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Professor Gheith Abandah

Summary of qualifications

Holds Ph.D. degree in computer science and engineering from the University of Michigan. He is a professor of Computer Engineering in the University of Jordan. He has a 17-year academic experience in teaching computer science and engineering topics and in conducting research related to adding Arabic language capabilities to computers, electronic voting, and parallel processing. He has more than 15 years of industrial experience in localization, military electronics, product and project development and deployment. Has held leading positions in development including design engineer, project manager, development manager, and VP development where he successfully managed multiple technical teams to fulfill aggressive deadlines in the Middle East region. He also has management experience in the private sector and the academia. He is active volunteer and IEEE senior member, participated in establishing IEEE – Jordan Section, elected the IEEE – Jordan Section chair for two terms, and organizes the AEECT international conference series and many innovative activities.

Personal information

Jordanian, married with five children, born in 1962 in Amman, Jordan.

Education

1995 - 1998   University of Michigan   Ann Arbor, MI
Ph.D. in Computer Science and Engineering

- Dissertation title is "Reducing Communication Cost in Scalable Shared Memory Systems" supervised by Professor Edward Davidson.

1993 - 1995   University of Michigan   Ann Arbor, MI
M.S.E. in Computer Science and Engineering

- GPA 8.3/9.0

1980 - 1985   University of Jordan   Amman, Jordan
B.Sc. in Electrical Engineering

- The top student in my class – 86.3%

1977 - 1980   Dirar Bin Al-azwar High School   Amman, Jordan
Tawjihi Certificate

- The top student in my school – 95.1%

| **Professional experience** | Sep 1998 – Present | The University of Jordan | Amman, Jordan |

Professor in the Computer Engineering Department

- Teaches graduate and undergraduate courses in digital logic, computer organization and design, computer architecture, advanced computer architecture, embedded systems, microprocessors, software engineering, performance evaluation and modeling, computer networks, distributed systems, parallel architecture, parallel programing, object-oriented programming (Java and C++), pattern recognition, and introduction to computers and programming. Assistant Professor Sep 1998 – Dec 2009. Associate Professor Jan 2010 – Dec 2014. Professor since Jan 2015.

Sep 2012 – Aug 2013　　　The University of Jordan　　　Amman, Jordan

Jul 2006 – Sep 2010

Chair of the Computer Engineering Department

- Dr. Abandah effectively expanded the resources of this department, including human resources, offices, labs, lecture rooms, and equipment. Has led the department's efforts to establish a master program in Computer Engineering and Networks and led the department's efforts to prepare for ABET accreditation. He has also organized other innovative activities such as lecture series and the National Technology Parade.

Jan 2016 – Dec 2017　　　IEEE　　　New York, NY, USA

Jan 2011 – Dec 2011

Chair of the IEEE – Jordan Section

- Dr. Abandah was elected the chair of the Jordan Section of the Institute of Electrical and Electronics Engineers (IEEE) for two terms. In his first term, which was in the 2011 calendar year, Dr. Abandah expanded the membership by 29% and pioneered the conference series: IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT). His second term will start in January 2016.

2007 – Present　　　Cisco Academy　　　Amman, Jordan

Manager of the Cisco Academy in the University of Jordan

- Has established the Cisco Academy of the University of Jordan, and created the Networks Laboratory in the Computer Engineering Department. The academy offers the four CCNA courses and has graduated hundreds of students.

Sep 2010 – Sep 2011　　　Princess Sumaya Univ. for Tech.　　　Amman, Jordan

Visiting Associate Professor

- Sabbatical leave as a visiting associate professor in the Computer Engineering Department in Princess Sumaya University for Technology.

Jan 2009 – Sep 2009　　　Intrinsic Management Services　　　Amman, Jordan

General Manager

- Intrinsic Management Services focuses on Management and Organizational Maturity related services, enhancing its customers' capabilities in managing projects, programs and portfolios to achieve their strategic results.

Jun 2000 – May 2006   SEDCO   Amman, Jordan

VP Development

- Supervised six development, quality assurance, and implementation groups working on several software development projects and products such as content management solutions, airport flight information systems, and printer arabization. Moreover, he led the software development process improvements in the company to achieve higher capability maturity levels. The Systems and Electronic Development FZCO (SEDCO) is a UAE company with regional offices in Amman, Riyadh, and Cairo.

May 1998 – Aug 1998   Hewlett-Packard Labs   Palo Alto, CA

Postdoc

- Rejoined the large group studying design alternatives for building the next generation of scalable shared-memory systems. He contributed to the group's effort to improve the performance of commercial applications on shared-memory multiprocessors.

May 1994 – Apr 1998   University of Michigan   Ann Arbor, MI

Graduate Student Research Assistant

- Worked on tuning Ford Motors' crash simulator on parallel computers, and on characterizing shared-memory applications and reducing the communication cost in scalable shared-memory systems.

Jan 1996 – Dec 1996   Hewlett-Packard Labs   Palo Alto, CA

Research Intern

- Was part of a large group studying design alternatives for building the next generation of scalable shared-memory systems. He built tools for characterizing shared-memory applications to support these efforts.

Jan 1992 – Aug 1993   University of Jordan   Amman, Jordan

Teaching Assistant and System Administrator

- Teaching assistant in the Electrical Engineering Department, and system manager and administrator of the computer labs in the Faculty of Engineering and Technology.

Jun 1987 – Dec 1991   SEDCO   Amman, Jordan

Development Department Manager

- Worked in the development department of the International Systems and Electronic Development Company; SEDCO. First as a *design engineer*, then as the *development department manager*. He participated in the design, implementation and management of the company's development projects, including adding Arabic language capabilities to computers, terminals, and printers, developing special purpose ruggedized computers for the artillery, and other specialized systems. SEDCO was a Jordanian company at that time developing solutions for the local and regional markets.

Jun 1985 – May 1987   Royal Jordanian Air Force   Amman, Jordan

Draftee

- During his military service in the Royal Jordanian Air Force Technical School, he taught communications and electronics courses.

Selected publications	Has published 14 journal papers, 16 conference papers, a book, a book chapter, and several technical reports and newspaper articles. Areas span Arabic optical character recognition, automatic Arabic text diacritization, electronic voting, shared memory systems, parallel applications and systems characterization, computer architecture, and computer networks. Google Scholar reports over 420 citations for these publications with h-index of 12.

Journal Articles

- A. Al-Haj, N. Hussein, and **G. Abandah**, "Crypto-based Algorithms for Secured Medical Image Transmission," IET Information Security, May 2015, DOI: 10.1049/iet-ifs.2014.0245.
- **G. Abandah**, A. Graves, B. Al-Shagoor, A. Arabiyat, F. Jamour, and M. Al-Taee, "Automatic diacritization of Arabic text using recurrent neural networks," Int'l Journal on Document Analysis and Recognition (IJDAR), Springer, Vol. 18, No. 2, Jun 2015, pp. 183-197, DOI: 10.1007/s10032-015-0242-2.
- T. Wahdan, **G. Abandah**, A. Seyam, A. Awwad, I. Shdaifat, "Tire type recognition through treads pattern recognition and DOT Code OCR," Ubiquitous Computing and Communication Journal (UBICC), Vol. 9, No. 1, Feb 2015, pp. 1481-1487.
- A. Suyyagh and **G. Abandah**, "FPGA parallel recognition engine for handwritten Arabic words," Journal of Signal Processing Systems, Springer, Vol. 78, No. 2, Feb 2015, pp. 163-170.
- **G. Abandah**, F. Jamour, and E. Qaralleh, "Recognizing handwritten Arabic words using grapheme segmentation and recurrent neural networks," Int'l Journal on Document Analysis and Recognition (IJDAR), Springer, Vol. 17, No. 3, Sep 2014, pp. 275-291.
- **G. Abandah**, K. Darabkh, T. Ammari, and O. Qunsul, "Secure national electronic voting system," Journal of Information Science and Engineering, The Institute of Information Science, Vol. 30, No. 5, pp. 1339-1364, Sep 2014.
- **G. Abandah** and F. Jamour, "A word matching algorithm in handwritten Arabic recognition using multiple-sequence weighted edit distances," International Journal of Computer Science Issues (IJCSI), SoftwareFirst, Vol. 11, No. 3, May 2014, pp. 18-26.
- E. Qaralleh, **G. Abandah**, and F. Jamour, "Tuning recurrent neural networks for recognizing handwritten Arabic words," Journal of Software Engineering and Applications, Scientific Research Publishing, Vol. 6, No. 10, Oct 2013, pp. 533-542.
- K. Darabkh, I. Iyad Jafar, G. Sukkar, **G. Abandah**, and R. Al-Zubi, "An improved queuing model for packet retransmission policy and variable latency decoders," IET Communications., Vol. 6, No. 18, IET, Dec 2012, pp. 3315-3328.
- **G. Abandah** and T. Malas, "Feature Selection for Recognizing Handwritten Arabic Letters," Dirasat Engineering Sciences Journal, The University of Jordan, Vol. 37, No. 2, Oct 2010, pp. 242-256.
- **G. Abandah** and M. Khedher, "Analysis of Handwritten Arabic Letters Using Selected Feature Extraction Techniques," Int'l J. of Computer Processing of Languages (IJCPOL), Vol. 22, No. 1, World Scientific, Mar 2009, pp. 49-73.
- **G. Abandah** and N. Anssari, "Novel Moment Features Extraction for Recognizing Handwritten Arabic Letters," J. of Computer Science, Vol. 5, No. 3, Science Publications, Mar 2009, pp. 226-232.
- **G. Abandah** and F. Khundakjie, "Issues Concerning Code System for Arabic Letters," Dirasat Engineering Sciences Journal, Vol. 31, No. 1, The University of Jordan, Apr 2004, pp 165-177.
- **G. Abandah** and E. Davidson, "Characterizing Distributed Shared Memory Performance: A Case Study of the Convex SPP1000," IEEE Trans. Parallel and Distributed Systems, Vol. 9, No. 2, IEEE, Feb 1998, pp 206-216.

Conference Papers

- **G. Abandah**, M. Khedher, W. Anati, A. Zghoul, S. Ababneh, M. Hattab, "The Arabic Language Status in the Jordanian Social Networking and Mobile Phone Communications," in 7th Int'l Conference on Information Technology (ICIT 2015), May 12-15, 2015, Amman, Jordan, pp. 449-456.

- T. Wahdan, **G. Abandah**, A. Seyam, A. Awwad, and I. Shdaifat, "Tire Type Recognition through Treads Pattern Recognition and DOT Code OCR," in Second Jordanian Student Conference on Communication, Technology, and Management (JITB2014), May 18, 2014, Amman, Jordan.

- I. Almasri, **G. Abandah**, A. Shhadeh, and A. Shahrour, "Universal ISA simulator with soft processor FPGA implementation," in Proc. 2011 IEEE Jordan Conf. on Applied Electrical Engineering and Computing Technologies (AEECT 2011), Dec 6-8, 2011, Amman, Jordan, pp. 221-226.

- M. Olama, M. Aulama, A. Natsheh, and **G. Abandah**, "Arabic handwritten optical character recognition using hidden Markov models," in Proc. 2011 SPIE Defense, Security, and Sensing Multi-conference, Optical Pattern Recognition XXII, Vol. 8055, Apr 28-29, 2011, Orlando, Florida.

- **G. Abandah** and F. Jamour, "Recognizing Handwritten Arabic Script through Efficient Skeleton-Based Grapheme Segmentation Algorithm," in 10th Int'l Conf. on Intelligent Systems Design and Applications (ISDA'10), Nov 29-Dec 1, 2010, Cairo, Egypt, pp. 977-982.

- A. Shaout, **G. Abandah**, M. Johnson, and S-Y. Chang, "Routing Algorithms for Network-on-Chip in Tile-Based Multiprocessor Templates," in Proc. Mosharaka Int'l Conf. on Communications, Propagation and Electronics (MIC-CPE 2009), Feb 6-8, 2009, pp. 132-136, Amman, Jordan.

- T. Malas, S. Taifour, and **G. Abandah**, "Toward optimal Arabic keyboard layout using genetic algorithm," in Proc. 9th Int'l Middle Eastern Simulation Multiconference (MESM 2008), Aug 26-28, 2008, pp. 50-54, Amman, Jordan.

- K. Younis, B. Aldawood, **G. Abandah**, S. Alsisan, and J. Igual, "Automatic wireless monitoring of bird behavior," in Proc. 10th IASTED Int'l Conf. on Signal and Image Processing (SIP 2008), Aug 18-20, 2008, pp. 511-516, Kailua-Kona, Hawaii, USA.

- **G. Abandah**, K. Younis, and M. Khedher, "Handwritten Arabic Character Recognition Using Multiple Classifiers Based on Letter Form," in Proc. 5th IASTED Int'l Conf. on Signal Processing, Pattern Recognition, and Applications (SPPRA 2008), Feb 13-15, 2008, pp 128-133, Innsbruck, Austria.

- M. Khedher, **G. Abandah**, and A. Al-Khawaldeh, "Optimizing Feature Selection for Recognizing Handwritten Arabic Characters," in Proc. 2nd World Enformatika Congress (WEC'05), Feb 25-27, 2005, pp 81-84, Istanbul, Turkey.

- M. Khedher and **G. Abandah**, "Arabic Character Recognition using Approximate Stroke Sequence," Third Int'l Conf. on Language Resources and Evaluation (LREC 2002), Arabic Language Resources and Evaluation - Status and Prospects Workshop, Jun 1, 2002, Las Palmas, Spain.

- **G. Abandah** and E. Davidson, "Origin 2000 Design Enhancements for Communication Intensive Applications," in Proc. 1998 Int'l Conf. on Parallel Architecture and Compilation Techniques (PACT'98), Oct 12-18, 1998, pp 30-39, Paris, France.

- **G. Abandah** and E. Davidson, "Effects of Architectural and Technological Advances on the HP/Convex Exemplar's Memory and Communication Performance," in Proc. 25th Ann. Int'l Symp. Computer Architecture (ISCA'98), Jun 27-Jul 1, 1998, pp 318-329, Barcelona, Spain.

- **G. Abandah** and E. Davidson, "A Comparative Study of Cache-Coherent Nonuniform Memory Access Systems," in 12th Ann. Int'l Symp. High Performance Computing Systems and Applications (HPCS'98), May 20-22, pp 27, 1998, Edmonton, Canada.

- **G. Abandah** and E. Davidson, "Configuration Independent Analysis for Characterizing Shared-Memory Applications," in Proc. 12th Int'l Parallel Processing Symposium & 9th Symp. On Parallel and Distributed Processing (1998 IPPS/SPDP), Mar 30-Apr 3, 1998, pp 485-491, Orlando, Florida, USA.
- **G. Abandah** and E. Davidson, "Modeling the Communication Performance of the IBM SP2," in Proc. 10th Int'l Parallel Processing Symposium (IPPS'96), Apr 15-19, 1996, pp 249-257, Honolulu, Hawaii, USA.

Books

- M. Khedher, W. Anati, **G. Abandah**, A. Alzgoul, S. Ababneh, and M. Hattab, "Arabic Language in the Social Networking Forums and Mobile Phone Communications", the Jordan Academy of Arabic, Amman, Jordan, 2015.

Book Chapters

- **G. Abandah** and E. Davidson, "A Comparative Study of Cache-Coherent Nonuniform Memory Access Systems," High Performance Computing Systems and Applications, Ed. J. Schaeffer, Kluwer Academic Publishers, pp 267-282, 1998.

Technical Reports

- **G. Abandah**, K. Darabkh, T. Ammari, and O. Qunsul, "Secure national electronic voting system: Pilot implementation," The University of Jordan, Oct 2013.
- A. Suyyagh and **G. Abandah**, "FPGA Parallel Recognition Engine for Handwritten Arabic Words," The University of Jordan, August 2013.
- **G. Abandah** and M. Khedher, "Printed and Handwritten Arabic Optical Character Recognition – Initial Study," A report on research supported by The Higher Council of Science and Technology, Amman, Jordan, Aug 2004.
- **G. Abandah**, "Reducing Communication Cost in Scalable Shared Memory Systems," PhD Dissertation, University of Michigan, 1998.
- **G. Abandah** and E. Davidson, "Configuration Independent Analysis for Characterizing Shared-Memory Applications," Tech. Rep. CSE-TR-357-98, University of Michigan, Jan 1998.
- **G. Abandah**, "Characterizing Shared-Memory Applications: A Case Study of the NAS Parallel Benchmarks," Tech. Rep. HPL-97-24, HP Labs, Jan 1997.
- **G. Abandah**, "Tools for Characterizing Distributed Shared Memory Applications," Tech. Rep. HPL-96-157, HP Labs, Dec 1996.
- **G. Abandah** and E. Davidson, "Characterizing Shared Memory and Communication Performance: A Case Study of the Convex SPP-1000," Tech. Rep. CSE-TR-277-96, University of Michigan, Jan 1996.
- **G. Abandah** and E. Davidson, "Modeling the Communication and Computation Performance of the IBM SP2," Tech. Rep. CSE-TR-258-95, University of Michigan, May 1995.
- E. Boyd, **G. Abandah**, H. Lee, and E. Davidson, "Modeling Computation and Communication Performance of Parallel Scientific Applications: A Case Study of the IBM SP2," Tech. Rep. CSE-TR-236-95, University of Michigan, May 1995.

Current Masters Students	• Aiesha F. Al-maslam, Evaluation of Popular Multicore Design Alternatives using Configuration Dependent Analysis
	• Ahmad Al-Hourani, Preprocessing and Segmentation of Handwritten Arabic Documents for Writer-Independent Automatic Recognition.
	• Alia Al-Hosban, Collaboration Genealogical Features with Social Networks.

Past Masters Students	• Esraa Saadeh, Investigating Parallel Implementations of Electronic Voting Verification and Tallying Processes, May 2015.
	• Alaa Arabiyat, Automatic Diacritization of Arabic Text, May 2015.
	• Mohammed Sultan, Configuration Independent Characterization of Multi-Core Applications, Apr 2015.
	• Noor Haj-Abdullah, Exploring Encryption and Watermarking Techniques for Secure Telmedicine, Aug 2013.
	• Ashraf Suyyagh, Investigating Synthesis of Handwritten Arabic Word Recognition Engines on FPGAs, Aug 2011

Funded Projects	• Arabic Language in the Social Networking Forums and Mobile Phone Communications, Supported by the Jordan Academy of Arabic, 2013-2014.
	• Building a System for Recognizing Arabic Handwritten Scripts, Supported by Deanship of Academic Research, the University of Jordan, Sep 2008-Aug 2010.
	• Selecting and Evaluating Features for Recognizing Handwritten Arabic Characters, Supported by Deanship of Academic Research, the University of Jordan, May 2008-Aug 2008.
	• Printed and handwritten Arabic optical character recognition – initial study, Supported by Higher Council of Science and Technology, Jul 2000-Apr 2003.

Conferences	2015 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AECT), **Vice Chair,** Nov 3-5, 2015. - The Fifth International Symposium on Innovations in Information & Communications Technology (ISIICT 2014), **Conference Committee**, 22-24 April, 2014, Philadelphia University, Amman Jordan. 2013 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AECT), **Steering Committee**, Dec 3-5, 2013. - The 1st International Conference and Exhibition on Applications of Information Technology in Developing Renewable Energy processes and Systems (IT-DREPS 2013), **Judge** in the 9th Information Technology Students Activity Fair, May 2013. - The 8th Jordanian International Electrical and Electronics Engineering Conference (JIEEEC 2013), **Session Chair**, Amman, Apr 2013. - The 9th Int'l Symposium on Mechatronics and its Applications (ISMA'13), Amman, Apr 2013. - The 3rd International Conference on Information and Communication Systems (ICICS 2012), **Steering Committee**, Irbid, Apr 2012. 2011 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AECT), **General Chair,** Dec 6-8, 2011. - The 7th Jordanian International Electrical and Electronics Engineering Conference (JIEEEC 2011), **Session Chair**, Amman, Apr 2011. - The 2nd International Conference on Information and Communication Systems (ICICS 2011), **Steering Committee**, Irbid, May 2011. - The 10th Int'l Conf. on Intelligent Systems Design and Applications (ISDA'10), **Research Paper Presentation**, Nov 29-Dec 1, 2010, Cairo, Egypt. - Mosharaka Int'l Conf. on Communications, Propagation and Electronics (MIC-CPE 2009), **Session Chair**, Feb 2009, Amman. - The 5th IASTED Int'l Conf. on Signal Processing, Pattern Recognition, & Applications (SPPRA 2008), **Research Paper Presentation and Session Chair**, Feb 2008, Innsbruck, Austria. - The 9th Int'l Middle Eastern Multi-conference on Simulation and Modeling (MESM 2008), Aug 2008, Amman. - The 5th Int'l Multi-Conference on Systems, Signals and Devices (IEEE SSD'08), Jul 2008, Amman. - The 1st Graduate Studies Research Conference, **Conference Committee**, 2007, The University of Jordan. - The 1st IEEE Int'l Design and Test Workshop (IDT 2006), Nov 2006, Dubai. **Organized a workshop** to discuss the results of the research project "Automatic Recognition of Arabic Printed and Handwritten Text" supported by the Higher Council of Science and Technology, Mar 2005, Amman. - The 5th Jordanian Int'l Electrical and Electronics Engineering Conference, **Conference Committee and Session Chair**, Oct 2003, Amman. - The 4th Jordanian Int'l Electrical and Electronics Engineering Conference, **Session Chair**, Apr 2001, Amman. - Parallel Computers Conference, 1999, Al al-Bayt University. - The 25th Int'l Conf. on Parallel Architecture and Compilation Techniques (PACT'98), **Research Paper Presentation**, Oct 1998, Paris, France. - The 25th Annual Int'l Symposium on Computer Architecture (ISCA'98), **Research Paper Presentation**, Jun 1998, Barcelona, Spain. - The 12th Ann. Int'l Symposium on High Performance Computing Systems and Applications (HPCS'98), **Research Paper Presentation**, May 1998, Edmonton, Canada. - The 12th Int'l Parallel Processing Symposium (IPPS'98), **Research Paper Presentation**, March 1998, Orlando, Florida, USA. - The 10th Int'l Parallel Processing Symposium (IPPS'96), **Research Paper Presentation**, April 1996, Honolulu, Hawaii, USA.

Attended courses	• Securing Digital Democracy, Cousera, Oct-Nov 2014.
	• IEEE Teacher In-Service Program (TISP) - Middle East Training Workshop, Jun 13-14, 2014, Dubai
	• Cisco Certified Network Associate (CCNA), Cisco Networking Academy, Jul 5-Aug 29, 2009
	• Multi-core Programming, Intel Software College, Oct 7-9, 2008
	• Statistical Pattern Recognition, Jordan University of Science and Technology, Apr 2007
	• Innovative Teams that C.A.R.E., Person-to-Person, 2005
	• Leadership Skills, AMIDEAST, Aug 2005
	• Enterprise Application Architecture, SoftACT, Aug 2005
	• NLP for Business Excellence, AMIDEAST, Mar 2005
	• Developing Microsoft ASP.NET Web Applications using Visual Studio.NET, CompuBase, Dec 2002
	• Performance Appraisal Systems, Jordan United States Business Partnership, Jan 2001
	• Introduction to SW-Capability Maturity Model, Software Engineering Institute, Sep 2000
	• Workshop on Information Technology in Higher Education, JUST, 1999
	• Diversity and the American Experience: A Case Study of Boston, Fulbright, Jul 1994
	• Computer Communications and Multimedia Applications, Jordan University of Science and Technology, Jun 1993
	• Oracle Case Relational System Design Course, Oracle, Jun 1989
	• Basic Instructional Techniques, Royal Jordanian Air Force School, Feb 1986

Professional activities	• Chair of the organizing committee of IEEE Amman Metro Area Workshop, Sep 13-14, 2015.
	• Invited Speaker in the IEEE Jordanian Student Branches Congress (JSBC 2015), Speech titled "Best Practices to Run IEEE Student Branch," Hashemite University, May 24, 2015.
	• Participated in the First Focus Event on strategic ICT Priorities, MED-Dialogue Project, Promoting ICT Dialogue and Cooperation with The MPC towards HORIZON 2020, Tunisia, May 6-7, 2015.
	• Member and chair of 20 masters degree discussion committees, 2003-2015.
	• Academic Proficiency Exam, Engineering Committee, 2015.
	• Research Proposals Reviewer, Qatar National Research Fund (QNRF), 2015.
	• Judging Panel Member, Hamdan Bin Mohammed Award for Smart Government, Dubai, Nov 2014.
	• Team member in the project "Arabic Language in the Social Networking Forums and Mobile Phone Communications", the Jordan Academy of Arabic, 2013-2014.
	• Judging Panel Member, Hamdan Bin Mohammed Award for Smart Government, Dubai, Nov 2013.
	• Chair and member of 12 committees formed by the Higher Education Accreditation Commission for setting accreditation guidelines and for computer engineering programs accreditation, 2005-2013.
	• Member of the steering committees of six National Technology Parades 2009-2014.
	• Mentoring the IEEE Student Branch in organizing innovative activities such as Technology Catch Up and SHE, and Google Ambassadors in activities such as the Engineering Scientific Competitions 1 and 2.
	• Member of the steering committees of the Universities Robotics Championships, 2013.
	• Athens Information Technology (AIT) Queen Rania Al Abdullah Scholarships

- committee member, 2013.
- Main organizer of a series of lectures in computer, electrical, and mechatronics engineering in the Faculty of Engineering and Technology, 2006 - 2011.
- ICT Sector Committee, Setting Research Priorities in Jordan for the Coming 10 Years Project, the Higher Council for Science and Technology (HCST), 2009/2010.
- Board of trustees, The Arab Academy for Banking and Financial Sciences, 2009.
- Chair of the nomination committees for IEEE – Jordan Section in 2007 and 2009.
- Chair of the Technical Judging Committee for Jordan's First Lego League Championship, Dec 2008.
- Chair of the organizing committee of the National Technology Parade 2008.
- Member of the Certificates Equaling Committee in the Ministry of Higher Education, 2003 – 2009; vice chair since 2007.
- Gave a short course titled "How to Test Hardware and Software for Year 2000 Readiness", April 1999, The University of Jordan.
- Developed a program to calculate the prayers times, 1986.

Presentations	

- Automatic Diacritization of Arabic Text, The Ninth Arabic Day, Petra University, Mar 22, 2015.
- Electronic Voting: For Secure and Efficient Elections in Jordan, organized by IEEE - Jordan Section in PSUT, Nov 2, 2010.
- Handwritten Arabic Optical Character Recognition Research, in the Natural Languages Processing Workshop organized by IEEE – Jordan Section's Computer Society Chapter, The University of Jordan, Oct 12, 2010.
- Web Search Engines: How They Work and How to Exploit Their Benefits, organized by Jordan Computer Society in cooperation with IEEE - Jordan Section in METS 09, Nov 2009.
- Modern Multicore Processors and their Programming, organized by Jordan Computer Society in cooperation with IEEE - Jordan Section in METS 08, Dec 2008.
- Modern and Future Processors, organized by the Faculty of Engineering and Technology in the University of Jordan, Feb 2007.
- Higher Performance in Modern Intel Processors, organized by IEEE Jordan Section, August 2002.
- High Performance through Parallel Processing, organized by the Computer and Internet Club in the University of Jordan, Oct 1998.

Professional memberships	

- Elected Chair of IEEE – Jordan Section, 2016-2017
- Vice chair of IEEE Jordan Section, 2014-2015
- Chair of IEEE Jordan Section, 2011
- Counselor, IEEE Student Branch in the University of Jordan since Jul 2009
- IEEE since 1993, senior member since 2007
- IEEE Computer Society since 1993
- IEEE Computational Intelligence/Computer Joint Societies Chapter secretary, 2010 – 2011
- General Secretary of founding executive committee of IEEE - Jordan Section, 2000 – 2001
- Jordan Engineers Association since 1985

Skills	**Programming Languages**: C, Visual C++, Visual Basic, Java, HTML, Lisp, SQL, Fortran, Matlab, and Assembly (MIPS, x86, PIC, 6809, 6502, Z80, 8051).
	Operating Systems: Microsoft Windows 95–8, DOS, Unix, and Linux.
	Applications: Microsoft Word, Excel, PowerPoint, Expression, FrontPage, Access, Visio, and Project, LaTeX, FrameMaker, and AutoCAD.
	Hardware: PCB design, routers, switches, and worked on many computers including PC, Mac, IBM RS/6000 Workstation, IBM SP1/SP2, and Convex SPP-1000.
	Parallel Programming: Open MP, MPI, MPL, PVM, and Pthreads.
Languages	I am fluent in English and Arabic (spoken and written).
Hobbies	My hobbies include table tennis, jogging, swimming, cycling, reading, and writing.
Honors and awards	• Listed in the top 5% highly cited researchers in the University of Jordan, August 2015. • Supervised the graduation project that won the third prize in the Innovation and Technologies for People with Disabilities, the Eighth National Technology Parade, Project Title: Low-cost Speech-operated Electric Wheelchair, 2015. • Best paper award, Computers and Communications track, the Second Jordanian Student Conference on Communication, Technology, and Management (JITB2014), Paper Title: Tire Type Recognition through Treads Pattern Recognition and DOT Code OCR, May 18, 2014, Amman, Jordan. • Supervised the graduation project that won the second prize in the Industrial Systems track, the National Technology Parade, Project Title: Tire Text and Geometry Detection, 2013. • Supervised the graduation project that won the first prize in the Artificial Intelligence track, the National Technology Parade, Project Title: Recognition of Handwritten Arabic Words, 2010. • Supervised the graduation project that won the second prize in the Electrical Engineering category, Jordan Engineers Association, Project Title: Blind Student Study Helper, 2010. • Supervised four projects that won prizes in the National Technology Parade 2008 that were carried out in cooperation with Sedco, Estarta, and Optimiza. • Supervised the graduation project that won the first prize in the Electrical Engineering category, Jordan Engineers Association, Project Title: Superscalar MIPS Instruction Set Implementation with High-Level Language Compiler Simulation and Benchmarking, 2004. • Supervised the graduation project that won the third prize in the Electrical Engineering category, Jordan Engineers Association, Project Title: Analyzing features of Hand-Written Single Arabic Characters, 2004. • Graduate student research assistantships, 1995-1998. • Fulbright Fellowship, 1993-1995. • Ideal Soldier Prize, military training, 1985. • Royal prize granted to the first of the Electrical Engineering Department graduates, 1985. • Five grants for distinguished academic performance, 1981-1985. • Qualified to participate in the Students' Future Leaders Program in the University of Jordan, 1984. • First in my high school class, 1980.

References   Available upon request