Prof. Mznah Al-Rodhaan

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الأستاذ الدكتور/ مزنة عبدالله الروضان

الجنسية: سعودية

الحالة الاجتماعية: متزوجة

اللغات: العربية والانجليزية

العمل الحالى: أستاذ دكتور ، قسم علوم الحاسب ،

كلية علوم الحاسب والمعلومات ، جامعة الملك سعود.

Education

- PhD in Computer Science (2009) from Department of Computing Science in the University of Glasgow, UK.
- M.Sc. degree in Computer Science (2003) from King Saud University Riyadh, Kingdom of Saudi Arabia.
- B.S. in computer applications (1999), King Saud University, Riyadh

Experience

- Current Job: Full Professor at Computer Science Department, College of Computer and Information Systems (CCIS), King Saud University, Riyadh, Saudi Arabia, November 2017-now.
- Associate Professor at Computer Science Department, College of Computer and Information Systems (CCIS), King Saud University, Riyadh, Saudi Arabia, November 2013-November 2017.
- Vice-Chair of Computer Science Department 2011-May 2015.
- Assistant Professor at Computer Science Department, College of Computer and Information Systems (CCIS), King Saud University, Riyadh, Saudi Arabia, 2011-November 2013.
- Assistant Professor at Information Technology Department, College of Computer and Information Systems (CCIS), King Saud University, Riyadh, Saudi Arabia, 2009-2010.
- Lecturer, Information Technology Department, College of Computer and Information Sciences, King Saud University, Riyadh. 2004-2009.

 Teaching Assistant, Information Technology Department, College of Computer and Information Sciences, King Saud University, Riyadh. 2000-2004.

Teaching Experience

- CSC 524 (Computer Networks)
- CSC 595 (Research and Discussion)
- CSC 519 (Computer Security)
- CSC 520 (TCP/IP)
- CSC 528 (Interconnection Networks)
- CSC 529 (Selected topics in computer systems)
- CSC 590 (Selected Topics in Computer Applications)
- NET 205 (Data Transmission and Digital Communications)
- CAP 240 (Network and Internet Technology)
- IT 224 (Network I)

Service activities

- Member of the editorial board, Arab Journal for Informatics Studies, Majmaah University, Saudi Arabia.
- Member of the promotion committee, Academic council, Naif Arab University for Security Sciences (NAUSS). 2019-2020.
- Member of the Quality Evaluation Committee for Private Higher Education Institutions at the Ministry of Education, Spring 2016- Fall 2017.
- Consultant, peer review of teaching, Deanship for Skills Development, King Saud University, 2016-now.
- Keynote speaker, International Conference on Cloud Computing (ICCC 2015), College of Computer and Information Sciences, University of Princess Nourah bint Abdulrahman, 2015.
- Area editor of Ad Hoc Networks Journal Elsevier, Science direct. 2009-2010.
- Member of the Editorial Board in Wireless Sensor Network Journal, Scientific Research Publishing, 2015-now.
- Reviewer for Wireless Sensor Network Journal, Scientific Research Publishing, 2014-now.
- Reviewer for Journal of King Saud University Computer and Information Sciences since 2012- now.
- Reviewer for Communications and Network Journal since 2016- now

- Reviewer for International Journal of Communication Systems since 2016now
- Reviewer for the 5th National Symposium on Information Technology: Towards New Smart World 2015.
- Reviewer for IEEE International Conference on Wireless for Space and Extreme Environments (WiSEE'16) 2016.
- Member of Network N^2 Women Group (ACM SIGMOBILE program that is supported by the IEEE Communications Society and Microsoft Research and HP Labs) 2015-now.

Supervised Students

PH.D THESIS

- Thesis Title: Self-Aware Approach to Adaptive Quality-of- Service Routing in Mobile Ad Hoc Networks. *By:* Amal AlHarbi. Thesis defended: May 2016.
- Thesis Title: Improving Trade-off between Fairness and Throughput in Multirate WLANs. *By:* Qiang Ma. Thesis defended: May 2016.
- Thesis Title: Service Discovery schemes for Vehicular Ad-hoc Networks (VANETs). *By:* Lamia Albraheem. Thesis defended: June 2017.
- Thesis Title: An End-End Security Framework for Cyber-Physical Cloud Computing Systems –A secure insight. *By:* Anees Ara Ahamed. Thesis defended: June 2017.
- Thesis Title: Privacy-Preserving Healthcare System for Clinical Decision-Support and Emergency Call Systems. *By:* Alia Alabdulkarim. Thesis defended: December 2018.
- Thesis Title: A Novel Neural network and Agent based access control Anomaly detection Model. *By:* Randa Hamad Aljably. Thesis defended: February 2020.

MASTER THESIS

- Thesis Title: A Novel Identity and Location Privacy Preserving Framework for Cloud-based Multimedia Surveillance System. *By*: Mariya Muneeb. Thesis defended: May 2016.
- Thesis Title: An Efficient Privacy-Preserving Fine-Grained Cube CP-ABE with Constant Ciphertext. *By*: Miada Murad. Thesis defended May 2016.
- Thesis Title: A Cloud-Based Automation Architecture and A Privacy Protocol for Unit and Ubiquitous Internet of Things (U2IoT) Environment that Utilizes RFID. *By:* Syed Abdul Muqtader Razvi. Thesis defended: May 2015
- Thesis Title: Risk-Aware Privacy Preservation For Access Control In E-

- Healthcare Systems. By: Shaden Saleh Al-Aqeeli. Thesis defended April 2017.
- Thesis Title: An Energy Efficient TDMA MAC with QoS for Wireless Sensor Networks. *By*: Nadia Albelwi. Thesis defended: May 2017
- Thesis Title: A Randomized Watermarking Technique for Detecting Malicious Data Injections in Wireless Sensor Networks. *By:* Arwa Saad Alromih. Thesis defended: December 2018.
- Thesis Title: A Novel (*K*,*X*)-isomorphism Method for Protecting Privacy in Weighted Social Network. **By**: Sarah Mohammed Saad AlKharji. Thesis defended: December 2018.
- Thesis Title: Privacy-Preserving Authentication Scheme for Wireless Network. By: Manal Tayeb O Hazazi. Thesis defended: December 2018.
- Thesis Title: A Novel Fault Tolerant Cloud Based Data Aggregation Scheme for Lightweight Health Data. By: Fawza Abdullah Alzumia. April 2019.
- Thesis Title: Privacy Preservation of Future Trajectory Using Dummy Rotation Algorithm in Fog Computing. By: Shadan Saad AlHamed. January 2020.

Supported Projects

- 1. Cryptographically Privacy Preserving Mechanism for Cloud-based Healthcare System in KSA. Funded by: National Plan for Science, Technology and Innovation (NPSTI). ID INF2080 Year: approved. Budget 1,845,750 (PI)
- 2. Proportional Fairness and Load-Balancing in Multi-rate Wireless LANs. Funded by: National Plan for Science, Technology and Innovation (NPSTI). ID INF1184 Year: Completed successfully. Budget 1,432,730 SR (PI)
- 3. A research group supported by the Deanship of Scientific Research at King Saud University no. RGP-264. Year: Ongoing... (Member), 2013-now. Budget 150,000 SR annually.

Awards

- 1. The best faculty award in the Computer Science department for the year 2015-2016
- 2. Alharbi, A. Al-Dhalaan and M. Al-Rodhaan "Stability-Aware CPN Routing Protocol for MANET." the 5th International Joint Conference on Computational Intelligence, Doctoral Consortium, Portugal, Sep 20-23, 2013. (Best Paper Award)
- 3. Bowu Zhang, Wei Cheng, Limin Sun, Xiuzhen Cheng, Taieb Znati, Mznah A. Al-Rodhaan, and Abdullah Al-Dhelaan, "Queuing Modeling for Delay Analysis in Many-to-One Wireless Networks under the Protocol Interference

Model" ACM MiSeNet 2013, In conjunction with ACM MobiCom 2013, Miami, Florida, October, 2013. (Best Paper Award)

Journal Publications:

- 1. Randa Aljably, Yuan Tian, and Mznah Al-Rodhaan "Preserving Privacy in Multimedia Social Networks Using Machine Learning Anomaly-Detection." Security and Communication Networks, 2020. [IF 2.04, Q2]
- 2. H Rong, VS Sheng, T Ma, Y Zhou, Mznah Al-Rodhaan, "A Self-play and Sentiment-Emphasized Comment Integration Framework Based on Deep Q-Learning in a Crowdsourcing Scenario." IEEE Transactions on Knowledge and Data Engineering, 2020. [IF 5.88, Q1]
- 3. T. Ma, H. Rong, Y. Hao, J. Cao, Y. Tian and M. A. Al-Rodhaan, "A Novel Sentiment Polarity Detection Framework for Chinese," IEEE Transactions on Affective Computing, 2020. [IF 2.02, Q1]
- 4. T Ma, Q Liu, J Cao, Y Tian, A Al-Dhelaan, M Al-Rodhaan, "LGIEM: Global and local node influence based community detection." Future Generation Computer Systems Vol.105, pp. 533-546, April 2020. [IF 2.02, Q1]
- 5. Yuan Tian, Biao Song, Mznah Al Rodhaan, Chen Rong Huang, Mohammed A. Al-Dhelaan, Abdullah Al-Dhelaan and Najla Al-Nabhan, "A Stochastic Location Privacy Protection Scheme for Edge Computing." Mathematical Biosciences and Engineering (MBE), Vol.17, no.3, pp. 2636–2649, March 2020. [IF 1.31 Q2]
- 6. Tinghuai Ma, Siyang Yu, Jie Cao, Yuan Tian, Mznah Al-Rodhaan, "InfMatch: Finding isomorphism subgraph on a big target graph based on the importance of vertex." Physica A: Statistical Mechanics and its Applications, Vol. 527, August 2019. [IF 1.2, Q2]
- 7. F. Song, T. Ma, Y. Tian and M. Al-Rodhaan, "A New Method of Privacy Protection: Random k-Anonymous," in IEEE Access, vol. 7, pp. 75434-75445, 2019. [IF 3.557, Q1]
- 8. Randa Aljably, Yuan Tian, Mznah Al-Rodhaan, Abdullah Al-Dhelaan "Anomaly detection over differential preserved privacy in online social networks." PloS one, Vol. 14, no. 4, 2019. [IF 2.766, Q1]
- 9. Huan Rong, Tinghuai Ma, Jie Cao, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Deep Rolling: A Novel Emotion Prediction Model for a Multi-Participant Communication Context," Information Sciences, Vol. 488, pp. 158-180, July 2019. [IF 4.305, Q1]
- 10. Alia Alabdulkarim, Mznah Al-Rodhaan, Yuan Tian, Abdullah Al-Dhelaan, "A Privacy-Preserving Algorithm for Clinical Decision-Support Systems Using

- Random Forest. "Computers, Materials and Continua (CMC), vol.58, no.3, pp.585-601, 2019. [IF 3.024, Q1]
- 11. Alia Alabdulkarim, Mznah Al-Rodhaan, Tinghuai Ma, and Yuan Tian, "PPSDT: A Novel Privacy-Preserving Single Decision Tree Algorithm for Clinical Decision-Support Systems Using IoT Devices. "Sensors, Vol. 19, No. 1, pp. ,2019. [IF 2.67, Q2]
- 12. Tinghuai Ma, YW Zhao, H Zhou, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Natural Disaster Topic Extraction in Sina Microblogging based on Graph Analysis", Expert Systems with Applications, Vol. 115, pp 346-355, 2019. [IF 3.768, Q1]
- 13. Yuan Tian, Mariya M. Kaleemullah, Mznah A. Al-Rodhaan, Biao Song, Abdullah Al-Dhelaan, Tinghuai Ma "A privacy preserving location service for cloud-of-things system." Journal of Parallel and Distributed Computing, Vol. 123, pp. 215-222, 2019. [IF 1. 81, Q2]
- 14. Arwa Alromih, Mznah Al-Rodhaan and Yuan Tian, "A Randomized Watermarking Technique for Detecting Malicious Data Injection Attacks in Heterogeneous Wireless Sensor Networks for Internet of Things Applications." Sensors, Vol. 18, No. 12, 4346, 2018. [IF 2.67, Q2]
- 15. Tinghuai Ma, Jingjin Qu, Wenhai Shen, Yuan Tian, Mznah Al-Rodhaan, "A Comparative Study of Subgraph Matching Isomorphic Methods in Social Networks," IEEE Access, Vol. 6, no. 1, pp. 66621-66631, 2018. [IF 3.557, Q1]
- 16. Rasha Al-Mutiri, Mznah Al-Rodhaan, and Yuan Tian "Improving Vehicular Authentication in VANET using Cryptography." International Journal of Communication Networks and Information Security (IJCNIS), Vol. 10, No. 1, pp. 248-255, April 2018.
- 17. Tinghuai Ma, Jingjin Qu, Wenhai Shen, Yuan Tian, Mznah Al-Rodhaan, "An Improved Web Cache Replacement Algorithm Based on Weighting and Cost," IEEE Access, Vol. 6, no. 1, pp. 27010-27017, 2018. [IF 3.557, Q1]
- 18. Shaden Al-Aqeeli, Mznah Al-Rodhaan, Yuan Tian, and Abdullah Al-Dhelaan, "Privacy Preserving Risk Mitigation Approach for Healthcare Domain", E-Health Telecommunication Systems and Networks 7 (01), 1, 2018.
- 19. Tinghuai Ma, Jingjin Qu, Wenhai Shen, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Weighted Greedy Dual Size Frequency based Caching Replacement Algorithm." IEEE Access, Vol. 6, pp. 7214-7223, 2018. [IF 3.557, Q1]
- 20. Tinghuai Ma, Mingliang Yue, Jingjing Qu, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "PSPLPA: Probability and similarity based parallel label propagation algorithm on spark." Physica A: Statistical Mechanics and its

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- Applications, Vol. 503, pp. 366-378, August 2018, ISSN 0378-4371. [IF 2.13, Q2]
- 21. Alia Alabdulkarim, Mznah Al-Rodhaan and Yuan Tian, "Privacy-Preserving Healthcare System for Clinical Decision-Support and Emergency Call Systems." *Communications and Network*, Vol. 9, pp. 249-274, Nov 2017.
- 22. Tinghuai Ma, Jing Jia, Yu Xue, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Protection of location privacy for moving kNN queries in social networks," Applied Soft Computing, Vol. 66, pp. 525-532, May 2018. [IF 3.54, Q1]
- 23. Anees Ara, Mznah Al-Rodhaan, Yuan Tian and Abdullah Al-Dhelaan, "A Secure Privacy-Preserving Data Aggregation Scheme Based on Bilinear ElGamal Cryptosystem for Remote Health Monitoring Systems," in *IEEE Access*, vol. 5, no.1, pp. 12601-12617, Dec. 2017. [IF 3.557, Q1]
- 24. Zohair Al-Ameen, Ghazali Sulong, Amjad Rehman, Mznah Al-Rodhaan, Tanzila Saba & Abdullah Al-Dhelaan, "Phase-preserving approach in denoising computed tomography medical images," Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization, Vol. 5, No. 1, pp. 16-26, 2017.
- 25. Ijaz Ali Shoukat, Abdullah Al-Dhelaan, Mohsin Iftikhar, Mznah Al-Rodhaan, "Prominent Causes of Poor Quality of Service in Network Communication" Journal of Internet Technology, Vol. 18, No. 3, pp 533-549, May 2017. [IF. 1.93, Q2]
- 26. Maha Bakalla, Mznah Al-Rodhaan and Yuan Tian "Performance Improvement of Multi-User Multiple-Input Multiple-Output Protocol for WLAN." *Communications and Network*, Vol. **9**, No. 2, pp124-141, May 2017.
- 27. Maram AL-Shablan, Yuan Tian, Mznah Al-Rodhaan, "Secure Multi-owner Based Cloud Computing Scheme for Big Data." International Journal of Big Data Intelligence, Vol. 3, No. 2, pp 182-189, 2016.
- 28. Tinghuai Ma, Xiafei Suo, Jinjuan Zhou, Meili Tang, Donghai Guan, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Augmenting matrix factorization technique with the combination of tags and genres," Physica A: Statistical Mechanics and its Applications, Vol. 461, pp 101-116, November 2016. [IF 1.78, Q1]
- 29. Tinghuai Ma, Limin Guo, Meili Tang, Yuan Tian, Mznah Al-Rodhaan, Abdullah Al-Dhelaan, "A Collaborative Filtering Recommendation Algorithm Based on Hierarchical Structure and Time Awareness." IEICE

- Transactions on Information & Systems, Vol. 99-D, No, 6, pp 1512-1520, 2016. [ISI Journal]
- 30. Qiang Ma, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Enhancing Performance of multi-rate WLANs Hopfield Neural Network Approach", International Journal of Communications, Vol. 10, pp 30-38, 2016.
- 31. Tinghuai Ma, Yao Wang, Meili Tang, Jie Cao, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "LED: A fast overlapping communities detection algorithm based on structural clustering," Neurocomputing, Vol, 207, 26 September 2016, pp 488-500, [IF 2.39, Q1]
- 32. Najla Al-Nabhan, Bowu Zhang, Xiuzhen Cheng Mznah Al-Rodhaan, and Abdullah Al-Dhelaan, "Three Connected Dominating Set Algorithms for Wireless Sensor Networks." International Journal of Sensor Networks, Vol. 21, No. 1, pp 53-66, 2016 [ISI Journal]
- 33. Ijaz Ali Shoukat; Abdullah Al-Dhelaan; Mznah Al-Rodhaan et. al., "Reliability and Performance Assessment of Multifarious Hybrid Cryptosystems", WSEAS Transaction on Information Science and Applications, Vol. 13, 2016.
- 34. Tinghuai Ma, Huan Rong, Changhong Ying, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Detect structural-connected communities based on BSCHEF in C-DBLP." Concurrency and Computation: Practice and Experience, Vol. 28, No. 2, pp 311-330, 2016. [ISI Journal]
- 35. Qiang Ma, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Genetic Algorithm based Approach to Enhance Network Performance in Multi-rate WLANs", Transactions on Networks and Communications, Vol. 3, No. 6, pp 42-56, November 2015.
- 36. Yinghua Lv and Tinghuai Ma and Meili Tang and Jie Cao and Yuan Tian and Abdullah Al-Dhelaan and Mznah Al-Rodhaan, "An efficient and scalable density-based clustering algorithm for datasets with complex structures." Neurocomputing, Vol. 171, No. 1, pp 9-22, 2016. [IF 2.39, Q1]
- 37. Mutaz Beraka, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Performance Analysis of Symmetric Algorithms using Parallelism Paradigm." Journal of Information Assurance and Security, Vol. 10, No. 5, pp. 232 239, Dec 2015. ISSN: 1554-1010.
- 38. Qiang Ma, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Enhancing Performance of multi-rate WLANs: Ant Colony Approach." Wireless Sensor Network (WSN), Vol. 7, No. 12, pp. 157-170, 2015.
- 39. Tinghuai Ma, Yuliang Zhang, Jie Cao, Jian Shen, Meili Tang, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "KDVEM: a k-degree anonymity

- with vertex and edge modification algorithm." Computing, Vol. 97, no.12, pp 1165-1184, December 2015. [ISI Journal]
- 40. Alharbi, A. Al-Dhaleen, M. Al-Rodhaan, "A Q-Routing protocol using self-aware approach for MANETs." the International Journal of Computer Applications, Vol. 127, No. 7, pp 1-6, October 2015.
- 41. Wei Tian, Tinghuai Ma, Yuhui Zheng, Xin Wang, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Weighted curvature-preserving PDE image filtering method." Computers & Mathematics with Applications, Vol. 70, No. 6, pp 1336-1344, 2015.
- 42. Wenhuan Chi, Yuan Tian, Mznah Al-Rodhaan, Abdullah Al-Dhelaan and Yuanfeng Jin "A Revised Received Signal Strength Based Localization for Healthcare." International Journal of Multimedia and Ubiquitous Engineering, Vol.10, No.10, pp.273-282, 2015.
- 43. Naveed Abbas, Dzulkifli Mohamad, Abdul Hanan Abdullah, Tanzila Saba, Mznah Al-Rodhaan and Abdullah Al-Dhelaan "Nuclei segmentation of leukocytes in blood smear digital images." Pakistan Journal of Pharmaceutical Sciences, Vol. 28 No. 5, pp.1801-1806, September 2015. [ISI Journal].
- 44. Mutaz Beraka, Abdullah Al-Dhelaan, and Mznah Al-Rodhaan, "Collaborative Bibliographic System For Review/Survey Articles." International Journal of Computer Science & Information Technology (IJCSIT) Vol 7, No 4, pp. 11-27, August 2015.
- 45. Ijaz Ali Shoukat; Abdullah Al-Dhelaan; Mznah Al-Rodhaan, "Biometric based Secure Machine Authentication Method Using Hybrid Learning", Journal of Industrial Engineering Research, Vol.1, no. 6. pp. 1-6, September 2015,
- 46. Chuanxin Jin, Tinghuai Ma, Rongtao Hou, Meili Tang, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Chi-square Statistics Feature Selection Based on Term Frequency and Distribution for Text Categorization." IETE Journal of Research, Vol. 61, No. 4, pp. 351-362, 2015. [ISI Journal]
- 47. Alharbi, A. Al-Dhaleen, M. Al-Rodhaan, "A Mobile Ad hoc Network Q-Routing Protocol: Self-Aware Approach." International Journal of Computer Applications, Foundation of Computer Science, N.Y., USA, Vol. 127, No. 7, 2015.
- 48. Tinghuai Ma, Jinjuan Zhou, Meili Tang, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, Sungyoung Lee, "Social Network and Tag Sources Based Augmenting Collaborative Recommender System." IEICE Transactions on Information & Systems, vol. 98-D, No. 4, pp. 902-910, 2015. DOI: 10.1587/transinf.2014EDP7283 [ISI Journal]

- 49. Amal Alharbi, Abdullah Al-Dhalaan and Miznah Al-Rodhaan, "A Q-Routing Protocol Using Self-Aware Approach for Mobile Ad hoc Networks." American Journal of Applied Sciences, Vol. 12, no. 12, pp 1014-1022, December 2015.
- 50. Syed Abdul Muqtader Razvi, Abdullah Al-Dhelaan, and Mznah Al-Rodhaan "APAS: A Privacy Enabled Traceability Scheme for IoT," Accepted for publication in Journal of Internet of Things, vol. 5, no.6, pp. 1-12, 2015.
- 51. Al-Ratta, N., Al-Rodhaan, M. and Al-Dhelaan, A. "FMAC: Fair Mac Protocol for Achieving Proportional Fairness in Multi-Rate WSNs." *Communications and Network*, vol. **7**, No. 2, pp. 89-105. 2015.
- 52. Yuan Le, Xiuzhen Cheng, Dechang Chen, Nan Zhang, Taieb Znati, Mznah Al-Rodhaan, Abdullah Al-Dhelaan, "Distributed back-pressure scheduling with opportunistic routing in cognitive radio networks." EURASIP J. Wireless Comm. and Networking, Vol. 49, pp 1-14, 2015. [ISI Journal]
- 53. Norah AlSahly and Mznah Al-Rodhaan, "Lightweight Mutual Authentication Protocols for Low Cost RFID Tags." Journal of Information Assurance and Security, Vol. 10, No 2, pp. 061 071, 2015.
- 54. Zohair Al-Ameen, Ghazali Sulong, Amjad Rehman, Abdullah Al-Dhelaan, Tanzila Saba, Mznah Al-Rodhaan, "An innovative technique for contrast enhancement of computed tomography images using normalized gamma-corrected contrast-limited adaptive histogram equalization.' EURASIP J. Adv. Sig. Proc., Vol. 32, pp: 1-12, 2015. [ISI Journal]
- 55. Anees Ara, Mznah Al-Rodhaan, Yuan Tian and Abdullah Al-Dhelaan, "Secure service provisioning framework for cyber physical cloud computing systems", International Journal of Distributed and Parallel Systems (IJDPS) Vol. 6, No. 1, Jan 2015.
- 56. Rania Mousa, Mohd S. Sunar, Hoshang Kolivand, Amjad Rehman, Abdullah Al-Dhelaan & Mznah Al-Rodhaan, "Marker Hiding Methods: Applications in Augmented Reality." Applied Artificial Intelligence: An International Journal, Vol. 29, No. 2, pp. 101-118, 2015. [ISI Journal]
- 57. Husain, N. A. and Rahim, M. S. M. and Khan, A. R. and Al-Rodhaan, Mznah and Al-Dhelaan, Abdullah and Saba, T. "Iterative adaptive subdivision surface approach to reduce memory consumption in rendering process (IteAS)." Journal of Intelligent and Fuzzy Systems, Vol. 28, No. 1, pp. 337-344, 2015. [ISI Journal]
- 58. Mumtaz Al-Dabbagh, Naomie Salim, A. Rehman, Mohammed Hazim Alkawaz, Tanzila Saba, Mznah Al-Rodhaan and Abdullah Al-Dhelaan

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- "Intelligent Bar Chart Plagiarism Detection in Documents." The Scientific World Journal, special issue on Security of Information and Networks, 2015.
- 59. Tanzila Saba, Amjad Rehman, Abdullah Al-Dhelaan & Mznah Al-Rodhaan, "Evaluation of Current Documents Image Denoising Techniques: A Comparative Study," Applied Artificial Intelligence: An International Journal, Vol. 28, No. 9, pp. 879-887, 2014. [ISI Journal]
- 60. Saba Joudaki, Dzulkifli bin Mohamad, Tanzila Saba, Amjad Rehman, Mznah Al-Rodhaan & Abdullah, Al-Dhelaan "Vision-Based Sign Language Classification: A Directional Review," IETE Technical Review, Vol. 31, No. 5, pp. 383-391, 2014. [ISI Journal]
- 61. Tinghuai Ma, Lu Li, Sai Ji, Xin Wang, Yuan Tian, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Optimized Laplacian image sharpening algorithm based on graphic processing unit." Physica A: Statistical Mechanics and its Applications, Vol. 416, December 2014, pp 400-410, [ISI Journal]
- 62. M. Harouni, M. S. M. Rahim, M, M. Al-Rodhaan, T. Saba, A. Rehman and A. Al-Dhelaan. "Online Persian/Arabic script classification without contextual information." The Imaging Science Journal. Vol. 62, No. 8, pp 437-448, 2014.
- 63. Younus Zeyad, Safaa Mohamad, Dzulkifli, Saba, Tanzila, Alkawaz, Mohammed Hazim, Rehman Amjad, Mznah Al-Rodhaan and Abdullah Al-Dhelaan, "Content-based image retrieval using PSO and k-means clustering algorithm." Arabian Journal of Geosciences, Vol. 8, no. 8, pp 6211-6224, 2015. [ISI Journal]
- 64. Shuiming Zhong, Yu Xue, Yunhao Jiang, Jing Yang, Ping Yang, Yuan Tian, and Mznah Al-Rodhaan "A Sensitivity-Based Improving Learning Algorithm for Madaline Rule II," Mathematical Problems in Engineering, vol. 2014, Article ID 219679, 8 pages, 2014. [ISI Journal]
- 65. Qiang Ma, Abdullah Al-Dhelaan, Mznah Al-Rodhaan, "Improving Tradeoff between Fairness and Throughput in Multi-rate WLANs: Simulated Annealing Approach." BRIS Journal of Advances in Science & Technology, Vol. 2, No. 3, pp 127-137, 2014.
- 66. Ali Nodehi, Ghazali Sulong, Mznah Al-Rodhaan, Amjad Rehman, Abdullah Al-Dhelaan, Tanzila Saba, "Intelligent fuzzy approach for fast fractal image compression." EURASIP J. Adv. Sig. Proc. 2014: 112, 2014. [ISI Journal]
- 67. N. Al-Nabhan, M. Al-Rodhaan, and A. Al-Dhelaan, "Cooperative Approaches for Virtual Backbone Construction and Maintenance in Extreme Wireless Sensor Networks," IEEE Sensors Journal, vol. 14, No. 11, pp.3782-3790, Nov. 2014. [ISI Journal]
- 68. N. Al-Nabhan, M. Al-Rodhaan, and A. Al-Dhelaan, "Distributed Energy-Efficient Approaches for Connected Dominating Set Construction in Wireless

- Sensor Networks," International Journal of Distributed Sensor Networks, vol. 2014, Article ID 625061, 11 pages, 2014. [ISI Journal]
- 69. N. Al-Nabhan, M. Al-Rodhaan, and A. Al-Dhelaan, "A Distributed Self-Healing Approach for Virtual Backbone Construction and Maintenance in Wireless Sensor Networks," World Applied Sciences Journal, Vol. 31, No. 3, p357-366, May 2014.
- 70. Ohood Althobaiti, Mznah Al-Rodhaan, and Abdullah Al-Dhelaan, "An Efficient Biometric Authentication Protocol for Wireless Sensor Networks," International Journal of Distributed Sensor Networks, vol. 2013, Article ID 407971, 13 pages, September 2013. [ISI Journal]
- 71. Wei Li, Shengling Wang, Yong Cui, Xiuzhen Cheng, Ran Xin, Mznah A. Al-Rodhaan, Abdullah Al-Dhelaan, "AP Association for Proportional Fairness in Multi-rate WLANs" ACM/IEEE Transactions on Networking, Vol. 22, No. 1, 2014, Pages 191-202. [ISI Journal]
- 72. Adeel Javed, Mznah Al-Rodhaan, Abdullah Al-Dhelaan, "Performance Evaluation of MAODV for VANETs in Urban and Rural Scenarios." INFORMATION Journal, Vol. 16, No. 5, 2013, Pages 3013-3020.
- 73. Nourah Al-Angari and Mznah Al-Rodhaan "Accelerating Signature-Based Broadcast Authentication in Decentralized Wireless Sensor Networks." Accepted for publication in Journal of Theoretical and Applied Information Technology, Vol. 52, No. 3, 2013.
- 74. Najla Al-Nabhan, Mznah Al-Rodhaan, Abdullah Al-Dhelaan, and Xiuzhen Cheng "Connected Dominating Set Algorithms for Wireless Sensor Networks." International Journal of Sensor Networks, Vol. 13, No. 2, 2013, Pages 121-134. [ISI Journal]
- 75. Mashael Bin-Sabbar and Mznah Al-Rodhaan "Diabetes Monitoring System Using Mobile Computing Technologies. " International Journal of Advanced Computer Science and Applications, Vol. 4, No. 2, 2013, Pages 23-31.
- 76. Mznah Al-Rodhaan "Energy Conservation for Multi-Transition Wireless Sensor Networks." Egyptian Computer Science Journal, Vol. 37,No. 1, 2013, pp 19-30.
- 77. Hajar Al-Hujailan, Mznah Al-Rodhaan and Abdullah Al-Dhelaan "A Cooperative Intrusion Respond for Clustered MANETs." Journal of Information Assurance and Security, Vol. 7, no 2, Pages 89-101, 2012.
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