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Professor

PhD Supervisor

Introduction	Mohsin Ali Memon was among 11 candidates from all over Pakistan, who was awarded MEXT Japanese Cultural scholarship to pursue PhD in Japan in 2010. Currently he is involved in various research projects with Masters and PhD students in Department of Software Engineering. He was also awarded AI for Earth research grant by Microsoft in the field of Artificial Intelligence/Machine Learning.

POSITIONS HELD	
Employment	**Duration**
• Worked as Lab-Lecturer (on Contract) in Department of Computer Systems and Software Engineering Mehran UET Jamshoro from Aug 2006 to December 2007.	1 year 4 months
• Worked as Lecturer (Regular)in Department of Computer Systems and Software Engineering Mehran UET Jamshoro from January 2008 to June 2014.	6 years 6 months
• Worked as Assistant Professor in Department of Software Engineering from July 2014 to December 2017.	3 years 4 months
• Worked as Associate Professor in Department of Software Engineering from December 2017 to December 2024.	7 years
• **Working as Professor in Department of Software Engineering from December 2024.**	(Till date)
Total Teaching Experience	**>17 Years**

EDUCATION DETAILS	
PhD (Computer Science)	University of Tsukuba, Japan under Japanese Govt. MEXT Scholarship Program, 2010-2014
ME-Information Technology	Master of Engineering in Information Technology, Mehran University of Engineering & Technology, Jamshoro, Pakistan 2006-2008 C.G.P.A (4.00)
BE-Software Engineering	Bachelors in Software Engineering, Mehran University of Engineering & Technology, Jamshoro, Pakistan 2002-2005 C.G.PA (3.91)
F.SC	(Pre –Engineering), Government Govt. MuslimScience College Hyderabad, Pakistan) 81%2000-2001
SSC	St. Bonaventure's High School Hyderabad. 81% 1989-1999

ACADEMIC ACTIVITIES

Subjects taught in PhD/M.E/B.E

- Data Structures and Algorithms
- Object Oriented Programming
- Mobile Computing and Application Development
- Formal Methods in Software Engineering
- Natural Language Processing
- Human Computer Interaction
- Artificial Intelligence Concepts and Techniques
- Interactive Multimedia Technologies
- Web Programming
- Software Testing and Quality Assurance
- Digital Logic and Design
- Semantic Web
- Software Requirement Engineering
- Reliability Engineering
- Research Programming and Analyzing Results
- Programming Real Time Systems

Areas of Interest

- Human Computer Interaction
- Mobile Context Awareness
- AI & Machine Learning

- Pervasive Computing

SUPERVISING RESEARCH BY TWO PHD STUDENTS

1. Development of a mobile based bacteria detection system in water.
2. Automated detection of Textual cyberbullying threats in Pakistani social media for Roman Urdu Language.

Supervision of Master's students research projects from 2015-2024:**25**

TRAVEL GRANTS

1. Sponsored by University of Tsukuba to present paper at 10th Asia pacific Conference on Computer Human Interaction, ACM, 28th-31st August, 2012, Matsue, Japan.
2. Sponsored by Microsoft to attend AI for Earth October Summit at Microsoft Head Quarters in Redmond, WA, USA from October 15 – 17, 2019.

PUBLICATIONS

Book Chapter

1. Shaikh, Faisal Karim, **Mohsin Ali Memon**, and Sherali Zeadally. "Simultaneous wireless information and power transfer in Internet of Things." Energy Harvesting in Wireless Sensor Networks and Internet of Things (2022): 223.
2. Talpur, Hafsa, Badar Muneer, **Mohsin Ali Memon**, Nadeem Abbas, and Abi Waqas. "AI-Powered Antennas and Microwave Components." In AI and Its Convergence With Communication Technologies, pp. 97-136. IGI Global, 2023.

Conference

1. Ecological Footprint Analysis in Academia: A case study of Mehran University of Engineering and Technology, Pakistan. Memon, U., Meghji, A. F., **Memon, M. A**., &Razaa, O. (2022). 6th International Conference on Energy, Environment and Sustainable Development 2022 (EESD 2022).
2. Rahima Memon, Mohsin Memon, Naeem Ahmed Mahoto and Owais Raza. (December 2021). Identification of growth stages of crops using mobile phone images and machine learning. In 2021 International Conference on Computing, Electronic and Electrical Engineering (IEEE ICE CUBE, October 26-27, 2021), pp. 1-5, ISBN:978-1-6654-0155-5.
3. Classification of URDU headline news using Bidirectional Encoder Representation from Transformer and Traditional Machine learning Algorithm, K. Mujahid, S. Bhatti and **M. Memon**, *2021 6th International Multi-Topic ICT Conference (IMTIC)*, 2021

4. Detecting Cyberbullying in Social Commentary Using Supervised Machine Learning, Raza M.O., **Memon M.**, Bhatti S., Bux R. In: Arai K., Kapoor S., Bhatia R. (eds) Advances in Information and Communication. FICC 2020. Advances in Intelligent Systems and Computing, vol 1130. Springer
5. An AHP/TOPSIS-Based Approach for an Optimal Site Selection of a Commercial Opening Utilizing GeoSpatial Data, S. A. Shaikh, **M. A. Memon**, M. Prokop and K. Kim, " *IEEE International Conference on Big Data and Smart Computing (BigComp)*, Busan, Korea (South), 2020, pp. 295-302,
6. A Novel framework for location based messages, Rabia Iftikhar, **Dr. Mohsin Memon**, Prof. Tahseen Hafiz and Rabeea Jaffri, IEEE 5th International multitopic conference, IMTIC 2018, Jamshoro.
7. Exploring Role of Social Media Usage Towards Academic Activities of Students, Eman Javed, Naeem Ahmed Mahoto, Vijdan Khalique and **Mohsin Ali Memon**, IEEE 5th International multitopic conference, IMTIC 2018, Jamshoro.
8. Framework of business intelligence systems for infrastructure design and management, Rubeeajaffri, **Mohsin Memon**, Rabia iftikhar,IEEE International Conference On Latest trends in Electrical Engineering & Computing Technologies, INTELLECT2017, Karachi.
9. Interactive Wall: Information Retreival from Conventional Wall using Hand Gestures, Mohammad Ali, Fariha, Parshant, **Mohsin Memon**, First International Conference on Computing and related technologies, ICCRT 2017, Karachi.
10. **Mohsin Memon**, Jiro Tanaka,Sharing Life Experiences with Friends Based on Individual's Locality. 15th International Conference on Human-Computer Interaction (HCI International 2013), Part IV, LNCS 8015, pp. 706-713, Las Vegas, NV, USA, July 2013.
11. **Mohsin Memon**, Jiro Tanaka, Tomonari Kamba, Restrain From Pervasive Logging Employing Geo-Temporal Policies, 10th Asia pacific Conference on Computer Human Interaction, ACM, 28th-31st August, 2012, Matsue, Japan.
12. S. Bhatti, J. Xu, **M. Memon**, Energy-Aware Fault-tolerant Clustering Scheme for Target Tracking Wireless Sensor Networks, Seventh International Symposium on Wireless Communication Systems, York, The University of York, United Kingdom, 19th-22nd September, 2010.
13. S. Bhatti, J. Xu, **M. Memon**, Model checking of a Target Tracking Protocol for Wireless Sensor Networks, IEEE CS Press, In: Proceedings of 10th International Conference on Scalable Computing and Communications, ScalCom 2010, 29 June-01 July, 2009, Bradford, Uk.

Journal Publications

1. Dewani, A.; **Memon, M.A**.; Bhatti, S.; Sulaiman, A.; Hamdi, M.; Alshahrani, H.; Alghamdi, A.; Shaikh, A. Detection of Cyberbullying Patterns in Low Resource Colloquial Roman Urdu Microtext using Natural Language Processing, Machine Learning, and Ensemble Techniques. *Appl. Sci.* 2023, *13*, 2062.
2. Raza, Muhammad Owais, Tarique Ahmed Khuhro, Sania Bhatti, and **Mohsin Memon**. Evaluation of deep learning approaches for classification of drought stages using satellite imagery for Tharparker." Sir Syed University Research Journal of Engineering & Technology 12, no. 2 (2022): 101-108. (HEC Recognized Journal)
3. Dewani, Amirita, Sania Bhatti, and **Mohsin Ali Memon**. "Analysis of Outcome-based educational model in Engineering Education with preliminary Findings." International Journal of Advanced Culture Technology 10.1 (2022): 1-9.
4. Shaikh, Faisal Karim, **Mohsin Ali Memon**, Naeem Ahmed Mahoto, Sherali Zeadally, and Jamel Nebhen. "Artificial Intelligence Best Practices in Smart Agriculture." *IEEE Micro* 42, no. 01 (2022) 17-14.
5. Junejo, Ghazala, Sania Bhatti, and **Mohsin Memon**. "Probabilistic Modeling of Histogram Based Fuzzy Image Enhancement Algorithm." Review of Information Engineering and Applications 9.1 (2022): 1-11.
6. Dewani, Amirita, **Mohsin Ali Memon**, and Sania Bhatti. "Cyberbullying detection: advanced preprocessing techniques & deep learning architecture for Roman Urdu data." *Journal of big data* 8.1 (2021): 1-20.
7. Dewani, Amirita, **Mohsin Ali Memon**, and Sania Bhatti. "Development of computational linguistic resources for automated detection of textual cyberbullying threats in Roman Urdu language." 3C TIC (2021): 101-121.
8. Shaikh, Salman Ahmed, **Mohsin Memon**, and Kyoung-Sook Kim. "A Multi-Criteria Decision-

Making Approach for Ideal Business Location Identification." Applied Sciences 11, no. 11 (2021): 4983.

9. Bushra, **Mohsin Ali Memon**, and Salahuddin Saddar. "Architecting an Enterprise Data Lake, A Covid19 Case Study." J. Softw. 16, no. 4 (2021): 174-181.
10. Raza, Owais, **Mohsin Memon**, Sania Bhatti, and Nazia Pathan. "Drought Prediction with Raw Satellite Imagery and Ensemble Supervised Machine Learning." Review of Environment and Earth Sciences 8, no. 1 (2021): 1-7.
11. Aqsa Afroz, **Dr Mohsin Ali Memon**, Salahuddin Saddar, Muhammad Haris Khan,(2020). An algorithm for Prevention and Detection of Cross Site Scripting Attacks. *SSRG International Journal of Computer Science and Engineering* 7(7), 8-18.
12. Groundwater Arsenic and Health Risk Prediction Model using Machine Learning for T.M Khan Sindh, Pakistan, Iftikhar, S., Bhatti, S., Bhatti, Z. A., **Memon, M. A.,** Internation Journal of Information Technology and Computer Science, 2020, 2, 24-31. MECS Press.
13. Iftikhar, S., Bhatti, S., Bhatti, Z. A., **Memon, M. A.**, & Memon, F. (2020). Groundwater Arsenic and Cancer Risk Assessment Prediction model via Machine Learning: A Step Towards Modernizing Academic Research. Sir Syed University Research Journal of Engineering & Technology.
14. Bhatti, S., Dewani, A., Maqbool, S., &**Memon, M. A.** (2019). A Web based Approach for Teaching and Learning Programming Concepts at Middle School Level. International Journal of Modern Education & Computer Science, 11(4).
15. Arain, M., **Memon, M. A**., Bhatti, S., & Arain, M. FEASIBILITY OF CHATBOT FOR MEHRAN UET EXAMINATION DEPARTMENT. Review of Information Engineering and Applications 6.2 (2019): 17-28.
16. Saba Feroz Memon, **Mohsin Memon**, Sania Bhatti, Wearable Technology for Infant Health Monitoring: A Survey, IET Circuits, Devices & Systems, 20pp. 2019.
17. Saman Shahid Qureshi, Mohsin Memon, Tehseen Hafiz, Pirah Memon, Formal Validation of Erratic Delegation of Roles with UML and OCL, Indian Journal of Science and Technology, Vol 11(31), 2018.
18. Rabia Naz Khan, **Mohsin Ali Memon**, Hira Abid Khan and Salahuddin Saddar, Investigating Hand Gestures for Interactivity in Legacy Notice Board System, Indian Journal of Science and Technology, Vol 11(29), 2018.
19. Sheeraz Memon, Sania Bhatti, Liaquat A. Thebo, Mir Muhammad B. Talpur, **Mohsin A. Memon**, " A Video based Vehicle Detection, Counting and Classification System", International Journal of Image, Graphics and Signal Processing(IJIGSP), Vol.10, No.9, pp. 34-41, 2018
20. Dewani, A., Bhatti, S., **Memon, M.A.** et al,.Sign Language e-Learning system for hearing-impaired community of Pakistan, International Journal of information technology Vol. 10(2) 225-232, 2018.
21. Shahzad Nizamani, **Mohsin Memon**, Muhammad Akram Sheikh and Areej Fatemah, S2N: Safe Satellite Navigator, International Journal of Future Generation Communication and Networking, Vol. 10(10), (pp. 33-40), 2017.
22. **Mohsin Ali Memon**, Sania Bhatti, Naeem Ahmed Mahoto, Farida Memon. “LIFEREC: A Framework for Recommending Users from Past Life Experiences. Mehran University Research Journal of Engineering & Technology Vol. 36 (3), 2017.
23. Saba Feroz Memon, **Mohsin Ali Memon**, Shehnila Zardari. Blind’s Eye: Employing Google Directions API for Outdoor Navigation of Visually Impaired Pedestrians. Mehran University Research Journal of Engineering & Technology Vol. 36 (3), 2017.
24. S. Bhatti, **M. Memon**, S. Memon, Evaluating FTTT Protocol via PRISM, PRISM-symm and GRIP, International Journal of Computer Theory and Engineering (IJCTE) Vol 9, No 3, 2017, pp 162-166.
25. Shehnila Zardari, **Mohsin Ali Memon**, Najeed Ahmed Khan. Systematic Analysis of Risks in Cloud Architecture. International Journal of Computer Science and Information Security (IJCSIS), Vol. 14, No. 11, 2016.
26. Farida Memon, Rafia Naz Memon, Abdul Sattar Saand, **Mohsin Ali Memon**, Fayaz Ahmed Memon (August 2016). Depth Estimation using FPGAs. International Journal of Computer Science and Information Security (IJCSIS), Vol. 14, No. 8, pp. 1004-1013, 2016.
27. **Mohsin Ali Memon**, Sania Bhatti, Naeem A. Mahoto. A Digital Diary: Remembering the Past Using the Present Context. In Mehran University Research Journal of Engineering & Technology, Vol. 35(2), pp:275-286, 2016.
28. Naeem A. Mahoto, Asia Memon,**Mohsin Ali Memon**, Mansoor Ali Teevno. Extraction of Web Navigation Patterns by means of Sequential Pattern Mining. In Sindh University Research Journal

(Science Series), Vol. 48(1), pp: 201-208. ISSN: 1813-1743, 2016.
29. **Mohsin Memon**, N. A. Mahoto and Faheem Y. Khuhawar and J. Tanaka, Retrieval of Life Logs based on Users Context, Sindh University Research Journal (Science Series), Vol. 47, No. 4, pp 851-860, 2015.
30. **Mohsin Ali Memon**, Jiro Tanaka, Ensuring privacy during pervasive logging by a passerby, Journal of Information Processing, Vol.22, No.2, 2014, pp 334-343.
31. S. Bhatti, S. Memon, I. A. Jokhio, **M. Memon**, Modelling and symmetry reduction of a Target Tracking Protocol using Wireless Sensor Networks, International Journal of IET Communications. 3rd July 2012, Vol.6, Issue 10, pp. 1205-1211.
32. **M. Memon**, S. Bhatti, S. Memon, Probabilistic and hybrid Model checking deployments for Wireless Sensor Networks, Mehran University research journal of engineering and technology, January 2012, Vol. 31, No. 1, pp. 177-188.
33. S. Bhatti, J. Xu, **M. Memon**, Clustering and Fault Tolerance for Target Tracking using Wireless Sensor Networks, International Journal of IET Wireless Sensor Systems, 2011, Vol.1, issue 2, pp.66-73.
34. **Mohsin Ali Memon**, Manzoor Hashmani, and Karsten Sohr, Validation of Temporary Delegation and Revocation of Roles with UML and OCL, International Journal of Computer Theory and Engineering (IJCTE), Vol. 2, No. 3, pp 6-11, February 2010.