Saleh Al-Sharaeh, Professor

PERSONAL DETAILS:
Languages: *English, Arabic.*
Current Address: *P.O. Box 13877, Faculty of IT, Computer Science Department, The University of Jordan, Amman 11942, Jordan.*
Phone: +962776236939
e-mail: salsharaeh@yahoo.com or ssharaeh@ju.edu.jo
Skype ID: salsharaeh

Short Bio

Professor Saleh Al-Sharaeh, Ph. D in Computer Engineering. *Area of specialization*: Parallel and Distributed Computing. *Bell Labs* Silver Award for contribution to the development of wireless features for PHS development. Bell Labs appreciations award for the CAMEL feature development. A key figure in the foundation of Lucent China in Qingdao. A co-founder and the Dean of Faculty of Information Technology and Systems and the Faculty of Business and Finance in Aqaba, Jordan. Served as a member of various academic committees related to the development of PhD, MS, BSc Programs in computer science and Engineering curriculum, the Quality Assurance Committee, under the auspices of the Ministry of Higher Education of Jordan. Worked with 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 More than forty five published research papers/articles in different areas of Wireless Networking, Wireless Sensor Networks, Mobile Computing, Distributed Computing, Space Physics, and Protocol Routing Engineering.

EDUCATION

Ph. D. in Computer Networks and Distributed Systems — December l996
University of Alabama, Huntsville, Alabama, U.S.A.

Master of Science in Electrical and Computer Engineering, Neural Networks — May l992
Tennessee State University, Nashville, Tennessee, U.S.A.

Bachelor of Science in Computer Engineering — August l989
Jordan University of Science and Technology, Irbid, Jordan

RESEARCH AREAS AND INTEREST:

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

RECENT PROFESSIONAL WORK EXPERIENCE

Professor, Department of Computer Science — 2009 - current
Faculty of Information Technology, University of Jordan, Jordan

- Graduate Students Advisor
- Teach both undergraduate and graduate courses: Wireless Networks, Operating Systems, Computer Architecture
- Member of Curriculum Development Committee

Associate Professor, Department of Computer Science — 2004
Alabama A&M University USA

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 January 1997

COURSES TAUGHT

Graduate/undergraduate Level

Computer Networks, 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.

SERVICE

University

Dean and Founder of the Faculties of the Jordan University Branch at Aqaba: Faculty of Information Technology and Faculty of Administration and Finance, 2009-2011.
Acting Executive Director of the University of Jordan, Aqaba Branch, Jordan
Assistant Dean of Development Affairs, 2007-2009
Member of the Ph.D. Development Program - Computer Science, Faculty Of Information Technology, University of Jordan
Developed along with 2 faculty members MS program at King Fahd University (ABET Accredited)
Developed and taught courses in Mobile Computing and Advanced Wireless Sensor Networks, supervised postgraduate students.
Chair, the International Conference on Communication and Information Technology, 2011 (iccit-conf.org)
Member, Curriculum Development, PhD Program Development, Development and Bids Committees

Community

External reviewer (for Universities other than Jordan University)
Fundraiser for various educational projects for teachers
Facilitator of eASEZA Project to Automate Aqaba Special Zone Authority functions
Guest and invited speaker in Middle and Secondary schools

OTHER RELEVANT WORK EXPERIENCE

- **Team Leader,** eASEZA Project, Aqaba Special Economic Zone Authority, Aqaba, Jordan, 2010
- Manage and taught the *Diploma Program* in IT for educators for the Ministry of Education, Jordan, 2010/11
- **Dean and Founder,** the Faculty of Information Technology and Systems, Jordan University, Aqaba, Jordan, 2009-2010
- **Acting Dean and Founder** of the Faculty of Administration and Finance, Jordan University, Aqaba, Jordan.
- **Department Chair**, Computer Information Systems, Business Technology, Accounting, Administration and Insurance.
- **Acting Executive Director** of the University Colleges of Jordan, University in Aqaba, Jordan
- MTS, Research and development of Wireless Solution, Lucent Technologies Inc., USA
- **Teaching Assistant**, Department of Electrical and Computer Engineering, University of Alabama in Huntsville, USA.
- **Teaching Assistant**, Department of Electrical Engineering, Tennessee State University, USA.

RESEARCH CONSULTANCY AND CONTRIBUTIONS:

AeroStar Environmental Services, Florida, USA.
Alabama A&M Research Institute, Normal, Alabama, USA
Center of Space Plasma at Huntsville, Huntsville, Alabama, USA
Co-Editor in Chief for the World Applied Sciences Journal (Thompson ISI).
Editorial Board, the IJCDS

FELLOSHIPS AND AWARDS:
Bell Lab Silver award, 1999
Bell Lab Recognition award for the Development of CAMEL protocol for IN network
Bell Lab Appreciation for the Development of PHS Solution for the China Market
Summer Fellowship, Argonne National Lab Department of Energy, USA 1997 and 1998

PhD Thesis: A massively parallel particle-in-cell technique for a three-dimensional Simulation of plasma phenomena; the thesis outcomes: A new algorithm and mathematical modeling, data restructuring and mapping a cross wide board of networks. The proposed Algorithm 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, *Advisor*: Dr. D. Marpaka, Tennessee State University, USA.

SELECTED PUBLICATIONS:

http://scholar.google.com/citations?user=7zZ86FsAAAAJ&hl=en

1. M. A. Mizher, S. H. Al-Sharaeh, R. Sulaiman, Bandwidth Provisioning Scheme for 3D Wireless Sensor Networks, *Journal of Theoretical & Applied Information Technology 75 (1)*, 2015.

2. M. A. Mizher, S. H. Al-Sharaeh,, Meic Ang, A. M. Abdalla, Centroid Dynamic Sink Location for Clustered Wireless Mobile Sensor Networks, *Journal of Theoretical & Applied Information Technology 73 (3)*, 2015

3. Alshraideh, Mohammed; Mahafzah, Basel A; Al-Sharaeh, Saleh; Hawamdeh, Ziad M A, robotic Intelligent Wheelchair System Based on Obstacle Avoidance and Navigation Functions, *Journal of Experimental & Theoretical Artificial Intelligence*, 42016, Taylor & Francis, 2014

4. Salah, Imad; AlShrideh, Mohammed; Al-Sharaeh, Saleh; Saadeh, Heba; Naser, Alia, et al, Three-Dimensional Dynamic Based Borrowing Scheme for Wireless Cellular Networks, *Scientific Research Publishing*, 2013

5. Salah, Imad; Alshriedeh, Mohmmad A; Al-Sharaeh, Saleh, An Efficient Priority Based Routing Technique That Maximizes the Lifetime and Coverage of Wireless Sensor Networks, *International Journal of Communications, Network and System Sciences, 6, 2, 100*, Scientific Research Publishing, 2013

6. Osman, Fatima M; Al-Sharaeh, Saleh H, Hetrogeneous Multi-Deployment Strategy Effect on Maximizing the Lifetime Routing in Wireless Sensor Network, *Middle-East Journal of Scientific Research, 13, 6, 749-759*, , 2013

7. Alshraideh, Mohammad; Mahafzah, Basel A; Al-Sharaeh, Saleh, A multiple-population genetic Algorithm for Branch Coverage Test Data Generation, *Software Quality Journal, 19, 3*, pp. 489-513, Spring, 2011

8. Fetyani, Aymcm; Al-Sharaeh, Saleh, An Efficient Generalized Multi-Fault Tolerant Mapping Algorithm onto a 3-D Torus Interconnection Topology, *World Applied Sciences Journal, 12, 1*, pp. 106-113, 2011

9. Hiary, Hazem; Mishael, Qadri; Al-Sharaeh, Saleh, Investigating Cache Technique for Location of Dependent Information Services in Mobile Environments, *European Journal of Scientific Research, 38, 2*, pp. 172-179, 2009

10. Al-Sharaeh, Saleh H; Sharieh, Ahmad; Dalhoum, A Abu; Hosny, Reema; Mohammed, Fatima, Multi-Dimensional Poisson Distribution Heuristic for Maximum Lifetime Routing in Wireless Sensor Network, *World Applied Sciences Journal, 5, 2*, pp. 119-131, 2008

11. Sharaeh, Saleh HA, Random Graph Generation Based P-method and Box Method for the Evaluation of Power-aware Routing Protocols of *ad hoc* Networks, *American Journal of Applied Sciences, 5, 12*, 1662, 2008

12. Abdel Latif Abu Dalhoum, Mohammed Al-Rawi, Ahmed, Saleh Al-Sharaeh, Remotely Controlled Intelligent Vehicle to Handle Public Places Security, *Journal WSEAS TRANSACTIONS on SYSTEMS, 7, 10*, pp. 1058-1069, ACM DL, 2008

13. Al-Sharaeh, Saleh H, A Generalized Efficient Multi-Fault Tolerant Mapping Algorithm onto a 3-D Tours Interconnection Topology, *European Journal of Scientific Research, 21*, pp. 229-238, 1450, 2008

14. Moh'd Belal Al- Zoubi, Imad Salah, Azzam Sleit, Ammar Huneiti and Nadim Obeed, Efficient Method for Assigning Students to Proper Groups", *European Journal of Scientific Research, 21, 2*, pp. 249-258, 2008

15. Al-Sharaeh, Saleh H, On the Hamiltonian Cycle Mapping onto 3-D Torus Interconnection Network Based on Base-b Reflected Gray Codes, *Applied Mathematics and Computation, 186, 2*, pp. 1311-1321, Elsevier, 2007

16. Almobaideen, Wesam; Qatawneh, Mohammad; Sleit, Azzam; Salah, Imad; Al-Sharaeh, Saleh, Efficient Mapping Scheme of Ring Topology onto Tree-hypercubes, *Applied Science, 7*, pp. 2666-2670, 2007

17. Al-Sharaeh, Saleh H, Dynamic Rate-based Borrowing Scheme for QoS Provisioning in High Speed Multimedia Wireless Cellular Networks, *Applied Mathematics and Computation, 179, 2*, pp. 714-724, Elsevier, 2006

18. Bawazir, Saeed A; Al-Sharaeh, Saleh H, Performance of Infrastructure Mode Wireless LAN Access Network Based on OPNETTM Simulator, *Department of Computer Science, Normal, AL, 35762*, , , , 2006

19. Muhammed R. Sami, Saleh Al-Sharaeh, Case Study: Mobile IP a Mobility Management Protocol; The 2005 International conference on wireless networks, , , 166-170, , 2005

20. Al-Sharaeh, Saleh H, Efficient Fault Tolerant Mapping of Large Three-Dimensional Simulation onto 3D Tori Graph, *Editorial Advisory Board e, 21, 2*, pp. 239-248, 2005

21. Salah, Imad; Sleit, Azzam; Al-Sharaeh, Saleh; Huneiti, Ammar; Obeed, Nadim, Efficient Method for Assigning Students to Proper Groups, *Editorial Advisory Board e, 21, 2*, pp. 249-358, , 2005

22. Singh, Nagendra; Wells, B Earl; Abdelrazek, A; Al-Sharaeh, S; Leung, WC, Three-dimensional Kinetic Simulation of the Nonlinear Evolution of Lower Hybrid Pump Waves, *Journal of Geophysical Research: Space Physics (1978–2012), 103, A5*, pp. 9333-9349, 1998

23. Elsadek, A Abdelrazek; Al-Sharaeh, Saleh; Wells, B Earl; Singh, Nagendra, Three-Dimensional Plasma Phenomena Simulation on a Cray T3D MPP System; , , , , , , 1998

24. S. Hosni Al-Sharaeh, B. Earl Wells, and Nagendra Singh, An Embedding Technique for a Three-Dimensional Simulation of Large-Volume Space Plasma, *Journal of Mathematical Modeling and Scientific Computing, 8*, 1997

25. Singh, Nagendra; Al-Sharaeh, S; Abdelrazek, A; Leung, WC; Wells, B, Ear, Three-dimensional Numerical Simulation of Ion and Electron Accelerations by Parametric Decay of Fast Lower Hybrid Waves l, *Geophysical Research Letters, 23/24*, pp. 3663-3666, Wiley Online Library, 1996

26. Al-Sharaeh, Saleh Hosni, A Massively Parallel Particle-in-cell Technique for a Three-dimensional Simulation of Plasma Phenomena; , , , , , The University of Alabama in Huntsville, 1996

27. Al-Sharaeh, S Hosni; ElSadek, A; Wells, B Earl; Singh, Nagendra; Leung, W, A Three-dimensional Plasma Phenomena Simulation on a Cluster of Heterogeneous Workstations Using PVM, *Computer Applications in Industry and Engineering*, 1996

28. Al-Sharaeh, Saleh, Stability Prediction of Nonlinear System Using Multilayer Feed Forward Artificial Neural Network, *IEEE SSST92*, 1992

29. D. R. Marpaka, S.S. Dogan, M. Bodruzaman, Suresh, S Al-Sharaeh, Artificial Neural Networks and their Application to Power Industries, *1992 IEEE Southeastcon*, pp. 354-358, IEEE, 1992

30. S. Hosni Al-Sharaeh, B. Earl Wells, and Nagendra Singh, An Embedding Technique for a Three-Dimensional Simulation of Large-Volume Space Plasma; , , , , , ,

CONFERENCE PROCEEDINGS

1. Al-Nahari, Abdulaziz; Mohamad, Mohd Murtadha; Al-Sharaeh, Saleh, Receiver-based AODV routing protocol for MANETs; Intelligent Systems Design and Applications (ISDA), 2013 13th International Conference on, , , 126-130, IEEE, 2013

2. Al-Sharaeh, Saleh; Hasan, Reema; Salah, Imad, An Efficient Routing Technique that Maximizes the Lifetime and Coverage of Wireless Sensor Network, Digital Information and Communication Technology and it's Applications (DICTAP), 2012 Second International Conference on, , , 13-18, IEEE, 2012

3. S. Al-Sharaeh, R. Hasan, I. Salah, Deployment Strategy Effect on Maximizing the Lifetime of Wireless Sensor Networks, 2012 Second International Conference on Digital Information and Communication Technology and it's Applications (DICTAP),, , , 13-18, IEEE, 2012

4. Saleh H. Al-Sharaeh, Ahmad A. Sharieh, Rana K.Abu Elayyan, Deployment Strategy Effect on Maximizing the Lifetime of Wireless Sensor Networks, 24th International Conference on Computers and Their Applications (CATA-2009), , , 122-127, ISCA Society, 2009

5. Saleh Al-Sharaeh, and Isa Y. Garba, QoS Provisioning in Wireless Cellular Networks for Multimedia Applications, Proceedings at the 17th International Conference on Computer Applications in Industry and Engineering, CAIN 2004, , , 21-24, ISCA Society, 2004

6. Al-Sharaeh, Saleh H, Interactive 3D Visualization For A Scalable Three-Dimensional Domain Decomposition Mapping Technique Using MPI, The 6th International Conference on Computer Applications in Industry and Engineering (CAINE03), , , 189-192, ISCA Society, 2003

7. Al-Sharaeh, Saleh H, A Scalable Three-Dimensional Domain Decomposition Mapping Technique Using MPI, The 18th International Conference on Computers and Their Applications (CATA-2003), , , 369-372, ISCA Society, 2003

8. A. Abdelmageed Elsadek, Saleh Al-Sharaeh, Safwat, and B. Earl Wells, Parallel Implementations of a Three-Dimensional PIC code Plasma Simulation, 11th International Conference on Parallel and Distributed Computing Systems, , , , ISCA Society, 1998

9. Al-Sharaeh, S; Singh, N, Wells, EE Massively Parallel 3-dimensional Particle-in-cell Plasma Code, Plasma Science, IEEE Conference Record-Abstracts., 1997 IEEE International Conference on, , , 187, IEEE, 1997

10. Singh, N; Al-Sharaeh, S; Abdelrazek, A; Leung, WC; Wells, BE, Three-dimensional Numerical Simulation of Ion and Electron Accelerations by Parametric Decay of Fast Lower Hybrid Waves, Plasma Science, IEEE Conference Record-Abstracts., 1997 IEEE International Conference on, , , 264, IEEE, 1997

11. A. Abdelmageed Elsadek, Saleh Alsharaeh, B. Earl, and Nagendra Singh, Parallel Three Dimensional Particle-In-Cell Code Simulation on a Cluster of Heterogonous, International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA' 97), 701-707, PDPTA, 1997

12. S. Hosni Al-Sharaeh, B. Earl Wells, Nagendra Singh, A Massively Parallel Particle-In-Cell Technique for Three-Dimensional Simulation of Plasma Phenomena, the 9th International Conference on Parallel and Distributed Computing Systems (PDCS96), ISCA Society, 1997

13. Al-Sharaeh, Saleh; Wells, B Earl, A Comparison of Heuristics for List Schedules Using the Box-method and P-method for Random Digraph Generation, System Theory, Proceedings at the Twenty-Eighth Southeastern Symposium on, , , 467-471, IEEE, 1996

14. S. Hosni Al-Sharaeh, A. Elsadek, B. Wells, Nagendra Singh, A Three-Dimensional Plasma Phenomena Simulation on a Cluster of Heterogeneous Workstations Using PVM; , ISCA International Conference on Computer Applications in Industry and Engineering,(CAINE-96), ISCA Society, 1996

15. S. Al-Sharaeh, D. R. Marpaka, M. Bodruzzaman, Artificial Neural Network-Based Error Detection and Correction in Digital Data Transmission Systems, Proceedings at the 1991 International Conference on Intelligent Tele-operation, 165-173, UB/TIB Hanover, 1991

REFERENCES

Available upon request