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PhD in Electronics & Computer Systems
Electrical Engineering Department, Engineering College
Salahaddin University-Hawler (SU)
Erbil, Kurdistan Region, IRAQ



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Research Interests:

Digital Electronics, Green Computing and Low Power Architectures, Microprocessor's Thermal/Power Management, Dc-Dc Converter Analysis and Design, PLLs Design and Simulation.

Academic Qualifications:

1. PhD, Electrical Engineering Department, Engineering College, , Salahaddin University-Hawler, Erbil, Kurdistan Region, IRAQ, 2015.
Dissertation: A Combined Threshold Hopping and Voltage Scaling for Power Reduction in Microprocessors
2. M.Sc., Electrical Engineering Department, Engineering College, , Salahaddin University-Hawler, Erbil, Kurdistan Region, IRAQ, 2005.
Thesis: Dynamic Voltage Frequency Scaling For CPU Power Reduction.
3. B.Sc., Electrical Engineering Department, Engineering College, Salahaddin University-Hawler, Erbil, Kurdistan Region, IRAQ, 1990.
4. CCNA1 & CCNA2, CISCO Network Academy, Kurdistan CISCO Regional Academy, IRAQ.

Teaching and Research Experience:

1. 1992-1995 Lab Engineer, Basic EE Lab, Dept. of EE at SUH.
2. 1995-1997 Lab Engineer, Electronics EE Lab, Dept. of EE at SUH.
3. 1997-1999 Teaching Assistant, Basic EE Lab, Dept. of EE at SUH.
2. 1999-2001 Lab supervisor and Teaching Assistant, Electronics EE Lab, Dept. of EE at SUH.
3. 2001-2003 Research Assistant, the Project's Lab, Dept. of EE at SUH.
4. 2003-2005 M.Sc. Student, Dept. of EE at SUH.
5. 2005-2008 Assistant Lecture, Dept. of EE at SUH.
6. 2008-2012 Lecturer, Dept. of EE at SUH.
7. 2012- up to date Assistant Professor, Dept of EE at SU.

Administrative Experience:

1. 2005-2007 Basic Lab Supervisor.
2. 2007-2009 Head of Student's projects Committee.
3. 2009-2011 Director of Continuing Education at SUH.
4. 2011-2014 Director of Information & Communication Technology Center "(ICT Center) at SUH.
5. 2014-up to date, University Lecturer, Engineering College, Salahaddin University.
6. 2017-2018 University Lecturer, Computer and Communication Engineering & Computer Science Erbil International University.
7. 2017-2018 University Lecturer, Information Technology, Lebanese French University, Erbil, Iraq

Courses Taught:

1. Computer Architecture & Organization, MSc Course, Dept. of EE at SUH.
2. Advanced Mathematics, MSc Course, Dept. of EE at SUH.
3. Numerical Analysis, MSc Course, Dept. of EE at SUH.
4. Numerical Analysis, MSc Course, Dept. of EE at SUH.
5. Fundamentals of Electrical Engineering and Circuits, Dept. of EE at SUH.
6. Engineering Mathematics II, Dept. of EE at SUH.
7. Digital Electronics & Design II, Dept. of EE at SUH.
8. Computer Architecture & Organization, Dept. of EE at SUH.
9. Computer Networks, Dept. of Computer, College of Science, Soran University, IRAQ
10. Computer Networks & Communications, Dept. of Computer, College of Education, Soran University, IRAQ
11. Advance Digital Design, Dept. of Computer, College of Science, Soran University, IRAQ
12. Computer Architecture, Dept. of Computer, College of Science, Soran University, IRAQ
13. Digital Systems, Dept. of Refrigeration & Air Cooling, Technical College, Erbil, Technical University, Erbil, IRAQ
14. Digital Devices and Systems, Dept. of Computer, College of Engineering, Koya, Erbil, IRAQ.
15. CCNA1, CISCO Network Academy, Kurdistan Regional Academy, IRAQ
16. CCNA2, CISCO Network Academy, Kurdistan CISCO Regional Academy, IRAQ

Professional Membership:

1. The Institution of Engineering and Technology (IET)
2. The Institute of Electronics, Information, and Communication Engineering _ Japan (IEICE)
3. International Association of Computer Science and Information Technology (IACSIT)
4. International Association of Engineers (IAENG)
5. Universal Association of Computer and Electronics Engineers (UACEE)
6. The Society of Digital Information and Wireless Communications (SDIWC)
7. Engineering and Technology Publishing (ETPub)
8. Consultant Member of Iraqi Engineering Syndicate.
9. Consultant Member of Kurdistan Engineering Syndicate.
10. Kurdistan Federation of Teachers.

Supervised Master These and Graduation BSc Projects.:

1. **Supervisor**, Efficient Temperature Aware Design for Microprocessor's Circuits, MustafaM. Mustafa, October 2013.
2. **Supervisor**, Power Dissipation Reduction Memory Systems, Goran Wnis, September 2015.
3. **Supervisor**, More than 25 Projects of Final Year graduate BSc Students (SUH) from 2005 up to date.

Volunteer Work and Committees:

1. Advisory Committee Chair & Member of Organization Committee, 4th International Scientific Conference of Salahaddin University-Erbil, IRAQ, October, 18-20 2011.
2. Chair, Session, Digital Electronics, 4th International Scientific Conference of Salahaddin University-Erbil, IRAQ, October, 18-20 2011.
3. Member of Curriculum Development Committee, Dept. of EE at SUH.
4. Member of Higher Education Committee, Dept. of EE at SUH.
5. Member of Program Committee, The 2nd International Conference on Digital Information and Communication Technology, and Applications (DICTAP2012), Bangkok, Thailand, May 16-18, 2012.
6. Member of Technical Committee, The international Conference on Electronics, Electrical, and Computer Science Engineering (EEC2012), July 7-9 2012, Dehradun, India.
7. Member of Technical/Editor Board, International Conference on Advances in Structural, Civil and Environmental Engineering (SCEE2013), May 4-5 2013, Kuala Lumpur, Malaysia.
8. Member of Program Committee, The International Conference on Digital Information processing, E-Business and Cloud Computing (DIPECC2013), Dubai, UAE, October 23-25, 2013.
9. Member of Organization Committee, The 2nd International Conference on Informatics Engineering, and Information Science (ICIEIS2013), Kuala Lumpur, Malaysia, November, 12-14, 2013.
10. Member of Editorial Board, International Conference on Advances in Computer, Control, and Networking (ACCN2013), Dubai, UAE, November, 8-9 2014.
11. Member of Editorial Board, International Conference on Computing and Information Technology (ACIT2014), Bangkok, Thailand, January, 4-5, 2014.
12. Member of Editorial Board, The 1st International Conference on Green Computing, Technology and Innovation, Kuala Lumpur, Malaysia, March 4-6 2013.
13. Member of Technical/Editorial Board, International Conference on Advances in Social Science, Management and Human Behavior (SMHB), Zurich, Switzerland, October, 12-13 2013.
14. Member of Program Committee, The 2nd International Conference on e-technologies and Networking for Development (ICeND2013), Kuala Lumpur, Malaysia, March, 4-6, 2013.
15. Member of Program Committee, The International Conference on Computer Science, Computer Engineering, and Education Technologies (CSCEET2014), Kuala Lumpur, Malaysia, November 17-19, 2014.
16. Member of Program Committee, The International Conference on Electrical Engineering and Bio Medical engineering, Clean Energy and Green Computing (EBECEGC2015), Dubai, UAE, January, 28-30, 2015.
17. Member of Program Committee, The 3rd International Conference on Technological Advances in Electrical, Electronics, and Computer Engineering (TAEECE2015), Beirut, Lebanon, April 29-May 01., 2015.
18. Member of Editorial Board, International Conference on Advanced in Computing, Communication, and Information Technology (CCIT2015), Birmingham, UK, April, 26-27, 2015.
19. Reviewer, Zanco Journal of Pure sciences (SUH)
20. Reviewer, Journal of Sulaimaniyah University, Sulaimaniyah, IRAQ.
21. Reviewer, Journal of Technical College, Technical University, Erbil, IRAQ.
22. Reviewer, Majlesi Journal of Electrical Engineering, Islamic Azad University, IRAQ.
23. Reviewer, Journal of KUFA University, Kufa, IRAQ.
24. Reviewer, Journal Scientific Research and Essay (SRE), Academic Journals.
25. Reviewer, more than 30 international and national conferences.
26. Member of international Micro-Electronics and Telecommunication Engineering _IEEE, 2016
27. Member of international conference _DICTAP'2016
28. Member of international conference _ICCBS'2016
29. Member of international conference _ICCPCC'2017
30. Member of international conference _ICHCE'2017
31. Member of international conference _ICOMCE'2017
32. Member of international conference _CSCEET'2017
33. Member of international conference _ICSSH'2017
34. Member of international conference _ICCHD'2017
35. Member of international conference _EEETTM'2017

36. Member of international conference_EEETTM'2017
37. Member of international conference_ICCMM'2018
38. Member of international conference_ICCHC'2018
39. Member of international conference_ICCHA'2018
40. Member of international conference_ICAEE'2018
41. Member of international conference_EBECEGC'2018
42. Member of international conference_DINWC'2018
43. Member of international conference_IEEE_ICMETE'2018
44. Member of many international conference in 2019-2020.

Publications:

Journal & Conference Papers:

- 1-Diary R. sulaiman, Ibrahim I. Hamarash, Muhammed A. Ibrahim, Dynamic Voltage Frequency Scaling (DVFS) for Microprocessors Power and Energy Reduction., 4th international conference on electrical and electronics engineering ELECO'05, Bursa, Turkey, 7-11 December 2005.
- 2- Diary R. sulaiman, Design and analysis of phase locked loops, Journal of pure and applied science, Salahaddin university-Hawler, Vol. 18, No. 2, Iraq, 2006.
- 3- Diary R. Sulaiman, Hilmi F. Amin, Nuraddin T. Hussein, using Fan speed control method for microprocessors Dynamic Thermal Management, WSWAS transaction on circuits and systems, Issue 1, Vol. 5, pp 142-146, January 2006.
4. Diary R. Sulaiman, A Combined hardware-Software Approach for CPU Energy Reduction Using Dynamic Voltage Scaling Technique, 2nd Jordanian International Conference on Computer Science and Engineering (JICCSE2006), 5-7 December, 2006, AL-Balqa'Applied University, Al-Salt, Jordan.
- 5- Diary R. sulaiman, Using A Combined hardware-Software Approach for CPU Energy Reduction Using Dynamic Voltage Scaling Technique, International conference on Conference on Digital Communications and Computer Applications DCCA'07, Amman, Jordan, 19-22 March 2007.
- 6- Diary R. sulaiman, A 2.2 GHz - 2.9 V charge pump phase locked loop design and analysis, 5th international conference on electrical and electronics engineering ELECO' 07, Bursa, Turkey, 5-9 December 2007.
- 7- Diary R. sulaiman, The solar energy conversion system: design and analysis, International Conference on Sustainable Energy, Technologies, Materials, and Environmental Issues, Cairo, Egypt, October 29- November 1, 2007.
- 8- Diary R. sulaiman, Using clock gating technique for energy reduction in portable computers, International conference on computer and communication engineering ICCCE' 08, Kuala Lumpur, Malaysia, 13-15 may 2008.
9. Diary R. Sulaiman, Microprocessors Leakage Power Reduction Using Dual Supply Voltage Scaling, 5th International Advanced Technologies Symposium (IATS'09), May 13-15, 2009, Karabuk, Turkey, 2009.
10. Diary R. Sulaiman, Hilmi F. Amin, Ismail K. Said, Design of High Efficiency DC-DC Converter for Photovoltaic Solar Home Applications, The International Conference on Renewable Energies ICRE'2010, April 5 – 8, 2010 Damascus, Syria.
11. Diary R. Sulaiman, Complementary Pass Transistor Control Unit Design for Subthreshold Current Management in Digital Portable Systems, International Journal of Electrical & Computer Sciences IJECS / IJENS, ISSN: 2077-1231, Vol.10, No.3, Pp 22-27, June 2010.

12. Diary R. Sulaiman, Hardware Based: Dynamic Branch Prediction for Microprocessors Energy Reduction in Portable Systems, International Journal of Engineering Studies, ISSN: 0975- 6469, Vol.2, No.2, Pp 223-235, June 2010.
13. Diary R. Sulaiman, Microprocessors Thermal Challenges for Portable and Embedded Systems Using Thermal Throttling Technique, The International Conference on Information Technology WCIT'2010, October 6-10, 2010 Istanbul, Turkey.
14. Diary R. Sulaiman, Aree A. Muhammad, Design High Efficiency PWM Boost Converter for Wind Power Generation, Journal of Electrical and Electronics Engineering, Vol.3, No.2, October 2010.
15. Hilmi F. Amin, Ismail K. Said, Diary R. Sulaiman, Total harmonic reduction of Wound Rotor Induction Motor (WRIM) Chopper Resistance Control Using Three Phase Boost Rectifier in Rotor, Zanco journal of Pure and Applied Sciences,, Salahaddin University-Hawler, Vol 2, No 3, 2010.
16. Diary R. Sulaiman, Hilmi F. Amin, Ismail K. Said, Design of High Efficiency DC-DC Converter for Photovoltaic Solar Home Applications, Journal of Energy and power engineering, Vol 4, No 11, November 2010.
17. Diary R. Sulaiman, The 3rd Order Phase Locked Loops (PLLs) Analysis, Design, and Simulation, The 1st Scientific Research Conference on Technical Education, December 1-2, 2010, Duhok, Kurdistan region, Iraq.
18. Diary R. Sulaiman, Microprocessors Thermal Challenges for Portable and Embedded Systems Using Thermal Throttling Technique, ELSEIVER Procedia Computer Science Journal, Vol 3, 2011.
19. 14. Diary R. Sulaiman, ANN Based DBP for Microprocessors Power Reduction, Journal of Computer Science and Control Systems, ISSN: 1844- 6043, Vol.4, No.1, Pp 173-178, May 2011.
20. Diary R. Sulaiman, A 902-928 MHz PLL Design and Simulation for Biomedical Applications, The 5th International Conference on Information Technology, ICIT'2011, May 11-13, 2011, Amman, Jordan.
21. Diary R. Sulaiman, Using PTL Configuration For Power Aware Portable Design, The 4th International Scientific Conference of Salahaddin University-Erbil (SU-ERBIL2011), October 18-20, 2011, Erbil, Kurdistan, IRAQ.
22. Diary R. Sulaiman, Thermal Reduction in Portable Systems Using DVS Technique, Advance Electromagnetic Symposium, AES'2012, 16 - 19 April 2012, Paris - France.
23. Diary R. Sulaiman, Microprocessor's Power and Temperature Management Using Voltage and Frequency Control Technique, Zanco Journal of pure and applied science, Salahaddin university-Hawler, Vol. 24, No. 2, Iraq, 2012.
24. Diary R. Sulaiman & Bestoon S. Ahmed, Using the combinatorial optimization approach for DVS in high performance processors, International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECE), Konya, Turkey, 2013.
25. Jalil Aziz Hamadamin, Diary R. Sulaiman, Arazoo M. Aziz, The Antenna Electrical Downtilt Improvement for KOREK_TELECOM GSM Mobile Station in Erbil City (IRAQ), International Journal of Communications Antenna and Propagation "IRECAP", Vol 4, No.1, Praise Worthy Prize, 2014.
26. Diary R. SULAIMAN, Mustafa M. MUSTAFA, and Muhammed A. IBRAHIM, Temperature Aware Design for High Performance Processors, International Conference on Information Technology (ICIT2015), Amman, Jordan, 2015.

27. Diary R. SULAIMAN, Ibrahim I. Hamarash, and Muhammed A. IBRAHIM, Microprocessors optimal power dissipation using combined threshold hopping and voltage scaling, IEICE Electronics Express, **IF:0586**, Volume 14 Issue 24, 2017.
28. Diary R. SULAIMAN, Ibrahim I. Hamarash, and Muhammed A. IBRAHIM, Adaptive supply and body voltage control for ultra-low power microprocessors, IEICE Electronics Express, **IF:0586**, Volume 14 Issue 12, 2017.
29. Diary R. SULAIMAN, Ibrahim I. Hamarash, and Muhammed A. IBRAHIM, Using DTVS Technique for Microprocessor's Power and Thermal Management, Journal of Electrical and Electronics Engineering (JEEE), Vol.11, No.1, may 2018.
30. Goran W. Hamaali, Power and thermal management in SRAM and DRAM using adaptive body biasing technique, IEICE Electronics Express, **IF:0586**, Volume 16 Issue 19, 2019.
31. Diary R. Sulaiman, The Complete Switching Circuit Design for CPU Joint Body Biasing and Supply Voltage Scaling, ZANCO Journal of Pure and Applied Sciences 31 (s3), 2019.