

CURRICULUM VITAE

Dr. Waseem Shahzad

HEC Approved Ph.D Supervisor

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Professional Experience

- Associate Professor and Head, Department of Computer Science, FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan, since March 2014.
- Assistant Professor Department of Computer Sciences, FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan, 2010-2014.
- Visiting Faculty member, FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan, 2008-2010.
- Lecturer, Jinnah Jame Degree College Haripur, 2003-2010.

Administrative Experience

- Head of Department, Computer Science, FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan.
- Member Editorial Board of “Pakistan Journal of Computer and Information Systems”.
- Member, Board of studies, FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan.
- Member, Board of studies, International Islamic University Islamabad, Pakistan.
- Member, Accreditation Council, Higher Education Commission, Pakistan.
- Member, Academic council of FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan.

- Graduate Program coordinator, Department of Computer Science, FAST National University of Computer & Emerging Sciences, Islamabad, Pakistan.

Research Interests

- Bio-Informatics
- Data Science
- Machine Learning
- Information Systems and Data mining
- Evolutionary Computation and Soft Computing

Qualification

2010 PhD Computer Science (CGPA 3.67/4.0)

FAST National University of Computer & Emerging Sciences,
Islamabad, Pakistan

2007 MS Computer Sciences (CGPA 3.47/4.0)

FAST National University of Computer & Emerging Sciences,
Islamabad, Pakistan

2004 MIT Master in Information Technology (CGPA 3.46/4.0)

University of Arid Agriculture, Rawalpindi

Research and Development Summary

- Total Impact Factor: **19.65**
- No. of Citations: **255** and H-Index: **9**
- No. of Journal Publications: **23**
- No. of Book Chapters: **1**
- No. of Conference Publications: **11**
- No. of MS/M.Phil. Theses supervised: **30**

- No. of PhDs supervising: **3**

Achievements and Awards

- Got Indigenous PhD scholarship from Higher Education Commission of Pakistan.

Research Publications

Book Chapters

1. Hamid Ali, Waseem Shahzad, and Farrukh Aslam, “Energy-efficient Clustering in Wireless Sensor Networks using Multi-objective Particle Swarm Optimization”, in *Wireless Sensor Networks and Energy Efficiency: Protocols, Routing and Management*. IGI Global, 2012.

International Journals Publications

1. Irshad Ahmed, Irfan Ahmed, and Waseem Shahzad “A novel high dimensional and high speed data streams algorithm: HSDStream”, *International Journal of Advanced Computer Science and Applications*, 2016.
2. Jawad Rehman and Waseem Shahzad, “Critical Analysis of Connection Establishment Procedure in Layer 3 of LTE (Long Term Evaluation)”, *Journal of Wireless Networking and Communications*, Vol. 6, No. 3, pp. 73-84, 2016.
3. Arslan Ellahi and Waseem Shahzad, “Exploring and Analyzing Evolutionary Optimization in Different Environments”, *International Journal of Applied Environmental and Biological Sciences*, Vol. 6, No. 8, pp. 98-111, 2016.
4. Ejaz Ahmed, Waseem Shahzad and Nik Bessis “Data Matching: An Algorithm for Detecting and Resolving Anomalies in Data Federation”, *Journal of Basic and Applied Scientific Research*, Vol. 6, No. 6, pp. 21-30, 2016.
5. Muhammad Asif Khan, Waseem Shahzad and Abdul Rauf Baig, “Protein classification via an Ant-Inspired Association Rules Based Classifier”, *International Journal of Bio-Inspired Computation*, Vol. 8, No. 1, pp. 51-65, 2016.
6. Arif Jamal Malik, Waseem Shahzad, and Farrukh A. Khan "Hybrid Binary PSO and Random Forests algorithm for Network Intrusion Detection", *Security and Communication Networks Journal*, Vol. 3 No. 1, pp. 1-11, 2015.
7. Abdul Rauf Baig, Waseem Shahzad and Salabat Khan “A Novel Ant Colony Optimization based Single Path Hierarchical Classification Algorithm for Predicting Gene Ontology”, *Applied Soft Computing*, Vol. 16, pp. 34-49, 2014.
8. Zahid Iqbal, R. Ilyas, Waseem Shahzad, Z. Mahmood and J. Anjum, "Efficient Machine Learning Techniques for Stock Market Prediction," *International Journal of Engineering Research and Applications*, Vol. 3, No. 6, pp. 855-867, 2013.

9. Mohsen Tabejamaat, and Waseem Shahzad", Designing New Method for Palmprint a Recognition", Computer Science Journal, Vol. 3, No. 1, pp. 1-7, 2013.
10. Waseem Shahzad, Salman Asad and Muhammad Asif Khan "Feature Subset Selection using Association Rules Mining and JRip Classifier", International Journal of Physical Sciences, Vol. 8 No. 18, pp. 885-896, 2013.
11. Syed Imran Ali and Waseem Shahzad "A Feature Subset Selection Method based on Conditional Mutual Information and Ant Colony Optimization", International Journal of Computer Applications, Vol. 60 No. 11, pp. 5-10, 2012.
12. Abdul Rauf Baig, Waseem Shahzad and Salabat Khan "Correlation as a Heuristic for an Accurate and Comprehensible Ant Colony Optimization Based Classifier", IEEE Transactions on Evolutionary Computation, Vol. 17 No. 5, pp. 686-704, 2013.
13. S.M. Abbas, R.F Ahmed, G. Mujtaba and Waseem Shahzad "Agriculture Decision Support System for Pakistan", Canadian Journal of Technology and Scientific Management, Vol. 1 No. 2, pp. 01-25, 2013.
14. Zulfiqar Ali and Waseem Shahzad "Analysis of Routing Protocols in AD HOC and Sensor Wireless Networks Based on Swarm Intelligence" Journal of Wireless Networking and Communications, Vol. 3 No. 1, pp. 1-11, 2012.
15. Ramoza Ahsan, and Waseem Shahzad "Measuring Performance of Algorithms in Dynamic Environment," International Journal of Computer Information Systems and Industrial Management (IJCISIM), Vol. 5 No. 1, pp. 704-713, 2013.
16. Abdul Rauf Baig, Waseem Shahzad, Salabat Khan and Fariha Altaf, "ACO Based Discovery of Comprehensible and Accurate Rules from Medical Datasets", International Journal of Innovative Computing, Information and Control (IJICIC), Vol. 7 No. 11, pp. 6147-6160, 2011.
17. Hamid Ali, Waseem Shahzad, and Farrukh Aslam, "Energy-efficient clustering in mobile ad hoc networks using multi-objective particle swarm optimization," Applied Soft Computing, Vol. 12 No. 7, pp. 1913-1928, 2012.
18. Afzaal Ali, Athar Ali Khan, Israr Ahmed and Waseem Shahzad "Determinants of Pakistani Consumers' Green Purchase Behavior: Some Insights from a Developing Country," International Journal of Business and Social Science, Vol. 2 No. 3, pp. 217-226, 2011.
19. Abdul Rauf Baig and Waseem Shahzad, "A Correlation based AntMiner for Classification Rule Discovery," Neural Computing and Applications Journal, Vol. 21 No. 2, pp. 219-235 March 2012.
20. Waseem Shahzad, and Abdul Rauf Baig, "Compatibility as a Heuristic for Construction of Rules by Artificial Ants," Journal of Circuits, Systems, and Computers, Vol.19, No.1, pp. 297-306, 2010.
21. Waseem Shahzad and Abdul Rauf Baig, "Hybrid Associative Classification Algorithm using Ant Colony Optimization," International Journal of Innovative Computing, Information and Control (IJICIC), Vol. 7 No. 12, pp. 6815-6826, 2011.

22. Waseem Shahzad, Farrukh Aslam Khan and Abdul Basit Siddiqui, "A weighted Clustering Algorithm using Comprehensive Learning Particle Swarm Optimization in Mobile Adhoc Networks," International Journal of Future Generation Communication and Networking, Vol. 3, No. 1, pp. 61-70, 2010.
23. Safdar Ali, Farrukh Aslam. Khan and Waseem Shahzad, "Intrusion Detection using Bi-Classifer-based Genetic Algorithm," ICIC Express Letters, Vol. 7, No. 6(A), pp. 2147-2153, 2010.

International Conferences Publications

1. Waseem Shahzad and Sana Qambar, "Finding User Groups in Social Networks Using Ant Cemetery", in 3rd International Symposium on Emerging Information, Communication and Networks (EICN), 2016.
2. Zahid Iqbal, and Waseem Shahzad, "A DCPSO for dynamic environment to locate and track multiple optima," in The 10th IEEE Conference on Industrial Electronics and Applications (ICIEA), 2015.
3. Syed Imran Ali, and Waseem Shahzad "Feature Subset Selection Method Based on Symmetric Uncertainty and Ant Colony Optimization," in IEEE International Conference on Emerging Technologies (ICET), pp. 1-6, October 2012.
4. Talha Ghaffar, Waseem Shahzad and Abdul Rauf Baig "Parallel Rule Generation for Making an Efficient Classification System," in IEEE International Conference on Information Science and Applications (ICISA), pp. 1-4, May 2012.
5. Ramoza Ahsan, Waseem Shahzad and Abdul Rauf Baig "Trends and Challenges in Dynamic Optimization Problems," in IEEE International Conference on Hybrid Intelligent Systems (HIS), pp. 283-288, December 2011.
6. Zulfiqar Ali and Waseem Shahzad "Critical Analysis of Swarm Intelligence based Routing Protocols in Adhoc and Sensor Wireless Networks," in IEEE International Conference on Computer Networks and Information Technology (ICCNIT), pp. 287-292, July 2011.
7. Arif Jamal, Waseem Shahzad and Farrukh Aslam Khan "Binary PSO and Random Forests Algorithm for PROBE Attacks Detection in a Network," in IEEE Congress on Evolutionary Computation (CEC), pp. 662-668, June 2011.
8. Safdar Ali, Farrukh Aslam Khan and Waseem Shahzad, "Remote-to-Local Intrusion Attacks Detection using an Incremental Genetic Algorithm," in International Conference for Internet Technology and Secured Transactions (ICITST), pp. 1-6, December 2010 .
9. Salabat Khan, Waseem Shahzad and Farrukh Aslam Khan "Cryptanalysis of Four-Rounded DES using Ant Colony Optimization," in International Conference on Information Science and Applications (ICISA), pp. 1-7, June 2010.
10. Waseem Shahzad, Farrukh Aslam Khan and Abdul Basit Siddiqui, "Clustering in Mobile Adhoc Networks using Comprehensive Learning Particle Swarm Optimization

(CLPSO),” In Proceedings of International Conference, FGNC/CAN, pp. 342-349, January 2009.

11. Waseem Shahzad, Abdul Basit Siddiqui and Farrukh Aslam Khan “Cryptanalysis of Four-Rounded DES using Binary Particle Swarm Optimization,” in Proceedings of Genetic and Evolutionary Computation Conference, pp. 2161-2166, September 2009.

MS/M.Phil Thesis supervised

1. Syed Imran Ali, “Ensemble Based Hybrid Feature Subset Selection using Ant Colony Optimization”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2011.
2. Bushra Zafar, “Gender Classification Based on Feature Selection by Genetic Algorithm with Information Gain and Gini Index”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2011.
3. Qamar Rehman, “Missing Data Imputation using Genetic Algorithm for Classification”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2011.
4. Salman Asad, “Feature Subset Selection Using Association Rule Mining and JRip Classifier”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2011.
5. Talha Ghaffar, “Parallel Rule Generation for an Efficient Classification System”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2011.
6. Abdul Rahim, “Image Restoration using Fuzzy Morphology and Optimization Technique”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2012.
7. Ramoza Ahsan, “Multi-Modal Functions Optimization in Static and Dynamic Environment using PSO Model”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2012.
8. Imran Khan, “Temporal Data Classification using Ant Colony Optimization”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2012.
9. Hamid Hussain, “Ant Based Approach for Building Decision Tree Classifier”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2012.
10. Zahid Iqbal, “A Diverse Clustering Based PSO For Dynamic Environment: To Locate and Track Multiple Optima”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2012.
11. Waqar Ali, “Four-Phase hybrid predictor for adaptive reversible watermarking”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2012.
12. Ahsan Yawar, “Drugs Design and Discovery Using Differential Evolution”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.
13. Bushra Almas, “Association Rules Mining of Relative Temporal Events”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.

14. Aneeqa Sundas, "Learning More Comprehensible and Accurate Rule Model using Pittsburg Style Ant Miner", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.
15. Hira Jaffer, "A Framework for Privacy Preserving and Efficient Classification Rule Generation in Distributed Environment", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.
16. Jawad Rehman, "A Framework for Connection Establishment of Layer 3 of LTE(Long Term Evolution) at UE(User Equipment) Side", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.
17. Saba Rasheed, "Anonymizing and Classifying Sequential Releases Using Privacy Preserving Techniques, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.
18. Aneeqa Sundus, "Learning a Smaller and Accurate Rule model Using Pittsburg Ant Miner", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2013.
19. Arslan Ellahi, " Improving Feature Subset Selection Using Ant Colony Optimization Algorithm for Medical Data", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2014.
20. Aalia Hussain, "A new Clustering Algorithm using Ant Colony Optimization", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2014.
21. Rizwan Mehmood, " Maximum Relevancy Minimum Redundancy Based Feature Subset Selection using Ant Colony Optimization", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2014.
22. Faheem Mehmood, "Multi-modal function optimization in static and dynamic environment using PSO model", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2014.
23. Amen, "Multi modal function optimization in static and dynamic environment using Artificial Bee Colony Algorithm", International Islamic University, Islamabad, Pakistan, 2014.
24. Anam Naseer, "A Hybrid Approach for Feature Subset Selection Using Ant Colony Optimization and Multi Classifier Ensemble", International Islamic University, Islamabad, Pakistan, 2014.
25. Uzma Bibi, "Genetic Algorithm Based Rule Merging Classifier", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2015.
26. Asim Rehan, "Fitness and Distance Based Differential Evolution Algorithm For Multimodal Dynamic Function Optimization", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2015.
27. Ayesha Tahir Khan, "Classification Rule Discovery by using Parallel Ant Colony Optimization", National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2016.

28. Sana Qambar, “Finding User Groups in Social Networks Using Ant Colony Algorithm”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2016.
29. Rabeeha Hassan, “Streaming Feature Selection using Hybrid Ant Colony Optimization”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2016.
30. Madeeha Ishraq, “An Empirical Analysis of Learning From Class Imbalance Problem”, National University of Computer and Emerging Sciences, Islamabad, Pakistan, 2016.

Participation in Program Committees of Conferences/Symposia/Workshops

1. IEEE International Conference on Emerging Technologies (ICET), SEECS (NUST), Islamabad, Pakistan 2011. [Member Technical Program Committee]
2. IEEE International Conference on Emerging Technologies, NUCES, Islamabad, Pakistan 2010. [Member Technical Program Committee]
3. International Conference on Frontiers of Information Technology (FIT), COMSATS Institute of Information Technology, Islamabad, Pakistan. 2012. [Member Technical Program Committee]
4. International Conference on Frontiers of Information Technology (FIT), COMSATS Institute of Information Technology, Islamabad, Pakistan. 2013. [Member Technical Program Committee]
5. IEEE International Conference on Information Assurance and Cyber Security (CIACS), Military College of Signals (MCS), National University of Science & Technology (NUST) 2014.
6. International Conference on Frontiers of Information Technology (FIT), COMSATS Institute of Information Technology, Abbottabad, Pakistan. 2014. [Member Technical Program Committee]
7. IEEE International Conference on Emerging Technologies (ICET), NUCES, Islamabad, Pakistan 2014. [Technical Program Committee CO-Chair]
8. IEEE International Conference on Information Assurance and Cyber Security (CIACS), Military College of Signals (MCS), National University of Science & Technology (NUST) 2015. [Member Technical Program Committee]
9. International Conference on Advanced Computing (ADCO), Vienna, Austria. [Member Technical Program Committee]

Reviewer of the Journals

- Neurocomputing Journal, Elsevier.
- International Journal of Physical Sciences.
- Pattern Recognition Journal, Elsevier.
- Applied Soft Computing, Elsevier.
- British Journal of Mathematics.
- Asian Journal of Mathematics and Computer Research

- British Journal of Applied Science and Technology

References

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- Dr. Hammad Majeed (Assistant Professor, National University of Computer and Emerging Sciences Computer Science Department, Sector H-11/4, Islamabad, Pakistan)
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