

Syed Waqar ul Qounain, Jaffry

Assistant Professor (Tenured), Punjab University College of Information Technology

University of the Punjab, Allama Iqbal Campus (Old Campus),

Shahrah-e-Quaid-e-Azam (The Mall), Lahore, Pakistan

Phone (mobile): +92 33 34725572, Phone (office): +92 42 111-923-923 (413), Fax: +92-42-99212505

Email: swjaffry@pucit.edu.pk, Website: <http://faculty.pucit.edu.pk/swjaffry>

(last update: 31-12-2019)

ACADEMIC QUALIFICATIONS

- 2011 – 2011 Postdoc in Ambient Intelligence at Agent Systems Research Group, Department of Artificial Intelligence, and The Network Institute, VU University Amsterdam, The Netherlands.
Project: EU FP7-ICT - SOCIONICAL - Complex Socio-Technical System in Ambient Intelligence
- 2007 – 2011 PhD ranked highest Accolade (excellent), in Computer Science at Agent Systems Research Group, Department of Artificial Intelligence, VU University Amsterdam, The Netherlands.
Thesis: Analysis and Validation of Models for Trust Dynamics
Promoter: prof. dr. Jan Treur, **Co-Promoter:** dr. Mark Hoogendoorn
- 1999 – 2001 Master of Science (M. Sc.) in Computer Science from Department of Computer Science University of the Punjab, Lahore, Pakistan
- 1998 – 1999 Postgraduate Diploma (PGD) in Computer Science from Department of Computer Science University of the Punjab, Lahore, Pakistan
- 1996 – 1998 Bachelor of Science (B. Sc.) in Physics, Pure and Applied Mathematics from Punjab University, Lahore, Pakistan
- 1994 – 1996 Intermediate in Pre-Engineering (F. Sc. Higher Secondary School Examination), from Board of Intermediate and Secondary Education, Lahore, Pakistan
- 1992 – 1994 Matriculation (Secondary School Examination), from Board of Intermediate and Secondary Education, Lahore, Pakistan

EMPLOYMENT HISTORY

- 2012 – to date Full time Tenured Assistant Professor, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan
- 2012 – 2012 Full time Assistant Professor on contract basis, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan
- 2011 – 2011 PostDoc Researcher, Agent Systems Research Group, Department of Artificial Intelligence, VU University Amsterdam, The Netherlands
- 2007 – 2011 Full time PhD candidate in Computer Science, Agent Systems Research Group, Department of Artificial Intelligence, VU University Amsterdam, The Netherlands
- 2002 – 2007 Full time Lecturer on contract basis, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan
- 2001 – 2002 Visiting Lecturer, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan
- 2001 – 2002 Permanent Lecturer, Pak Institute of Management and Computer Sciences, Lahore, Pakistan
- 1999 – 2001 Permanent Senior Software Instructor, Pak Polytechnique Institute, Lahore, Pakistan

RESEARCH, REPORTS AND CREATIVE ACTIVITIES

(* mark indicates that names of the authors are in alphabetical order and all can be regarded as having made a comparable contribution)

Books, Conference and Workshop Proceedings Edited/Compiled

1. Arts, M., Avital, M., Bennamar, K., Besselink, T., Boog, W., Collard, P., Colton, S., Corneille, S., Germans, D., Gielink, S., Hanson, A., Hanson, D., Hekkert, P., Hoekendijk, C., Hoorn, J. F., Jaffry, S. W., Jensenius, H., Krabbendam, D., Kresin, F., Kuipers, A., Kuipers, T., Lee, M., Lindenberg, V., Lowe, J., Straffon, L. Miller, A. I., Molella, A., Olthof, T., Ott, C., Otte, M., Poelman, W., Pontier, M., Postma, A., Roosendaal, L., Rump, V., Runco, M., Smeulders, A., Taylor, R., van den Herik, J., van der Kooij, K., van der Sloot, J., van der Veen, O., van Dijk, G., van Gorsel, P., van Rosmalen, B., van Uden, J., Werner, J., *Organic Creativity and Physics Within*, (2013), John Benjamins Publishing.
2. Jaffry, S. W., (2011), *Analysis and Validation of Models for Trust Dynamics*, PhD Thesis, VU University Amsterdam, The Netherlands.
3. Jaffry, S. W., (2005), *1st National Conference on Trends and Practices of Free and Open Source Software Technologies*, August 18th – 19th, 2005, Lahore, Pakistan, TPFOSST 05.
4. *Pasha, M. A., Jaffry, S. W., Danish S., (2004), “*Proceedings of Computer Science Teachers Training Workshop 2004*”, August 2004, Punjab University College of Information Technology, Lahore, Pakistan, CSTTW’04.
5. Jaffry, S. W., (2004), *1st Student Conference on Computer Science Spring 2004*, June 22nd – 24th, 2004 at Punjab University College of Information Technology Lahore, Pakistan. SCCS04.
6. Jaffry, S. W., (2003), *Data Structures a Complete Course*, Punjab University College of Information Technology, Lahore, Pakistan, (electronic format).

Published Research Papers in International Journals

1. Sharaf, S., Nasar, Z., Jaffry, S. W., *Data Mining for Smart Legal Systems*, Computers and Electrical Engineering, vol. 78, Elsevier, B. V. 2019, pp. 328-342. Impact Factor 2.189.
2. Nasar, Z., Jaffry, S. W., Malik, M. K., *Textual Keyword Extraction and Summarization: State of the Art*, Information Processing and Management: An International Journal, vol. 56, no. 6, Elsevier, V. B. 2019, page 102088. Impact Factor 3.892.
3. Sadiq, U., Yousaf, M. M., Aslam, L., Aleem, M., Sarwar, S., Jaffry, S. W., *NvPD: Novel Parallel Edit Distance Algorithm, Correctness, and Performance Evaluation*, Cluster Computing, The Journal of Networks, Software Tools and Applications, Springer Nature, Switzerland AG. 2019, pp. 1-16. Impact factor 1.851.
4. Iftikhar, A., Jaffry, S. W., Malik, K., *Information Mining from Criminal Judgments of Lahore High Court*, IEEE Access, vol. 7, IEEE. 2019, pp. 59539-59547. Impact factor 4.098.
5. Mubasher, M. M., Jaffry, S. W., Yousaf, M. M., Bajwa, I., Sarwar, S., Aslam, L., *A Smart Integrated Environment for Vehicular Traffic Simulation*, International Journal of Communication Systems, vol. 32 no. 13, 2019, John Wiley & Sons. Impact factor 1.717.
6. Mubasher, M. M., Jaffry, S. W., *Modeling of Individual Differences in Driver Behavior*, Journal of Ambient Intelligence and Humanized Computing, Springer International Publishing, 2019, pp. 1-14. Impact factor 1.910.
7. Aslam, L., Sarwar, S., Yousaf, M. M., Jaffry, S. W., *Computational Complexity of Cycle Discrepancy*, Sindh University Research Journal, vol. 50, no. 4, University of Sindh, Jamshoro, Pakistan, 2018, pp. 537-540.

8. Nasar, Z., Jaffry, S. W., Malik, M. K., *Information Extraction from Scientific Articles: A Survey*, Scientometrics, vol. 117, no. 3, Springer International Publishing, 2018, pp. 1931-1990. Impact Factor 2.147.
9. Ahmad, A., Yousaf, M. M., Sarwar, S., Jaffry, S. W., Aslam, L., Khalid, M., *Optimized Scheduling for Parallel Computing Environment*, Sindh University Research Journal, vol. 50, no. 2, University of Sindh, Jamshoro, Pakistan, 2018, pp. 295-302.
10. Nasar, Z., Jaffry, S. W., *Trust-based Situation Awareness: Comparative Analysis between Agent-Based and Population-Based Modeling*, Complexity, Hindawi. vol. 2018, Article ID 9540726, 16 pages, 2018. Impact Factor 4.621.
11. Aslam, L., Sarwar, S., Yousaf, M. M., Jaffry, S. W., *Cycle Discrepancy of Cubic Toeplitz Graphs*, Pakistan Journal of Engineering and Applied Sciences, vol. 22, University of Engineering and Technology, Lahore, Pakistan, 2018, pp. 14-19.
12. Yousaf, M. M., Sadiq, U., Aslam, L., Jaffry, S. W., Sarwar, S., *A Novel Parallel Algorithm for Edit Distance Computation*, Mehran University Research Journal of Engineering & Technology, vol. 37, no. 1, Mehran University of Engineering & Technology, Jamshoro, Pakistan, 2018, pp. 223-232.
13. Latif, I., Jaffry, S. W., Sarwar, S., Aslam, L., Yousaf, M. M., *Framework for Evaluating Credibility of External Links in Wikipedia*, The Journal of Bahria University Information and Communication Technologies (BUJICT), vol. 10, issue – II, Bahria University Information and Communication Technologies, Islamabad, Pakistan, 2017, pp. 34-38.
14. Sarwar, S., Aslam, L., Jaffry, S. W., Yousaf, M. M., *Novel Composite Burst Assembly for OBS-Networks*, Sindh University Research Journal, vol. 49, no. 4, University of Sindh, Jamshoro, Pakistan, 2017, pp. 773-778.
15. Faisal, S., Sarwar, M., Shahzad, K., Sarwar, S., Jaffry, S. W. and Yousaf, M. M., *Temporal and Evolving Data Warehouse Design*, Scientific Programming, Hindawi. vol. 2017, Article ID 7392349, 18 pages, 2017. Impact Factor 0.627.
16. Sarwar, S., Khalid, H., Aslam, L., Jaffry, S. W., Yousaf, M. M., *Analytical Model of Delayed Server System (DSS) for Energy Conservation*, Sindh University Research Journal, vol. 49, no. 3, University of Sindh, Jamshoro, Pakistan, 2017, pp. 529-534.
17. Junaid, S. M., Jaffry, S. W., Yousaf, M. M., Aslam, L., Sarwar, S., *Sentiment Analysis and Opinion Mining – A Facebook Posts and Comments Analyzer*, Technical Journal, vol. 22, no. II, University of Engineering and Technology (UET) Taxila, Pakistan, 2017, pp. 98-104.
18. Ahmed, S., Yousaf, M. M., Jaffry, S. W., Sarwar, S., Aslam, L., *Comparison of Resource Management Frameworks for Processing Big Data*, The Journal of Bahria University Information and Communication Technologies (BUJICT), vol. 9, issue – II, Bahria University Information and Communication Technologies, Islamabad, Pakistan, 2016, pp. 34-38.
19. Aslam, L., Sarwar, S., Yousaf, M. M., Jaffry, S. W., *Cycle Discrepancy of d-Colorable Graphs*. Pakistan Journal of Engineering and Applied Sciences, University of Engineering and Technology, Lahore. vol. 18, pp. 50-55, 2016.
20. Mubasher, M. M., Jaffry, S.W., *Incorporation of the Driver's Personality Profile in an Agent Model*. In: PROMET – Traffic & Transportation, (PTT), vol. 27, no. 6, pp. 505-514, 2015. Impact Factor 0.43.
21. *Hoogendoorn, M., Jaffry, S.W., Maanen, P.P. van, and Treur, J., *Design and Validation of a Relative Trust Model*. In: Knowledge-Based System (KBS), vol. 53, Elsevier B. V. 2014, pp. 81-94. Impact Factor 4.529.

22. *Hoogendoorn, M., Jaffry, S.W., Maanen, P.P. van, and Treur, J., *Modelling Biased Human Trust Dynamics*. In: Web Intelligence and Agent Systems: An International Journal (WIAS), vol. 11, no. 1, IOS Press, 2013, pp. 1-21.
23. *Jaffry, S.W., and Treur, J., *Agent-Based and Population-Based Modelling of Trust Dynamics*. In: Transactions on Computational Collective Intelligence (TCCI), vol. 9, Springer Verlag, 2013, pp 124-151.
24. *Bosse, T., Jaffry, S.W., Siddiqui, G.F., Treur, J., *Comparative Analysis of Agent-Based and Population-Based Modelling in Epidemics and Economics*. In: Multiagent and Grid Systems, An International Journal (MAGS), vol. 8, no. 3, IOS Press, 2012, pp. 223-255.
25. *Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Cognitive and Neural Modeling of Dynamics of Trust in Competitive Trustees*. In: Cognitive Systems Research Journal (CSR), vol. 14, no. 1, Elsevier B. V., 2012, pp. 60-83. Impact Factor 1.182.
26. *Bosse, T., Both, F., Hoogendoorn, M., Jaffry, S.W., Lambalgen, R. van, Oorburg, R., Sharpanskykh, R., Treur, J., and Vos, M. de, *Design and Validation of a Model for a Human's Functional State and Performance*. In: International Journal of Modeling, Simulation, and Scientific Computing (IJMSSC), vol. 2, no. 4, World Scientific Publishing, 2011, pp. 413-443.
27. *Bosse, T., Gerritsen, C., Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Agent-Based versus Population-Based Simulation of Displacement of Crime: A Comparative Study*. In: Web Intelligence and Agent Systems Journal (WAIS), vol. 9, no. 2, IOS Press, 2011, pp. 147-160.

Published Research Papers as Book Chapters

1. Nasar, Z., Jaffry, S. W., Malik, M. K., *Tagging Assistant for Scientific Articles*. In proceeding of International Conference on Intelligent Technologies and Applications (INTAP'18), Bahawalpure, Pakistan, 2018. Communications in Computer and Information Science (CCIS) Series, Springer Verlag, 2019, vol. 932, pp. 351-362.
2. Sharaf, S., Nasar, Z., Jaffry, S. W., *Legal Data Mining from Civil Judgments*. In proceeding of International Conference on Intelligent Technologies and Applications (INTAP'18), Bahawalpure, Pakistan, 2018. Communications in Computer and Information Science (CCIS) Series, Springer Verlag, 2019, vol. 932, pp. 426-436.
3. *Jaffry, S.W., and Treur, J., *Modelling Trust for Communicating Agents: Agent-Based and Population-Based Perspectives*. In: Jedrzejowicz, P., Nguyen, N.T., Hoang, K. (eds.), Proceedings of the Third International Conference on Computational Collective Intelligence, (ICCCI'11), Gdynia, Poland, September 21st – 23rd, 2011. Lecture Notes in Artificial Intelligence, Springer Verlag, 2011, pp. 366-377. [BEST PAPER AWARD]
4. *Hoogendoorn, M., Jaffry, S.W., and Maanen, P.-P. van., *Validation and Verification of Agent Models for Trust: Independent compared to Relative Trust*. In: Proceedings of the 5th IFIP WG 11.11 International Conference on Trust Management. (TM'11), Copenhagen, Denmark, June 29th - July 1st, 2011. International Federation of Information Processing, Advances in Information and Communication Technology Series, Springer Verlag, 2011, vol. 358, pp. 35-50.
5. *Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Incorporating Interdependency of Trust Values in Existing Models for Trust Dynamics*. In: Nishigaki, M., Josang, A., Murayama, Y., Marsh, S. (eds.), Trust Management IV, Proceedings of the 4th International Conference on Trust Management, Advances in Information and Communication Technology, (TM'10), Morioka, Iwate, Japan, June 16th - 18th, 2010. Advances in ICT, vol. 321. Springer Verlag, 2010, pp. 263-276.
6. *Both, F., Hoogendoorn, M., Jaffry, S.W., Lambalgen, R. van, Oorburg, R., Sharpanskykh, A., Treur, J., and Vos, M. de, *Adaptation and Validation of an Agent Model of Functional State and Performance for Individuals*. In: Yang, J.-J.; Yokoo, M.; Ito, T.; Jin, Z.; Scerri, P. (eds.), Proceedings of 12th International

Conference on Principles of Practice in Multi-Agent Systems. (PRIMA'09), Nagoya, Japan, December 13th - 16th, 2009. Lecture Notes in Artificial Intelligence, vol. 5925, Springer Verlag, 2009, pp. 595-607.

7. *Jaffry, S.W., and Treur, J., *Comparing a Cognitive and a Neural Model for Relative Trust Dynamics*. In: Leung, C.S., Lee, M., and Chan, J.H. (eds.), Proceedings of 16th International Conference on Neural Information Processing. (ICONIP'09), Bangkok, Thailand, December 1st - 5th, 2009. Lecture Notes in Computer Science, vol. 5863 Part I, Springer Verlag, 2009, pp. 72-83.
8. *Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Modeling Trust Dynamics from a Neurological Perspective*. In: Wang, R., Gu, F. (eds.), Advances in Cognitive Neurodynamics II, Proceedings of 2nd International Conference on Cognitive Neurodynamics. (ICCN'09), Hangzhou, China, November 15th - 19th, 2009. Springer Verlag, 2011, pp. 523-536.
9. *Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Modeling Dynamics of Relative Trust of Competitive Information Agents*. In: Klusch, M., Pechoucek, M., Polleres, A. (eds.), Proceedings of 12th International Workshop on Cooperative Information Agents, (CIA'08), Prague, Czech Republic, September 10th – 12th, 2008. Lecture Notes in Artificial Intelligence, vol. 5180, Springer Verlag, 2008, pp. 55-70.

Published Research Papers in International Conferences and Workshops Proceedings

1. Tanveer, H., Mubasher, M. M., Jaffry, S. W., *Integrating Human Panic Factor in Intelligent Driver Model*. In proceedings of 3rd International Conference on Advancements in Computational Sciences (ICACS'20), Lahore, Pakistan, 2020, to appear.
2. Batool, W., Mubasher, M. M., Jaffry, S. W., *Modeling Task Capability in Full Velocity Differential Model*. In proceedings of 2nd International Conference on Advancements in Computational Sciences (ICACS'19), Lahore, Pakistan, 2019, pp. 1-5. [BEST PAPER AWARD]
3. Nasar, Z., Jaffry, S. W., *Trust-based Situation Awareness: Agent-Based versus Population-Based Modeling - A Comparative Study*. In proceedings of International Conference on Advancements in Computational Sciences (ICACS), Lahore, Pakistan, 2018, pp. 1-7. [BEST PAPER AWARD]
4. Mubasher, M. M., Jahangir, R., Jaffry, S. W., *Modeling of Individual Differences in Car-following Behavior of Drivers*. In proceeding of 20th IEEE International Multitopic Conference (INMIC), Lahore, Pakistan, 2017, pp. 1-7.
5. Naveed, M., Jaffry, S. W., *Modeling of Neurotic Personality Trait of Pedestrians in Panic Situation*. In Proceedings of 20th IEEE International Multitopic Conference (INMIC), Lahore, Pakistan, 2017, pp. 1-6.
6. Fatima, B., Jaffry, S. W., Mubasher, M. M., Sherwani, A., *Human Acceptance of Autonomous Social Media Agent*. In: Proceedings of 4th International Conference on Future Internet of Things and Cloud (FiCloud-2016), Vienna, Austria, 22 – 24 August, 2016. IEEE Computer Society, pp. 200-205.
7. Mubasher, M. M., Jaffry, S. W., *Systematic Literature Review of Vehicular Traffic Flow Simulators*. In: Proceedings of 1st International Conference on Open Source Software Computing (OSSCOM 2015), Jordan, September, 10-13, 2015, pp. 1-6.
8. Shoaib, H., Jaffry, S. W., *A Survey of Augmented Reality*. In: Proceedings of International Conference on Virtual and Augmented Reality (ICVAR 2015), January, 8-9, 2015, Singapore, pp. 91-99.
9. Haris, M., Jaffry, S. W., *An Object Based Conceptual Framework for Location Based Social Networking*. In: Proceedings of International Workshop on Location-Based Social Networks (LBSN'13) associated with the 21st ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, November 5-8, 2013, Orlando, Florida, USA, pp. 15-23.
10. Saeed, A., R., Jaffry, S. W., *Information Mining from Islamic Scriptures*. In: Proceedings of 4th Workshop on South and Southeast Asian Natural Language Processing (WSSANLP) associated with the

- International Joint Conference on Natural Language Processing (IJCNLP), Nagoya, Japan, October 14th – 18th, 2013. Asian Federation of Natural Language Processing, 2013, pp. 66-71.
11. Latif, I., Jaffry, S. W., *A Survey on Trust Evaluation Mechanisms for Wikipedia*. In: Proceedings of the International Workshop on Social Natural Language Processing (SocialNLP) in conjunction with 6th International Joint Conference on Natural Language Processing (IJCNLP), Nagoya, Japan, October 14th – 18th, 2013. Asian Federation of Natural Language Processing, 2013, pp. 36-42.
 12. Mansoor, F., Rohail, M., Jaffry S. W., *Empirical Validation for Human Decision Making*. In: Proceedings of the Seventh International Workshop on Human Aspects in Ambient Intelligence in International Conference on Intelligent Agent Technology (HAI-IAT'13), Atlanta, GA, USA, 17th November – 20th November, 2013, IEEE Computer Society Press, 2013, pp. 187-190.
 13. *Hoogendoorn, M., Jaffry, S.W., Maanen, P.P. van, and Treur, J., *Modeling and Validation of Biased Human Trust*. In: Boissier, O., et al. (eds.), Proceedings of the 11th IEEE/WIC/ACM International Conference on Intelligent Agent Technology, (IAT'11), Lyon, France, August 22nd – 27th, 2011. IEEE Computer Society Press, 2011, pp. 256-263.
 14. *Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Exploration and Exploitation in Adaptive Trust-Based Decision Making in Dynamic Environments*. In: Huang, X.J., Ghorbani, A.A., Hacid, M.-S., Yamaguchi, T. (eds.) Proceedings of the 10th IEEE/WIC/ACM International Conference on Intelligent Agent Technology, (IAT'10), Toronto, Canada, August 31st - September 3rd, 2010. IEEE Computer Society Press, 2010, pp. 256-260.
 15. *Hoogendoorn, M., Jaffry, S.W., and Treur, J., *An Adaptive Agent Model Estimating Human Trust in Information Sources*. In: Baeza-Yates, R., Lang, J., Mitra, S., Parsons, S., Pasi, G. (eds.), Proceedings of 9th IEEE/WIC/ACM International Conference on Intelligent Agent Technology, (IAT'09), Milan, Italy, September 15th - 18th, 2009. IEEE Computer Society Press, 2009, pp. 458-465.
 16. *Hoogendoorn, M., Jaffry, S.W., *The Influence of Personalities upon the Dynamics of Trust and Reputation*. In: Proceedings of International Symposium on Secure Computing (SecureCom'09), in conjunction with the IEEE International Conference on Privacy, Security, Risk and Trust, (PASSAT'09), Vancouver, Canada, August 29th - 31st, 2009. IEEE Computer Society Press, 2009, pp. 263-270.
 17. *Bosse, T., Gerritsen, C., Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Comparison of Agent-Based and Population-Based Simulations of Displacement of Crime*. In: Jain, L., Gini, M., Faltings, B.B., Terano, T., Zhang, C., Cercone, N., Cao, L. (eds.), Proceedings of 8th IEEE/WIC/ACM International Conference on Intelligent Agent Technology, (IAT'08), Sydney, Australia, December 9th - 12th, 2008. IEEE Computer Society Press, 2008, pp. 469-476.
 18. *Bosse, T., Gerritsen, C., Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Agent-Based and Population-Based Simulation of Displacement of Crime* (extended abstract). In: Ghallab, M. (ed.), Proceedings of the 18th European Conference on Artificial Intelligence, (ECAI'08), Patras, Greece, July 21st– 25th, 2008. IOS Press, 2008, pp. 877-878.
 19. *Jaffry, S.W., Treur, J., *Agent-Based and Population-Based Simulation: A Comparative Case Study for Epidemics*. In: Proceedings of 22nd European Conference on Modeling and Simulation, (ECMS'08), Nicosia, Cyprus, June, 3rd – 6th, 2008. European Council on Modeling and Simulation, 2008, pp. 123-130.
 20. Jaffry, S. W., Kayyani, U. R., FOSS Localization: A Solution for The ICT Dilemma of Developing Countries. In: Proceedings of 9th International IEEE MultiTopic Conference (INMIC'05), Karachi, Pakistan, December 24th – 25th, 2005. pp. 1-5.
 21. Jaffry, S. W., Pedagogical Pattern Language for in Time Student Confidence in Studied Material. In: Proceeding of 9th International IEEE MultiTopic Conference, (INMIC'05), Karachi (Pakistan), December 24th – 25th, 2005. pp. 1-6.

22. Idrees, M., Yousaf, M. M., Jaffry, S. W., Pasha, M. A., Hussain, S. A., *Enhancements in AODV Routing Using Mobility Aware Agents*. In: Proceedings of IEEE International Conference on Emerging Technologies, (ICET'05), Islamabad, Pakistan, September, 16th – 17th, 2005. pp. 98-102.

Poster Presentations in Conferences and Workshops

1. Both, F., Hoogendoorn, M., Jaffry, S.W., Lambalgen, R. van, Oorburg, R., Sharpanskykh, A., Treur, J., and Vos, M. de, *Validation of an Agent Model for Human Work Pressure*. In: The 9th International Conference on Cognitive Modeling, (ICCM'09), Manchester, (United Kingdom), July 24th – 26th, 2009.
2. Hoogendoorn, M., Jaffry, S.W., and Treur, J., *Parameter Estimation for Human Trust in Information Sources* (Poster). In: Workshop on Parameter Estimation for Dynamical Systems (PEDS), Eindhoven, (The Netherlands), June 8th – 10th, 2009.
3. Both, F., Hoogendoorn, M., Jaffry, S.W., Lambalgen, R. van, Oorburg, R., Sharpanskykh, A., Treur, J., and Vos, M. de, *An Approach to Validate an Agent Model for Human Work Pressure* (Poster). In: Workshop on Parameter Estimation for Dynamical Systems (PEDS), Eindhoven, (The Netherlands), June 8th – 10th, 2009.

Journal Reviews

- Knowledge-Based System, Elsevier B. V.
- Simulation Modelling Practice and Theory, Elsevier B. V.
- IEEE Intelligent Systems Journal, IEEE Computer Society Press.
- IEEE Transactions on Human-Machine Systems, IEEE Systems, Man, and Cybernetics Society.
- IEEE Access, IEEE.
- Complex Adaptive Systems Modeling, Springer Verlag.
- International Journal of Computer Mathematics, Taylor & Francis.
- Multi-agent and Grid Systems an International Journal, IOS Press.
- Data, Multidisciplinary Digital Publishing Institute MDPI.
- Computers, Multidisciplinary Digital Publishing Institute MDPI.
- Mathematical and Computational Applications, Multidisciplinary Digital Publishing Institute MDPI.
- Machine Learning and Knowledge Extraction, Multidisciplinary Digital Publishing Institute MDPI.

Conference Program Committee (PC) Membership

- International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH 2015, 2016, 2017, 2018, 2019, 2020)
- International Conference on Frontiers of Information Technology (FIT' 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019).
- IEEE International Conference on Open Source Systems & Technologies (ICOSST 2014, 2015, 2017, 2018, 2019)
- International Conference on Advancements in Computational Sciences (ICACS' 2018, 2019, 2020)
- International Conference on Communication, Computing and Digital Systems (C-CODE 2019)
- International Conference on Intelligent Control and Computing (ICICC' 2019)
- International Conference on Intelligent Technologies and Applications (INTAP'19)
- KUST International Conference on Computer Architecture and Algorithms (CAA 2015)
- International Workshop on Trust in Agent Societies (TRUST 2012, 2013, 2014, 2015).
- International Neural Network Society Symposium on Emerging Digital Media (INNS SoEDM 2014)
- Conference on Information Assurance and Cyber Security (CIACS 2014, 2015)

- The 6th IFIP WG 11.11 International Conference on Trust Management (IFIPTM 2012).
- International Conference on Data Technologies and Applications (DATA 2012).
- International Workshop on Trustworthy Multi-Agent Systems (TruMAS 2012).
- International Workshop on Trusted Communications in Decentralized Computing (TCDC 2010).

International Conference and Workshop Reviews

- International Conference on Intelligent Agent Technology (IAT'10, IAT'11)
- International Conference on Autonomous Agents and Multiagent Systems (AAMAS'10, AAMAS'11)
- International Conference on Industrial Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE'10)
- International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMAS'10)
- International Workshop on Trusted Communications in Decentralized Computing (TCDC 2010)
- European Conference on Artificial Intelligence (ECAI'09)
- International Workshop on Multi-Agent Based Simulation (MABS'09)

PROJECTS AND FUNDING

Funded Projects (Current)

- 2018 – 2021 Principal Investigator, *Agent-based Computational Modeling Lab*, National Center of Artificial Intelligence, funded by the Higher Education Commission of Pakistan, value PKRS 100,000,000/- approx.
- 2017 – 2020 Principal Investigator, Research Project, *Design and Evaluation of Humanistic Driver Agent*, funded by the Higher Education Commission of Pakistan under National Research Grant for Universities (NRPU), value PKRS 4,938,000/-.

Funded Projects (Completed)

- 2017 – 2018 Principal Investigator, Undergraduate Final Year Project titled, *Information Extraction from Research Articles*, funded by (ICT RnD) Fund, value PKRS 80,000/-.
- 2017 – 2018 Principal Investigator, Undergraduate Final Year Project titled, *Virtual Reality Tutor Simulator*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 70,000/-.
- 2017 – 2018 Principal Investigator, Undergraduate Final Year Project titled, *Design and Evaluation of Autonomous Vehicle using Virtual Reality*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 70,000/-.
- 2017 – 2018 Principal Investigator, Undergraduate Final Year Project, *Design of Software for Ergonomic Hazard Detection to Computer Users*, funded by University of the Punjab Research Support Fund, value PKRS 150,000/-.
- 2015 – 2016 Principal Investigator, Undergraduate Final Year Project titled, *Electroid – Smart Homes*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 80,000/-.
- 2015 – 2016 Principal Investigator, Undergraduate Final Year Project titled, *Prediction System Based on Analytics for Library Data*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 65,000/-.

- 2014 – 2015 Principal Investigator, Undergraduate Final Year Project, *Social Experimentation with a Social Media Agent*, funded by University of the Punjab Research Support Fund, value PKRS 150,000/-.
- 2014 – 2015 Principal Investigator, Undergraduate Final Year Project titled, *Virtual Reality Powered Driving Tutor*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 90,000/-.
- 2014 – 2015 Principal Investigator, Undergraduate Final Year Project titled, *Learning Optimal Driver Personality Profile*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 35,000/-.
- 2014 – 2015 Principal Investigator, Undergraduate Final Year Project titled, *Defend and Destroy Warcraft Strategy Game*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 28,000/-.
- 2014 – 2015 Principal Investigator, Undergraduate Final Year Project titled, *Technology for Litigation*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 35,000/-.
- 2013 – 2014 Principal Investigator, Undergraduate Final Year Project titled, *Human Acceptance of Autonomous Social Media Agent*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 40,000/-.
- 2013 – 2014 Principal Investigator, Undergraduate Final Year Project, *3D Visualization of Search Engine*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 36,250/-.
- 2013 – 2014 Principal Investigator, UG Capstone Project, *Empirical Validation of Model for Human Decision Making*, funded by University of the Punjab Research Support Fund, value PKRS 150,000/-.
- 2012 – 2013 Principal Investigator, *Human Resource Development for Data Mining and Text Analytics Grant*, funded by PolyVista, Inc Houston, TX 77057, USA, value PKRS 1,000,000/-.
- 2012 – 2013 Principal Investigator, Undergraduate Final Year Project, *Automated Scientific Literature Acquisition for Systematic Literature Review*, funded by University of the Punjab Research Support Fund, value PKRS 150,000/-.
- 2012 – 2013 Principal Investigator, Undergraduate Final Year Project titled, *Unsupervised Deception Detection in Text*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 28,750/-.
- 2012 – 2013 Principal Investigator, Undergraduate Final Year Project, *Validation of Trust based Human Decision Making*, funded by National Information and Communication Technology Research and Development (ICT RnD) Fund, value PKRS 82,550/-.
- 2004 – 2005 Principal Investigator, *Urdu Linux Localization Project*, Research and Development Project of Free and Open Source Software Foundation of Pakistan (FOSSFP).

Funded Projects (Proposals Submitted)

- ---- Principal Investigator, Project titled, *Personal Research Assistant*, submitted for funding by (ICT RnD) Fund, value PKRS 20,000,000/- . All technical and financial reviews are completed. Waiting for formal approval by the Board of Governors.
- ---- Principal Investigator, Project titled, *Development of Indigenous Research Database*, submitted for funding by Punjab Higher Education Commission (PHEC), value PKRS 3,000,000/-.

SUPERVISED/ UNDER SUPERVISION PROJECTS/THESES**PhD Candidates under Supervision**

2014 – 2019

1. PHDCSF13M004 – Mian Muhammad Mubasher, *Design and Evaluation of Humanistic Driver Agent*.
2. PHDCSF13M002 – Asif Sohail, *Adaptive Blocking and Parameter Configuration for Record Linkage*.
3. PHDCSF16M002 – Zara Nasar, *Information Extraction from Full Length Scientific Articles*.
4. PHDCSF14M501 – Bilal Shahzad, *Design and Validation of Performance Evaluation Model for Scrum*.
5. PHDCSF17M003 – Mufrah Naveed, *Modelling of Group Formation Behavior of Pedestrians in Panic Situation*.

Graduate (MPhil) Thesis under Supervision

2019 – 2020

1. MSCSF18M010 – Muhammad Haris, *“Analysis of Architectural Definitions of Driver Agents”*.
2. MSCSF18M011 – Aroosa Siddique, *“Modeling of Driver Behavior Under Secondary Task”*.
3. MSCSF18M012 – Imran Haider, *“Evaluation of Agent- based Traffic Demand Model in Subcontinental Urban Context”*.
4. MSCSF18M019 – Abrar Sabir, *“Legal Data Mining”*.
5. MSCSF18M023 – Junaid Abdullah, *“An Investigation of Computational Procedures for Building Layout Optimization”*.
6. MSCSF18M024 – Hifsa Tanveer, *“Integrating Human Panic Factor in Traffic Flow Models”*.
7. MSCSF17M002 – Alisha Younas, *“Design of Hierarchical Human Driver Behavior Model”*.
8. MSCSF17M006 – Qura-tul-Ain Nafees, *“Modelling of Driver’s Honking Behavior”*.
9. MSCSF17M028 – Bisma Arshad, *“Modeling of Driver’s Perception using Fuzzy Modeling”*.

Graduate (MPhil) Thesis Supervised

2019 – 2020

1. MSCSF17M005 – Faiza Javed, *“Modeling of Driver Behavior in Anger”*.
2. MSCSF17M041 – Wajiha Batool, *“Incorporation and Analysis of Task Difficulty in Microscopic Driver Behavior Model”*.

2018 – 2019

3. MSCSF17M022 – Aqsa Chaudhary, *“Incorporation of Human Factors in Mixed Traffic Model”*.
4. MSCSF15M010 – Maria Khurshid, *“Effect of Social Group Forces on Crowd Evacuation in Panic Situation”*.
5. MSCSF15M025 – Zunaira Asghar, *“Incorporation of Human Factors in Microscopic Vehicular Traffic Models”*.
6. MSCSF15M036 – Muhammad Waqas Riaz, *“Implementation and Validation of Social Agent”*.

2017 – 2018

7. MSCSF15M009 – Shahmin Sharafat, *“Named Entity Extraction from Law Proceeding of Pakistan”*.
8. MSCSF15M008 – Usama Nawaz, *“Implementation and Validation of Framework for Location Based Social Network”*.

2016 – 2017

9. MSCSF14M509 – Afnan Iftakhar, *“Mining Information from Criminal Proceedings of the Lahore High Court Pakistan”*.
10. MSCSF14M029 – Mufrah Naveed, *“Modeling of Neurotic Personality Trait of Pedestrians in Panic Situation”*.

11. MSCSF14M023 – Maria Javiad, “*A Generalized Framework for Modeling of Collective Intelligence*”.
12. MSCSF13M040 – Ainee Ejaz Mirza, “*Modeling of Text Complexity in Science Textbooks of Primary Classes*”.

2015 – 2016

13. MSCSF14M005 – Zara Nasar, “*Information Mining from Research Papers*”.
14. Ali Hussain Khan – “*Design of a Creative Agent*”.

2014 – 2015

15. MSCSF13M001 – Hafiza Baseerat Fatima, “*Design and Analysis of a Social Agent*”.
16. MSCSF13M025 – Huma Shoaib, “*Associating Sentiments with Images*”.
17. MSCSF06M009 – Anzar Ahmad, “*An Investigation on Cast Based Agent Oriented Programming (CBAOP) Language Design and Implementation*”.

2013 – 2014

18. MSCSF11M002 – Bilal Shahzad, “*Data Visualization for Social Networks*”.
19. MSCSF11M017 – Imran Latif, “*Fostering Readers Trust on Wikipedia through Behaviour Analysis of Wikipedia Editors*”.

2012 – 2013

20. MSCSF11M013 – Mian Muhammad Mubasher, “*A Multi-agent Model for Realistic Urban Traffic Flow Simulation*”.
21. MSGSF10M003 – Muhammad Haris, “*Design of a Conceptual Framework for Location Based Social Networking*”.

Undergraduate (BS/M.Sc.) Projects under Supervision

2019 – 2020

1. N.A.

Undergraduate (BS/M.Sc.) Projects Supervised

2018 – 2019

2. Muhammad Amir, Hafiz Muhammad Zahid, Maida Tayyab, “*PUCIT Student Faculty Portal*”.
3. Muhammad Usama, Hamza, Ahad, Shanza, Sadaf, “*U Tracer*”.
4. Hassan Jilani, Shahbaz Ali, Sohaib, Arslan Ali, Faizan, “*Hire Me*”.
5. Shiza Tariq, Namra, Amna, “*Prediction of Library Circulation*”.

2017 – 2018

6. Mahnoor Saeed, Seemab Akbar, Jazib Humayun, Aleena Rashid, “*Technology for Law*”.
7. Syed Rizwan Ali, “*Ludo Game Server*”.
8. Usman Liaqut, Robbia Gulnar, Rabeea Rehman, Ather Rafiq, “*Virtual Reality Powered Driving Tutor*”.
9. Syeda Tayyaba Bukhari, Hifsa Tanveer, Ayesha Yamin, Kissa Tanvir, Dur e Nayab, “*Automation of PU Examination System*”.

2016 – 2017

10. Fariha Khan, Syed Rehan Haider, Iqra Tehseen, Waqar Ali, Alisha Younas, “*Legal Data Mining*”.
11. Mubeen, Zubair Dar, “*Productivity Logger*”.
12. Ayesha Saleem, Maryam Iqbal, “*Driver Assistant*”.
13. Muhammad Shazim Khan, Seemal Afzal, Muhammad Ali, “*Meeting Minute Recorder*”.

14. Moin Rajput, Ahsan Masood, Muhammad Moeen, Danish Hashmi, Muhammad Umair Rauf, *"Virtual Reality Powered Car Driving Serious Game"*.
15. Hamza Pervez, Muhammad Usman, Ali Raza, *"Parental Observation Device for Young Drivers Using CAN Bus and Raspberry Pi"*.
16. Hisham Asghar, Muhammad Tayyab Tariq, Aleena Raza, *"Student Social Media Network"*.
17. Waqas Iftikhar, Muhammad Awais, *"Student Career Counseling Portal"*.
18. Rohaan Ali, Umair Bin Aslam, Muhammad Umer, Khurram Raza, *"E Voting"*.
19. Sabah Fiaz, Aniq Khalid, Tooba Nasim, Amina Ameen, Maryam Bashir, *"Automation of PUCIT General Request Form"*.
20. Zaid Sarfraz, Umer Nadeem, Dawood Bin Sadaqat, Mehtab Khan, *"CAN Bus Powered Fleet Management System"*.
21. Tayyab Nasir, *"Low Cost Pharmacy"*.
22. Husnain Aslam, Babar Saleh Hayat, Shakeel Ahmad, *"Concurrent Version System and Literation Review Assistant - Extension and Deployment"*.
23. Adnan Ahmad Bhatti, Fariha Aslam, Komal Saif, *"Traffic Simulation Development Environment"*.
24. Iqra Aslam, Anum Waheed, Mahnoor Mazhar, Rabeea Arshad, *"Learning Management System (Moodle) - Extension and Deployment"*.
25. Muhammad Usman Malik, Zubair Hassan, , Muhammad Khan, *"Scale – OCR based Survey Form Automation"*
26. Muhammad Khan, Muhammad Fakhar, Ijaz Shafi, Rana Adnan, *"PUCIT Entry Test Automation"*
27. Qurat Ul Ain Fatima, Zarnab Ikram, *"Zotero Server - Extension and Deployment"*
28. Hammad Ahmad Qadri, *"National Digital Research Repository"*.

2015 – 2016

29. Hafiz M. Farooq, M. Farhan Mughal, M. Zikria Bashir, *"Library Books Circulation and Prediction"*.
30. Iqra Mirza, Talia Riaz, *"Scrum Evaluator"*.
31. Fatima Asif, Aqiba Javed, Iqra Arif, *"Learning of Optimal Driver Personality Profile"*.
32. Areeba Moin, Hassan Tahir, Zahid Mehmood, *"Kinect Based Ergonomics Application for Computer Users"*.
33. Syed Furqan Haider, Nazia Sadiq, Junaid Ch., Farhan Aamir, *"Car Scanner OBD-II"*.
34. Nabeel Afzal, Mirat Ul Amina, *"Portal for public services in Pakistan (HowTo.pk)"*.
35. Muhammad Ahmad, Asher Toqeer, Abdul Rahman, Saqib Mirza, *"EasyMobile: A Mobile Application"*.
36. Uzair Aslam, M. Hassan Riaz, M. Usama Khalid, Abdul Mateen, S. Ali Mughees Mehdi, *"Electroid"*.
37. Hafiz Sameeullah, Nauman Sharif, Umer Mehmood, Jahangeer Rana, *"DRRS - Digital Research Repository"*.
38. Shaheryar Ahmed, Shehraz Khan, Hamza Shafique, Ali Zuhaib, *"National Data Visualization"*.
39. Nimra Gulshan, Ayesha Riaz(Eraj Minal), Sameea Fatima, Rabia Riaz, *"Technology for Litigation System"*.
40. Waqas Yousaf, Nouman Asif, Fahad Rafi, Mahad Mughal, Sohail Shaukat, *"Audit Wheel"*.
41. Zia-Ul-Rehman, Naeem Ur Rehman, Hafiz Muhammad Hamza Asghar, *"LoBaRs"*.
42. Muhammad Usman, Farhan Ahmad, Adeel Waheed, Syed Asad Shah, Muhammad Faraz, *"Student Social Network."*

2014 – 2015

43. Aamir Bhatti, Ahsan Hayat, Safiyan Zulfiqar, Gohar Ali, “*Virtual Reality Powered Driving Tutor*”.
44. Awais Cheema, Maida Fatima, Ali Zaib, Zeeshan Sabir, “*Defend and Destroy Warcraft Strategy Game*”.
45. Tasadduq Ali, Abdullah Tariq, Muazzam Abbas, Wasif Saeed, “*Technology for Litigation*”.
46. Mukkarram ur Rehman, Irfan Farooq, Hammad Zahid, Mshood Alam, Umer Hayat, Misbah Ali, Junaid Sarfraz, “*Technology for Research*”.
47. Ramshah Jahangir, “*Learning Optimal Driver Personality Profile*”.

2013 – 2014

48. Awais Asghar, “*Digital Research Repository Scraper*”.
49. Arslan Ihsan, “*Tracebook*”.
50. Hafiz Mujadid Khalid, “*Intelligent Literature Review Assistant*”.
51. Ammarah Ijaz, M. Anas Khan, “*Social Agent*”.
52. Muhammad Rehan, Sundas Saif, “*Version Control System for Multimedia Files*”.
53. Haider Ali, Muhammad Umair, “*Virtual Psychiatrist*”.
54. Zia Ur Rehman Kiyani, “*3D Search Engine*”.
55. Shmeel Ahmed, “*Vehicular Traffic Flow Scenario Development Environment*”.

2012 – 2013

56. Fahad Majeed, Hamad Hassan, Muhammad Usman, “*Online Social Network Portal for Researchers*”.
57. Amjad Afzaal, Muhammad Tauseef, “*Web mining for Research and Researchers*”.
58. Rafay Ahmad, Asim Arshad, Fakhar Uz Zaman, Ahsan Ejaz, “*National Data Visualization*”.
59. Fahad Mansoor, Muhammad Rohail, “*Empirical Validation of Decision Making in Uncertain Environment*”.
60. Bilal Ahmad Yaseen, “*Automated Scientific Literature Acquisition for Systematic Literature Review*”.
61. Hira Zaidi, “*Identification of Deception from Text*”.
62. Zara Nasar, “*Mining NEWS Effects on General Public Opinion*”.
63. Sara Riaz, “*Sentiment Analysis with Visual Text Summarization*”.
64. Amina Mirza, “*Extending Social Network using Public Tweets*”.
65. Syed Muhammad Junaid, “*Opinion Mining and Sentiment Analysis*”.
66. Osama Jameel Ahmad, “*NEWS Miner from Twitter Streams*”.
67. Abdul Rauf Saeed, “*Intelligent Information Retrieval from Quran and Hadith text*”.
68. Muhammad Bhasham, “*Virtual Tutor*”.
69. Ali Farzan, “*Visualization of Web*”.
70. Sami Atiq, “*Internet Footprint Finder*”.
71. Samina Saleem, “*Web Visualizer*”.

2005 – 2006

72. M. Waseem Latif, Muhwish Rathore, “*Intelligent Customized Information Retrieval Agent for Web*”.
73. M. Rizwan Asghar, “*Service Oriented Computing Interface (SOI) for Legacy Systems*”.
74. Fayyaz Khan Lodhi, Zaheer Ahmad, “*Electronic Government Service Manager for Service (EGSM) Oriented Computing Model of E-Government*”.

2004 – 2005

75. Touseef Liaquat, “*Machine Learning for Multi-Agent Systems*”.

76. Mohsin Mahmood, M. Ahsan, M. Azeem Yousaf, H. Abdul Shakoor, “Urdu – English Lexicon”.

77. Fahad Akhtar, M. Kashif, Qasim Ali, Shehzad Amin, “Urdu Language Morphological Guesser”.

UNIVERSITY TEACHING

- 2012 – 2020 *Introduction to Computational Modeling* to graduated and postgraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2015 – 2020 *Introduction to Computing* to undergraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2016 – 2020 *Artificial Intelligence* to undergraduate classes at Information Technology University (ITU), Punjab, Lahore, Pakistan.
- 2013 – 2019 *Topics in Artificial Intelligence* to graduate and postgraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2017 – 2018 *Bioinformatics and Artificial Intelligence* to postgraduate classes at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore, Pakistan.
- 2013 – 2017 *Data Mining and Information Retrieval* to graduate and postgraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2013 – 2015 *Managing Information* to postgraduate classes at Institute of Communication Studies, University of the Punjab, Lahore, Pakistan.
- 2012 – 2014 *Introduction to Artificial Intelligence* to undergraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2012 – 2013 *Research Methods in Information and Computational Sciences* to graduated and postgraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2010 – 2011 *Advance Programming* to under-graduated class at Department of Computer Science, VU University, Amsterdam, The Netherlands.
- 2009 – 2010 *Organizational Dynamics using LeedsTo Language* to graduated class at Department of Artificial Intelligence VU University, Amsterdam, The Netherlands.
- 2008 – 2009 *Dynamics of Behavior using LeedsTo Language* to graduated class at Department of Artificial Intelligence VU University, Amsterdam, The Netherlands.
- 2001 – 2007 *Introduction to Programming Concepts using C language* to undergraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2006 – 2007 *Introduction to Artificial Intelligence* to undergraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2004 – 2006 *System Programming in LINUX using C/C++ languages* to undergraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2002 – 2005 *Object Oriented Programming using C++ language* to undergraduate and postgraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.
- 2002 – 2004 *Data Structures and Algorithms using C++ language* to undergraduate and postgraduate classes at Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan.

ADMINISTRATIVE AND ADVISORY DUTIES AT NATIONAL LEVEL:

- 2012 – to date *PhD Approved Supervisor*, Higher Education Commission (HEC), Islamabad, Pakistan.

- 2015 – to date *Evaluator*, Research Funding Proposals of Ignite, National Information and Communication Technology Research and Development (ICTRnD) Fund, Islamabad, Pakistan.
- 2017 – to date *Program Evaluator*, National Computing Education Accreditation Council (NCEAC), Higher Education Commission (HEC), Islamabad, Pakistan.
- 2017 – to date *Member Board of Studies*, Department of Computer Science and Information Technology, University of Engineering and Technology, Peshawar, Pakistan.
- 2018 – to date *Director*, Agent-based Computational Modeling Laboratory, National Center of Artificial Intelligence (NCAI), Pakistan.
- 2018 – to date *Convener*, External Review Committee for Computer Science and Information Technology Textbooks, Punjab Curriculum and Textbook Board, Punjab, Pakistan.
- 2018 – to date *Member Judging Panel*, National Grassroots ICT Research Initiative (NGIRI), Ignite, National Information and Communication Technology Research and Development (ICTRnD) Fund, Islamabad, Pakistan.
- 2018 – to date *Technical Co-Chair*, IEEE International Conference on Advancements in Computational Sciences.
- 2019 – to date *Vice Chair*, IEEE Computer Society (CS), Lahore Section, Lahore, Pakistan.
- 2019 – to date *Convener*, Review Committee for the review of Curriculum of Computer Science and Information Technology for Grades VI-XII, Punjab Curriculum and Textbook Board, Punjab, Pakistan.
- 2019 – to date *Advisor for Interview*, Punjab Public Service Commission, Lahore, Pakistan.
- 2019 – to date *External Examiner*, MPhil Computer Science theses, Government College University (GCU), Faisalabad, Pakistan.
- 2017 – 2018 *External Examiner*, MPhil Computer Science theses, University of Lahore (UoL), Lahore, Pakistan.
- 2015 – 2016 *External Examiner*, MPhil Computer Science theses, Government College University (GCU), Lahore, Pakistan.
- 2013 – 2014 *External Examiner*, Bachelor of Science in Computer Science capstone projects, COMSATS Institute of Information Technology (CIIT), Lahore, Pakistan.

ADMINISTRATIVE, CO AND EXTRA CURRICULAR DUTIES AT UNIVERSITY LEVEL:

- 2012 – to date *Head*, PUCIT Artificial Intelligence and Multidisciplinary (AIM) Research Laboratory, Lahore, Pakistan.
- 2012 – to date *Member/Secretary*, Research Advisory Committee, PUCIT, Lahore, Pakistan
- 2012 – to date *Member*, Admission Committee, PUCIT, Lahore, Pakistan
- 2013 – to date *Member*, PUCIT NCEAC Accreditation Committee.
- 2017 – to date *Member*, Committee to Propose Rules and Regulations for the Establishment of PUCIT Center for Entrepreneurship at PUCIT, Lahore, Pakistan.
- 2017 – to date *Chairperson*, Committee for Organizing Meeting with PUCIT Alumni CEO's at PUCIT, Lahore, Pakistan.
- 2017 – to date *Chairperson*, Committee for Organizing PUCIT Alumni Annual Dinner at PUCIT, Lahore, Pakistan.
- 2017 – to date *PUCIT Focal Person*, National Grassroots ICT Research Initiative, Ignite National ICT RnD Fund.

- 2018 – to date *Director*, National Center of Artificial Intelligence, University of the Punjab (NCAI-PU), Lahore, Pakistan.
- 2018 – to date *Chairperson*, Purchase Committee for Central Development Working Party (CDWP) approved project NCAI, University of the Punjab, Lahore, Pakistan.
- 2018 – to date *Chairperson*, Hiring Committee for Central Development Working Party (CDWP) approved project NCAI, University of the Punjab, Lahore, Pakistan.
- 2018 – to date *Member*, University Ranking Committee, University of the Punjab, Lahore, Pakistan.
- 2020 – to date *Member*, University Automation Committee, University of the Punjab, Lahore, Pakistan.
- 2012 – 2019 *Degree Coordinator*, PUCIT PhD Computer Science Program, Lahore, Pakistan.
- 2012 – 2019 *Degree Coordinator*, PUCIT MPhil Computer Science Program, Lahore, Pakistan.
- 2012 – 2019 *Degree Coordinator*, PUCIT MPhil Remote Sensing and Geographical Information Systems Program, Lahore, Pakistan.
- 2012 – 2019 *Secretary*, Departmental Doctoral Program Committee (DPC), PUCIT, Lahore, Pakistan
- 2012 – 2019 *Member*, College Council, PUCIT, Lahore, Pakistan
- 2013 – 2019 *Member/Secretary*, PUCIT Graduate Financial Support Review Committee (GFSRC), at PUCIT, Lahore, Pakistan
- 2017 – 2018 *Member*, Committee to Resolve the promotion and other allied issues of the Faculty Members Working under Tenure Track System (TTS), University of the Punjab, Lahore, Pakistan.
- 2014 – 2017 *Chief Organizer*, National Software Competition and Exhibition (SoftExpo 2014, 15, 16, 17) at PUCIT, Lahore, Pakistan.
- 2015 – 2017 *Chief Organizer*, National Graduate Research Symposium (GRS 2015, 16, 17) at PUCIT, Lahore, Pakistan.
- 2013 – 2017 *Faculty Advisor*, PUCIT ACM Student Chapter, Lahore, Pakistan.
- 2012 – 2013 *Secretary*, Admission Process Review Committee at PUCIT, Lahore, Pakistan.
- 2012 – 2013 *Secretary*, Research Advisory Committee at PUCIT, Lahore, Pakistan.
- 2001 – 2007 *Head/Chairman*, Computer Society at PUCIT, Lahore, Pakistan.
- 2002 – 2007 *Secretary*, Curriculum Development Committee at PUCIT, Lahore, Pakistan.
- 2006 – 2007 *Member of Board of Studies*, University of the Punjab for the Subject of Computer Science and Information Technology.
- 2006 – 2007 *Member*, PUCIT Scholarship Committee, Lahore, Pakistan.
- 2006 – 2007 *Member*, PUCIT Internal Faculty Search Committee.
- 2003 – 2006 *Knowledge Mentor*, Subjects of Programming Concepts, Object Oriented Programming, Data Structures and System Programming at PUCIT, Lahore, Pakistan.
- 2005 – 2006 *Member*, Distributed Computing Research Centre (DCRC) at PUCIT, Lahore, Pakistan.
- 2005 – 2006 *Undergraduate and Postgraduate semester Coordinator* at PUCIT, Lahore, Pakistan.
- 2003 – 2005 *Degree In-charge*, B. Sc. (Honors) Degree in Computer Science at PUCIT, Lahore, Pakistan.
- 2005 – 2005 *Coordinator*, FOSSAC'05, 1st National Free and Open Source Software Awareness Campaign held on 16-19 August 2005, Punjab University Lahore, Pakistan.
- 2002 – 2004 *Postgraduate Degree Project Coordinator*, PUCIT, Lahore, Pakistan.
- 2002 – 2003 *In-charge*, SoftComp–I and SoftComp–II, Conducted SoftComp, 1st and 2nd PUCIT Computer Science Contest that constitutes Software, Programming and Quiz competitions.

INDUSTRIAL, SOFTWARE AND SOCIAL SERVICES AT LARGE:

- 2015 – to date *In charge IT Team*, Develop, Deploy and Execute, Annual Biometric Elections at Lahore High Court Bar, Lahore, Pakistan.
- 2017 – to date *Manager*, General Request Portal at PUCIT, Develop, Deploy and Manage, PUCIT General Request Portal to make its processes, paperless, transparent, electronics, online, auditable, and readily accessible.
- 2017 – to date *Manager*, Integrated Vehicular Traffic Simulation Environment (ITE), Develop and Manage, ITE is a free and open-source software for transportation scientist, engineers, academics, and managers (domain experts) publicly available at GitHub github.com/AIMRL/ITE.
- 2018 – to date *Instructor*, ADDO.AI, Enterprise Artificial Intelligence Solution Firm.
8 Cross Street, Singapore 048424.
- 2012 – 2013 *Consultant*, PolyVista, Inc. Artificial Intelligence and Text mining Company.
5850 San Felipe Street, Suite 500 Houston, TX 77057.
- 2009 – 2012 *Founding Member and Treasurer*, Think for Pakistan Organization, to work and support for the cause of Pakistan.
VU University, Amsterdam, the Netherlands.
- 2004 – 2005 *Patron*, COMPUTING, First Indigenous Computer Science and Information Technology Electronic Magazine in Pakistan. PUCIT, University of the Punjab, Lahore, Pakistan.

CONFERENCES/WORKSHOPS/COURSES, ORGANIZED/PARTICIPATED/ATTENDED:**Talks, Conferences, Workshops, Summer Schools, Courses and Tutorials****Organized**

1. Vice Chair Advisory Committee, IEEE Young Professionals Leadership Conference - IEEE YPLC 2020, January 18th, 2020 at Quilim Grand Marquee, West Canal Road, Faisalabad, Pakistan.
2. Seminar on “Agent-based Digital Twins - Blending Digital and Physical Worlds”, February 22nd, 2019 at National Center of Artificial Intelligence (NCAI), Punjab University College of Information Technology (PUCIT), University of the Punjab, Lahore, Pakistan.
3. Technical Co-Chair, Artificial Intelligence and Robotics in International Conference on Advancements in Computational Sciences 2019 (ICACS'19), February 18th – 20th, University of Lahore, Lahore, Pakistan.
4. Full-day Workshop on “Intelligent Transportation Systems”, February 15th, 2019 at National Center of Artificial Intelligence (NCAI), Punjab University College of Information Technology (PUCIT), University of the Punjab, Lahore, Pakistan.
5. Full-day Hands-on Workshop on “Exploratory Data Analytics”, December 13th, 2018 at Data Strategy and Analytics Division, Habib Bank Limited (HBL), Karachi, Pakistan.
6. Full-day Hands-on Workshop on “Model Generalization”, November 22nd, 2018 at Data Strategy and Analytics Division, Habib Bank Limited (HBL), Karachi, Pakistan.
7. Full-day Hands-on Workshop on “Regression Analysis”, November 15th, 2018 at Data Strategy and Analytics Division, Habib Bank Limited (HBL), Karachi, Pakistan.
8. Session Chair, International Conference on Intelligent Technologies and Applications (INTAP 2018) October 23rd – 25th, 2018, Islamia University, Bahawalpur, Pakistan.
9. Half-day Workshop on Data Mining and Machine Learning using WEKA (DMML'18), May 14th, 2018 at Artificial Intelligence and Multidisciplinary (AIM) Research Lab, Punjab University College of Information Technology (PUCIT), University of the Punjab, Lahore, Pakistan.

10. 1st National Workshop on Agent Based Modeling and Simulation (ABMS'17), December 22nd, 2017 at Artificial Intelligence and Multidisciplinary (AIM) Research Lab, Punjab University College of Information Technology (PUCIT), University of the Punjab, Lahore, Pakistan.
11. 3rd National Computer Science Graduate Research Conference (GRC'2017) at Punjab University College of Information Technology, University of the Punjab, Lahore on May 13-14, 2017.
12. 5th National Software Completion and Exhibition (SOFTEXPO'2017) at Punjab University College of Information Technology, University of the Punjab, Lahore on May 13-14, 2017.
13. 2nd National Computer Science Graduate Research Symposium (GRS'2016) at Punjab University College of Information Technology, University of the Punjab, Lahore on May 21-22, 2016.
14. 4th National Software Completion and Exhibition (SOFTEXPO'2016) at Punjab University College of Information Technology, University of the Punjab, Lahore on May 21-22, 2016.
15. 1st National Computer Science Graduate Research Symposium (GRs'2015) at Punjab University College of Information Technology, University of the Punjab, Lahore on May 22-23, 2015.
16. 3rd National Software Completion and Exhibition (SOFTEXPO'2015) at Punjab University College of Information Technology, University of the Punjab, Lahore on May 22-23, 2015.
17. 2nd National Software Completion and Exhibition (SOFTEXPO'2014) at Punjab University College of Information Technology, University of the Punjab, Lahore on June 13, 2014.
18. 1st National Software Completion and Exhibition (SOFTEXPO'2013) at Punjab University College of Information Technology, University of the Punjab, Lahore on June 22, 2013
19. 1st National Conference on Trends and Practices of Free and Open Source Software Technologies (TPFOSST'05), August 18th – 19th, 2005, at PUCIT, Lahore, Pakistan.
20. 1st Student Conference on Computer Science Spring 2004 (SCCS'04), June 22nd – 24th, 2004 at Punjab University College of Information Technology Lahore, Pakistan.
21. PUCIT Second In-house Software Competition (SoftComp–II), January 24th – 25th, 2003 at Punjab University College of Information Technology Lahore, Pakistan.
22. PUCIT First In-house Software Competition (SoftComp–I), June 8th, 2002 at Punjab University College of Information Technology Lahore, Pakistan.

Participated

1. Participated, Project Evaluation Judge in “8th Invention to Innovation Summit”, April 2nd – 3rd, 2019 at Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan.
2. Presented, Invited Talk on “Machine Learning and Autonomous Systems in the Military Realm”, in Expert Workshop on Mapping the Impact of Machine Learning and Autonomy on Strategic Stability and Nuclear Risk by Stockholm International Peace Research Institute (SIPRI), February 25th – 26th, 2019, Colombo, Sri Lanka.
3. Presented, Invited Talk on “Conducting Science using Modeling and Simulation”, December 21st – 22nd, 2018 at International Conference on Emerging Trends in Engineering, Science and Technology (ICEEST 2018), Iqra University, Karachi, Pakistan.
4. Presented, Invited Talk on “Computational Methods for Intelligent Transportation System”, December 19th – 21st, 2018 at Al-Khawarizmi Institute of Computer Science, University of Engineering and Technology, Lahore, Pakistan.
5. Presented, Tutorial on “Agent based Modeling and Social Simulation”, at International Conference on Advancements in Computational Sciences (ICACS'18), February 21st, 2018 at the University of Lahore, Lahore, Pakistan.
6. Participated, Workshop on e-services Composition and Development in the Cloud (W-Codec2017), December 27th – 28th, 2017 at School of Science and Engineering, Lahore University of Management Sciences (LUMS), Lahore, Pakistan.

7. Presented, Invited Talk on “Intelligent Transportation System”, December 18th – 20th, 2017 at Al-Khawarizmi Institute of Computer Science, University of Engineering and Technology, Lahore, Pakistan.
8. Presented, Invited Talk on “Computational Thinking and its Role in Scientific Discovery”, October 27th, 2017 at Center for High Energy Physics, University of the Punjab, Lahore, Pakistan.
9. Presented, Invited Talk on “Science through Computational Modeling and Simulation”, International Conference on Communication, Computing and Digital Systems, (CCODE'17), March 8th – 9th, 2017 at Bahria University, Islamabad, Pakistan.
10. Participated, IEEE 20th International Multi-topic Conference (INMIC 2017), November 25th – 26th, 2017 at National University of Computer and Emerging Sciences (NUCES-FAST), Lahore, Pakistan.
11. Presented, Tutorial on “Computational Modeling”, December 16th – 18th, 2014 at Serina Hotel, Islamabad, Pakistan.
12. Participated, Third International Conference on Computational Collective Intelligence, (ICCCI'11), September 21st – 23rd, 2011 at Academia Moraska, Gdynia, (Poland).
13. Participated, 11th IEEE/WIC/ACM International Conference on Intelligent Agent Technology. (IAT'11), August 22nd – 25th, 2011, Campus de la Doua, Lyon, France.
14. Participated, 5th International Conference on Trust Management Advances in Information and Communication Technology, (TM'11), June 29th – July 1st, 2011, Technical University of Denmark (DTU), Copenhagen, Denmark.
15. Participated, 10th IEEE/WIC/ACM International Conference on Intelligent Agent Technology. (IAT'10), August 31st - September 3rd, 2010, York University, Toronto, Canada.
16. Participated, 4th International Conference on Trust Management Advances in Information and Communication Technology (TM'10), June 16th - 18th, 2010, Morioka, Iwate, Japan.
17. Participated, 12th International Conference on Principles of Practice in Multi-Agent Systems (PRIMA'09), December 13th - 16th, 2009 at Nagoya Congress Center, Nagoya, Japan.
18. Participated, 16th International Conference on Neural Information Processing (ICONIP'09), December 1st - 5th, 2009 at Windsor Suites Hotel Bangkok, Bangkok, Thailand.
19. Participated, Second International Conference on Cognitive Neurodynamics (ICCN'09), November 15th – 19th, 2009 at Days Hotel Hangzhou, Hangzhou, China.
20. Participated, International Symposium on Secure Computing (SecureCom'09), in conjunction with the IEEE International Conference on Privacy, Security, Risk and Trust, (PASSAT'09), August 29th - 31st, 2009 at Vancouver, Canada.
21. Participated, 9th International Conference on Cognitive Modeling (ICCM'09), July 24th – 26th, 2009 at University of Manchester, Manchester, United Kingdom.
22. Participated, Workshop on Parameter Estimation for Dynamical Systems (PEDS), June 8th - 10th, 2009 at European Institute for Statistics, Probability, Stochastic Operations Research and its Applications (EURANDOM) Technical University Eindhoven, The Netherlands.
23. Participated, 3rd International School “DECOI 2009: Design of Collective Intelligence, February 23rd – 27th, 2009 at the Lorentz Center, Leiden, The Netherlands.
24. Participated, 12th International Workshop on Cooperative Information Agents (CIA'08), September 10th – 12th, 2008 at Czech Technical University, Prague, Czech Republic.
25. Participated, 22nd European Conference on Modeling and Simulation (ECMS'08), June 3rd – 6th, 2008 at University of Cyprus, Nicosia, Cyprus.
26. Participated, International Conference on E-Governance: A Catalyst for Change (ICEG'05), December 9th – 11th, 2005, at LUMS, Lahore, Pakistan.

27. Participated, CIIT Workshop on Research in Computing Spring 2005 (CWRC'S05), April 2005, at COMSATS, Abbottabad, Pakistan.

Attended

1. Attended, Conference on “Discourse of Nation Building” 2019, March 26th, University of the Punjab, Lahore, Pakistan.
2. Attended, International Conference on Advancements in Computational Sciences 2019 (ICACS'19), February 18th – 20th, University of Lahore, Lahore, Pakistan.
3. Attended, Lecture on Kinematics and Dynamics of Mobile Robots, October 15th, 2018 at Department of Electrical Engineering, School of Science and Engineering, Lahore University of Management Sciences (LUMS), Lahore, Pakistan.
4. Attended, 15th Workshop on Field and Assistive Robotics (WPAF), October 13th, 2018 at National Agriculture Robotics Laboratory, National Center for Robotics and Automation, Lahore University of Management Sciences (LUMS), Lahore, Pakistan.
5. Attended, 4th Workshop on Precision Agriculture and Forestry (WPAF), October 12th, 2018 at National Agriculture Robotics Laboratory, National Center for Robotics and Automation, Lahore University of Management Sciences (LUMS), Lahore, Pakistan.
6. Attended, Conversations on Deep Learning Lecture, October 11th, 2018 at Department of Electrical Engineering, School of Science and Engineering, Lahore University of Management Sciences (LUMS), Lahore, Pakistan.
7. Attended, International Conference on Intelligent Technologies and Applications (INTAP 2018) October 23rd – 25th, 2018, Islamia University, Bahawalpur, Pakistan.
8. Attended, One Day Training Workshop on “NCEAC Accreditation Process”, organized by the Quality Assurance Agency, NCEAC, February 17th, 2018, at Higher Education Commission, Lahore, Pakistan.
9. Attended, International Conference on Advancements in Computational Sciences (ICACS'18), February 19th – 21st, 2018 at the University of Lahore, Lahore, Pakistan.
10. Attended, 1st International Meeting on Science and Society (IMSS-I), November 23rd – 25th, 2017 at Center for High Energy Physics, University of the Punjab, Lahore, Pakistan.
11. Attended, 4th e-Learning and Distance Education Conference (ELDEC 2017), November 20th – 21st, 2017 at Virtual University of Pakistan, Lahore, Pakistan.
12. Attended, 9th International Conference on Information and Communication Technology and Development (ICTD 2017), November 16th – 19th, 2017 at Avari Hotel, Lahore, Pakistan.
13. Attended, Two days training workshop on Structural Equation Modeling using AMOS, September 28th – 29th, 2017 at COMSATS Institute, Islamabad, Pakistan.
14. Two days' Workshop on Patent Filing and Introduction to Intellectual Property System of Pakistan, May 17th – 18th, 2017 at Kharana Hall, Institute of Chemistry, University of the Punjab.
15. Attended, International Workshop on Science Communication Portfolio: A Guide to Create Communication Materials that Complement Science, January 10th – 11th, 2017 at COMSTECH, Islamabad, Pakistan.
16. Attended, 4th One Week In-Service Faculty Training Program, November 21st – 25th, 2016 at Department of Microbiology and Molecular Genetics (MMG), University of the Punjab, Lahore, Pakistan.
17. Attended, 13th International Conference on Frontiers of Information Technology, (FIT 2015), December 16th – 18th, 2015 at Serina Hotel, Islamabad, Pakistan.
18. Attended, 5th International Multidisciplinary Conference, September 14th – 16th, 2015 at Imperial College of Business Studies, Lahore, Pakistan.
19. Attended, Conference on Emerging Technologies – Redefining Governance in Information Age, May 14th, 2015 at Arfa Software Technology Park, Lahore, Pakistan.

20. Attended, Tutorial on “Complex Network Design From Interaction Data in Complex Systems”, December 18th, 2014 at Serina Hotel, Islamabad, Pakistan.
21. Attended, Science Tour 2014: Living in a Digital World - Artificial Intelligence and Visual/Multimodal Computing, January 19th – 25th, 2014 by the German Academic Exchange Service (DAAD) at South of Germany.
22. Attended, Business Analytics Summit, Punjab Information Technology Board, January 29th, 2014, Arfa Software Technology Park, Lahore, Punjab.
23. Attended, 2nd Computational Science Conference, October 20th – 25th, 2013 at International Islamic University, Islamabad, Pakistan.
24. Attended, International workshop on Visualization in Science and Technology Education, ARTEMiS Visualization Group Massachusetts Institute of Technology, September 14th – 18th, 2013 at Virtual University, Lahore, Pakistan.
25. Attended, Cloud Computing Summit, Punjab Information Technology Board, April 16th, 2013, Arfa Software Technology Park, Lahore, Punjab.
26. Attended, International Conference on Science Policies and Restructuring of National Systems of Innovation, October 3rd – 5th, 2012 at COMSTECH, Islamabad, Pakistan.
27. Attended, International Workshop on Computational Methods in Mathematics, May 7th – 9th, 2012 at COMSTECH, Islamabad, Pakistan.
28. Attended, “MAO – Multi-Agent Organization”, December 19th – 23rd, 2011 at the Lorentz Center, Leiden, The Netherlands.
29. Attended, Masterclass on “Human-Computer Interaction”, November 24th, 2011 at VU University Amsterdam, Amsterdam, The Netherlands.
30. Attended, Advanced SIKS-Course on Computational Intelligence, October 13th – 14th, 2011 at the Conference Center Hotel Mitland, Utrecht, The Netherlands.
31. Attended, International Workshop on Errors in the Science, September 24th– 28th, 2011 at the Lorentz Center, Leiden, The Netherlands.
32. Attended, Creativity: Meaning, Mechanisms, Models, September 12th – 16th, 2011 at the Lorentz Center, Leiden, The Netherlands.
33. Attended, Summer School on Data Mining, August 29th – September 1st, 2011 at Department of Knowledge Engineering, Maastricht University, Maastricht, The Netherlands.
34. Attended, International Summer School on Intelligent Agent Technology and Web Intelligence, August 26th – 27th, 2011, Campus de la Doua, Lyon, France.
35. Attended, the School for Information and Knowledge Systems (SIKS) on “Learning and Reasoning”, June 9th – 10th, 2011 at the Landgoed Huize Bergen, Vught, The Netherlands.
36. Attended, the School for Information and Knowledge Systems (SIKS) on “Information Retrieval”, June 7th – 8th, 2011 at the Landgoed Huize Bergen, Vught, The Netherlands.
37. Attended, High Performance Computing: Useful for scientific research? June 1st, 2011 at VU Universiteit, Amsterdam, The Netherlands.
38. Attended, the School for Information and Knowledge Systems (SIKS), “advanced course on Agent Based Simulation”, February 21st – 22nd, 2011 at the Conference Center Woudschoten, Zeist, The Netherlands.
39. Attended, 3rd International Workshop, “HART - Human-Agent-Robot Teamwork”, December 13th – 17th, 2010 at the Lorentz Center, Leiden, The Netherlands.
40. Attended, Scientific ICT Research Event Netherlands (Next Level) SIREN/NL 2010, November 2nd, 2010 at Veldhoven, The Netherlands.

41. Attended, Masterclass on “Design Science methodology: Principles and Practice”, October 15th, 2010 at Conference Center Hoog Brabant, Utrecht, The Netherlands.
42. Attended, International Workshop “Computational Intelligence in HealthCare”, September 21st – 22nd, 2010 at TU/e, Eindhoven, The Netherlands.
43. Attended, Summer School, “Computational Intelligence in HealthCare”, September 20th – 24th, 2010 at TU/e, Eindhoven, The Netherlands.
44. Attended, 4th International Workshop on Human Aspects in Ambient Intelligence: Agent Technology, Human-Oriented Knowledge, and Applications (IAT: HAI), August 31st, 2010, York University, Toronto, Canada.
45. Attended, 2nd International Workshop on Collaborative Agents -- REsearch and Development (CARE), August 31st, 2010, York University, Toronto, Canada.
46. Attended, The Joint International Workshop on Trust in Location and Communications in Decentralised Computing, June 15th, 2010, at Iwate Prefecture Citizen's Cultural Exchange Conference Center (AIINA), Morioka, Iwate, Japan.
47. Attended, Tutorial on “Identity Management”, June 14th, 2010, at Iwate Prefecture Citizen's Cultural Exchange Conference Center (AIINA), Morioka, Iwate, Japan.
48. Attended, International Workshop “Understanding and the Aims of Science”, May 31st – June 4th, 2010 at the Lorentz Center, Leiden, The Netherlands.
49. Attended, International Workshop “Integrating Cultures: Models, Simulations and Applications”, April 6th – 9th, 2010 at the Lorentz Center, Leiden, The Netherlands.
50. Attended, International Workshop “Formal Theories of Communication”, February 22nd – 26th, 2010 at the Lorentz Center, Leiden, The Netherlands.
51. Attended, International Workshop “Philosophy of the Information and Computing Sciences”, February 8th – 12th, 2010 at the Lorentz Center, Leiden, The Netherlands.
52. Attended, Joint Workshop on Agent Technology for Disaster Management & Intelligent Agents in Sensor Networks and Sensor Web, December 12th, 2009, Nagoya Institute of Technology, Nagoya, Japan.
53. Attended, Tutorial on Game-theory/Mechanism Design/Auctions in Multi-agent Systems, December 13th, 2009, Nagoya Institute of Technology, Nagoya, Japan.
54. Attended, Tutorial on Computational Approaches in Social Computing, December 3rd, 2009 at Windsor Suites Hotel Bangkok, Bangkok, Thailand.
55. Attended, Workshop on Social Computing in Education, August 31st, 2009 at Vancouver, Canada.
56. Attended, Tutorial on Cognitive Modeling with the Neural Engineering Framework, July 23rd, 2009 at University of Manchester, Manchester, United Kingdom.
57. Attended, International Workshop “Brain Waves”, June 22nd – 26th, 2009 at the Lorentz Center, Leiden, The Netherlands.
58. Attended, Workshop on “EndNote 2007”, March 10th, 2009 at Main Library VU Universiteit, Amsterdam, The Netherlands.
59. Attended, Modeling and Simulating Work Practice with the Brahms Agent Environment, May 2008, at Utrecht University, Utrecht, The Netherlands.
60. Attended, Workshop on "Agent Based Approaches in Economics", January 2008, at Erasmus School of Economics, Rotterdam, The Netherlands.
61. Attended, Almende Summer School on Self Organizing Systems by Agent Architecture, 28th – 30th August 2007, Rotterdam, The Netherlands.

62. Attended, 4th International Workshop on Frontiers of Information Technology (FIT'06), December 20th – 21st, 2006, Islamabad, Pakistan.
63. Attended, Microsoft TechNet and MSDN Workshop in February 2005 held at Pearl Continental Hotel, Lahore, Pakistan.
64. Attended, Intensive Teacher Training Workshop, CSTTW'04, in 23rd – 28th August 2004 held at Punjab University College of Information Technology, Lahore, Pakistan.
65. Attended, Workshop on Knowledge Management in January 2004 held at Punjab University College of Information Technology, Lahore, Pakistan.
66. Participated, Summer School in Morphology and Syntax of Urdu for Computational Linguistics during August 13th – 23rd, 2003 held at National University of Computer and Emerging Sciences, Lahore, Pakistan.
67. Attended, Workshop on Software Development in Urdu and Regional Languages in September 2002 held at Karachi Institute of Information Technology, Karachi, Pakistan.

MEMBERSHIP OF LEARNED SOCIETIES

1. Senior Member, *Institute of Electrical and Electronics Engineering* (IEEE) (www.ieee.org)
2. Vice Chair, *IEEE Computer Society* (IEEE-CS), Lahore Section (site.ieee.org/lahore/technical-chapters/cs)
3. Member, *IEEE Computer Society* (IEEE-CS) (www.computer.org)
4. Member, *IEEE Intelligent Transportation Systems Society* (IEEE-ITSS) (www.ieee-itss.org)
5. Member, *Association of Computing Machinery* (ACM) (www.acm.org)
6. Member, *ACM Computer Science Teachers Association* (CSTA) (csta.acm.org)
7. Member, *Asian Federation of Natural Language Processing* (AFNLP) (www.afnlp.org)
8. Member, *IEEE Special Interest Group on Humanitarian Technology* (SIGHT) (sight.ieee.org)
9. Member, *IEEE Computer Society Technical Committee on Simulation* (TCSIM) (www.computer.org/portal/web/tcsim)
10. Member, *IEEE Biometrics Council* (ieee-biometrics.org)
11. Member, *IEEE Council on Electronic Design* (CEDA) (ieee-ceda.org)
12. Member, *IEEE Council on Superconductivity* (CSC) (ieeecsc.org)
13. Member, *IEEE Nanotechnology Council* (NANO) (ieeenano.org)
14. Member, *IEEE Sensors Council* (ieee-sensors.org)
15. Member, *IEEE Systems Council* (ieeesystemscouncil.org)