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Education

Ph.D., Electrical Engineering, *Wichita State University, Kansas, USA*, 2001.
M.E., Electrical Engineering, *Tennessee State University, Tennessee, USA*, 1998.
B.Sc., Electrical Engineering, *Jordan University of Science and Technology, Jordan*, 1989.

Experience

Associate Professor, Sep. 2017-present, *Department of Electrical Engineering, Jordan University of Science and Technology, Irbid, Jordan*.

Associate Professor, June, 2015-Sept., 2017, *Department of Electrical Engineering, American University of the Middle East, Kuwait*.

Chairman, August, 2014- June. 2015, *Department of Electronics and Communication Engineering, A'Sharqiyah University, Ibra, Oman*.

Associate Professor, October, 2012-August, 2014, *Department of Electronics and Communication Engineering, A'Sharqiyah University, Ibra, Oman*.

Associate Professor, Jan. 2008-Sept. 2012, *Department of Electrical Engineering, Jordan University of Science and Technology, Irbid, Jordan*.

Assistant Professor, 2002-2008, *Department of Electrical Engineering, Jordan University of Science and Technology, Irbid, Jordan*

Senior Communications Engineer, 2001-2002, *American Tower, Georgia, USA*

Graduate Teaching and Research Assistant, 1998-2001, *Department of Electrical and Computer Engineering, Wichita State University, Wichita, USA*.

Research Assistant, 1996-1998, *Department of Electrical and Computer Engineering, Tennessee State University, Tennessee, USA*

Communications Engineer, 1990-1996, *Jordan Armed Forces, Amman, Jordan*

Teaching Interests

Teaching graduate and undergraduate courses related to Signal Processing and Communications

Research Interests

Optimization Algorithms and Artificial Neural Network Modeling for Signal Processing and Communication Systems.

Courses Taught Analog Communications, Digital Communications, Mobile Communications, Communication Systems, Analog Communications Lab., Digital Communications Lab., Digital Signal Processing, Digital Signal Processing and Pattern Recognition, Digital Signal Processing Lab., Digital Filters, Signals and Systems, Circuits Theory, Engineering Analysis, Numerical Analysis.

Supervised Master Theses

1. Adnan Khasharfeh, "Code Excited Linear Prediction Using Stochastic Optimization," *Jordan University of Science and Technology*.
2. Zaid Bataineh, "Linear Phase FIR Filter Design Using Differential Evolutionary Optimization Algorithm", *Jordan University of Science and Technology*.
3. Ala'a Al-khaleel, "Linear Phase FIR Filter Design Using Ant Colony Algorithm", *Jordan University of Science and Technology*.
4. Zainab Abdulridha, "Independent Component Analysis Using Differential Evolutionary Optimization Algorithm", *Jordan University of Science and Technology*.
5. Asmaa Alquda, "Multiple-Antenna-Aided Orthogonal Frequency Division Multiplexing Employing Differential Evolution -Algorithm-For Minimum Bit Error Rate Multiuser Detection," *Jordan University of Science and Technology*.
6. Manar Alnajjar, "Digital Filter Design Using Biogeography-Based Optimization Algorithm", *Jordan University of Science and Technology*.

Supervised Senior Projects

1. Speech Recognition Using Hidden Markov Model.
2. Code Excited Linear Prediction Coding.
3. Recognition of Hand Written Numerals Using Artificial Neural Network.
4. Linear Prediction Using Particle Swarm Optimization.
5. "Smart House", A Method to Power Line Communication.
6. Noise Reduction Using Artificial Neural Network.
7. Performance Analysis of Code Excited Linear Prediction Coding.
8. Speech Recognition System.
9. Simulation of Data Radio System.
10. LPC for Speech Recognition.
11. Object Control by Infrared Ray.
12. Scrambling and Descrambling Using Pseudo noise Sequence.
13. Wireless Speaker System.
14. Mobile WI-MAX Technical Overview and Performance Evaluation.

Publications

1. Jehad Ababneh and Manar Al Najjar, "Digital Filter Design Using Biogeography-Based Optimization Algorithm" submitted for publication in the journal of *International Journal of Adaptive Control and Signal Processing*.
2. Jehad Ababneh, "Greedy Particle Swarm and Biogeography-based Optimization Algorithm" *International Journal of Intelligent Computing and Cybernetics*, Vol. 8, No. 1, pp. 28-49, 2015.
3. Jehad Ababneh and Jorge Igual, "Biogeography-based Optimization Algorithm for Independent Component Analysis," *International conference on Computing Technology and Information Management, Dubi, UAE, 2014*.
4. Taimour Aldalgamouni, Jehad Ababneh and Maymoneh Hayajneh, "Minimum Bit Error Rate Multiuser Detection of SDMA-OFDM Systems Using Biogeography Based Optimization Algorithm," accepted for publication in *Proceeding of the International Conference on Telecommunication Systems and Networks (MIC-Telecom 2013)*. Barcelona, Spain.
5. Zaid Albataineh, Fathi Salem, and Jehad Ababneh, "Linear Phase FIR Low Pass Filter Design Using Hybrid-Differential Evolution," *International Journal of Research in Wireless Systems (IJRWS)*, Vol. 1, No. 2, pp. 43-49, December 2012.
6. Jehad Ababneh and Manar Al Najjar, "Randomly Perturbed Biogeography-Based Optimization Algorithm" accepted for publication in the *International Conference of Evolutionary Computation Theory and Application, Spain, 2012*
7. Jorge Igual, Jehad Ababneh, Raul Llinares, and Carmen Igual, "Using Particle Swarm Optimization for minimizing mutual information in Independent Component Analysis", in *Proceeding of the 11th International Work-Conference on Artificial Neural Networks, IWANN 2011* Torremolinos-Málaga, Spain, June, 2011
8. Jehad Ababneh, Taimour Aldalgamouni and Asmaa Alquda, "Minimum Bit Error Rate Multiuser Detection of SDMA-OFDM System Using Differential Evolution Algorithm," in *Proceeding of the 6th IEEE INTERNATIONAL CONFERENCE on Wireless & Mobile Computing, Networking & Communication*, Niagara Falls, Canada, October 2010.
9. Jorge Igual, Jehad Ababneh, Raul Llenares, Julio Miro-Borras, and Vicente Zarzoso, "Solving Independent Component Analysis Contrast Functions with Particle Swarm Optimization", in *Proceeding of the 20th ICANN*, Thessaloniki, Greece, September 2010.
10. Majid Khodir, Nihad Dib and Jehad Ababneh, "Design of Multi-Band Multi-Section Transmission Line Transformer Using Particle Swarm Optimization," *Electrical Engineering*, Vol. 90, No. 4, pp. 293-300, April 2008.
11. Jehad Ababneh and Mohammad Bataineh, "Linear Phase FIR Filter Design Using Particle Swarm Optimization and Genetic Algorithms," *Digital Signal Processing*, Vol. 18, No. 4, pp. 657-668, July 2008.

12. Nihad Dib and Jihad Ababneh, "Physical Modelling and Particle Swarm Design of Coplanar Waveguide Square Spiral Inductor," *International Journal of Modelling and Simulation*, Vol. 28, No. 2, pp. 219-225, 2008.
13. Mohammad Bataineh and Jihad Ababneh, "Synthesis of Aperiodic Linear Phased Antenna Arrays Using Particle Swarm Optimization," *Electromagnetics*, Vol. 26, No. 7, pp. 531-541, 2006.
14. Jihad Ababneh and Omar Qasaimeh, "Simple Model for Quantum Dot Semiconductor Optical Amplifiers Using Artificial Neural Networks," *IEEE Trans. Electron Devices*, Vol. 53, No. 7, pp.1543-1550, 2006.
15. Jihad Ababneh, Majid Khodir and Nihad Dib, "Synthesis of Interdigital Capacitors Based on Particle Swarm Optimization and Artificial Neural Networks," *Int. J. of RF and Microwave Computer-Aided Engineering*, Vol. 16, No. 4, pp. 322-330, 2006.
16. Nihad Dib, Jihad Ababneh and Amjad Omar, "CAD Modeling of Coplanar Waveguide Interdigital Capacitor," *Int. J. of RF and Microwave Computer-Aided Engineering*, Vol. 15, No. 6, pp. 551-559, 2005.
17. Jihad Ababneh, K. Jitvanichphaibool, and Elmer Hoyer, "A Simple AM-FM Model of Speech Using the Hilbert Transform Method", in *Proceeding of the 5th JIEEEEC*, Amman, Jordan, October 2003.
18. Jihad Ababneh, "Isolated Word Recognition of Parameterized Speech Using Artificial Neural Network," *Doctoral Dissertation*, Wichita State University, May 2001.
19. Jihad Ababneh, "Computing Feedback Controller Parameters of Chaotic Systems Using Small Perturbation Method," *Masters Thesis*, Tennessee State University, May 1998.
20. Jihad Ababneh, Magdi A. Essawy, and Mohammad Bodruzzaman, "Computing Chaotic System Control Parameters Using Autoregressive Techniques" *29th Southeastern Symposium on System Theory*, Cookeville, TN, USA March, 1997.

Professional Activities

1. Chairman, Electronics and Communication Engineering Department, A'Sharqiyah University, Oman, 2014.
2. Developed budget and list of equipment to establish Circuits and Digital Systems, Electronics and Communication laboratories in the Electronics and Communication Engineering Department, A'Sharqiyah University, Oman. 2012.
3. Member of the University Council at A'Sharqiyah University as a representative of the College of Engineering.
4. Chair, Teaching Programs Committee, College of Engineering, A'Sharqiyah University.
5. Member of the Faculty of Engineering Council at A'Sharqiyah University as a representative of the Electronics and Communication Engineering Department.
6. Member of the Academic Committee, College of Engineering, A'Sharqiyah University.
7. Member of the Research Committee, College of Engineering, A'Sharqiyah University.
8. Member of the Quality Assurance Committee, A'Sharqiyah University.
9. Established a digital signal processing laboratory in the EE department at Jordan University of Science and Technology.

10. Served as a member of technical committee for a TEMPUS project supported and funded by the EU which resulted in new master program in wireless communication and an establishment of a wireless laboratory in the EE department at Jordan University of Science and Technology.
11. Served as a member of the technical program committee for the 2006 Wireless Euro- Mediterranean International Conference, Amman, Jordan.
12. Serving as a reviewer for the International Journal RF and Microwave Computer-Aided Engineering.
13. Serving as a reviewer for the Journal of Soft Computing.
14. Serving as a reviewer for the International Journal of Speech Technology.
15. Serving as a reviewer for the International Journal of Artificial Intelligence and Soft Computing.
16. Serving as a reviewer for the Journal of Applied Soft Computing.
17. Serving as a reviewer for the International Journal of Adaptive Control and Signal Processing.
18. Serving as a reviewer for the Jordanian International Electrical and Electronics Engineers conference.
19. Member of the Faculty of Engineering Council at Jordan University of Science and Technology as a representative of the EE Department.
20. Member of several departmental committees in the EE department at Jordan University of Science and Technology.
21. Head of the Undergraduate Projects Committee at the EE department, Jordan University of Science and Technology, for the academic year 2007.
22. Head of the Summer Training Committee at the EE department, Jordan University of Science and Technology, for the academic year 2006.
23. Head of the Communication Section Committee at the EE department, Jordan University of Science and Technology, 2007-present.

Honors

1. Received an Award for First Place Research, at the TSU 19th University-Wide Research Symposium, 1997, Tennessee State University, Nashville, TN, USA
2. Received an Award for an Outstanding Graduate Student, Department of Electrical and Computer Engineering, 1997, Tennessee State University, Nashville, TN, USA

Skills

Programming Languages: C, C++, FORTRAN, MATLAB

Operating Systems: UNIX, Windows NT, Windows XP, DOS

Radio Frequency Tools: MapInfo, Wizard