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## PROF. DR. DARABKH'

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### **BACKGROUND (SHORT BIO):**

Received the PhD degree in Computer Engineering from the University of Alabama in Huntsville, USA, in 2007 with honors. He has joined the Computer Engineering Department at the University of Jordan as an Assistant Professor since 2007 and has been a Tenured Full Professor since 2016. He is engaged in research mainly on wireless sensor networks, queuing systems and networks, multimedia transmission, and steganography and watermarking. He authored and co-authored of at least ninety research articles and served as a reviewer in many scientific journals and international conferences. Prof. Darabkh is the recipient of 2016 Ali Mango Distinguished Researcher Reward for Scientific Colleges and Research Centers in Jordan. He serves on the Editorial Board of Telecommunication Systems, published by Springer, Computer Applications in Engineering Education, published by John Wiley & Sons, and Journal of High Speed Networks, published by IOS Press. Additionally, he serves as a TPC member of many reputable IEEE conferences such as GLOBECOM, LCN, VTC-Fall, PIMRC, ISWCS, and IAEAC. Moreover, he is a member of many professional and honorary societies, including Eta Kappa Nu, Tau Beta Pi, Phi Kappa Phi, and Sigma XI. He was selected for inclusion in the Who's Who Among Students in American Universities and Colleges and Marquis Who's Who in the World. As administrative experience at the University of Jordan, he served as Assistant Dean for Computer Affairs in the College of Engineering from Sept 2008 to Sept 2010. Additionally, he served as Acting Head of the Computer Engineering Department from June 2010 to Sept 2012.

### **PERSONAL INFORMATION:**

- Name: Khalid A. Darabkh
- Date of Birth: August 31, 1978
- Nationality: Jordanian
- Marital Status: Married with four children

**EDUCATION  
(DEGREES):**

Sept. 2004–Feb. 2007      The University of Alabama in Huntsville      AL, USA

- Ph.D. in Computer Engineering (with honors)

**Dissertation Title:**

Improving TCP and UDP Performance over Wireless Networks Using  
Quality of Delivery (QoD) Aware Wireless Systems

Jan. 2003–Dec. 2003      New York Institute of Technology      NY, USA

- M.S.E. in Electrical and Computer Engineering (with honors)

Oct. 1996–Feb. 2002      Yarmouk University      Irbid, Jordan

- B.Sc. in Computer Engineering (with honors)

**PROFESSIONAL  
CERTIFICATIONS:**

- Sun Certified Programmer for Java Platform (SCJP), Sun Microsystems Co., 2001.
- Oracle 9i Database Administrator Certified Associate (OCA), Oracle Co., 2002.
- Oracle Java Developer Certified Trainer, Oracle Co., 2003.

**EXPERIENCE:**

June 2016–Present      The University of Jordan      Amman, Jordan

- Professor in the Computer Engineering Department (Distinguished Promotion)

June 2012–May 2016      The University of Jordan      Amman, Jordan

- Associate professor in the Computer Engineering Department

May 2007– May 2012      The University of Jordan      Amman, Jordan

- Assistant professor in the Computer Engineering Department

June 2010–Sept. 2012      The University of Jordan      Amman, Jordan

Summer Terms: 2008 & 2009

- Acting Chair of the Computer Engineering Department

Sept. 2008–Sept. 2010      The University of Jordan      Amman, Jordan

- Assistant Dean of Engineering and Technology for Computer Affairs

Sept. 2003–Aug. 2004      The University of Jordan      Amman, Jordan

### Teaching Assistant

Jan. 2000–Aug. 2003 Computer and Communi. Systems Co. Amman, Jordan

- Software Training Engineer
- There are no PhD programs available in the computer engineering department at the University of Jordan.

### PHD DISSERTATIONS SUPERVISED

### MASTER'S THESES SUPERVISED AND EXAMINED

- Supervised the master's thesis entitled "Efficient Techniques for Mobile Target Tracking in Wireless Sensor Networks", Student Shereen Subhi, December 2011.
- Supervised the master's thesis entitled "Queue Management for Wired/Wireless Multimedia Communication Systems", Student Abeer Awad, May 2013.
- Supervised the master's thesis entitled "Energy-Efficient Clustering Algorithms for Target Tracking in Wireless Sensor Networks", Student Wala Rawashdeh, August 2014.
- Supervised the master's thesis entitled "Energy-Aware and Layering-Based Clustering and Routing Algorithms for Gathering Data in Wireless Sensor Networks", Student Noor Maaita, December 2014.
- Supervised the master's thesis entitled "A New Fuzzy Logic Scheme for Improving the Performance of On-Demand Multicast Routing Protocol in Mobile Ad Hoc Networks", Student Ola Saqour, December 2014.
- Supervised the master's thesis entitled "Efficient and Adaptive Computation Control for Variable Complexity Fano Algorithm over Wireless Networks", Student Fatima Al-Qudah, August 2014.
- Supervised the master's thesis entitled "An Efficient Image Steganographic Algorithm Based on Pixel-Value Differencing", Student Ahlam Al-Dhamari, May 2015.
- Supervised the master's thesis entitled "An Improved Adaptive-Head Clustering Algorithm for Target Tracking in Wireless Sensor Networks", Student Wijdan El-btoosh, May 2016.
- Supervised the master's thesis entitled "New Clustering and Routing Algorithms for Gathering Data in Wireless Sensor Networks," Student Riham Z. Muqat, August 2016.

- Supervised the master's thesis entitled "Balanced Energy-Aware Clustering and Routing Algorithms for Wireless Sensor Networks," Student Mohammad EL- Yabroudi, August 2016.
- Supervised the master's thesis entitled "An Adaptive Clustering Algorithm for Balanced Energy Consumption in Wireless Sensor Networks," Student Laith Y. Al-Jdayeh, December 2016.
- Supervised the master's thesis entitled "Energy-Aware and Density-Based Clustering and Routing Algorithms for Gathering Data in Wireless Sensor Networks," Student Saja Odetallah, December 2016.
- Supervised the master's thesis entitled Error and Energy-Aware Target Tracking Algorithm for Wireless Sensor Networks," Student Nareman Al-Sarayrah, May 2017
- Supervised the master's thesis entitled "A Modified Ad-Hoc On Demand Distance Vector (AODV) Routing Algorithm for Mobile Ad-Hoc Networks," Student Mohammed Judeh.
- Supervises the master's thesis entitled "A Cross-Layer Algorithm for Improving Ad-Hoc on Demand Distance Vector Protocol," Student Mohammed Al-Fawares.
- Supervises the master's thesis entitled "Fuzzy Logic Approaches for Enhancing Energy Consumption in Wireless Sensor Networks," Student Jumana Zomot.
- Supervises the master's thesis entitled "New Energy-Aware Clustering and Routing Algorithms for Wireless Sensor Networks," Student Wafaa Kassab.
- Examined the master's thesis entitled "Distributed Architecture for Electronic Referral Systems Utilizing Computational Intelligence for Decision Support, Student Majed Al-Zghoul, The University of Jordan, August 2012.
- Examined the master's thesis entitled "Optimum Number of Active Sensors for Efficient Power and Area Coverage in Wireless Sensor Networks", Student Emad Al-Nawafah, Jordan University of Science and Technology, December 2012.
- Examined the master's thesis entitled "Energy Efficient Adaptive Prediction-based Algorithm for Target Tracking in Wireless Sensor Networks", Student Muath Wahdan, Jordan University of Science and Technology, December 2012.

- Examined the master's thesis entitled "A Power Conserving and Bandwidth Balancing Framework for Data Centers using Virtual Machines Reallocation", Student Suhib AlHiyari, The University of Jordan, May 2014.
- Examined the master's thesis entitled "Performance Evaluation of Different Predication Schemes in Reversible Image Data Hiding", Student Sawsan Al-Hiary, The University of Jordan, May 2014.
- Examined the master's thesis entitled "Performance evaluation and enhancement of scheduling algorithms in point-to-multipoint WIMAX networks using variable bit rate traffic", Student Samah Z. Rahamnah, The University of Jordan, August 2014.
- Examined the master's thesis entitled "Adaptive Rate Encoding Scheme for Performance Enhancement of VOIP System in E-health Applications", Student Maha Z. Mouasher, The University of Jordan, August 2014.
- Examined the master's thesis entitled "Dynamic Reconfiguration Algorithms for Resource Management in LTE-Advanced Technology", Student Ayman A. Atallah, The University of Jordan, December 2014.
- Examined the master's thesis entitled "An Improved Image Segmentation Algorithm Based on the Geodesic Active Contour Models", Student Boshra M. Al-Tarawneh, The University of Jordan, May 2015.
- Examined the master's thesis entitled "Improving the Efficiency of Predication-based Reversible Data Hiding Algorithms", Student Enas N. Jaara, The University of Jordan, May 2015.
- Examined the master's thesis entitled "Investigating Parallel Implementations of Electronic Voting Verification and Tallying Processes", Student Israa A. Saadeh, The University of Jordan, May 2015.
- Examined the master's thesis entitled "Enhanced Cross Layer Based Intrusion Detection System for Securing Wireless Adhoc Networks from Black Holes Attack", Student Salem B. Esoh, Jordan University of Science and Technology, May 2015.
- Examined the master's thesis entitled "Performance Evaluation of Modern Cop-move Forgery Detection Algorithms in Digital Images Based on Block Matching", Student Baraa A. Bashaireh, The University of Jordan, August 2015.
- Examined the master's thesis entitled "Adaptive Web Proxy Caching

Approach Based on Machine Learning”, Student Eman M. Qteimat, The University of Jordan, August 2015.

- Examined the master’s thesis entitled “An Enhanced Security Model Architecture For SIP-based Network Applications”, Student Mohammad S. Saidat, The University of Jordan, August 2015.
- Examined the master’s thesis entitled “Comparative Analysis of Different Encryption Techniques in Mobile Ad hoc Networks”, Student Amal Q. Ahmad, The University of Jordan, August 2015.
- Examined the master’s thesis entitled “Tree-based Mobility-aware Routing Algorithm for Mobile Ad hoc Networks”, Student Haytham S. Bani AbelGhany, The University of Jordan, November 2015.
- Examined the master’s thesis entitled “An Enhanced Hybrid Transport Layer Protocol for H.264 HD Video Streaming over WLANs”, Student Nawal S. Al-Sboul, The University of Jordan, December 2015.
- Examined the master’s thesis entitled “A Cross Layer Design to Improve the Performance of Transmission Control Protocol over Multi-hop Cognitive Radio Networks”, Student Safaa Ali Al-Sarayrah, The University of Jordan, January 2016.
- Examined the master’s thesis entitled “A New Non-coprime Moduli Set in Residue Number System Convertors”, Student Mansour Y. Bader, The University of Jordan, January 2016.
- Examined the master’s thesis entitled “Investigation of Adaptive Behavioral Authentication for Mobile Device Applications”, Student Dima Z. Zeidan, The University of Jordan, May 2016.
- Examined the master’s thesis entitled “Improved and Efficient Reversible Data Hiding Algorithms Using Dual Images”, Student Sakhaa A. Obeidat, The University of Jordan, May 2016.
- Examined the master’s thesis entitled “Performance Evaluation of Analysis and Synthesis Sparse Modeling in Solving the Inverse Problem”, Student Sawsan Elwan, The University of Jordan, December 2016.
- Examined the master’s thesis entitled “Investigating the Effect of Various Hybrid Encryption Techniques on The Performance of Wireless Sensor Networks”, Student Hussein Al-Fatlawi, The University of Jordan, December 2016.

- Examined the master's thesis entitled "Study Analysis and Performance Evaluation of Google QUIC Transmission Protocol", Student Ma'moun Mansour, German Jordanian University, March 2017.
- Examined the master's thesis entitled "Combining Different Hybrid Encryption Algorithms to Secure Outsourced Data in Public Cloud Storage", Student Hayder K. Al-Janabi, The University of Jordan, April 2017.
- Examined the master's thesis entitled "Preprocessing and Segmentation of Handwritten Arabic Documents for Writer-independent Automatic Recognition", Student Ahamd S. Al-Hourani, The University of Jordan, April 2017.
- Examined the master's thesis entitled "Improving the Efficiency of Separable Reversible Data Hiding Techniques in Encrypted Images", Student Hammas Al-Awasa, The University of Jordan, August 2017.
- Examined the master's thesis entitled "Probablistic and Deterministic Path Section in Cognitive Radio Networks", Student Anoud El-Ruhibe, The University of Jordan, August 2017.
- Examined the master's thesis entitled "Lifetime-improvement Routing Protocol for Wireless Sensor Networks", Student Noor Abedsalam, The University of Jordan, October 2017.
- Examined the master's thesis entitled "Enhancing Energy efficiency of IEEE 802.15.4 for Wireless Sensor Networks", Student Rabie Mohammed Tanash, German Jordanian University, November 2017.
- Examined the master's thesis entitled "Sink Mobility Optimization for Data Gathering in Wireless Sensor Networks", Student Rayeh R. Alghsoon, The University of Jordan, December 2017.
- Examined the master's thesis entitled "Automatic System for Grading Paper Based Multiple Choice Exams", Student Rose M. AL-Zuo'bi, Yarmouk University, December 2017.

## **AWARDS AND DISTINCTIONS**

- 2016 Ali Mango Distinguished Researcher Reward for Scientific Colleges and Centers in Jordan, April 2016.
- Academic Excellence and Outstanding Research Awards in Computer Engineering, Department of Electrical and Computer Engineering, The University of Alabama in Huntsville.

- School of Graduate Studies Dean's List, Academic Years 2005-07, The University of Alabama in Huntsville.
- Graduate Teaching Assistant, University of Alabama in Huntsville.
- The University of Jordan Scholarship to pursue PhD degree in University of Alabama in Huntsville.

**HONOR SOCIETIES  
AND RECOGNITIONS:**

- Member of the following national honorary societies:
  - Eta Kappa Nu: National Electrical and Computer Engineering Honor Society.
  - Tau Beta Pi: National Engineering Honor Society.
  - Phi Kappa Phi: National University Honor Society.
  - Sigma XI: National Scientific Research Honor Society.
  - The National Scholars Honor Society.
- Was recognized for the inclusion in the following:
  - Who's Who Among Students in American Universities and Colleges.
  - Marquis Who's Who in Science and Engineering in 10<sup>th</sup> Anniversary Edition.
  - Marquis Who's Who in the World in 24<sup>th</sup>, 25<sup>th</sup>, 26<sup>th</sup>, and 27<sup>th</sup>, 28<sup>th</sup> Editions at 2006, 2007, 2008, 2009, and 2010 respectively.
  - IBC Leading Scientists of the World 2008, Cambridge, England.
  - IBC 2000 Outstanding Scientists-2010, Cambridge, England.

**MEMBERSHIPS:**

- The Society for Modeling and Simulation International (SCS), San Diego, California,
- International Society for Computers and Their Applications (ISCA), Cary, North Carolina,
- Institute of Electrical and Electronics Engineers (IEEE), member # 92058980
- International Association of Engineers.
- IEEE Computer Society Technical Committee on Computer Communications,
- IEEE Computer Society Technical Committee on Multimedia Computing
- IEEE Communications Society,
- Jordan Society of Engineering, Jordan.



**RESEARCH  
AND AREA  
OF INTEREST:**

- Wireless Sensor Networks
- Multimedia Transmission
- Queuing Systems and Networks
- Steganography and Watermarking
- Channel Coding
- Pattern Recognition

**PUBLICATIONS**

**Books and Book chapters**

- [1] A. Khalifeh and K. A. Darabkh, "Current Challenges and Opportunities in VoIP over Wireless Networks," in *Mobile Multimedia–User and Technology Perspectives*, ISBN: 978-953-307-908-0, Dian Tjondronegoro (editor), **InTech publisher**, January 2012.

**Peer Reviewed Journal Papers:**

- [2] **Khalid A. Darabkh**, Noor J. Al-Maaitah, Iyad F. Jafar, and Ala' F. Khalifeh, A Novel Energy-aware Clustering and Routing Protocol in Wireless Sensor Networks, *Computers and Electrical Engineering*, (ISI Journal Citation Reports, 2016 Impact Factor 1.570), **Elsevier**, In Press.
- [3] **Khalid A. Darabkh**, Laila Haddad, Saadeh Swiedan, Mohammed Hawa, Ramzi Saifan, and Sharhabeel H. Alnabelsi, "An Efficient Speech Recognition System for Arm-Disabled Students Based on Isolated Words," *Computer Applications in Engineering Education* (ISI Journal Citation Reports, 2016 Impact Factor 0.694), **John Wiley & Sons, Inc.** In Press.
- [4] **Khalid A. Darabkh**, Wala'a S. Al-Rawashdeh, Raed T. Al-Zubi, and Sharhabeel H. Alnabelsi, "C-DTB-CHR: Centralized Density- and Threshold-based Cluster Head Replacement Protocols for Wireless Sensor Networks," *Journal of Supercomputing*, (ISI Journal Citation Reports, 2015 Impact Factor 1.088), **Springer**, vol. 73, no. 12, pp. 5332-5353, December 2017.

- [5] Mohammad M. Shurman, Mamoun F. Al-Mistarihi, **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*, (ISI Journal Citation Reports, 2015 Impact Factor 0.311), **Taylor and Francis**, vol. 57, no. 5, December 2016.
- [6] **Khalid A. Darabkh**, Ahlam K. Al-Dhamari, and Iyad F. Jafar, "A New Steganographic Algorithm Based on Multi Directional PVD and Modified LSB," *Information Technology and Control* (ISI Journal Citation Reports, 2015 Impact Factor 0.633), **Kaunas University of Technology**, vol. 46, no. 1, pp. 16-36, March 2017.
- [7] Ahlam K. Al-Dhamari and **Khalid A. Darabkh**, "Block-Based Steganographic Algorithm Using Modulus Function and Pixel-Value Differencing," *Journal of Software Engineering and Applications* (ISI Web of Knowledge/ Web of Science, DBLP, EPSCO), academic publisher, vol.10, no.1, pp. 56-77, January 2017.
- [8] Saadeh z. Sweidan, Ramzi Saifan, **Khalid A. Darabkh**, and Shaima Abukaff, "Kids' Tracker: An Android Application for Tracking Children," *Journal of Software Engineering and Applications* (ISI Web of Knowledge/ Web of Science, DBLP, EPSCO), academic publisher, In Press.
- [9] Raed Al-Zubi, **Khalid A. Darabkh**, Mohammed Hawa, and Iyad F. Jafar, "RSP-WRAN: Resource Sharing Protocol For Inter/Intra WRAN Communications," *High Speed Networks* (Web of Science: Emerging Sources Citation Index), **IOS Press**, In press.
- [10] **Khalid A. Darabkh**, Wijdan Y. Albtoosh, and Iyad F. Jafar, "Improved Clustering Algorithms for Target Tracking in Wireless Sensor Networks," *Journal of Supercomputing*, (ISI Journal Citation Reports, 2015 Impact Factor 1.088), Springer, vol. 73, no. 5, pp 1952–1977, May 2017.

- [11] **Khalid A. Darabkh**, Huda Ibeid, Iyad F. Jafar, Raed T. Al-Zubi, “A generic buffer occupancy expression for stop-and-wait hybrid automatic repeat request protocol over unstable channels,” *Telecommunication Systems* (ISI Journal Citation Reports, 2015 Impact Factor 0.822), Springer, vol. 63, no. 2, pp. 205-221, October 2016.
- [12] Iyad Jafar, **Khalid A. Darabkh**, and Ramzi Saifan, “SARDH: A Novel Sharpening-Aware Reversible Data Hiding Algorithm,” *Journal of Visual Communication and Image Representation* (ISI Journal Citation Reports, 2014 Impact Factor 1.530), Elsevier, vol. 39, pp. 239–252, August 2016.
- [13] Mohammed Hawa, Raed Al-Zubi, **Khalid A. Darabkh**, and Ghazi Al-Sukkar, “Adaptive approach to restraining content pollution in peer-to-peer networks,” *Information Systems Frontiers* (ISI Journal Citation Reports, 2016 Impact Factor 2.521), Springer, vol. 19, no. 6, pp-1373–1390, December 2017.
- [14] Iyad Jafar, **Khalid A. Darabkh**, Ramzi Saifan, Raed Al-Zubi, “An Efficient Reversible Data Hiding Algorithm Using Two Steganographic Images,” *Signal Processing* (ISI Journal Citation Reports, 2014 Impact Factor 2.209), Elsevier, vol. 128, , pp. 98–109, November 2016.
- [15] Mohammed Hawa, **Khalid A. Darabkh**, Raed Al-Zubi and Ghazi Al-Sukkar, “A Self-Learning MAC Protocol for Energy Harvesting and Spectrum Access in Cognitive Radio Sensor Networks,” *Journal of Sensors* (ISI Journal Citation Reports, 2014 Impact Factor 1.182), **Hindawi Publishing Corporation**, vol. 2016, Article ID 9604526, pp. 1-18 pages, March 2016.
- [16] Iyad F. Jafar, **Khalid A. Darabkh**, Raed T. Al-Zubi, and R. Nam’neh, “Efficient Reversible Data Hiding Using Multiple Predictors,” *The Computer Journal* (ISI Journal Citation Reports, 2013 5-Year Impact Factor 1.024), **Oxford University Press**, Vol. 59 No. 3, March 2016.

- [17] **Khalid A. Darabkh** and Ola Alsukour, “Novel Protocols for Improving the Performance of ODMRP and EODMRP over Mobile Ad hoc Networks,” *International Journal of Distributed Sensor Networks* (ISI Journal Citation Reports, 2014 Impact Factor **0.665**), **Hindawi Publishing Corporation**, vol. 2015, Article ID 348967, pp.1-18, October 2015.
- [18] Mohammed Hawa, **Khalid A. Darabkh**, Loay D. Khalaf, and Jamal S. Rahhal, “Dynamic Resource Allocation Using Load Estimation in Distributed Cognitive Radio Systems,” *AEÜ - International Journal of Electronics and Communications* (ISI Journal Citation Reports, 2014 Impact Factor **0.601**), **Elsevier**, vol. 69, no. 12, , pp. 1833–1846, December 2015.
- [19] Raed Al-Zubi, **Khalid A. Darabkh**, and Nayel Al-Zubi, “Effect of Eyelid and Eyelash Occlusions on a Practical Iris Recognition System: Analysis and Solution,” *International Journal of Pattern Recognition and Artificial Intelligence* (ISI Journal Citation Reports, 2014 Impact Factor **0.56**), **World Scientific**, vol. 29, no. 8, pp. 1556016-1-1556016-24, December 2015.
- [20] **Khalid A. Darabkh**, Iyad F. Jafar, Raed T. Al-Zubi, and Mohammed Hawa, “A New Image Steganographic Approach for Secure Communication Based on LSB Replacement Method,” *Information Technology and Control* (ISI Journal Citation Reports, 2013 Impact Factor 0.813), **Kaunas University of Technology**, vol. 44, no. 3, pp. 315–328, September 2015.
- [21] **Khalid A. Darabkh**, Abeer M. Awad, and Ala’ F. Khalifeh, “New Video Discarding Policies for Improving UDP Performance over Wired/Wireless Networks,” *International Journal of Network Management* (ISI Journal Citation Reports, 2013 Impact Factor 0.517), **John Wiley & Sons, Ltd**, vol. 25, no. 3, pp. 181–202, May/June 2015.
- [22] R. Na’mneh and **K. A. Darabkh**, “New Superfast Bit Reversal

- Algorithms on Uniprocessors,” *International Journal for Computers and Their Applications* (SCOPUS, INSPEC, DBLP), ISCA, vol. 22, no. 4, pp. 147-156, December 2015.
- [23] **Khalid A. Darabkh**, “Fast and Upper Bounded Fano Decoding Algorithm: Queuing Analysis,” *Transactions on Emerging Telecommunications Technologies* (ISI Journal Citation Reports, 2013 Impact Factor 1.354), **John Wiley & Sons, Ltd**, vol. 28, no. 1, pp. 1-12, January 2017.
- [24] **Esam A. Qaralleh** and **Khalid A. Darabkh**, “A New Method for Teaching Microprocessors Course Using Emulation,” *Computer Applications in Engineering Education* (ISI Journal Citation Reports, 2013 5-Year Impact Factor 0.725), **John Wiley & Sons, Inc**, vol. 23, no. 3, pp. 455-463, May 2015.
- [25] **S. S. Ismail**, **A. I. Al Khader**, and **K. A. Darabkh**, “Static Clustering for Target Tracking in Wireless Sensor Networks,” *Global Journal on Technology (Selected Paper of COMENG-2014)*, vol. 8, pp. 167-173, 2015.
- [26] **Khalid A. Darabkh**, “Imperceptible and Robust DWT-SVD-Based Digital Audio Watermarking Algorithm,” *Journal of Software Engineering and Applications* (ISI Web of Knowledge/ Web of Science, DBLP, EPSCO), **academic publisher**, vol. 7, pp. 859-871, September 2014.
- [27] **Khalid A. Darabkh**, **Abeer M. Awad**, and **Ala’ F. Khalifeh**, “Efficient PFD-Based Networking and Buffering Models for Improving Video Quality over Congested Links,” *Wireless Personal Communications* (ISI Journal Citation Reports, 2013 Impact Factor 0.979), **Springer**, vol. 79, no. 1, pp. 293-320, November 2014.
- [28] **Raed Al-Zubi**, **Khalid A. Darabkh**, and **Yaser Jararweh**, “A Powerful Yet Efficient Iris Recognition Based on Local Binary Quantization,” *Information Technology and Control* (ISI Journal Citation Reports, 2013

Impact Factor 0.813), **Kaunas University of Technology**, vol. 43, no. 3, pp. 244-251, September 2014.

- [29] Gheith A. Abandah, **Khalid A. Darabkh**, Tawfiq Ammari, and Omar Qunsul, "Secure national electronic voting system", *Journal of Information Science and Engineering* (ISI Journal Citation Reports, 2013 5-Year Impact Factor 0.387), **Inst Information Science**, vol. 30, no. 5, pp. 1339-1364, September 2014.
- [30] Saadeh Z. Sweidan and **Khalid A. Darabkh**, "A New Efficient Assembly Language Teaching Aid for Intel Processors" *Computer Applications in Engineering Education* (ISI Journal Citation Reports, 2013 5-Year Impact Factor 0.725), **John Wiley & Sons Inc**, vol. 23, no. 2, pp. 217-238, March 2015.
- [31] Raed Al-Zubi, Marwan Krunz, Ghazi Al-Sukkar, Mohammed Hawa, and **Khalid A. Darabkh**, "Packet Recycling and Delayed ACK for Improving the Performance of TCP over MANETs," *Wireless Personal Communications* (ISI Journal Citation Reports, 2013 Impact Factor 0.979), **Springer**, vol. 75, no. 1, pp. 943-963, March 2014.
- [32] Mamoun F. Al-Mistarihi, Rami Mohaisen, Ashraf Sharaq, Mohammad M. Shurman, and **Khalid A. Darabkh**, "Performance Evaluation of Multiuser Diversity in Multiuser Two-Hop Cooperative Multi-Relay Wireless Networks using MRC over Rayleigh Fading Channels," *International Journal of Communication Systems* (ISI Journal Citation Reports, 2013 Impact Factor 1.106), **John Wiley & Sons, Inc**, vol. 28, no. 1, pp. 71-90, January 2015.
- [33] Raed Al-Zubi, Mohammed Hawa, Ghazi Al-Sukkar, and **Khalid A. Darabkh**, "Markov-Based Distributed Approach For Mitigating Self-Coexistence Problem in IEEE 802.22 WRANs," *The Computer Journal* (ISI Journal Citation Reports, 2013 5-Year Impact Factor 1.024), **Oxford University Press**, vol. 57, no. 12, pp. 1765-1775, December 2014.

- [34] **Khalid A. Darabkh**, Ala F. Khalifeh, Iyad F. Jafar, Baraa A. Bathech, and Saed W. Sabah, “A Yet Efficient Communication System with Hearing-Impaired People Based on Isolated Words of Arabic Language,” *IAENG International Journal of Computer Science* (SCOPUS, EI-COMPENDEX), IAENG, vol. 40, no. 3, pp. 183-192, August 2013.
- [35] I. F. Jafar, R. A. AlNa'mneh, and **K. A. Darabkh**, “Efficient Improvements on the BDND Filtering Algorithm for the Removal of High-Density Impulse Noise,” *IEEE Transactions of Image Processing* (ISI Journal Citation Reports, 2012 Impact Factor 3.042), IEEE, vol. 22, no. 3, pp. 1223-1232, March 2013.
- [36] **K. A. Darabkh**, I. Jafar, G. Al Sukkar, G. Abandah, and R. Al-Zubi, “An Improved Queuing Model for Packet Retransmission Policy and Variable Latency Decoders,” *IET Communications Journal* (ISI Journal Citation Reports, 2012 Impact Factor 0.829), IET, vol. 6, no. 18, pp. 3315–3328, December 2012.
- [37] **K. A. Darabkh**, S. Ismail, M. Al-Shurman, I. Jafar, E. Alkhader, and M. Al-Mistarihi, “Performance evaluation of selective and adaptive heads clustering algorithms over wireless sensor networks,” *International Journal of Network and Computer Applications* (ISI Journal Citation Reports, 2012 Impact Factor 1.065), Elsevier Science, vol. 35, no. 6, pp. 2068–2080, November 2012.
- [38] I. Jafar, **K. A. Darabkh**, and G. Al-Sukkar, “A Rule-based Fuzzy Inference System for Adaptive Image Contrast Enhancement,” *The Computer Journal* (ISI Journal Citation Reports, 2010 Impact Factor 1.327), Oxford University Press, vol. 55, no. 9, pp. 1041-1057, September 2012.
- [39] R. Na'mneh, **K. A. Darabkh**, and I. Jafar, “Efficient Bit Reversal Algorithms in Parallel Computers,” *International Journal for Computers and Their Applications* (SCOPUS, INSPEC, DBLP), International

Society for Computers and Their Applications (ISCA), vol. 19, no. 3, pp. 154-165, September 2012.

- [40] K. A. Darabkh and R. Aygun, "Improving UDP Performance Using Intermediate QoS-aware Hop System for Wired/Wireless Multimedia Communication Systems," *International Journal of Network Management* (ISI Journal Citation Reports, 2010 Impact Factor 0.323), Wiley-Blackwell, vol. 21, no. 5, pp. 432-454, September 2011.
- [41] I. Jafar and K. A. Darabkh, "Image Contrast Enhancement Based on Equalization of Edge Histograms," *IAENG International Journal of Computer Science* (SCOPUS, EI-COMPENDEX), International Association of Engineers (IAENG), vol. 38, no. 3, pp.192-204, August 2011.
- [42] K. A. Darabkh, B. Abu-Jaradeh, and I. Jafar, "Incorporating Automatic Repeat Request and Thresholds with Variable Complexity Decoding Algorithms over Wireless Networks: Queuing Analysis," *IET Communications Journal* (ISI Journal Citation Reports, 2010 5-Year Impact Factor 0.988), The Institution of Engineering and Technology (IET), vol. 5, no. 10, pp. 1377-1393, July 2011.
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Decoders with Timeout," *Proceedings of the 2005 Huntsville Simulation Conference* (HSC 2005, *Proceedings are available at The Society for Modeling and Simulation International, San Diego, California*), Huntsville, Alabama, October 2005.

**PROFESSIONAL AND  
ACADEMIC  
ACTIVITIES/SERVICES**

- Member of Computer Engineering Recruitment Examination Committee at Jordanian Civil Service Bureau, 2010-Present
- Editorial board member of Telecommunication Systems published by Springer, August/2015-Present
- Editorial board member of Journal of High Speed Networks, published by IOS Press, January 2018-Present
- Editorial board member of Computer Applications in Engineering Education Published by John Wiley & Sons, April/2015-Present
- Member of Assessment of Undergraduate Academic Programs Technical Committee at Higher Education Accreditation Commission, 2013-Present
- Committee Chair, at Higher Education Accreditation Commission, of Accrediting and Merging the Computer Engineering and Computer System Engineering Undergraduate Programs offered by Al-Balqa' University/Center. February 2017.
- Member of Nominating Committee at IEEE Jordan Section, 2011-2013
- IEEE Communication Chapter Vice Chair, Jordan Section, 2014-2015
- Technical Program Committee Member for the IEEE Global Communications Conference (GLOBECOM).
- Technical Program Committee Member for the IEEE Conference on Local Computer Networks (LCN).
- Technical Program Committee Member for IEEE VTC-Fall, USA.
- Technical Program Committee Member for IEEE International Symposium on Personal, Indoor and Mobile Radio Communications - (PIMRC): Mobile and Wireless Networks track.
- Technical Program Committee Member for the International Symposium on Wireless Communication Systems (ISWCS).
- Technical Program Committee Member for the IEEE Advanced Information Technology, Electronic and Automation Control Conference (IAEAC).



- Member of Engineering Curricula Improvements Committee at the University of Jordan, September 2013- September 2016.
- Chair and member of a lot of committees in the Computer Engineering Department at the University of Jordan.
- Chair and member of a lot of committees in the College of Engineering at the University of Jordan.
- Academic Advisor for Graduate and Undergraduate Programs in the Computer Engineering Department at the University of Jordan, 2010-2012
- Reviewer for many scientific journals and conferences, since 2007

## **TECHNICAL SKILLS**

- Programming Languages and Simulation Tools: Pascal, C, C++, Java, Matlab, C# .NET, Visual Basic, PERL, SQL, Assembly (8085, x86-Intel Core 2, MIPS), NS<sub>2</sub> network simulator, HTML, and PHP.
- Scripting Languages: Linux Bash Shell Script and JavaScript.
- Statistical Analysis: MiniTab.
- Databases: ORACLE, SQL Server, and MS-Access.
- Platforms: DOS, Windows 95-Vista, UNIX, and Linux.
- Development Frameworks: Oracle Java Developer, Microsoft J++, JBuilder, Eclipse, X-Code, BlueJ, Visual Studio .NET, Sun JDK, Rational Rose, Microsoft Office Suite, and AutoCAD.
- Parallel Programming: Pthreads, Java-Threads, Open MP, MPI, and PVM.
- Hardware Description Languages: VHDL and Verilog
- Typography: LaTeX and MS Office.

## **LANGUAGES:**

- Fluent in both spoken and written English and Arabic.

## **REFERENCES:**

- Available upon requests.