP”, <i>Proceeding of International Engineering Education Conference</i>, Madinah Saudi Arabia, May 2009, pp. 171-176. • Marlia Morsin, Abdul Majeed, Tasiransurin Ab. Rahman, Muhammad Suhaimi Sulong, “Mask Design, Fabrication and Characterization Of In – House N-Well MOSFET Using Spin -On Dopant Technique for Undergraduates Program”, <i>IEEE Symposium on Industrial Electronics and Applications (ISIEA 2009)</i>, Kuala Lumpur , 4-6 Okt 2009 • Rahmat Sanudin, Wong Kang Huei, Ida Laila Ahmad, Marlia Morsin and Muhammad Suhaimi Sulong, “Small-scale Monitoring System on LabVIEW Platform” <i>Conference on Innovation Technologies in Intelligent Systems and Industrial Applications 2009 (CITISIA09)</i>, Universiti Monash, Kampus Sunway, 25 - 26 Julai 2009. • Marlia Morsin, Abdul Majeed Zulkipli, Rahmat Sanudin, Muhammad Suhaimi Sulong, “Design, Simulation and Characterization of 60nm p-well MOSFET Using Sentaurus TCAD Software”, <i>IEEE- Regional Symposium on Microelectronics (RSM) Proc. 2009</i>, Kota Bharu, Malaysia, 10-12 Ogos 2009. • Rahmat Sanudin, Muhammad Suhaimi Sulong, Marlia Morsin and Mohd Helmy Abd Wahab, “Simulation Study on NMOS Gate Length Variation Using TCAD Tool”, <i>1st Asia Symposium on Quality Electronic Design 2009 (ASQED09)</i> 15 - 16 July 2009 Crowne Plaza Hotel, KL. • Noor Miza Sohaimi, Muhammad Suhaimi Sulong, Noraziah Romli, Jayidah Mat Salleh, Rahmat Sanudin, “Process and Device Simulation of Lateral-Diffused MOSFET (LDMOS) using Sentaurus Synopsys TCAD”, <i>International Conference on Engineering and Technology</i>, Kuala Lumpur Malaysia, December 2009.
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	<ul style="list-style-type: none"> • Azmaliza Azizi, Muhammad Suhaimi Sulong, Tasiransurini Ab Rahman, Nurulhuda Ismail and Ariffuddin Joret, "Speech Signal Transformation with FS Variation Technique for Military Purposes", <i>3rd Engineering Conference</i>, Kuching, Sarawak, 14-16 April 2010. • Hafizon Baharuddin, Muhammad Suhaimi Sulong, Ariffuddin Joret, Tasiransurini Ab Rahman, and Nurulhuda Ismail, "Bile Pigments Detection via IR Sensor", <i>3rd Engineering Conference</i>, Kuching, Sarawak, 14-16 April 2010. • Muhammad Suhaimi Sulong, Mohd Nazir Mohd Adi, Nur Sofurah Mohd Faiz, Maziana Mohamed, "An Alternative Approach in Teaching Engineering Management Subject for Final Year Undergraduate Students", <i>Regional Conference on Engineering Education</i>, Kuching, Sarawak, 7-9 June 2010. • Muhammad Suhaimi Sulong, Nazirah Mohamat Kasim, Ahmad Puad Ismail, Rahmat Sanudin, Hanim Abdul Razak, "EDX Spectrum Analysis on Micronscale NMOS Device", <i>World Engineering Congress-Conference on Engineering and Technology Education</i>, Kuching, Sarawak, 2-5 August 2010. • Maziana Mohamed, Muhammad Suhaimi Sulong, Nur Sofurah Mohd Faiz, Mohd Nazir Mohd Adi, "Video-Based Pedagogy in Engineering Management", <i>Intenational Management Education Conference</i>, Melaka, Malaysia, 6-8 October 2010. • Muhammad Suhaimi Sulong, Mohd Fadly Abd Razak, Suhaimi Saiman, Mohd Jais Che Soh, "FKEE OSH Commitments: ERT Initial Implementation", <i>2nd International Conference on the Role of Social Sciences and Humanities in Engineering</i>, Penang, Malaysia, 12-14 November 2010. • Muhammad Suhaimi Sulong, Zairi Ismael Rizman, Nazirah Mohamat Kasim, Mohd Noralimi Mohd Ali, "Analysis of MOS Capacitance Characteristics at Quasi-Static Frequency", <i>National Seminar of Mathematics and Science Application</i>, Johor Bahru, Malaysia, 8-10 December 2010.
<p>10. Current research project</p>	<ul style="list-style-type: none"> • An Investigation on Low Power Design Technique for Deep Submicron CMOS Design, Project Leader, 2007-2009, Fundamental Research Grant Scheme (FRGS), National. • Mask Design and Characterization of NMOS and CMOS Inverter using in-House Spin-on Dopant Techniques, Researcher, 2006-2007, Fundamental Research Grant Scheme (FRGS), National. • A Study on the Awareness of OSHA Among F Class Contractors of Construction Firms, Researcher, 2006-2007, Fundamental Research Grant Scheme (FRGS), National.
<p>11. Industrial Research Collaboration</p>	<ul style="list-style-type: none"> • MIMOS Berhad • Silterra Malaysia Sdn Bhd • ON Semiconductor • Infineon Technologies

12. Consultancies	<ul style="list-style-type: none"> • Co-Founder of Microelectronics and Nanotechnology-Shamsuddin Research Centre, UTHM, Est. 2006. • Founder of UTHM MiNTSRC Research Seminar, Program Chair, 2013. • Malaysian Postgraduate Australia Conference, Deputy Chair, 2011, International. • IEEE Colloquium on Humanities, Science and Engineering Research, Technical Committee Reviewer, 2011, International. • IEEE Student Conference on Research and Development, Technical Committee Reviewer, 2011, International. • Inaugural Malaysian Postgraduate Conference Australia, Deputy Chair, 2011, Regional. • IEEE International Conference on Electronic Devices, System and Applications, Universiti Teknologi MARA, Technical Committee Reviewer, 2010, International. • IEEE Symposium on Industrial Electronics and Applications, Universiti Teknologi MARA, Technical Committee Reviewer, 2009, 2010, International. • IEEE International Conference on Intelligent and Advanced System, Univeriti Teknologi Petronas, Technical Committee Reviewer, 2007, 2010, International.
13. Awards	<ul style="list-style-type: none"> • Staff Academic Excellence Award, UTHM, 2009 • Excellent Service Award, UTHM, 2008 • Staff Academic Excellence Award, UTHM, 2006-2008 • Academic Advisor Excellence Award, UTHM, 2007 • Best Candidate Award, ATM, 2006 • Dean List Award, UTHM, 1999 • Best Student Award, PPD, 1998 • Mithali Student Award, MHS, 1995
14. Job Experience	<ul style="list-style-type: none"> • Technical Assistant, Jaticom Sdn Bhd., Melaka, Malaysia • Trainee Engineer, PERNEC Corporation Bhd., Malaysia • Tutor, UTHM • Lecturer, UTHM • Deputy Principal, Perwira Residential College, UTHM.
15. Related Experience	<ul style="list-style-type: none"> • Research Fellow, Nano Research Group, School of Electronics and Computer Science, University of Southampton, United Kingdom (2003-2004) • Visiting Scholar, Research & Scholarship, University of South Australia, Australia (2011-2012)

16. Postgraduate Supervision	<ul style="list-style-type: none"> • Noraziah Romli (2010) M.Eng. Thesis: Analysis on Multi-Threshold CMOS (MTCMOS) Technique using Power MOSFET
17. Undergraduate Supervision	<ul style="list-style-type: none"> • Hafizon Baharuddin (2009) B.Eng. (Hons) Thesis: Prototype of Portable Infant Bilirubin Meter • Azmaliza Azizi (2009) B.Eng. (Hons) Thesis: Development of Human Voice Converter System • Noor Miza Sohaimi (2008) B.Eng. (Hons) Thesis: Process and Device Simulation of LDMOS Device using Sentaures Synopsys TCAD • Jayidah Mat Salleh (2008) B.Eng. (Hons) Thesis: Characterization of 0.63 Micron NMOS Device using Signatone Microprobe Station • Asyiatul Asyikin Jamry (2008) B.Eng. (Hons) Thesis: Process and Device Simulation of 80nm NMOS Device using Sentaures Synopsys TCAD • Siti Maryaton Shuadah Shuib (2008) B.Eng. (Hons) Thesis: Process and Device Simulation of 80nm PMOS Device using Sentaures Synopsys TCAD • Vijaya Kumar Ratana Vellu (2008) B.Eng. (Hons) Thesis: Design and Development of Single Degree-Of-Freedom Robot Arm • Philips Dharmaraj (2008) B.Eng. (Hons) Thesis: Design and Development of Portable Wireless Fire Alarm System using Microcontroller • Mohamad Rizie Ahmad (2008) B.Eng. (Hons) Thesis: Development of Automatic Engine Cooling System using Microcontroller • Azali Azman (2007) B.Eng. (Hons) Thesis: Development of Three Legged Robot using Microcontroller
18. Teaching Experience	<ul style="list-style-type: none"> • Digital System Design (BEE3133) • Computer Architecture and Organization (BEC30303) • Engineering Management (BPK4023) • Occupational Safety and Health (BEE12202) • Circuit Theory (BEE1803) • Microcontroller (DEK3133)