

# *Dr. Mamoun Fawzi Al-Mistarihi*

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## *Office Address:*

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## *Education*

- Ph.D. in the Electrical Engineering  
University of Minnesota, Minneapolis, MN, USA 10/2005

**Thesis:** Optimization of Contrast Sensitivity and Specificity Of Post-Beamforming Volterra Filters for Contrast-Assisted Nonlinear Pulse-Echo Ultrasonic Imaging

- M.E.E. in the Electrical Engineering  
University of Minnesota, Minneapolis, MN, USA 10/2005
- M.S. in the Electrical Engineering  
Jordan University of Science and Technology, Irbid, Jordan 10/1996

**Thesis:** Optimization of Distributed Detection Systems

- B.Sc. in the Electrical Engineering  
Jordan University of Science and Technology, Irbid, Jordan 06/1992

## *Research and Area of Interest*

Digital Signal Processing, Image Processing, Digital Signal Processing for Communications, Wireless Communications and Mobile Networks, Performance Evaluation of Wireless Communication Systems over Fading Channels, Security of Wireless Systems, WiMAX, Ad Hoc Networks, and Wireless Sensor Networks.

## *Professional Experience*

- 09/29/14 – Present, Associate Professor, at the Electrical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan.
- 11/21/06 – 09/29/14, Assistant Professor, at the Electrical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan.

- 12/13/05 – 11/21/06, Full Time Lecturer, at the Electrical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan.
- 08/30/04 – 08/30/05, Teaching Assistant (TA), at the Electrical and Computer Engineering Department, University of Minnesota, Minneapolis, MN, USA.
- 05/2002 – 08/30/04, Research Assistant (RA), at the Electrical and Computer Engineering Department, University of Minnesota, Minneapolis, MN, USA.
- 12/1997 – 12/2000, Head of the Measurement & Calibration Laboratory, Royal Scientific Society, Amman, Jordan. During this period and under my supervision the Lab got an accreditation from the PTB, Germany.
- 04/1995 – 12/1997, Calibration Engineer, Measurement & Calibration Laboratory, Royal Scientific Society, Amman, Jordan.
- 04/1994 – 04/1995, Testing and Quality Control Engineer, Testing and Quality Control Laboratory, Royal Scientific Society, Amman, Jordan.
- 09/1992 – 06/1994, Teaching Assistant (TA) at the Electrical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan.

## *Awards*

- 06/2001, Ph.D. Scholarship from Jordan University of Science and Technology, Irbid, Jordan.

## *Teaching Courses*

### **B.Sc. Courses**

1. EE 204 Introduction to Linear Systems
2. EE 210 Circuits I
3. EE 212 Electrical Circuits (for non EE students)
4. EE 213 Electrical Circuits Lab.
5. EE 220 Introduction to Electronics
6. EE 260 Signal and System Analysis
7. EE 303 Principles of Electrical Engineering
8. EE 305 Numerical Methods for Engineers
9. EE 310 Electric Circuits II
10. EE 320 Electronic Circuits
11. EE 321 Electronics (for non EE students)
12. EE 322 Electronic Circuits Lab.
13. EE 341 Instrumentation & Measurements
14. EE 360 Random Signal Analysis
15. EE 420 Digital Electronic Circuits
16. EE 422 Digital Electronic Circuits Lab.
17. EE 435 Power Electronics
18. EE 450 Communication Systems
19. EE 460 Digital Signal Processing
20. EE 523 Advanced Electronic Circuits
21. EE 527 Communication Electronics
22. EE 551 Digital Communications

23. EE 559 Wireless and Mobile Communications
24. EE 575 Communication Networks
25. EE 565 Digital Speech Processing
26. EE 566 Digital Image Processing
27. EE 591 Graduation Project I
28. EE 592 Graduation Project II

### **M.Sc. Courses**

1. EE 720 RF Circuit Design of Wireless Systems
2. EE 768 Digital Signal Processing for Communications
3. EE 772 Wireless Systems Security
4. EE 775 Performance Analysis of Communications Networks

### ***Workshops***

1. Testing and Evaluation
2. Modern University Instructional Methods
3. Statistical Pattern Recognition

### ***Activities, Services, and committees***

1. Secretary of the Department's Council for three years.
2. Head of the Department's Social Committee for one year.
3. Department Graduation Project Coordinator for three years.
4. Department practical training and internship coordinator for one year.
5. On the defense committee of several Master students at JUST and at other universities.
6. Experience in developing course curriculum as per accreditation and international standards.

### ***Technical Program Committee (TPC)***

1. IEEE 25<sup>th</sup> International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2015), Hong Kong, China, August 30-September 2, 2015.
2. The First International Conference on Wireless Communications and Computing Networks (WCCN2015), Beijing, China, July 20-21, 2015.
3. 2015 International Conference on Single Processing & Data Mining (ICSPDM' 2015), Istanbul, Turkey, 26-28 July 2015.
4. 2014 International Conference on Wireless Communications and Signal Processing (WCSP 2014), Hefei, China, 23-25 October 2014.
5. 2nd International Conference on Telecommunication Systems and Networks (MIC-Telecom 2014), Istanbul, Turkey, 19-21 December 2014.
6. 6th International Conference on Communications, Signals and Coding (MIC-CSC2013), Amman, Jordan, 23-25 August 2013.
7. IEEE International Conference on Control System, Computing and Engineering (ICCSCE 2012), Penang, Malaysia, 23-25 November 2012.
8. 5th International Conference on Communications, Propagation, and Electronics (MIC-CPE2012), Istanbul, Turkey, 3-5 February 2012.

9. 5th International Conference on Communications, Networking and Information Technology (MIC-CNIT2011), Dubai, UAE, 16-18 December 2011.
10. 1st International Conference on Biomedical Engineering, Electronics and Nanotechnology (MIC-BEN2011), Amman, Jordan, 9-11 September 2011.

***Reviewer for the following Journals:***

1. IET Communications.
2. Computer Networks, Elsevier.
3. Journal of Network and Computer Applications, Elsevier.
4. Ad Hoc Networks, Elsevier.
5. Wireless Personal Communications, Springer.
6. International Journal of Communication Systems, Wiley.
7. Journal of Communications, Academy Publisher.

***Master Thesis I supervised:***

1. Lama N. Ibrahim "Performance Analysis of Dual Hop Amplify-and-Forward Cognitive Relay Networks with Interference Power Constraints over Mixed Fading Channels for End User Mobile," Jordan University of Science and Technology, JUST, Irbid, Jordan, August 2016.
2. Islam M. Tanash, "Physical-Layer Security in Cooperative Wireless Networks with Multiple Relays Over Nakagami-m Fading Channels," Jordan University of Science and Technology, JUST, Irbid, Jordan, July 2016.
3. Mohammad F. Mohaisen "Bit Error Rate Analysis of Relay-Based Cooperative Diversity Networks over Alpha-Mu ( $\alpha$ - $\mu$ ) Fading Channels," Jordan University of Science and Technology, JUST, Irbid, Jordan, December 2014.
4. Moawiah M. Alhulayil "Performance Analysis of Amplify-and-Forward Cognitive Relay Networks with Interference Power Constraints Over Nakagami-m Fading Channels," Jordan University of Science and Technology, JUST, Irbid, Jordan, October 2014.
5. Rami R. Bani Hani, "Conflict Based Matrix Optimization for Network Coding Enhancement," Jordan University of Science and Technology, JUST, Irbid, Jordan, May 2014.
6. Nedal R. Altaradeh, "A novel Approach for CMOS Inverter Modeling in Sub – 100 Nanoscale," Jordan University of Science and Technology, JUST, Irbid, Jordan, March 2013.
7. Emad S. Al-Nawafah, "Determining the Number of Active Sensor Nodes for Efficient Power and Area Coverage Aware Protocol in Wireless Sensor Networks," Jordan University of Science and Technology, JUST, Irbid, Jordan, December 2012.
8. Muath A. Wahdan, "Prediction of Efficient Adaptive Energy-Based on Algorithm for Tracking Target in Wireless Sensor Networks," Jordan University of Science and Technology, JUST, Irbid, Jordan, December 2012.
9. Maiss M. Al-Khasawneh, "Performance of Chaotic Signals in Cooperative Communication System Over Multipath Fading Channels," Jordan University of Science and Technology, JUST, Irbid, Jordan, December 2012.
10. Rami F. Mohaisen, "Performance Analysis of Relay-based Cooperative Diversity over Multipath Fading Channels with Interference," Jordan University of Science and Technology, JUST, Irbid, Jordan, July 2012.
11. Monir H. Abughalwa, "Comparison Of Analytical And Simulated BER Performance Of Uplink CDMA-SFBC Systems," Jordan University of Science and Technology, JUST, Irbid, Jordan, May 2011.

12. Mohammad S. Marei, "WiMAX Performance Analysis And Bandwidth Management," Jordan University of Science and Technology, JUST, Irbid, Jordan, December 2010.
13. Zaid S. Al-Talib, "Wireless Charging For Wireless Sensor Networks Using Broadcast Frequencies," Jordan University of Science and Technology, JUST, Irbid, Jordan, April 2010.
14. Ahmad J. M. Qudaimat, "Dynamic Addressing For Mobil AD-HOC Networks," Jordan University of Science and Technology, JUST, Irbid, Jordan, January 2010.
15. Mazen Oqaaily, "Current Harmonic Reduction At Distribution Busbar Using Neural Network Technique," Jordan University of Science and Technology, JUST, Irbid, Jordan, December 2008.

### *Selected Graduation Projects I supervised:*

1. Emran M. Al-Shareah, "Performance Analysis of Direct Sequence Spread Spectrum for CDMA Systems," Jordan University of Science and Technology, JUST, Irbid, Jordan.
2. Ahmad Al-Barghouti, Yaser Al-Alem, Osama Bani-Amer, and Rula Qudah, "Wireless Voice Controlled Wheelchair," Jordan University of Science and Technology, JUST, Irbid, Jordan.
3. Sara Al-Haleeq, Doa'a Al-Shbool, and Mai Bali, "Performance Analysis of QAM Modulation and Demodulation in AWGN and Fading Channel," Jordan University of Science and Technology, JUST, Irbid, Jordan.
4. Mohammed T. Hasan, Nafe' S. Khrboutly, Ahmed K. Theep, "Multi Access Cell Phone," Jordan University of Science and Technology, JUST, Irbid, Jordan.
5. Hussein M. Al-Nahawi, and Mohammed J. Al-Kurdi, "Amplitude Shift Keying: Modulation and Demodulation," Jordan University of Science and Technology, JUST, Irbid, Jordan.
6. Razan Daklallah, Alaa' Al-Zou'bi, and Reem Obeidat, "LTE: Revolution to 4<sup>th</sup> Generation," Jordan University of Science and Technology, JUST, Irbid, Jordan.
7. Mohammed Suleiman, Yazan Al-A'mad, and Rami Al-Sweilh, "Performance of the Cellular System," Jordan University of Science and Technology, JUST, Irbid, Jordan.
8. Anwar Al-Mojarkesh, Abdullah Al-Lababidi, and Amr I. Wanley, "Wireless Power Transmission," Jordan University of Science and Technology, JUST, Irbid, Jordan.
9. Ahmad Okasha, and Salah Zuriqat, "Home Dual Tone Multiple Frequency (DTMF) Control System," Jordan University of Science and Technology, JUST, Irbid, Jordan.
10. Salah O. Al-Yaseen, Khaled M. Khaleel, and Mahmoud M. Melhem, "GSM Jammer," Jordan University of Science and Technology, JUST, Irbid, Jordan.
11. Doa'a Obeidat, and Abeer Abohmra, "Solar Cell Voice Recognition Robotic Car," Jordan University of Science and Technology, JUST, Irbid, Jordan.
12. Amr M. Al-Najjar, and Issam T. Shnoudi, "Line Follower Coordinate Driven Robot Car," Jordan University of Science and Technology, JUST, Irbid, Jordan.
13. Mutaz A. Banat, Amer S. El-Ainain, Zaid B. Rawashdeh, "Vehicle Detector and Counter," Jordan University of Science and Technology, JUST, Irbid, Jordan.
14. Thafer T. Al-Jallad, Mohammad S. Ikbarieh, and Wisam M. Al-Bzoor, "Handheld Graphical LCD Oscilloscope using PIC Microcontroller," Jordan University of Science and Technology, JUST, Irbid, Jordan.
15. Yazan F. Al-Darwish, Hussam J. Al-Azzeh, and Senan A. Al-Qudah, "Accidents Car Location System," Jordan University of Science and Technology, JUST, Irbid, Jordan.
16. Alaa T. Jaradat, "Ultrasonic Radar Speed Meter," Jordan University of Science and Technology, JUST, Irbid, Jordan.
17. Amer J. Wathaifi, Ahmed A. Mostafa, and Amani R. Fadel, "Short Range Personal Radar," Jordan University of Science and Technology, JUST, Irbid, Jordan.
18. Ameera I. Al-Wahidi, and Majd A. Al-Qudah, "Smart Patient Bed," Jordan University of Science and Technology, JUST, Irbid, Jordan.

19. Alham M. Abu-Qudais, and Nedaa M. Abu-Elrub, "Orthogonal Frequency Division Multiplexing (OFDM)," Jordan University of Science and Technology, JUST, Irbid, Jordan.
20. Ayat Fared, Esra'a Al-Shalbi, Kefah Nathem, "Optical Phase-Locked Loop for Optical (Direct and Coherent) Detection," Jordan University of Science and Technology, JUST, Irbid, Jordan.

### *Book Chapters*

1. Islam M. Tanash, Mamoun F. Al-Mistarihi, and Amer M. Magableh, "Physical-Layer Security for DF Two-Way Dual-Hop Cooperative Wireless Networks over Nakagami-m Fading Channels," *Internet of Things, Smart Spaces, and Next Generation Networks and Systems, NEW2AN 2017, ruSMART 2017, NsCC 2017, Lecture Notes in Computer Science, Springer*, vol 10531, pp. 258-269, doi: 10.1007/978-3-319-67380-6\_24, 2017.
2. Islam M. Tanash, Amer M. Magableh, and Mamoun F. Al-Mistarihi, "Physical-Layer Security for DF Two-Way Full-Duplex Cooperative Wireless Networks over Rayleigh Fading Channels," *Internet of Things, Smart Spaces, and Next Generation Networks and Systems, NEW2AN 2017, ruSMART 2017, NsCC 2017, Lecture Notes in Computer Science, Springer*, vol 10531, pp. 270-279, doi: 10.1007/978-3-319-67380-6\_25, 2017.
3. Rami Mohaisen, and Mamoun F. Al-Mistarihi, "Performance Evaluation of Bit Error Rate in Relay-Based Cooperative Diversity Systems over Rayleigh Fading Channels with Interference," *Wired/Wireless Internet Communications, WWIC 2013, Lecture Notes in Computer Science Series, Springer*, vol. 7889, pp. 241-250, doi: 10.1007/978-3-642-38401-1\_19, 2013.

### *Journal Papers*

1. Mohammad M. Shurman, Mamoun F. Al-Mistarihi, Sharhabeel H. Alnabelsi, and Rami R. Bani Hani, "A Novel Network Coding Approach: Packets Conflict Based for Matrix Optimization," *Journal of Theoretical and Applied Information Technology*, vol. 95, no. 20, pp. 5580-5594, October 2017.
2. Mohammad M. Shurman, Mamoun F. Al-Mistarihi, and Khalid A. Darabkh, "Dynamic Distribution of Security Keys and IP Addresses Coalition Protocol for Mobile Ad Hoc Networks," *Automatika, Journal for Control, Measurement, Electronics, Computing and Communications, Taylor & Francis*, vol. 57, no. 4, pp. 1020-1034, doi:10.7305/ automatika.2017.12.1233, 2017.
3. Mohammad M. Shurman, Mamoun F. Al-Mistarihi, and Moawiah Alhulayil, "Performance Analysis of Amplify-and-forward Cognitive Relay Networks with Interference Power Constraints Over Nakagami-m Fading Channels," *IET Communications*, vol. 10, issue 5, pp. 594-605, doi:10.1049/iet-com.2014.1182, 2016.
4. Mamoun F. Al-Mistarihi, Rami Mohaisen, Ashraf Sharaqa, Mohammad M. Shurman, and Khalid A. Darabkh, "Performance evaluation of multiuser diversity in multiuser two-hop cooperative multi-relay wireless networks using maximal ratio combining over Rayleigh fading channels," *International Journal of Communication Systems, Wiley*, vol. 28, issue 1, pp. 71-90, doi:10.1002/dac.2640, 2015.
5. Moad Y. Mowafi, Mamoun F. Al-Mistarihi, and Mohammad S. Marei, "Cognitive Radio Based Bandwidth Allocation Scheme for WiMAX Networks," *Journal of Communications*, vol. 7, no. 10, pp. 758-764, doi:10.4304/jcm.7.10.758-764, 2012.
6. Khalid A. Darabkh, Shereen S. Ismail, Mohammad Al-Shurman, Iyad F. Jafar, Eman Alkhader, and Mamoun F. Al-Mistarihi, "Performance Evaluation of Selective and Adaptive Heads Clustering Algorithms over Wireless Sensor Networks," *Journal of Network and Computer Applications, Elsevier*, vol. 35, pp. 2068-2080, doi:10.1016/j.jnca.2012.08.008, 2012.

7. Mamoun F. Al-Mistarihi, Mohammad Al-Shurman, and Ahmad Qudaimat, "Tree Based Dynamic Address Autoconfiguration in Mobile Ad-Hoc Networks," *Computer Networks, Elsevier*, vol. 55, pp. 1894-1908, doi:10.1016/j.comnet.2011.01.019, 2011.

## Conference Papers

1. Islam M. Tanash, Fedaa Yaseen, Mamoun F. Al-Mistarihi, Basheer Al-Duwairi, and Mohammad Shurman, "Source Location Privacy in a Cluster-Based Wireless Sensor Networks against Local Adversary," *Proc. IEEE 7th International Conference on Information and Communication Systems, ICICS 2016*, Jordan University of Science and Technology, Irbid, Jordan, April 4-6, 2017.
2. Lama N. Ibrahim, Mahmoud A. Khodeir, and Mamoun F. Al-Mistarihi, "Outage Probability for End User Mobile in Cognitive Relay Networks Over Mixed Fading Channels," *Proc. IEEE 7th International Conference on Information and Communication Systems, ICICS 2016*, Jordan University of Science and Technology, Irbid, Jordan, April 4-6, 2017.
3. Mahmoud A. Khodeir, Mamoun F. Al-Mistarihi, Razan Shatnawi and Laila Al Saleh, "Security Enhancement Using Maximal Ratio Combining Diversity Over Nakagami-m Fading," *Proc. 14th Annual IEEE Consumer Communications & Networking Conference, CCNC 2017*, Las Vegas, Nevada, USA, January 8-11, 2017.
4. Mariam M. Harb, and Mamoun F. Al-Mistarihi, "Dual Hop Differential Amplify-and-Forward Relaying with Selection Combining Cooperative Diversity over Nakagami-m Fading Channels," *Proc. IEEE 8th IEEE International Conference on Communication Software and Networks, ICCSN 2016*, pp. 225-228, Beijing, China, June 4-6, 2016.
5. Lama N. Ibrahim, Mamoun F. Al-Mistarihi, and Mahmoud A. Khodeir, "On the Outage Probability in Cognitive Amplify-and-Forward Relaying Systems over Mixed Fading Channels for End User Mobile," *Proc. IEEE 8th IEEE International Conference on Communication Software and Networks, ICCSN 2016*, pp. 221-224, Beijing, China, June 4-6, 2016.
6. Suzan Al-Zoubi, Rami Mohaisen, Mamoun F. Al-Mistarihi, Sari M. Khatalin and Mahmoud A. Khodeir, "On the Outage Probability of DF Relay Selection Cooperative Wireless Networks over Nakagami-m Fading Channels," *Proc. IEEE 7th International Conference on Information and Communication Systems, ICICS 2016*, Jordan University of Science and Technology, Irbid, Jordan, April 5-7, 2016.
7. Muneer M. Al-Zu'bi, Mamoun F. Al-Mistarihi, and Faeik T. Al-Rabee, "Performance analysis of MIMO system over  $\alpha$ - $\mu$  fading channel for full scheduling scheme," *Proc. 9th Jordanian International Electrical and Electronics Engineering Conference, JIEEEEC2015*, doi: 10.1109/JIEEEEC.2015.7470741, Amman, Jordan, October 12-14, 2015.
8. Mohammed S. Aloqlah, Ibrahim E. Atawi, and Mamoun F. Al-Mistarihi, "On the Performance of Fixed-Gain Amplify-and-Forward Dual-Hop Relay Systems with Beamforming Under  $k$ - $\mu$  Shadowed Fading," *Proc. IEEE 25th International Symposium on Personal, Indoor and Mobile Radio Communications, IEEE PIMRC 2015*, Hong Kong, China, August 30-September 2, 2015.
9. Mohammed S. Aloqlah, Ibrahim E. Atawi, and Mamoun F. Al-Mistarihi, "Further Performance Results for Energy Detector Operating over  $k$ - $\mu$  Shadowed Fading," *Proc. IEEE 25th International Symposium on Personal, Indoor and Mobile Radio Communications, IEEE PIMRC 2015*, Hong Kong, China, August 30-September 2, 2015.
10. Rami Mohaisen, Mamoun F. Al-Mistarihi, Amer M. Magableh, and Ashraf H. Sharaqa, "Outage Probability Analysis in Relay-Based DF Cooperative Diversity Systems with Relay & Destination Interferers," *Proc. 38th Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015*, Opatija, Croatia, May 25-29, 2015.
11. Amer M. Magableh, Mamoun F. Al-Mistarihi, Rami Mohaisen, and Ashraf H. Sharaqa, "BER Analysis in Relay-Based DF Cooperative Diversity Systems with Relay & Destination Interferers," *Proc. 38th*

*Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015, Opatija, Croatia, May 25-29, 2015.*

12. Mamoun F. Al-Mistarihi, Amer M. Magableh, and Maiss M. Al-Khasawneh, "Closed Form Expression of Outage Probability in DCSK Cooperative Communication Systems over Nakagami-m Fading Channels," *Proc. 38<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015, Opatija, Croatia, May 25-29, 2015.*
13. Mohammad Shurman, Mamoun F. Al-Mistarihi, and Moawiah M. Alhulayil, "Outage Probability of Dual-Hop Amplify-and-Forward Cognitive Relay Networks Under Interference Power Constraints Over Nakagami-m Fading Channels," *Proc. 38<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015, Opatija, Croatia, May 25-29, 2015.*
14. Moawiah M. Alhulayil, Mamoun F. Al-Mistarihi, and Mohammad Shurman, "Outage Probability of Amplify-and-Forward Underlay Cognitive Relay Networks with Selection Diversity over Nakagami-m Fading Channels," *Proc. 38<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015, Opatija, Croatia, May 25-29, 2015.*
15. Muath A. Wahdan, Mamoun F. Al-Mistarihi, and Mohammad Shurman, "Static Cluster and Dynamic Cluster Head (SCDCH) Adaptive Prediction-Based Algorithm for Target Tracking in Wireless Sensor Networks," *Proc. 38<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2015, Opatija, Croatia, May 25-29, 2015.*
16. Ali M. Hayajneh, Mahmoud A. Khodeir, and Mamoun F. Al-Mistarihi, "Incremental-Relaying Cooperative-Networks using Dual Transmit Diversity and Decode and Forward Relaying Scheme with Best Relay Selection," *Proc. 37<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2014, Opatija, Croatia, May 26-30, 2014.*
17. Rami Mohaisen, Mamoun F. Al-Mistarihi, and Ashraf Sharaqa, "Closed-form Expression for Outage Probability in Relay-Based Cooperative Diversity Systems over Nakagami Fading Channels with Interference," *Proc. 37<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2014, Opatija, Croatia, May 26-30, 2014.*
18. Mohammad Shurman, Bilal Al-Shua'b, Mohammad Alsaeden, Mamoun F. Al-Mistarihi, and Khalid A. Darabkh, "N-BEB: New Backoff Algorithm for IEEE 802.11 MAC Protocol," *Proc. 37<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2014, Opatija, Croatia, May 26-30, 2014.*
19. Muneer M. Al-Zu'bi, Mamoun F. Al-Mistarihi, and Mahmoud A. Khodeir "Performance Analysis of Mobile WiMAX Communication using Directional Antenna over Fading channel," *Proc. IEEE 5th International Conference on Information and Communication Systems, ICICS 2014, Jordan University of Science and Technology, Irbid, Jordan, April 1-3, 2014.*
20. Muneer M. Al-Zu'bi, Mahmoud A. Khodeir, and Mamoun F. Al-Mistarihi, "Modeling and Design of an Infrared-based Identification (IRID) System-Tag and Reader Design," *Proc. IEEE 5th International Conference on Information and Communication Systems, ICICS 2014, Jordan University of Science and Technology, Irbid, Jordan, April 1-3, 2014.*
21. Mohammad Shurman, Noor Awad, Mamoun F. Al-Mistarihi, and Khalid A. Darabkh, "LEACH Enhancements for Wireless Sensor Networks Based on Energy Model," *Proc. IEEE 11th International Multi-Conference on Systems, Signals & Devices, SSD 2014, Castelldefels-Barcelona, Spain, February 11 - 14, 2014.*
22. Mohammad Shurman, Mohammad Alfawares, Mamoun F. Al-Mistarihi, and Khalid A. Darabkh, "A Collaborative Reputation Approach to Avoid Misbehaving Nodes in MANETs," *Proc. IEEE 11th International Multi-Conference on Systems, Signals & Devices, SSD 2014, Castelldefels-Barcelona, Spain, February 11 - 14, 2014.*
23. Muawiah Hlayel, Ali M. Hayajneh, Mamoun F. Al-Mistarihi, Mohammad Shurman, and Khalid A. Darabkh, "Closed-form Expression of Bit Error Rate in Dual-Hop Dual-Branch Mixed Relaying Cooperative Networks with Best-Path Selection over Rayleigh Fading Channels," *Proc. IEEE 11th*



*International Multi-Conference on Systems, Signals & Devices, SSD 2014, Castelldefels-Barcelona, Spain, February 11 - 14, 2014.*

24. Amer M. Magableh, Mamoun F. Al-Mistarihi, and Maiss M. Al-Khasawneh, "Performance Evaluation of Bit Error Probability in DCSK Cooperative Communication Systems over Nakagami-m Fading Channels," *Proc. IEEE 11th International Multi-Conference on Systems, Signals & Devices, SSD 2014, Castelldefels-Barcelona, Spain, February 11 - 14, 2014.*
25. Mamoun F. Al-Mistarihi, Amer Magableh, and Rami Mohaisen, "Closed-form Expression for Outage Probability in Relay-Based Cooperative Diversity Systems over Multipath Fading Channels with Interference," *Proc. IEEE 11th International Multi-Conference on Systems, Signals & Devices, SSD 2014, Castelldefels-Barcelona, Spain, February 11 - 14, 2014.*
26. Mamoun F. Al-Mistarihi, Abdoul Rjoub, and Nedal R. Al-Taradeh, "Drain Induced Barrier Lowering (DIBL) Accurate Model for Nanoscale Si-MOSFET Transistor," *Proc. IEEE International Conference on Microelectronics, IEEE ICM 2013, Beirut, Lebanon, December 15-18, 2013.*
27. Nedal R. Al-Taradeh, Abdoul Rjoub, and Mamoun F. Al-Mistarihi, "Accurate Modeling for CMOS Inverter Overshooting time in Nanoscale Paradigm," *Proc. IEEE International Conference on Microelectronics, IEEE ICM 2013, Beirut, Lebanon, December 15-18, 2013.*
28. Abdoul Rjoub, Nedal R. Al-Taradeh, and Mamoun F. Al-Mistarihi, "Accurate Subthreshold Leakage Model for Nanoscale MOSFET Transistor," *Proc. IEEE International Conference on Electronics, Circuits, and Systems, IEEE ICECS 2013, Abu Dhabi, UAE, December 8-11, 2013.*
29. Amer Magableh, Mamoun F. Al-Mistarihi, and Rami Mohaisen, "Closed-form Expression for Bit Error Rate in Relay-Based Cooperative Diversity Systems over Multipath Fading Channels with Interference," *Proc. 9<sup>th</sup> International Wireless Communications and Mobile Computing, IWCMC 2013, Sardinia, Italy, July 1-5, 2013.*
30. Abdoul Rjoub, Mamoun F. Al-Mistarihi, and Nedal R. Al-Taradeh, "Backscattering Coefficient Accurate Model for Nanoscale Si- MOSFET Transistor," *Proc. 12<sup>th</sup> edition of Faible Tension Faible Consommation (FTFC), IEEE FTFC 2013, Paris, France, June 20-21, 2013.*
31. Rami Mohaisen, and Mamoun F. Al-Mistarihi, "Closed-form Expression for Outage Probability in Relay-Based Cooperative Diversity Systems over Rayleigh Fading Channels with Interference," *Proc. 3<sup>rd</sup> International Conference on Communications and Information Technology, ICCIT 2013, Beirut, Lebanon, June 19-21, 2013.*
32. Mohammad M. Shurman, Mamoun F. Al-Mistarihi, Khalid A. Darabkh, "Merging Dynamic Address Autoconfiguration and Security Key Protocols in Mobile Ad Hoc Networks," *Proc. 36<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2013, Opatija, Croatia, May 20-24, 2013.*
33. Mohammad M. Shurman, Mamoun F. Al-Mistarihi, and Zaid A. Alomari, "MAC Layer Back-off Algorithm for Ad hoc Networks," *Proc. 36<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2013, Opatija, Croatia, May 20-24, 2013.*
34. Mohammad M. Shurman, Mamoun F. Al-Mistarihi, Amr N. Mohammad, Khalid A. Darabkh, and Ahmad A. Ababnah, "Hierarchical Clustering Using Genetic Algorithm in Wireless Sensor Networks," *Proc. 36<sup>th</sup> Jubilee International Convention on Information and Communication Technology, Electronics and Microelectronics, MIPRO 2013, Opatija, Croatia, May 20-24, 2013.*
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