Sultan Aljahdali, Ph.D.

Professor, Department of Computer Science
College of Computers and Information Technology
Taif University, Taif, Saudi Arabia
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Education

Ph.D.
George Mason University, Fairfax, Virginia, USA [2003]
Information Technology, Emphasis in Computer Science

M.S.
Minnesota State University, Mankato, Minnesota, USA [1996]
Computer Science

B.S.
Winona State University, Winona, Minnesota, USA [1992]
Computer Science

Leadership Program
Harvard University, Harvard Graduate School of Business School, Cambridge, USA
[April 1 - 5, 2013]

Board Members

1) Board of Trustee - Al-Qassim Colleges, Al-Qassim, Saudi Arabia

2) Board of Trustee - Buraydah Colleges, Al-Qassim, Saudi Arabia

3) Board of Performance Evaluation (Ministry of Education, Saudi Arabia)

   Arab East Colleges, Riyadh, Saudi Arabia

Academic Positions

Visiting Professor, Department of Computer Science and Engineering, University of Hawai'i at Hilo, Hilo, Hawaii USA. [Sept 2019- May 2020]

Professor of Computer Science, College of Computers and Information Technology, Professor, Taif University, Taif, Saudi Arabia [Jan 2014 – Present]

Visiting Professor, Department of Computer Science, College of Science and Engineering Winona State University, Winona, Minnesota, U.S.A. [Aug 2013 – May 2014]

Visiting Professor, Department of Computer Science & Information Technology
College of Science and Engineering, St. Cloud State University, St. Cloud, MN, U.S.A.
[June 2013- August 2013]

Associate Professor, College of Computers and Information Technology, Taif University, Taif, Saudi Arabia [Apr 2010-Jan 2014]

Assistant Professor, College of Computers and Information Technology, Taif University, Taif, Saudi Arabia [Sep 2007-April 2010]

Administrative Leadership Positions

Director, Taif External Joint Supervision Program (TEJSP), [Sep 2014-Sep 2016]

The mission of this program is to support female lecturers with travel restrictions to pursue terminal degrees from reputable international universities. **TEJSP** is administered through distance learning via a joint PhD program between TU and several international universities. Students pursue their studies primarily on TU campus. Visits to the external university are conducted periodically. The program ensures that female lecturers are provided with the proper resources and facilities in TU's academic environment. The program is currently supporting the affairs of 50 PhD female students which are fully sponsored in terms of tuition fees, travel expenses, and medical insurance. The program also oversees all the critical stages of the PhD study, beginning with the choice of the supervisor and the PhD committee and ending with the confirmation of the PhD Thesis defense and potential publications. Analogous to what I have done for CCIT, I am now in the of finished with the evaluation process of existing system, and in the process of implementing recommendations to both scalable and sustainable systems and functions to achieve a status that can be recognized nationally, and especially at the level of the Ministry of Higher Education in the Kingdom

DEAN, College of Computers and Information Technology, Taif University, Taif, Saudi Arabia [Feb 2009-June 2013]

During the first phase of my deanship, I shepherded the design and implementation of a college wide self-study for the purpose of raising the visibility of the CCIT programs, both nationally and internationally. The study which incorporated hybrid analysis tools to examined strengths, weaknesses, opportunities and threats found in CCIT, revealed the need to take a proactive approach in the areas of Faculty Recruitment; Infrastructure Development; Programs and Curriculum Development that is compliant with international requirements; Faculty Development to support Research Funding; Assessment and Program Accreditation strategy that is sustainable and can answer to accreditation bodies such as ABET or Accreditation Board of Engineering and Technology; and Shared Data Governance that can guarantee best practices. The second phase of my deanship was spent implementing these aforementioned areas. In what follows I shall describe the major milestones in the implementation of these areas.

ABET Accreditation Supervisor

Accreditation of programs by international boards is most rewarding for all stakeholders including students and faculty, tenured and otherwise. As such, I made it clear to my staff that we must get accreditation by ABET within a span of 3 to 4 years. Indeed, both the B. Sc. program in Computer Science and the B. Sc. program in Computer Engineering were reviewed for accreditation during the 2012-13 cycle and received official accreditation in October 2013 valid for 6 years (until 2019.) One program that is yet to apply for ABET accreditation is the B. Sc. program in Information Technology. The department of IT has been established to respond to the needs of the growing IT sector in the Kingdom. The department started under the name "Information Systems" and was subsequently shifted to focus on information technology (or IT). That change was implemented to suit the institution's mission and goals. The IT program aims to prepare professionals in different subfields of IT and responds to the demands of the job market for specialists in database, networks, information security, and systems.

Scientific Research

Patent Granted from U.S. Patent and Trademark Office - USA

Sultan Aljahdali *"Method for coding images with shape and detail information"*, publication number **US8750618 B2**, date, June 10, 2014

Patents Application to U.S. Patent and Trademark Office

Sultan Aljahdali "System for Communicating a Vehicle Position and Speed during Accident" US patent application 61,538,862, filed on September 24, 2011

Sultan Aljahdali "A Software System with Innovation Selection Mechanisms of Genetic Algorithm to Solve Constrained Optimization Problems" US patent application 61,553,734, filed October 31, 2011

Sultan Aljahdali "Method and System for Traffic Performance Analysis, Network Reconfiguration, and Real-Time Traffic Monitoring" US patent application 61,593,291 filed on January 31, 2012

Books

1. Innovation in Information Systems and Technologies to Support Learning Research (December 1, 2019) ISBN-13: 978-3030367770

2. E-Business and Security, Publisher: LAP LAMBERT Academic Publishing (July 24, 2013) ISBN: 978-3659427435

3. Intelligent Approaches to Data Management, Publisher: LAP LAMBERT Academic Publishing (February 08, 2013) ISBN: 978-3659342639

4. Advanced Techniques for Image Segmentation, Publisher: LAP LAMBERT Academic Publishing (January 11, 2013) ISBN: 978-3659322617

5. Prediction of Software Reliability Using Neural Network & Fuzzy Logic: Using Neural Network and Fuzzy Logic Techniques for Predicting Software Reliability", Publisher: VDM Verlag Dr. Müller (June 10, 2011) ISBN: 978-3639363593

6. Foundation of Computers and Information Technology, Taif University, Saudi Arabia

   Multi Media, Taif University, Saudi Arabia

Conferences

1. **S. Aljahdali,** "An Integrated Framework for Friend Recommender System Using Graph Theoretic Approach". 35th International Conference on Computers and Their Applications, March 23-25, 2020, San Francisco, California, USA (with Narayan C. Debnath)

2. **S. Aljahdali,** "Pavement Crack Detection Using a Lightweight Convolutional Neural Network". 35th International Conference on Computers and Their Applications, March 23-25, 2020, San Francisco, California, USA (with Alaa Sheta, Hamza Turabieh, and Abdulaziz Alangari)

3. **S. Aljahdali,** "Real-Time Learner Classification Using Cognitive Score". 35th International Conference on Computers and Their Applications, March 23-25, 2020, San Francisco, California, USA (with Narayan C. Debnath)

4. **S. Aljahdali**, "River Flow Forecasting: A Comparison between Feed forward and Layered Recurrent Neural Network", 3rd International Conference Europe Middle East & North Africa

On Information System Technology and Learning Researches EMENA-ISTL-2019, November 21-23, 2019, Marrakech, Morocco (with Alaa Sheta and Hamza Turabieh)

5. **S. Aljahdali,** "Diagnosis of Brain Tumor in MR Images Using Metaheuristic Optimization Algorithms".3rd International Conference Europe Middle East & North Africa On Information System Technology and Learning Researches EMENA-ISTL-2019, November 21-23, 2019, Marrakech, Morocco (with Alaa Sheta, Malik Braik)

6. **S. Aljahdali,** "Machine Learning as an Efficient Diagnostic Tool for Fault Detection and Localization in Solar Photovoltaic Arrays". 32nd International Conference on Computer Applications in Industry and Engineering held on September 30-October 2, 2019 in San Diego, California, USA (with Masoud Alajmi)

7. **S. Aljahdali**, "Utilizing Faults and Time to Finish Estimating the Number of Software Test Workers Using Artificial Neural Networks and Genetic Programming". International Conference Europe Middle East & North Africa on Information Systems and Technologies to support Learning 2018 (EMENA-ISTL 2018), Oct 25-27, 2018 - Fez - Morocco (with Sheta A., and Braik M.)

8. **S. Aljahdali**, "Assessing gene-disease relationship with multifunctional genes using GO", IEEE/ACS 13th International Conference of Computer Systems and Applications (AICCSA), Nov 29 – Dec 02, 2016; Agadir - Morocco, (with Hisham Al-Mubaid and Mohamed Shenify)

9. **S. Aljahdali**, "Estimating software effort and function point using regression, Support Vector Machine and Artificial Neural Networks models", 2015 IEEE/ACS 12th International Conference of Computer Systems and Applications (AICCSA), November 17-20, 2015; Marrakech, Morocco (with Alaa F. Sheta and Narayan C. Debnath)

10. **S. Aljahdali**, "Incorporating R&D Activities into Computer Engineering Teaching & Learning Program in Albaha University", International Conference on Learning and Teaching in Computing and Engineering, (LaTiCE) Apr 9-12, 2015; Taipei, Taiwan (with Mohammed Shenify, Rahmat Budiarto and Hisham M. Alsaghier)

11. **S. Aljahdali**, "Mutation Testing Using Symbolic Execution and Path", Mediterranean Conference on Information & Communication Technologies, May 7-9, 2015 - Saïdia - Morocco (with Khalid Buragga, Marcel Karam and Ahmed Ghiduk)

12. **S. Aljahdali**, "Fuzzy C-Means Algorithm Based on Gaussian Function for Magnetic Resonance Images (MRIs) Segmentation", 30th International Conference on Computers and Their Applications (CATA), March 9-11, 2015, Honolulu, Hawaii, USA (with Khalid A. Buragga, Zanaty)

13. **S. Aljahdali**, "An Efficient Technique for Iris Recognition using Wavelets and Artificial Neural Networks", 30th International Conference on Computers and Their Applications (CATA), March 9-11, 2015, Honolulu, Hawaii, USA(with Khalid A. Buragga, Ahmad. M. Sarhan)

14. **S. Aljahdali,** "Intelligent Tutoring Systems -An Advanced Understanding of the Programming Concepts", 2013 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC) , Dec 26-28, 2013, Madurai, India (with Isbudeen Noor Mohamed, Mohamed Idhris)

15. **S. Aljahdali,** "Temporal Key Based Randomized Efficient and Distributed Detection of Clone Attack in WSNs", International Conference on Computer Applications in Industry and engineering (CAINE), Sep 25-27, 2013, Los Angeles, USA (with Wazir Khan, Mohammed Aalsalem, Naufal Saad)

16. **S. Aljahdali,** "Thresholds for Region Growing Method for Segmenting MRIs", International Conference on Computer Applications in Industry and engineering (CAINE), Sep 25-27, 2013, Los Angeles, USA (with Zanaty and Fahad)

17. **S. Aljahdali,** "Improving Fuzzy C-Means for MRIs Segmentation", International Conference on Computer Applications in Industry and engineering (CAINE) , Sep 25-27, 2013, Los Angeles, USA (with Zanaty and Marcel)

18. **S. Aljahdali,** "Automatic Text Extraction Based on Field Association Terms and Power Links", International Conference on Computer Applications in Industry and engineering (CAINE), Sep 25-27, 2013, Los Angeles, USA (with Mahmoud B. Rokaya and Dalia Hemdan)

19. **S. Aljahdali,** "Cancer Disease Prediction with Support Vector Machine and Random Forest Classification Techniques", Proceedings of the IEEE International Conference on Computational Intelligence and Cybernetics (CyberneticsCom) Jul 12 - 14, 2012, Bali, Indonesia (with Ashfaq Ahmed, Nisar Hundewale, Ishthaq Ahmed)

20. **S. Aljahdali**, "A Methodology for the abstraction of design components from SRS" Proceedings of the 3rd IEEE International Conference on Software Engineering and Service science (ICSESS 2012) June 22-24, 2012, Beijing, China (with Syed Naimathullah, Nisar Hundewale, Ashfaq)

21. **S. Aljahdali**, "Test Management and Control" Proceedings of the 3rd IEEE International Conference on Software Engineering and Service science (ICSESS 2012) June 22-24, 2012, Beijing, China (with Syed Naimathullah, Nisar Hundewale, Azeemsha)

22. **S. Aljahdali**, "A Modified Array Processing Technique Based on Kaiser Window for Concentric Circular Arrays" Proceedings of the 3rd International Conference on Multimedia Computing and Systems (ICMCS'12) May 10-12, 2012, Tangier, Morocco (with Yasser Albagory, Mostafa Nofal)

23. **S. Aljahdali**, "Overview on Modeling and Design of Stratospheric Mobile Cellular System" Proceedings of the 3rd International Conference on Multimedia Computing and Systems (ICMCS'12) May 10-12, 2012, Tangier, Morocco (with Yasser Albagory, Mostafa Nofal)

24. **S. Aljahdali**, "Genetic Algorithms: A Tool for Image Segmentation" Proceedings of the 3rd International Conference on Multimedia Computing and Systems (ICMCS'12) May 10-12, 2012, Tangier, Morocco (with Alaa Sheta, Malik Braik)

25. **S. Aljahdali**, "A Two-Level Load Balancing Policy For Grid Computing" Proceedings of the 3rd International Conference on Multimedia Computing and Systems (ICMCS'12) May 10-12, 2012, Tangier, Morocco (with Said El-Zoghdy)

26. **S. Aljahdali**, "Classification of Image Database using SVM with Gabor Magnitude" Proceedings of the 3rd International Conference on Multimedia Computing and Systems (ICMCS'12) May 10-12, 2012, Tangier, Morocco (with Aasif Ansari, Nisar Hundewale)

27. **S. Aljahdali**, "Study on Hexagonal Grid in Image Processing" Proceedings of the 4th International Conference on Digital Image Processing ('ICDIP 2012') April 7-8, 2012, Kuala Lumpur, Malaysia (with Fayas Asharindavida, Nisar Hundewale)

28. **S. Aljahdali**, "Weigthed Graph Transformation Rules and Fuzzy Logic for Better Design Pattern Recognition" Proceedings of the 25th Annual Canadian Conference on Electrical & Computer Engineering; April 29–May 2, 2012, Montréal; Canada (with Marcel Karam, Hamid Mcheick, Rasha Abdallah Hala Ollaic)

29. **S. Aljahdali**, "Highway Multihop Broadcast Protocols for Vehicular Networks" Proceedings of the IEEE International Conference on Communications - Wireless Networks Symposium ('ICC'12 WN') June 10-15, 2012, Ottawa, Canada(with Hakim)

30. **S. Aljahdali**, "Basis Test Paths Generation Using Genetic Algorithm", Proceedings of the 1st Taibah University International Conference on Computing and Information Technology('ICCIT 2012') March 12-14, 2012, Madina, Saudi Arabia (with Ahmed Ghiduk and Omar Said)

31. **S. Aljahdali**, "On Internet Multicast Architectures: Fully Distributed and Hierarchical Vs Service-Centric" Proceedings of the International Arab Conference on Information Technology (ACIT 2011) December 11-14, 2011, Riyadh, Saudi Arabia

32. **S. Aljahdali**, "Expert System for Islamic Punishment (ESIP)" Proceedings of the International Arab Conference on Information Technology (ACIT 2011) December 11-14, 2011, Riyadh, Saudi Arabia

33. **S. Aljahdali,** "A Baysian Approach to Intelligent Tutoring Systems for Logic Circuit Design Problem Solving" Proceedings of the 24th International Conference on Computer Applications in Industry and Engineering, November 16-18, 2011, Honolulu, Hawaii, USA. (with Hossam Meshref)

34. **S. Aljahdali,** "Performance Analysis for Truncated ARQ based DSFBC-CO-OFDM Communication Scheme" Proceedings of the 24th International Conference on Computer Applications in Industry and Engineering, November 16-18, 2011, Honolulu, Hawaii, USA. (with Irfan Ahmed, Nisar Hundewale, Amr Mohamed and Syed Ismail Shah)

35. **S. Aljahdali,** "Increasing the Reliability of the Collected Data in Wireless Sensor Networks" Proceedings of the 24th International Conference on Computer Applications in Industry and Engineering, November 16-18, 2011, Honolulu, Hawaii, USA. (with Yaqoob J.Y. Al-Raisi , Nazar Alfadil)

36. **S. Aljahdali,** "Two Automated Techniques for Analyzing and Debuging MPI-Based Programs" Proceedings of the 24th International Conference on Computer Applications in Industry and Engineering, November 16-18, 2011, Honolulu, Hawaii, USA. (with Mosaid Al Sadhan, Alaa Ismail Elnashar)

37. **S. Aljahdali,** "Goal Oriented Requirements Engineering - A Review", Proceedings of the 24th International Conference on Computer Applications in Industry and Engineering, November 16-18, 2011, Honolulu, Hawaii, USA. (with Jameela Bano, Nisar Hundewale)

38. **S. Aljahdali,** "OFDM Symbol Detection Using FPGA", Proceedings of the IEEE International Conference on Computational Intelligence and Computing Research, Dec 15-18, 2011 Levengipuram, India (With Mir Ahtesham Ali, Nisar Hundewale)

39. **S. Aljahdali,** "Predicting the Reliability of Software Systems Using Fuzzy Logic", Proceedings of the 8th IEEE International Conference on Information Technology - New Generations (ITNG), Las Vegas, Nevada, USA, April 11-13, 2011 (with Sheta)

40. **S. Aljahdali,** "Improving Fuzzy Algorithms for Automatic Image Segmentation", Proceedings of the 2rd International Conference on Multimedia Computing and Systems (ICMCS' 11), Ouarzazate, Morocco, April 7-9, 2011 (with Zanaty)

41. **S. Aljahdali,** "Evolutionary Prediction for Cumulative Failure Modeling: A Comparative Study", Proceedings of the 8th IEEE International Conference on Information Technology – New Generations (ITNG), Las Vegas, Nevada, USA, April 11-13, 2011 (with Benaddy, and Wakrim)

42. **S. Aljahdali**, "Automatic Breast Cancer Detection Methodology Using Artificial Neural Networks," Proceedings of the European Conference for the Applied Mathematics And Informatics, Athens Greece, WSEAS Press, pp. 82-87. December 29-31 2010 (with Braik, M.and Sheta, A.F.)

43. **S. Aljahdali,** "Forecasting stock exchange using soft computing techniques", Proceedings of the 8th ACS/IEEE International Conference on Computer Systems and Applications, Hammamet, Tunisia, May 16-19, 2010 (with Rahamneh, Reyalat, Sheta)

44. **S. Aljahdali,** "Software Effort Estimation by Tuning COCOMO Model Parameters using Differential Evolution ", Proceedings of the 8th ACS/IEEE International Conference on Computer Systems and Applications, Hammamet, Tunisia, May 16-19, 2010 (with Sheta)

45. **S. Aljahdali,** "The Limitation of Genetic Algorithms in Software Testing", Proceedings of the 8th ACS/IEEE International Conference on Computer Systems and Applications, Hammamet, Tunisia, May 16-19, 2010 (with Ghiduk, El-Telbany)

46. **S. Aljahdali,** "Bio-inspired learning for microarray Gene selection and cancer classification", Proceedings of 9th IEEE International Symposium on Signal Processing and Information Technology, Ajman, UAE, December 14-17, 2009 (with EI-Telbany)

47. **S. Aljahdali,** "Centered and Robust Multicast Routing in Mobile Ad Hoc Networks", Proceedings of 6th IEEE International Conference on Broadband Communications, Networks, and Systems (Broadnets), Spain, September 14-16, 2009 (with Astier, Hafid)

48. **S. Aljahdali,** "Adoption of Technology Acceptance Model (TAM) to Electronic Commerce: A Statistical Meta-Analysis Approach", Proceedings of the 18th International Conference on Software Engineering and Data Engineering, Las Vegas, Nevada, USA, June 22-24, 2009 (with Filimban)

49. **S. Aljahdali,** "Natural-Inspired Data Clustering: A Hybridization between Ant Clustering and Particle Swarm Optimization", Proceedings of the 18th International Conference on Software Engineering and Data Engineering, Las Vegas, Nevada, USA, June 22-24, 2009 (with El-Telbany, Rafat)

50. **S. Aljahdali,** "Software Reliability Prediction Using Multi-Objective Genetic Algorithm", Proceedings of the 7th ACS/IEEE International Conference on Computer Systems and Applications, Rabat, Morocco, May 10-13, 2009 (with El-Telbany)

51. **S. Aljahdali,** "Evolutionary Neural Network Prediction for Cumulative Failure Modeling", Proceedings of the 7th ACS/IEEE International Conference on Computer Systems and Applications, Rabat, Morocco, May 10-13, 2009 (with Benaddy, and Wakrim)

52. **S. Aljahdali,** "Evolutionary Regression Prediction for Software Cumulative Failure Modeling: A Comparative Study", Proceedings of the ICMCS/IEEE International Conference on Multimedia Computing and Systems, Ouarzazate, Morocco, April 2-4, 2009 (with Benaddy, and Wakrim)

53. **S. Aljahdali,** "Data Reduction Algorithm Based on Gaussian Image Estimation", Proceedings of 17th International Conference of Software Engineering and Data Engineering, Los Angeles, California, USA, June 30 - July 2, 2008, (with Zanaty)

54. **S. Aljahdali,** "Improving Fuzzy Algorithms for Automatic Magnetic Resonance Image Segmentation", Proceedings of 17th International Conference of Software Engineering and Data Engineering, Los Angeles, California, USA, June 30 - July 2, 2008 (with Zanaty)

55. **S. Aljahdali,** "Combining Multiple Segmentation Methods for Improving the Segmentation Accuracy", Proceedings of the thirteenth IEEE/ISCC Symposium on Computers and Communications, Marrakech, Morocco, July 6-9, 2008 (with Zanaty)

56. **S. Aljahdali,** "Improving the Accuracy of Support Vector Machines", Proceedings of the 23rd International Conference on Computers and their Application, Cancun, Mexico, April 9-11, 2008 (with Zanaty)

57. **S. Aljahdali,** "Iterative heuristic algorithm for optimum layout of clusters", Proceedings of the International Conference On Information Systems, Technology And Management, Dubai, U.A.E, March 6-8, 2008 (with R. Bhowmik)

58. **S. Aljahdali,** "Evolutionary Neural Network Prediction for Software Reliability Modeling", Proceedings of the 16th International Conference of Software Engineering and Data Engineering, Las Vegas, Nevada, USA, July 9-11, 2007 (with Buragga)

59. **S. Aljahdali,** "Optimal Hybrid Model of Classifiers for Intrusion Detection", Proceedings of the CSITeA' 04 International Conference on Computer Science, Software Engineering, Information Technology, e-Business, and Applications, Cairo, Egypt, December 27-29, 2004 (with Kholfi and Habib)

60. **S. Aljahdali,** "Finite Element Modeling of Magnetostrictive Smart Structures", Proceedings of the CSITeA'04 International Conference on Computer Science, Software Engineering, Information Technology, e-Business, and Applications, Cairo, Egypt, December 27-29, 2004 (with Hyder)

61. **S. Aljahdali,** "Improved Software Reliability Assessment through Fuzzy Logic Modeling", Proceedings of the 13th International Conference on Intelligent and Adaptive Systems and Software Engineering, Nice, France, July 1-3, 2004 (with Debnath)

62. **S. Aljahdali,** "Parameter Significance for Email Attack Detection", Proceedings of the International Conference on Computer Science, Software Engineering, Information Technology, e-Business, and Applications, Rio de Janeiro, Brazil, June 5-7, 2003 (with Alduhaiman, and Francis)

63. **S. Aljahdali,** "Software Reliability Analysis Using Parametric and Non-Parametric Methods", Proceedings of the 18th International Conference on Computers and their Application, Honolulu, Hawaii, USA, March 26-28, 2003 (with Sheta and Habib)

64. **S. Aljahdali,** "Avoiding Redundancies and Conflicts in Security Protocols", Proceedings of the 18th International Conference on Computers and their Application, Honolulu, Hawaii, USA, March 26-28, 2003 (with Abdullah, and Sibley)

65. **S. Aljahdali,** "Predicting Accumulated Faults in Software Using Radial Basis Function Network", Proceedings of the 17th International Conference on Computers and their Application, San Francisco, CA, USA, April 4-6, 2002 (with Sheta and Rine)

66. **S. Aljahdali,** "Modeling of Nonlinear Systems Using Genetic Algorithms", Proceedings of the IASTED/AIA International Conference on Artificial Intelligence and Applications, Marbella, Spain, September 4-7, 2001 (with Sheta)

67. **S. Aljahdali,** "Prediction of Software Reliability: A Comparison between Regression Neural Non-Parametric Models", Proceedings of the IEEE/AICCSA International Conference on Computer Systems and Applications, Beirut, Lebanon, June 25-29, 2001 (with Sheta and Rine)

Journals

1. **S. Aljahdali**, "A Smart Stick For Assisting Visually Impaired People", Journal of Theoretical and Applied Information Technology, Volume 96, Issues 14, pp. 4405-4416, July 2018. (with Anwar)

2. **S. Aljahdali,** "Quartic Spline Collocation for Solving Eigenvalue Problems", International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), Volume 4, Issues 12, Dec 2014. (with zanaty)

3. **S. Aljahdali,** "Semi-automatic Region Growing Method for Brain MRIs Segmentation", International Journal of Computers and Their Applications, Volume 21, Issues 1, March 2014. (with zanaty)

4. **S. Aljahdali,** "Innovative Large Scale Wireless Sensor Network Architecture Using Satellites and High-Altitude Platforms", European Journal of Computer Science and Information Technology, Volume 2, Issue 1, pp. 12-19, Jan 2014. (With Yasser Albagory, Fahad Al Raddady, and Omar Said)

5. **S. Aljahdali**, "Security Issues and Their Techniques in DBMS - A Novel Survey", International Journal of Computer Applications, Volume 85, Issue 13, pp. 39-43, Jan 2014. (With Mohd Muntjir, Mohd Asadullah, Junedul Haq)

6. **S. Aljahdali,** "Stability Margins and Multi-parameter Bifurcation Analysis in Indirect Field-Oriented Control of Induction Machines", International Transaction of Electrical and Computer Engineers System, Volume 1, Issue 1, pp.6-14. Dec 30, 2013. (with Nizar Jabli, Hédi Khammari, M. Mimouni)

7. **S. Aljahdali,** "DBMS Integration with Cloud Computing", European Journal of Computer Science and Information Technology, Volume 1, Issue 1, pp. 23-29, Sep 2013. (With Mohd. Muntjir)

8. **S. Aljahdali,** "Experimental and Theoretical Speedup Prediction of MPI-Based Applications", Computer Science and Information Systems - The international journal published by ComSIS Consortium, Volume 10, Issue 3, pp. 1247-1267, June 2013. (with Alaa Elnashar)

9. **S. Aljahdali,** "Significance of Cohen's Class for Time Frequency Analysis of Signals", IJCA International Journal of Computer Applications, Volume 72, Issue 12, pp. 1 – 6, June 2013. (with Azeemsha and Nasimudeen)

10. **S. Aljahdali,** "New Region Growing Algorithm for Brain Images Segmentation", Journal Of Global Research In Computer Science, Volume 4, Issue 5, pp. 1 – 6, May 2013. (with zanaty, Ashraf Khater)

11. **S. Aljahdali,** "Comparative Prediction Performance with Support Vector Machine and Random Forest Classification Techniques", International Journal of Computer Applications, Volume 69, Issue 11, pp. 12 – 15, May 2013. (with Ashfaq Ahmed, Syed Naimathullah)

12. **S. Aljahdali,** "An Efficient methodology for the Evaluations of Select Operation in Query Optimization", International Journal of Computer Applications, Volume 70, Issue 07, pp. 12 – 16, May 2013.. (with Syed Naimathullah)

13. **S. Aljahdali,** "Web Mining Techniques in E-Commerce Applications", International Journal of Computer Applications, Volume 69, Issue 08, pp. 39 – 43, May 2013. (with Ahmad Tasnim Siddiqui)

14. **S. Aljahdali,** "Enhancing the Capacity of Stratospheric Cellular Networks Using Adaptive Array Techniques", International Journal of Computer Network and Information Security. Volume 6, Issue 1, pp. 1-10. May 2013. March, 2013.

15. **S. Aljahdali,** "An Approach for Reconstructed Color Image Segmentation using Edge Detection and Threshold Methods", International Journal of Computer Applications. Volume 68, Issue 11, pp. 32 – 36, April 2013 (with Mohd. Junedul Haque)

16. **S. Aljahdali,** "Building a Real Word Spell Checker Based on Power Links", International Journal of Computer Applications. Volume 65, Issue 07, pp. 14 – 19, March 2013 (with Mahmoud Rokaya)

17. **S. Aljahdali,** "Simplified Sidelobe Reduction Techniques for Concentric Ring Arrays", Wireless Personal Communications, Volume 72, Issue 01, pp. 2981 – 2991, Springer, January 2013. (with Mostafa Nofala, Yasser Albagory)

18. **S. Aljahdali,** "Tapered beamforming for concentric ring arrays", International Journal of Electronics and Communications, Volume 67, Issue 01, pp. 58 – 63, January 2013. (with Mostafa Nofala, Yasser Albagory)

19. **S. Aljahdali, "**An Algebra of Fuzzy (m,n)-Semihyperrings", American Journal of Computational Mathematics; Volume 3, Issue 1, pp. 73-79, March 2013 (with S. E. Alam , Hundewale N)

20. **S. Aljahdali,** "KM capability for software development: A Case Study of the Indian Software Firms", International Journal of Business Information Systems. Volume 12, Issue 1, pp. 44-67, January 2013. (With Kammani A, Date H).

21. **S. Aljahdali**, "Geometrical Correction For Cell Deployment In Stratospheric Cellular Systems", Progress In Electromagnetics Research C, Volume 29, Issue 01, pp. 83 – 96, 2012. (with Mostafa Nofala, Yasser Albagory)

22. **S. Aljahdali,** "Automatic Fuzzy algorithms for Reliable Image Segmentation", International Journal of Computers and Their Applications, Volume 19, Issue 03, pp. 166 - 175, Sep, 2012. (with Zanaty)

23. **S. Aljahdali,** "Developing an Embedded Model for Test suite prioritization process to optimize consistency rules for inconsistencies detection and model changes", Global Journal of Computer Science and Technology, Volume 12, Issue 11, pp. 3 - 15, June, 2012. (with Muzammil H Hussain)

24. **S. Aljahdali,** "A Proposed Hybrid Technique for Recognizing Arabic Characters", International Journal of Advanced Research in Artificial Intelligence, Volume 1, Issue 4, pp. 35-43, 2012. (with S.F. Bahgat, S.Ghomiemy , M. Alotaibi)

25. **S. Aljahdali,** "Context-Sensitive Spell Checking Based on Field Association Terms Dictionaries", International Journal of Computer Science and Network Security, Volume 12, Issue 5, May, 2012. (with Mahmoud Rokaya, and Abdallah Nahla)

26. **S. Aljahdali,** "A New Validity Index for Fuzzy C-means for Automatic Medical Image Clustering", International Journal of Computer Applications, Volume 38, Issue 12, pp. 1-8, Jan, 2012. (with F. Bahght, E. A. Zanaty, Ahmed S. Ghiduk, Ashraf Afifi)

27. **S. Aljahdali,** "Model-Driven Performance for the Pattern and Advancement of Software Exhaustive Systems" on the Internet. International Journal of Engineering Trends and Technology- Volume 2 Issue 2, pp. 49-54, October, 2011. (with Muzammil H Hussain, Nisar Hundewale)

28. **S. Aljahdali,** "An Intelligent Technique to Multi-sensor Data Fusion in Target Tracking", Journal of Theoretical and Applied Information Technology, Volume 30, Issue 2, pp. 86-97, August 31, 2011. (with Anwar)

29. **S. Aljahdali,** "Development of Software Reliability Growth Models for Industrial Applications Using Fuzzy Logic", Journal of Computer Science, Volume 07, Issue 10, pp. 1574-1580, August 2011.

30. **S. Aljahdali,** "Relational Peer to Peer Database Management Systems: A Survey", Journal of Computational Methods in Science and Engineering, Volume 11, Issue 1, pp. 163-175, September 2011.

31. **S. Aljahdali,** "Concurrent Execution of Transactions in a Peer-to-Peer Database Network", International Journal of Intelligent Information and Database Systems, Volume 5, Issue 5, pp. 510 – 531, 2011. (with Mehedi)

32. **S. Aljahdali,** "A Dedicated Web-Based Learning System", Universal Journal of Computer Science and Engineering Technology (UniCSE), Volume 1, Issue 2, pp. 84–92, November 2010. (with Ghoniemy, Fahmy)

33. **S. Aljahdali,** "Relational Peer Data Sharing Settings and Consistent Query Answers", International Journal on Computer Science and Engineering, Volume 2, Issue 9, pp. 3053-3059, 2010. (with Mehedi)

34. **S. Aljahdali,** "An effective intrusion detection method using optimal hybrid model of classifiers", Journal of Computational Methods in Science and Engineering, Volume 10, Issue 1, pp. 51-60, September 2010.

35. **S. Aljahdali,** "Development of a Software Effort Estimation Model Using Differential Evolution", Journal of Electronics and Computer Science, Volume 12, Issue 1, pp. 1-8, July 2010.

36. **S. Aljahdali,** "Consistent Execution of Concurrent Transactions in Peer Data Sharing Systems", Journal of Electronics & Computer Science, Volume 12, Issue 1, pp. 87-95, July 2010. (with Mehedi)

37. **S. Aljahdali,** "Improving Fuzzy Algorithms for Automatic Magnetic Resonance Image Segmentation", International Arab Journal of Information Technology, Volume 6, Issue 3, pp. 271 – 280, July 2010. (with Zanaty)

38. **S. Aljahdali,** "An efficient mesh-based multicast routing protocol in mobile ad hoc networks," Wireless Communications and Mobile Computing, 2010, Published online in Wiley Online Library (Astier, E., and Hafid, A.)

39. **S. Aljahdali,** "Accurate support vector machines for data classification", International Journal of Rapid Manufacturing, Volume 1, Issue 2, pp. 114 – 127, December 3, 2009. (with Zanaty and Cripps)

40. **S. Aljahdali,** "A Kernelized Fuzzy C-means Algorithm for Automatic Magnetic Resonance Image Segmentation", Journal of Computational Methods in Science and Engineering, Volume 9, Issue 1, pp. 123-136, 2009. (with Zanaty and Debnath)

41. **S. Aljahdali,** "Improving Data Reduction for 3D Shape Preserving", Journal of Computational Methods in Science and Engineering, Volume 9, Issue 1, pp. 35-51, 2009. (with Zanaty and Debnath)

42. **S. Aljahdali,** "Multi-Objective Optimization for Ensemble of Models in Software Reliability Prediction", International Journal of Software Engineering, Volume 2, Issue 1, pp. 47–66, 2009.

43. **S. Aljahdali,** "Employing four ANNs Paradigms for Software Reliability Prediction: an Analytical Study", International Journal on Artificial Intelligence and Machine Learning, Volume 8, Issue 2, pp. 1-8, September 2008. (with Buragga)

44. **S. Aljahdali,** "Design, and Implementation of Meta-Protocol Framework for Dynamic Communication Protocols Specifications", International Journal of Intelligent Computing and Information Sciences, Volume 8, Issue 1, pp. 173-190, 2008.

45. **S. Aljahdali,** "Genetic Algorithms for Optimizing Ensemble of Models in Software Reliability Prediction", International Journal on Artificial Intelligence and Machine learning, Volume 8, Issue 1, pp. 5-13, June 2008. (with El-Telbany)

46. **S. Aljahdali,** "Best hybrid classifiers for intrusion detection", Journal of Computational Methods in Science and Engineering, Volume 6, Issue 2, pp. 299-307, 2006. (with Kholfi, and Habib)

47. **S. Aljahdali,** "Response of Magnetostrictive smart structures to sinusoidal and step force inputs", Journal of Computational Methods in Science and Engineering, Volume 6, Issue 2, pp. 389-398, 2006. (with Hyder)

Grants

King Abdul Aziz City of Science & Technology (KACST), 2013.
Grant to attend St. Cloud University, Minnesota, USA, "Development of an evolutionary software effort estimation model: A Generic Programming Approach".

Professional Responsibilities:

Program Committee:

5th International Conference on Information System and Data Mining (ICISDM2021) will be held during in Silicon Valley, CA, USA. May 27-29, 2021

4th International Conference on Information System and Data Mining (ICISDM2020). University of Hawaii at Hilo, Hawaii, U.S.A, May 15-17, 2020.

2013 IEEE Symposium on Computers & Informatics (ISCI 2013), Langkawi, Malaysia, April 7-9, 2013.

6th Joint IFIP Wireless and Mobile Networking Conference (WMNC'2013), Dubai, UAE, April 23-25, 2013.

7th International conference on Systems and Networks Communications, Lisbon, Portugal, November 18-23, 2012

MASAUM International Congress on Enterprise Technology and Industrial Manufacturing 2012, (MIC-ETIM '12), Jakarta, Indonesia, December 17-18, 2012

International conference on the Current Trends in Information Technology, Dubai, United Arab Emirates, October 26-27, 2011

2nd IEEE International Conference on Multimedia Computing and Systems, Ouarzazate, Morocco, April 07-09, 2011

2nd IEEE International Conference on Network Applications, Protocols and Services NETAPPS2010, Alor Setar, Malaysia, September 22- 23, 2010

5th International Conference on Systems and Networks Communications, ICSNC 2010, Nice, France, August 22-27, 2010

7th International Conference on Information Technology: New Generations (Special Track on Information Systems and Internet Technology), Las Vegas, Nevada, USA, April 12-14, 2010

IEEE International Symposium on Signal Processing and Information Technology, Ajman, United Arab Emirates, December 15-16, 2009

International conference on the Current Trends in Information Technology, Dubai, United Arab Emirates, December 8 - 9, 2009

18th International Conference on Software Engineering and Data Engineering, Las Vegas, Nevada, USA, June 22 – 24, 2009

4th International conference on Systems and Networks Communications, Porto, Portugal, September 20-25, 2009

6th International Conference on Information Technology: New Generations (Special Track on Information Systems and Internet Technology), April 27-29, 2009, Las Vegas, Nevada, USA

IEEE International Symposium on Signal Processing and Information Technology, Sarajevo, Bosnia and Herzegovina, December 16-19, 2008

17th International Conference of Software Engineering and Data Engineering, Los Angeles, California, USA, June 30 - July 2, 2008

16th International Conference of Software Engineering and Data Engineering, Las Vegas, Nevada, USA July 9-11, 2007

5th IEEE/ACS International Conference on Computer Systems and Applications, Amman, Jordan, May 13- 16, 2007

22nd International Conference on Computers and their Application, Honolulu, Hawaii, USA, March 28-30, 2007.

21st International Conference on Computers and their Application, Seattle, Washington, USA, March 23-25, 2006

IEEE IRI-2005, International Conference on Information Reuse and Integration (Knowledge Acquisition and Management) Las Vegas, Nevada, USA, August 2005

14th International Conference on Intelligent and Adaptive Systems and Software Engineering, Toronto, Canada, July 2005

20th International Conference on Computers and their Application, New Orleans, Louisiana, USA, March 16-18, 2005

3rd International Conference on Computer Science, Software Engineering, Information Technology, e-Business, and Applications, December 27-29, 2004, Cairo, Egypt

19th International Conference on Computers and their Application, Seattle, Washington, USA, March 18-20, 2004

Program Chair

26th International Conference on Computer Applications in Industry and Engineering (CAINE) September 25-27, 2013, Los Angeles, USA

3rd International Conference on Multimedia Computing and Systems (ICMCS'12) May 10-12, 2012, Tangier, Morocco

24th International Conference on Computer Applications in Industry and Engineering (CAINE) November 12-14, 2011, Honolulu, Hawaii, USA

Editorial Boards

Journal of Computations and Modeling

International Journal on Advances in Internet Technology

Industrial Positions

Information Technology Manager, General Authority of Civil Aviation, Saudi Arabia.
[Jan 2006-Sep 2007]

Information Technology Manager, Saudi Airlines, Saudi Arabia. [Jan 2005-Jan 2006]

Citation

o *"Aljahdali et al. have also made contributions to software reliability growth prediction using neural networks, and have obtained better results compared to existing approaches with respect to predictive performance"*

Gregory Levitin, Ph.D.
"Computational Intelligence in Reliability Engineering", 2006, pp 379

o *"Aljahdali et al. have also made contributions to software reliability prediction using neural networks, and have gained better results compared to the traditional analytical models with respect to predictive performance"*

Afzel Noore, Ph.D., West Virginia University, USA
"Journal of Reliability Engineering and System Safety", 2005, pp 45