

Saleh Al-Sharaeh, Professor



PERSONAL DETAILS:

Gender: *Male* **Languages:** *English, Arabic.*

Current Address: *P.O. Box 13877, The University of Jordan, Faculty of IT, Computer Science Department, Amman 11942, Jordan.*

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Short Prof. Saleh Al-Sharaeh received his BS degree in Computer Engineering from Jordan University of Science and Technology in 1989. In 1992 he received his MS degree from Tennessee State University, USA and in 1996 he received his Ph. D in Computer Engineering from University of Alabama in Huntsville, USA specializing in Parallel and Distributed Computing. Prof. Al-Sharaeh has many years of experience in computer network and Wireless Solution, and in Parallel Programming with emphasis on numerical modeling and simulation of heavy computation systems (such as Space Shuttle and Earth's Space Systems). Dr. Al-Sharaeh also contributed in the development of the wireless communication industry at Lucent Technologies/Bell Lab, where he worked on software development, testing and deployment at the R&D Department. In 2000 he received the Bell labs Silver Award for his major contribution to the development of Wireless features for PHS development and its deployment to China market. He also was a key figure in the foundation of Lucent China in Qingdao.

After leaving Bell Lab, he worked both as a consultant to startup companies such as: Aramco, STC, and Aerostar in Florida and held various positions at The University of Alabama, Tuskegee University, and Alabama A&M University, USA.

After joining the University of Jordan, Al-Sharaeh, worked along with the Al-Faisal group in developing different programs for teaching training of the Ministry of Education staff in applying various software packages for the betterment of the traditional and eLearning. In 2009 Prof. Al-Sharaeh was a co-founder of two faculties: Faculty of Information Technology and Systems and the Faculty of Business and Finance in Aqaba, Jordan, where he was appointed as the Founding Dean, and an acting executive director.

He is also a member of the Quality Assurance Committee for the international accreditation process, under the auspices of the Ministry of Higher Education of Jordan. He was a Team Leader of ABET accreditation Committee, Faculty of Engineering, Tuskegee University.

He has a vast experience in Course and Curriculum development, with an emphasis on practical applicability and market orientation of the teaching material. At the University of Jordan he was key figure in developing a PhD program in Computer Science.

He also has experience in fund and grant raising, projects for the NSF (National Science Foundation, USA) along with different projects within the private sector in Jordan (Aqaba Special Zone Authority and Aqaba Development Company) being only two most important examples. In 2011 he organized and chaired the 2011 IEEE

He has more than 45 published research papers/articles in different areas of Wireless Networking, Wireless Sensor Networks, Mobile Computing, Distributed Computing, Space phenomena Physics, and Protocol Routing Engineering.

EDUCATION

Ph. D.	in Computer Engineering, Computer Networks and Distributed Systems University of Alabama, Huntsville, Alabama, U.S.A.	Dec 1999
M. S.	in Electrical Engineering, Neural Networks Tennessee State University, Nashville, Tennessee, U.S.A.,	May 1992
BS.	in Computer Engineering Jordan University of Science and Technology, Irbid, Jordan	Aug. 1989

RESEARCH AREAS AND INTEREST:

Wireless Sensors Network, Protocols design and Engineering, Mathematical Modeling and Simulation, and Digital Communication.

RECENT PROFESSIONAL WORK EXPERIENCE

- Professor** :Faculty of Information Technology, Department of Computer Science, the University of Jordan, Jordan, **2009**
- Associate Professor:** Department of Computer Science, Alabama A&M University, USA, **2004.**
- Assistant Professor:** Faculty of Information Technology, King Fahd University for Petroleum and Minerals, KSA, September, 2002
- Assistant Professor:** Department of Electrical and Computer Engineering, Tuskegee University, USA Jan 1, **1997.**

RECENT CLASSES TAUGHT

Computer Networks (Graduate Level), Mobile Computing and Advance Wireless Network. Java Internetworking, C#, Advanced C Programming, Operating Systems and Programming (C and Java), Network Design, Computer Ethics, Innovation and Entrepreneurship, Digital Logic, Signal and Systems, Computer Architectures and Signal and Systems.

SERVICES

University

1. Dean and Founder of the Faculties of the Jordan University Branch at Aqaba: Faculty of Information Technology and Faculty of Administration and Finance
2. Acting Executive Director for the University of Jordan Aqaba Branch.
3. Dean Assistant for Development Affairs, 2007-2009
4. Member of the PhD Development program, Computer Science, the University of Jordan, Faculty Of Information Technology
5. Developed along with 2 faculty members, MS program at King Fahd University (ABET Accredited)
6. Developed and taught courses in Mobile Computing and Advanced Wireless Sensor Networks.
7. Supervise Many MS and Co-Supervised PhD Students.
8. Chair for the International Conference on Communication and Information Technology 2011. (iccit-conf.org)
9. Served in Many committees such as: Curriculum Development, PhD Program Development, Development, Bids, etc.

Community

1. External reviewers to University other than Jordan University.
2. Funded Program teach teachers
3. eASEZA Project to Automate Aqaba Special Zone Authority functions

4. Gave several talks to IT teachers in the Middle and Secondary school.

OTHER RELEVANT WORK EXPERIENCE

2017-Present	Executive Director for the JUNet, Jordan universities Network.
2016-Present	Director for The Information Technology Center at the University of Jordan.
2006-Present	
2011-Present	Professor. at the Department of Computer Science , the University of Jordan. Graduate Students Advisor, Curriculum development teaching classes at both graduate and undergraduate level such Wireless Networks, Operating Systems, Computer Architecture.
6/2010-12/2010.	Team Leader for eASEZA Project , Aqaba Special Economic Zone Authority, Aqaba, Jordan
2010-2011	Manage and teach the Diploma Program in IT for educators for the Ministry of Education.
2009-2011	Dean and Founder for the Faculty of Information Technology and Systems , Jordan University/Aqaba, Jordan. Acting Dean and Founder for the Faculty of Administration and Finance , Jordan University/Aqaba, Jordan. Department Chair: Computer Information Systems, Business Technology, Accounting, Administration and Insurance. Acting Executive Director for the University Colleges of Jordan University in Aqaba.
2006-2009.	Associate Professor , Department of Computer Science, Jordan University, IT College, Jordan.
2007-2009	Assistant Dean for Development Affairs
2004-2006.	Associate Professor , Department of Computer Science, Alabama A&M University, USA.
2002-2004	Assistant Professor , Faculty of IT, Computer Engineering Department, King Fahd Univ., Saudi Arabia
1998-2002	MTS, Research and development of Wireless Solution, Lucent Technologies Inc., USA.
1997-1998	Summer Fellowship , Argonne National Lab two Consecutive Summers, Department of Energy, USA.
1994-1996	Teaching Assistant , Dept. of Electrical and Computer Engineering, University of Alabama in Huntsville, USA.
1991-1992	Teaching Assistant , Dept. of Electrical Engineering, Tennessee State University, USA.

Consultation:

1. AeroStar Environmental Services, Florida, USA.
2. Alabama A&M Research Institute, Normal, Alabama, USA
3. Center of Space Plasma at Huntsville, Huntsville, Alabama, USA
4. Certified Code Moderator/Lucent Technologies Inc.

Journal Editor:

1. Co-Editor in Chief for the World Applied Sciences Journal (Thompson ISI).
2. Editorial Board, the IJCDS
- 3.

Awards:

1. Bell Lab Silver award, 1999
2. Bell Lab Recognition award for the Development of CAMEL protocol for IN network.

3. Bell Lab Appreciation for the Development of PHS Solution for the China Market.
4. Two Summer fellowship award, Department of Energy, USA 1997 and 1998.

PhD Thesis: A massively parallel particle-in-cell technique for a three-dimensional Simulation of plasma phenomena:--a dissertation /--by Saleh Hosni Al-Sharaeh. (1996), the thesis outcomes: A new algorithm and mathematical modeling, data restructuring and mapping a cross wide board of networks. The proposed Algorithm then applied for 3D simulation space plasma phenomena. Advisor: Professor B. E. Wells, University of Alabama, Huntsville, Alabama, USA.

Msc Thesis: Neural Network-Based Error Detection and Correction in Digital Data Transmission Systems, Saleh Hosni Al-Sharaeh, April 1992, advisor: Dr. D. Marpaka, Tennessee State University, USA.

PUBLICATIONS

1. Travelling Salesman Problem Solution Based-on Grey Wolf Algorithm over Hypercube Interconnection Network. Shaheen, Ameen, Sleit, Azzam, Al-Sharaeh, Saleh. *Modern Applied Science*. Vol 12 No 8, p.142-159 (2018).
2. Chemical Reaction Optimization for Traveling Salesman Problem Over a Hypercube Interconnection Network. Shaheen, Ameen & Sleit, Azzam & Al-Sharaeh, Saleh. *CSOC2018: Cybernetics and Algorithms in Intelligent Systems*, p. 432-442 (2018).
3. An improved chemical reaction optimization algorithm for solving traveling salesman problem. Shaheen, Ameen, Azzam Sleit and Saleh Al-Sharaeh” *2018 9th International Conference on Information and Communication Systems (ICICS)* (2018): 37-42.
4. A Hybrid Methodology for Automation the Diagnosis of Leukemia Based on Quantitative and Morphological Feature Analysis, Hussam Fakhouri, Saleh Al-Sharaeh, *Modern Applied Science*, 12(3) p.56-73, 2018
5. Enhanced AODV Protocol for Detection and Prevention of Blackhole Attack in Mobile Ad Hoc Network, Sherin Hijazi, Mahmoud Moshref, Saleh Al-Sharaeh, *International Journal of Computers & Technology*, Vol. 16 No(1),p7535-7547 (2017).
6. Bandwidth Provisioning Scheme for 3D Wireless Sensor Networks. M. A. Mizher, S. H. Al-Sharaeh, R. Sulaiman, M. A. Mizher, , *Journal of Theoretical & Applied Information Technology* 75 (1), 2015.
7. Centroid Dynamic Sink Location for Clustered Wireless Mobile Sensor Networks, M. A. Mizher, S. H. Al-Sharaeh,, Meic Ang, A. M. Abdalla, M. A. Mizher, *Journal of Theoretical & Applied Information Technology* 73 (3), 2015
8. A robotic intelligent wheelchair system based on obstacle avoidance and navigation functions Alshraideh, Mohammed; Mahafzah, Basel A; Al-Sharaeh, Saleh; Hawamdeh, Ziad M; , *Journal of Experimental & Theoretical Artificial Intelligence*, , ahead-of-print, 42016, Taylor & Francis, 2014
9. Three-Dimensional Dynamic Based Borrowing Scheme for Wireless Cellular Networks Salah, Imad; AlShrideh, Mohammed; Al-Sharaeh, Saleh; Saadeh, Heba; Naser, Alia; , , , , , *Scientific Research Publishing*, 2013
10. An Efficient Priority Based Routing Technique That Maximizes the Lifetime and Coverage of Wireless Sensor Networks Salah, Imad; Alshriedeh, Mohmmad A; Al-Sharaeh, Saleh; , *Int'l J. of Communications, Network and System Sciences*, 6, 2, 100, *Scientific Research Publishing*, 2013

11. Hetrogeneous Multi-Deployment Strategy Effect on Maximizing the Lifetime Routing in Wireless Sensor Network Osman, Fatima M; Al-Sharaeh, Saleh H; , Middle-East Journal of Scientific Research, 13, 6, 749-759, , 2013
12. Receiver-based AODV routing protocol for MANETs Al-Nahari, Abdulaziz; Mohamad, Mohd Murtadha; Al-Sharaeh, Saleh; , Intelligent Systems Design and Applications (ISDA), 2013 13th International Conference on, , , 126-130, IEEE, 2013
13. An efficient routing technique that maximizes the lifetime and coverage of wireless sensor networks Al-Sharaeh, Saleh; Hasan, Reema; Salah, Imad; , Digital Information and Communication Technology and it's Applications (DICTAP), 2012 Second International Conference on, , , 13-18, IEEE, 2012
14. Deployment Strategy Effect on Maximizing the Lifetime of Wireless Sensor Networks S. Al-Sharaeh, R. Hasan, I. Salah; , 2012 Second International Conference on on Digital Information and Communication Technology and it's Applications (DICTAP),, , , 13-18, IEEE, 2012
15. A multiple-population genetic algorithm for branch coverage test data generation Alshraideh, Mohammad; Mahafzah, Basel A; Al-Sharaeh, Saleh; , Software Quality Journal, 19, 3, 489-513, Springer, 2011
16. An Efficient Generalized Multi-Fault Tolerant Mapping Algorithm onto a 3-D Torus Interconnection Topology Fetyani, Aymcm; Al-Sharaeh, Saleh; , World Applied Sciences Journal, 12, 1, 106-113, , 2011
17. Investigating cache technique for location of dependent information services in mobile environments Hiary, Hazem; Mishael, Qadri; Al-Sharaeh, Saleh; , European Journal of Scientific Research, 38, 2, 172-179, , 2009
18. Deployment Strategy Effect on Maximizing the Lifetime of Wireless Sensor Networks Saleh H. Al-Sharaeh, Ahmad A. Sharieh, Rana K.Abu Elayyan; , the 24th International Conference on Computers and Their Applications (CATA-2009), , , 122-127, ISCA Society, 2009
19. Multi-Dimensional Poisson Distribution Heuristic for Maximum Lifetime Routing in Wireless Sensor Network Al-Sharaeh, Saleh H; Sharieh, Ahmad; Dalhoum, A Abu; Hosny, Reema; Mohammed, Fatima; , World Applied Sciences Journal, 5, 2, 119-131, , 2008
20. Random graph generation based p-method and box method for the evaluation of power-aware routing protocols of ad hoc networks Sharaeh, Saleh HA; , American Journal of Applied Sciences, 5, 12, 1662, , 2008
21. Remotely controlled intelligent vehicle to handle public places security Abdel Latif Abu Dalhoum, Mohammed Al-Rawi, Ahmed, Saleh Al-Sharaeh; , Journal WSEAS TRANSACTIONS on SYSTEMS, 7, 10, 1058-1069, ACM DL, 2008
22. A Generalized Efficient Multi-Fault Tolerant Mapping Algorithm onto a 3-D Tours Interconnection Topology, Al-Sharaeh, Saleh H.; , European Journal of Scientific Research, 21, 229-238, 1450, European Journal of Scientific Research, 2008
23. Efficient Method for Assigning Students to Proper Groups", Moh'd Belal Al- Zoubi, Imad Salah, Azzam Sleit, Ammar Huneiti and Nadim Obeed; , European Journal of Scientific Research, 21, 2, 249-258, European Journal of Scientific Research, 2008

24. On the Hamiltonian cycle mapping onto 3-D torus interconnection network based on base-b reflected gray codes Al-Sharaeh, Saleh H; , Applied mathematics and computation, 186, 2, 1311-1321, Elsevier, 2007
25. Efficient mapping scheme of ring topology onto tree-hypercubes Almobaideen, Wesam; Qataweh, Mohammad; Sleit, Azzam; Salah, Imad; Al-Sharaeh, Saleh; , Applied Sci, 7, , 2666-2670, , 2007
26. Dynamic rate-based borrowing scheme for QoS provisioning in high speed multimedia wireless cellular networks Al-Sharaeh, Saleh H; , Applied mathematics and computation, 179, 2, 714-724, Elsevier, 2006
27. Performance of Infrastructure Mode Wireless LAN Access Network Based on OPNETTM Simulator Bawazir, Saeed A; Al-Sharaeh, Saleh H; , Department of Computer Science, Normal, AL, 35762, , , 2006
28. Case Study: Mobile IP a Mobility Management Protocol Muhammed R. Sami, Saleh Al-Sharaeh; , The 2005 International conference on wireless networks, , , 166-170, , 2005
29. Efficient Fault Tolerant Mapping of Large Three-Dimensional Simulation onto 3D Tori Graph Al-Sharaeh, Saleh H; , Editorial Advisory Board e, 21, 2, 239-248, , 2005
30. Efficient Method for Assigning Students to Proper Groups Salah, Imad; Sleit, Azzam; Al-Sharaeh, Saleh; Huneiti, Ammar; Obeed, Nadim; , Editorial Advisory Board e, 21, 2, 249-358, , 2005
31. QoS Provisioning in Wireless Cellular Networks for Multimedia Applications Saleh Al-Sharaeh, and Isa Y. Garba; , Proceedings of the 17th International Conference on Computer Applications in Industry and Engineering, CAIN 2004, , , 21-24, ISCA Society, 2004
32. Interactive 3D Visualization For A Scalable Three-Dimensional Domain Decomposition Mapping Technique Using MPI Al-Sharaeh, Saleh H.; , The 6th International Conference on Computer Applications in Industry and Engineering (CAINE03), , , 189-192, ISCA Society, 2003
33. A Scalable Three-Dimensional Domain Decomposition Mapping Technique Using MPI Al-Sharaeh, Saleh H.; , The 18th International Conference on Computers and Their Applications (CATA-2003), , , 369-372, ISCA Society, 2003
34. Three-dimensional kinetic simulation of the nonlinear evolution of lower hybrid pump waves Singh, Nagendra; Wells, B Earl; Abdelrazek, A; Al-Sharaeh, S; Leung, WC; , Journal of Geophysical Research: Space Physics (1978–2012), 103, A5, 9333-9349, , 1998
35. Three-Dimensional Plasma Phenomena Simulation on a Cray T3D MPP System Elsadek, A Abdelrazek; Al-Sharaeh, Saleh; Wells, B Earl; Singh, Nagendra; , , , , , 1998
36. Nonlinear Evaluation of Lower Hybrid Pump Waves Nagendra Singh, B. Earl Wells, A. Abdelrazek, S, and W. C. Lung; , Journal of Geophysical Research, 103, A5, 9333-9349, Wiley, 1998
37. Parallel Implementations of a Three-Dimensional PIC code Plasma Simulation A. Abdelmageed Elsadek, Saleh Al-Sharaeh, Safwat, and B. Earl Wells; , 11th International Conference on Parallel and Distributed Computing Systems, , , , ISCA Society, 1998
38. Massively parallel 3-dimensional particle-in-cell plasma code Wells, EE; Al-Sharaeh, S; Singh, N; , Plasma Science, 1997. IEEE Conference Record-Abstracts., 1997 IEEE International Conference on, , , 187, IEEE, 1997

39. Three-dimensional numerical simulation of ion and electron accelerations by parametric decay of fast lower hybrid waves Singh, N; Al-Sharaeh, S; Abdelrazek, A; Leung, WC; Wells, BE; , Plasma Science, 1997. IEEE Conference Record-Abstracts., 1997 IEEE International Conference on , , 264, IEEE, 1997
40. An Embedding Technique for a Three-Dimensional Simulation of Large-Volume Space Plasma S. Hosni Al-Sharaeh, B. Earl Wells, and Nagendra Singh; , Journal of Mathematical Modeling and Scientific Computing, 8, , , Journal of Mathematical Modeling and Scientific Co, 1997
41. Parallel Three Dimensional Particle-In-Cell Code Simulation on a Cluster of Heterogeneous A. Abdelmageed Elsadek, Saleh Alsharaeh, B. Earl, and Nagendra Singh; , International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA' 97),, , , 701-707, PDPTA, 1997
42. A Massively Parallel Particle-In-Cell Technique for Three-Dimensional Simulation of Plasma Phenomena S. Hosni Al-Sharaeh, B. Earl Wells, Nagendra Singh; , the 9th International Conference on Parallel and Distributed Computing Systems (PDCS96), , , ISCA Society, 1997
43. A comparison of heuristics for list schedules using the Box-method and P-method for random digraph generation Al-Sharaeh, Saleh; Wells, B Earl; , System Theory, 1996., Proceedings of the Twenty-Eighth Southeastern Symposium on , , 467-471, IEEE, 1996
44. Three-dimensional numerical simulation of ion and electron accelerations by parametric decay of fast lower hybrid waves Singh, Nagendra; Al-Sharaeh, S; Abdelrazek, A; Leung, WC; Wells, B Earl; , Geophysical research letters, 23, 24, 3663-3666, Wiley Online Library, 1996
45. A massively parallel particle-in-cell technique for a three-dimensional simulation of plasma phenomena Al-Sharaeh, Saleh Hosni; , , , , The University of Alabama in Huntsville, 1996
46. A massively parallel particle in cell technique for a three dimensional simulation of plasma phenomena: a dissertation Al-Sharaeh, Saleh Hosni; , , , , University of Alabama in Huntsville, 1996
47. A Three-Dimensional Plasma Phenomena Simulation on a Cluster of Heterogeneous Workstations Using PVM S. Hosni Al-Sharaeh, A. Elsadek, B. Wells, Nagendra Singh; , ISCA International Conference on Computer Applications in Industry and Engineering,(CAINE-96), , , , ISCA Society, 1996
48. A three-dimensional plasma phenomena simulation on a cluster of heterogeneous workstations using PVM Al-Sharaeh, S Hosni; ElSadek, A; Wells, B Earl; Singh, Nagendra; Leung, W; , Computer applications in industry and engineering. , , , , 1996
49. Stability Prediction of Nonlinear System Using Multilayer Feed Forward Artificial Neural Network Al-Sharaeh, Saleh; , IEEE SSST92, , , , IEEE, 1992
50. Artificial Neural Networks and their Application to Power Industries D. R. Marpaka, S.S. Dogan, M. Bodruzaman, Suresh, S Al-Sharaeh.; , 1992 IEEE Southeastcon, , , 354-358, IEEE, 1992
51. Artificial Neural Network -Based Error Detection and Correction in Digital Data Transmission Systems S. Al-Sharaeh, D. R. Marpaka, M. Bodruzaman; , Proceedings of the 1991 International Conference on Intelligent Teleoperation, , , 165-173, UB/TIB Hanover, 1991
52. An Embedding Technique for a Three-Dimensional Simulation of Large-Volume Space Plasma S. Hosni Al-Sharaeh, B. Earl Wells, and Nagendra Singh; , , , , ,

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Available upon request