Khalid M Faraj
Curriculum Vitae

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EDUCATION
Ph.D. Electrical Engineering, Napier University, Edinburgh, UK
M.Sc. Theoretical Physics, New Orleans, La. USA.
M.Sc. Electrical Engineering, New Orleans, La. USA,
B.Sc. Electrical Engineering. La, USA

PROFESSIONAL EXPERIENCE

Assistant Professor**.** Department of Electrical Engineering. Palestine Technical University - Khadoorie.

Assistant Professor**.** Department of Electrical Engineering. Palestine Polytechnic University. Lecturing in Measurements & Sensors, Advance topics, AC circuits, Audio & Video, General Physics1, and General Physics2. Part-time.

Assistant Professor**.** Department of Systems Computer Science. AQBard University. Part-time.

Assistant Professor**.** Department of Systems Computer Science. Sekhneen College. Part-time.

Assistant Professor**.** Department of Systems Computer Engineering. Birzeit University. Lecturing in Digital signal processing (ENCS431), Microprocessor based systems (ENCS338), Assembly language lab (ENCS311), Computer design lab (ENCS411), Computer organization (ENCS336), Electronics circuits (ENEE234), and Physics PHYS(111).

Assistant Professor and Academic Vice President, Wajdi Institute of Technology, Jerusalem. Lecturing in Computer Science, Electrical Engineering, and Mathematics.

Assistant Professor**.** Department of Electrical Engineering. Palestine Polytechnic University, Hebron. Lecturing in Microprocessor & Interfacing ECE 468, Digital Logic Fundamentals ECE 221, Electronics 2 ECE 311, Measurements & Transducers ECE 411, Graduation Project ECE 593.

Lecturer. Napier University, Edinburgh, UK. Lecturing in Electronic Systems SE32102, Electronic Devices SE72206, Introduction to Computer Engineering SE12201, Creative Science SE 12402, Creative Engineering SE 12401, VHDL SE 72210, Professional Skills SE12301 and PLC SE32101.

Head of the Telecommunication Dept and lecturer. Department of Physics. Bethlehem University, Bethlehem. Lecturing in theoretical and experimental courses in Physics, Electronics and Telecommunications. I taught the following courses: General Physics 2, Laboratory Physics, DC Circuit Analysis, AC Circuit Analysis, Microelectronics 1 & 2, Power Electronics, Solid State Devices, Low Voltage Systems, Pulse Circuits, and Communication Theories. I had been responsible for the maintenance and repair of all electronic equipments in the university.

Lecturer. Department of Electrical Engineering. ORT Institute of Technology, Jerusalem. I was teaching and supervising undergraduate students in their final projects. I taught the following courses in Electrical Engineering: Control Systems, Power Electronics 1 & 2, Digital Circuits, DC Circuit Analysis, and AC Circuit Analysis.

Electrical Engineer, Petrotech Company. New Orleans, La, USA.
I was an Electrical Engineer designing, building and maintaining Control Circuits to control the flow in the fluid pumps.

Electrical Engineer, Opto Company. San Jose, California, USA.
Electrical Engineer where I was testing, designing Optical Solid State gates and switches.

Lecturer/ Head of the Electronics Dept. Department of Electrical Engineering. Meadows Droughn College, New Orleans, La, USA. I was teaching different courses in Electronics such as: Electronics, Digital Circuits, Circuit Analysis, Microprocessor and Assembly language.

Lecturer. Department of Physics. University of New Orleans, La, USA.
Taught Physics courses in Mechanics, Electricity and magnetisms.

PUBLICATIONS

- **Design Error Detection and Correction System based on Reed_Muller Matrix for Memory Protection.** International Journal of Computer Applications, Volume 34. November 2011.
- **Synthesis of Multi-Level Dual Reed-Muller Forms.** In the Proceedings of the WSEAS Transactions on Electronics, Issue 8, Vol. 5, August 2008.
- **Optimal Expression for fixed Polarity Dual Reed Muller Forms,** WSEAS Transactions on Circuits and Systems, Issue 3 Vol. 6 March 2007, pp 364-371.
- **Minimization of Dual Reed Muller form using Dual Property,** WSEAS Transactions on Circuits and Systems, Issue 1, Vol. 6, January 2007, pp 9-15.
- **The expansion of logical function in OR-Coincidence system and the transform between it and maxterm expansion**, IEE proceedings on Computers and Digital Techniques.

CONFERENCES:

- **Error Detection and Correction Using Fast Coding**, Recent Advances In Electronics, Hardware, Wireless & Optical Communications, Proceedings of the 9th International Conference On Electronics, Hardware, Wireless & Optical Communications(EHAC 10), University of Cambridge, UK, Feb 20-22, 2010, PP110-114
- **Fast Coding for Dual reed Muller Expressions**, Recent Advances in Engineering Education, proceeding of the 6th WSEAS International Conference on Engineering Education (EE 09), Rodos Island, Greece, July 22-24, 2009.
- **Synthesis of Multi-Level dual Reed Muller Expressions,** Recent Advances in Nanotechnology, Proceedings of the 1st WSEAS International Conference on

Nanotechnology, University of Cambridge, Cambridge, UK, February 21-23, 2009, pp 47-51.

- **Minimization of OR-XNOR Expressions Using Four New Linking Rules,** Advances on artificial Intelligence, Knowledge Engineering and Data Bases, Proceedings of the 7tht WSEAS Artificial intelligence, Knowledge Engineering and Data Bases, University of Cambridge, Cambridge, UK, February 20-22,2008, pp 489-494.

- **Optimal Polarity for Dual Reed-Muller Expressions,** Proceedings of the 6th WSEAS Int. Conf. on Electronics, Hardware, Wireless and Optical Communications, Corfu Island, Greece, February 16-19, 2007, pp 102- 109.

- **Exact minimization of Dual Reed-Muller expansions,** Proceedings of the 6th WSEAS International Conference on Applied Computer Science, Tenerife, Canary Islands, Spain, December 16-18, 2006, pp 361-367.

- **Fast computation of Conjunctive Canonical Reed-Muller functions**, PREP 2004 Proceeding, University of Hertfordshire, pp. 144-145.

- **A New Technique for Converting Sum of Products (SOP) into Fixed Polarity Reed-Muller (FPRM) and Vice Versa**, PREP 2004 Proceeding, University of Hertfordshire, pp. 144-145.
- **Polarity Conversion Using Sparse and Partitioning Techniques**, Proceedings of the Work in Progress Session, 29th EUROMICRO Conference EUROMICRO 2003 and the EUROMICRO Symposium on Digital System Design DSD 2003.

INVITED PAPERS:

- **Optimal polarity for Dual Reed_Muller expressions**. In the Proceedings of the 7th WSEAS International Conference on. Microelectronics, Nanoelectronics Istanbul, Turkey, May 27-30, 2008, pp 45-52.

PROGRAMMING LANGUAGES

I have a wide range of programming experience mainly in: **C++**, **C**, **Basic**, **PLC**, **VHDL**, **Assembly Language**, **Matlab**.