



CURRICULUM VITAE



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Academic Qualifications

- Ph.D. in Electrical Engineering, University of Minnesota, USA. (Dissertation: Low Power Design of Bus Communication)
- MSc. in Electrical Engineering, University of Minnesota, USA.
- B.Eng. with Honor in Electrical-Mechatronics Engineering, Universiti Teknologi Malaysia.

Professional Qualification/Membership/Affiliation

- Member, Institute of Electrical and Electronics Engineers (MIEEE).
- Member, International Association of engineers (IAENG).
- Golden Key International Honor Society.
- Graduate Member, Board of Engineers Malaysia (GradBEM).

Appointments

- Jan. 2010 to date Department CCSE Coordinator for Industrial and Society Networking
- Sept. 2009 to date Research Associate for Institute of Advanced Technology
- Aug. 2009 to date Head of Embedded System and Artificial Intelligence Lab, CCSE, UPM
- Apr. 2009 to date Head of Common Lab for Software, UPM.
- Dec. 4th, 2008 to date Senior Lecturer, Faculty of Engineering, UPM.
- Mar. 2005 . Nov. 2008 Research Assistant, VLSI System Design Group, University of Minnesota, USA.
- Jan. 2003 . Oct. 2004 Research Assistant, Multiscale Signal Processing Group, University of Minnesota, USA.
- Dec. 2001 . Dec 3rd 2009 Tutor, Faculty of Engineering, UPM.
- Oct. 2001 . Dec. 2001 Application Design Engineer Trainee, MIMOS Sdn Bhd.
- Jul. 2000 . Oct. 2001 Research Assistant, Universiti Teknologi Malaysia (UTM).

Areas of Interest

- VLSI Design . Digital VLSI circuits and systems, High-performance and low power custom circuit and interconnect design, System-on-Chip, Network-on-Chip.
- Embedded system design, Wireless Sensor Network.
- Energy harvesting.
- Error Correcting Code.

Research Grants

Year	Topic/Sponsor	Amount (RM)
Nov 2009 . April 2011	Novel Coding Techniques for Power-Efficient Multilevel Signal Off-Chip Bus, Research University Grant Scheme (Project Leader)	30,000

Consultancy Projects

- Consultant to the Ministry of Water, Energy and Communication for Kajian Kesediaan Penggunaan Teknologi Sensor (Nov. 2009)



- Consultant to the Universiti Putra Malaysia (UPM) Holdings for Embedded System Design (Sept.-Oct. 2009)

Student Supervisions

- 2 PhD student (2 Committee) . 2 on-going
- 6 MS by Research students (2 Principal and 4 Committee) . 6 on-going
- 3 BEng projects . 3 on-going

Computer Skills

- Platform: Win (95/98/NT/XP/Vista), DOS, UNIX, LINUX.
- Languages: C, C++, assembly language (Motorola 68000 & 6811, Intel 8086, Atmel & PIC microcontroller), Perl, Awk.
- Simulation Tools: HSpice, PSpice, Magic, Cadence-(Composer-Schematic, Hspice), Synopsys-(Design Compiler, Design Analyzer, VCS), Mentor Graphics (IC Station, EZWaves), NS2, NetLogo, MATLAB, ECC, Matlab.

Professional Society Activities

- Editor: Proceeding WEC02.
- Conference Technical Program Committee: WEC02, ASQED09, ISIEA09, WEC10.
- Conference Local Arrangement Committee: ASQED09, ASQED10.
- Conference Reviewer: ISCAS06, ASQED09, ISIEA09, MICCC09, SCORed09.
- Book Reviewer: Bentham Science Publisher (2009).
- Technical Committee Secretary for IEEE Student Conference on Research and Development (SCORed) 2009.
- Treasurer for IEEE Graduate of Last Decade (GOLD) Malaysia Section, 2009, 2010.
- Executive Committee for IEEE Circuits and Systems (CAS) Malaysia Section, 2009, 2010.
- Technical Chair for Intelligent Systems and Information Technology Symposium 2010 (ISITS 2010)
- Publication Chair for Asia Pacific Conference on Circuits and Systems 2010 (APCCAS 2010)

Publication

Journals

1. **F.Z. Rokhani**, W.-C. Kan, J.C. Kieffer, and G.E. Sobelman, "Optimality of bus-invert coding," *IEEE Trans. Circuits and Systems II*, Vol. 55, No. 11, pp. 1-5, Nov. 2008. **Impact Factor** 1.104
2. **F.Z. Rokhani**, and G.E. Sobelman, "Bus Energy Consumption for Multilevel Signals," *IEEE Trans. Circuits and Systems I*, Vol. 57, No. 1, pp. 64-71, Jan. 2010 **Impact Factor** 2.043
3. **F.Z. Rokhani**, W.J. Lee, I.H. Muhammad, and G.E. Sobelman, "Implementation and Analysis of Bus Transform Coding for Off-Chip Interconnect," to be submitted to *IEEE Trans. Circuits and Systems I*. **Impact Factor** 2.043
4. **F. Z. Rokhani**, C.K. Yeong, A.T. Boon, M.Y. Chin, G.E. Sobelman, "Multilevel Signal On-Chip Interconnect Delay Model using Miller-Capacitance Factor," to be submitted to *IEEE Trans. Circuits and Systems II*.

Conference Proceedings

1. A.A. Forooshani, **F.Z. Rokhani**, K. Samsudin, S. Abd. Aziz, "A Process Variation Aware System-level Framework to Model On-chip Communication System in Support of Fault Tolerant Analysis," In *Proceedings of 2009 Student Conference on Research and Development (SCORed 2009)*, UPM Malaysia, Nov. 2009.



2. R.A. Ahmed, K. Samsudin, **F.Z. Rokhani**, %Impact of Intrinsic parameter Fluctuation on the Fault Tolerance of L1 Data Cache,+ In *International Conference on Microelectronics (ICM 2009)*, Singapore, Morocco, Dec. 2009.
3. R.A. Ahmed, K. Samsudin, **F.Z. Rokhani**, %A framework for modeling impact of intrinsic parameter fluctuations at architectural-level,+In *International Conference on Computer Design and Applications (ICCDA 2009)*, Singapore, May 2009.
4. N. Al-maweri, K. Samsudin, and **F. Z. Rokhani**, %Runtime pluggable scheduling policies framework for a flexible operating system,+In *International Conference on Computer Engineering and Applications (ICCEA 2009)*, Manila Philippine, 2009. IACSIT.
5. **F.Z. Rokhani**, and G.E. Sobelman, %Multilevel signaling for energy-efficient on-chip interconnects,+ Proc. *International Conference on ASIC*, pp. 82-85, Oct. 2007. **Indexed by: Scopus**
6. **F.Z. Rokhani**, and G.E. Sobelman, %Low Power Bus Transform Coding for Multilevel signal,+ Proc. *Asia Pacific Conference on Circuits and Systems*, pp. 1274-1277, Dec. 2006. **Indexed by: Scopus**
7. **F.Z. Rokhani**, Y.C. Yeow, S.A. Aziz, Z.M. Yusof, %Point-to-Point Protocol (PPP) Implementation using AVR micro controller+, Proc. *2nd World Engineering Congress: Information and Communication Technology (ICT)*, Kuching, 2002.
8. Y.C. Yeow, **F.Z. Rokhani**, Z.M. Yusof, %Embedded Ethernet . A Step towards Device Networking Era+, Proc. *2nd World Engineering Congress: Information and Communication Technology (ICT)*, Kuching, 2002.
9. M. Hamizi Ahmad, **F.Z. Rokhani**, M. Nadzrul M.N., Z.M. Yusof, Samsul Bahari M.N. %Obstacle Avoiding Mobile Robot Using Rule Based Method+, Proc. *2nd World Engineering Congress: Information and Communication Technology (ICT)*, Kuching, 2002.

Books (Author/Editor)

1. Nor Kamariah Nordin, Borhanuddin Mohd Ali, M. Iqbal Saripan, **Fakhrul Zaman Rokhani**, Mohd Fadlee A. Rasid, Khairulmizam Samsudin and Syamsiah Mashohor (editors), *Proceeding of 2nd World Engineering Congress: Information and Communication Technology (ICT)*, Universiti Putra Malaysia, 2002. ISBN 967-960-138-2

Awards & Recognitions

- Scholarship for BSc., MARA, 1997-2001.
- Fellowship for MSc. and PhD. studies, Universiti Putra Malaysia, 2003-2008.
- Excellence in Teaching Awards, awarded by the Faculty of Engineering UPM, 2009.
- Lab Attachment (Visiting Researcher) at Fudan University, March 2010.

Publicities

Professional Development Activities

- Participant, CEDEC CMOS Technology Workshop, Jan. 2010
- Participant, Intel-MDeC Advanced VLSI Train-the-Trainer Program (Module 3 & 4), Dec. 2009.
- Participant, TEKBAK Workshop on Engineering Aspects of GPS Including Receiver Design, Oct. 2009.



- Participant, Intel-MDeC Advanced VLSI Train-the-Trainer Program (Module 1 & 2), June 2009
- Participant TEKBACK Workshop on Low Power Wireless Nodes and Applications using MEMS Sensors, March 2009.
- Participant, IEEE CAS Tutorial on Fundamentals & Recent Progress On CMOS Image Sensors and Their Applications, March 2009.
- Participant, UPM Paper Writing Workshop, Feb 2009
- Participant, MSAE Grant Writing Workshop, Feb 2009.