

Academic Resume



Muhammad Ramzan

Professor, Information Systems Department

Currently Muhammad Sher Ramzan is a Professor at Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah, KSA. He has more than 35 years of research, teaching, and administrative experience in different educational and research institutions. He successfully supervised 16 PhD scholars and has more than 130 scientific publications. He has served as Chairman of the Department of Computer Science

Contact Information.

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Highest Degree.

2007, , Information Security , TU Berlin, Germany.

Academic and Professional Experiences.

1. **2019 - Present**
Professor, Department of Information Systems, Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah.
2. **2008 - 2019**
Professor, Department of Computer Science, Faculty of Basic and Applied Sciences, International Islamic University, Islamabad, Pakistan.
3. **2005 - 2008**
Research Scientist, Berlin, Germany, Fraunhofer Open Communication (FOKUS) Institute,.
4. **1998 - 2004**
Assistant Professor, Islamabad, Pakistan, Department of Computer Science, International Islamic University.
5. **1992 - 1998**
Senior Scientific Officer/Scientific Officer, Islamabad, Pakistan, Research Organization.
6. **1990 - 1992**
Computer Instructor and Programmer, Islamabad, Pakistan, Centre for Asian Studies and Gallup Pakistan.

Research Interests.

Next Generation Networks, Cloud Computing, Ubiquitous Computing, Enterprise Architecture, Information Systems, Information Security, IoT and Smart Computing.

Teaching Interests.

Information and Network Security, Pervasive and Smart Computing and IoT, Information Systems.

Certifications and Trainings.

1. Interconnecting Cisco Network Devices (ICND).
2. Building Cisco Remote Access Networks (BCRAN).
3. Cisco Networking Academy Program for Universities Teachers.
4. Building Scalable Cisco Networks (BSCN).
5. Microsoft Certified Professional (MCP) Track 4.0.
6. Computer Vision & Video Computing.
7. Introduction to Cisco Router Configuration (ICRC).
8. Internetworking Microsoft TCP/IP on Window NT (MOC Course Nr. 688).
9. Supporting Microsoft Window NT Server 4.0 & Enterprise (MOC Course Nr. 689).
10. Installing and Configuring Microsoft Window NT Workstation 4.0 (MOC Course Nr. 700).
11. Accelerated Training for Microsoft Window NT 4.0 (MOC Course Nr. 983).

Social, Scientific and Professional Affiliation.

1. 2019-Present, Member (Research ID: N-6832-2019),
<https://publons.com/researcher/2915549/muhammad-sher/>.
2. 2019-Present, Member (ORCID: 0000-0001-6752-0033), ORCID.

Excellence Awards and Patents.

1. 2012, International, 10th Teradata National IT Excellence Awards, Teradata, Pakistan.
2. 2011, International, (ISC)2Asia-Pacific Information Security Achievements (ISLA) Award, International Information Security System Consortium(ISC)2 Asian Advisory Board at Jakarta, Indonesia.
3. 2008, Interior, Best University Teacher Award, Higher Education Commission (HEC), Islamabad, Pakistan.
4. 2004, International, HEC-DAAD Fellowship Award, DAAD Germany.
5. 2000, International, NCR National IT Excellence Award, NCR, Pakistan.

Funded Projects.

1. 2021, Development of Artificial Intelligence & Collaborative Technology Support System for Children with Special Needs (Case: Covid-19 Pandemic Period), DSR, King Abdulaziz University, Ministry of Education, KSA, Under Development.
2. 2021, Intelligent Medical Data Exchange Engine (IMDEE) for Global Access and Privacy Control with HL7 Standard for Healthcare Decision Support System, DSR, King Abdulaziz University, Ministry of Education, KSA, Under Development.
3. 2021, Artificial Bee Colony based Optimization for Mitigating Replication in Large Data for Internet of Things (IoT), DSR, King Abdulaziz University, Ministry of Education, KSA, Under Development.
4. 2012, Efficient and Secure Provisioning of IMS Based Next Generation Network Multimedia Services, National ICT R&D Fund, Ministry of Information Technology, Pakistan, Completed.
5. 2010, Autonomic Workload Manager for Data Warehouse, HEC National Research Program for Universities (NRPU), Pakistan, Completed.
6. 2006, MAMS (Multi-Access, Modular-Services, German Federal Ministry of Education and Research, Completed.

Publications.

1. Eman Alqaissi, Fahd Alotaibi, Muhammad Sher Ramzan, Abdulmohsen Algarni, "Detection And Real-Time Analysis Of Influenza Disease Using Graph Data Science And A Multi-Layer Perceptron Model", Journal Of Intelligent & Fuzzy Systems, pp. 1-22, 2024.
DOI: [10.3233/JIFS-233381](https://doi.org/10.3233/JIFS-233381)
2. Muhammad Sher Ramzan, Anees Asghar, Ata Ullah, Fawaz Alsolami, Iftikhar Ahmad, "A Bee Colony-Based Optimized Searching Mechanism In The Internet Of Things", Future Internet, vol: 16, pp. 35, 2024.
DOI: [10.3390/fi16010035](https://doi.org/10.3390/fi16010035)
3. Abdulrahman Alsubayhin, Muhammad Ramzan, Bander Alzahrani, "Crime Prediction Using Machine Learning: A Comparative Analysis", Journal Of Computer Science, vol: 19, pp. 1170-1179, 2023.
DOI: [10.3844/jcssp.2023.1170.1179](https://doi.org/10.3844/jcssp.2023.1170.1179)
4. A Fares Hamad Aljohani, Ahmad. B. Alkhodre, Adnan Ahamad Abi Sen, Muhammad Sher Ramzan, Bandar Alzahrani, Muhammad Shoaib Siddiqui, "Flood Prediction Using Hydrologic And MI-Based Modeling: A Systematic Review", International Journal Of Advanced Computer Science And Applications, vol: 14, 2023.
DOI: [10.14569/IJACSA.2023.0141155](https://doi.org/10.14569/IJACSA.2023.0141155)
5. Sultan M. Almeghle, Abdullah AL-Malaise AL-Ghamdi, Muhammad Sher Ramzan, Mahmoud Ragab, "Machine Learning-Based Dos Amplification Attack Detection Against Constrained Application Protocol", Applied Sciences, vol: 13, pp. 7391, 2023.
DOI: [10.3390/app13137391](https://doi.org/10.3390/app13137391)
6. Sultan M. Almeghle, Abdullah AL-Malaise AL-Ghamdi, Muhammad Sher Ramzan, Mahmoud Ragab, "Application Layer-Based Denial-Of-Service Attacks Detection Against Iot-Coap", Electronics, vol: 12, pp. 2563, 2023.
DOI: [10.3390/electronics12122563](https://doi.org/10.3390/electronics12122563)
7. Fares Hamad Aljohani, Adnan Ahmed Abi Sen, Muhammad Sher Ramazan, Bander Alzahrani, Nour Mahmoud Bahbouh, "A Smart Framework For Managing Natural Disasters Based On The Iot And MI", Applied Sciences, vol: 13, pp. 3888, 2023.
DOI: [10.3390/app13063888](https://doi.org/10.3390/app13063888)
8. Eman Alqaissi, Fahd Alotaibi, Muhammad Sher Ramzan, "Graph Data Science And Machine Learning For The Detection Of Covid-19 Infection From Symptoms", Peerj Computer Science, vol: 9, pp. e1333, 2023.
DOI: [10.7717/peerj-cs.1333](https://doi.org/10.7717/peerj-cs.1333)
9. Norah Dhafer Alqahtani, Bander Alzahrani, Muhammad Sher Ramzan, "Deep Learning Applications For Dyslexia Prediction", Applied Sciences, vol: 13, pp. 2804, 2023.
DOI: [10.3390/app13052804](https://doi.org/10.3390/app13052804)
10. Nouf S. Aldahwan, Muhammed S. Ramzan, B. D. Parameshachari, "The Descriptive Data Analysis For The Adoption Of Community Cloud In Saudi Hei-Based Factor Adoption", Biomed Research International, vol: 2022, pp. 1-7, 2022.
DOI: [10.1155/2022/7765204](https://doi.org/10.1155/2022/7765204)
11. Eman Yahia Alqaissi, Fahd Saleh Alotaibi, Muhammad Sher Ramzan, Philip Broadbridge, "Modern Machine-Learning Predictive Models For Diagnosing Infectious Diseases", Computational And Mathematical Methods In Medicine, vol: 2022, pp. 1-13, 2022.
DOI: [10.1155/2022/6902321](https://doi.org/10.1155/2022/6902321)
12. Nouf S. Aldahwan, Muhammed S. Ramzan, "Quadruple Theories Based Determinants And Their Causal Relationships Affecting The Adoption Of Community Cloud In Saudi Hei", Biomed Research International, vol: 2022, pp. 1-10, 2022.
DOI: [10.1155/2022/2382535](https://doi.org/10.1155/2022/2382535)

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13. Nouf S. Aldahwan, Muhammed S. Ramzan, "Descriptive Literature Review And Classification Of Community Cloud Computing Research", Scientific Programming, vol: 2022, pp. 1-12, 2022.
DOI: [10.1155/2022/8194140](https://doi.org/10.1155/2022/8194140)
14. Nouf S. Aldahwan, Muhammed S. Ramzan, "Factors Affecting The Organizational Adoption Of Secure Community Cloud In Ksa", Security And Communication Networks, vol: 2021, pp. 1-8, 2021.
DOI: [10.1155/2021/8134739](https://doi.org/10.1155/2021/8134739)
15. Raja Sher Afgun Usmani, Syed Muhammad Saqlain Shah, Muhammad Sher Ramzan, Abdullah Saad AL-Malaise AL-Ghamdi, Anwar Ghani, Imran Khan, Farrukh Saleem, "Context Based Adoption Of Ranking And Indexing Measures For Cricket Team Ranks", Computers, Materials & Continua, vol: 65, pp. 1113-1136, 2020.
DOI: [10.32604/cmc.2020.010789](https://doi.org/10.32604/cmc.2020.010789)
16. Shahwar Ali, A Humaria, M Sher Ramzan, Imran Khan, Syed M Saqlain, Anwar Ghani, J Zakia, Bander A Alzahrani, "An Efficient Cryptographic Technique Using Modified Diffie-Hellman In Wireless Sensor Networks", International Journal Of Distributed Sensor Networks, vol: 16, pp. 155014772092577, 2020.
DOI: [10.1177/1550147720925772](https://doi.org/10.1177/1550147720925772)
17. Muhammad Uzair Ghazi, Muazzam A. Khan Khattak, Balawal Shabir, Asad W. Malik, Muhammad Sher Ramzan, "Emergency Message Dissemination In Vehicular Networks: A Review", Ieee Access, vol: 8, pp. 38606-38621, 2020.
DOI: [10.1109/ACCESS.2020.2975110](https://doi.org/10.1109/ACCESS.2020.2975110)
18. Zeeshan Ali, Shehzad Ashraf Chaudhry, Muhammad Sher Ramzan, Fadi Al-Turjman, "Securing Smart City Surveillance: A Lightweight Authentication Mechanism For Unmanned Vehicles", Ieee Access, vol: 8, pp. 43711-43724, 2020.
DOI: [10.1109/ACCESS.2020.2977817](https://doi.org/10.1109/ACCESS.2020.2977817)
19. Ata Ullah, Ghawar Said, Muhammad Sher, Huansheng Ning, "Fog-Assisted Secure Healthcare Data Aggregation Scheme In Iot-Enabled Wsn", Peer-To-Peer Networking And Applications, vol: 13, pp. 163-174, 2019.
DOI: [10.1007/s12083-019-00745-z](https://doi.org/10.1007/s12083-019-00745-z)
20. Tahira, Shireen; Ullah, Ata; Ashraf, Humaira; Sher, Muhammad, "Efficient Security Associations Establishment Using Ipsec In Ims After Handover In Ngmn", Journal Of Internet Technology, 2019.
21. Humaira Ashraf; Ata Ullah; Shireen Tahira; Muhammad Sher, "Efficient Certificate Based One-Pass Authentication Protocol For Ims", Journal Of Internet Technology, 2019.
22. Anwar Ghani; Husnain Naqvi; Muhammad Sher; Arif Ur Rahman; Imran Khan, "Capacity Gain In Spread Spectrum Based Collaborative Communication In Wireless Sensor Networks", Journal Of Internet Technology, 2019.
23. Ata Ullah, Ghawar Said, Muhammad Sher, Huansheng Ning, "Fog-Assisted Secure Healthcare Data Aggregation Scheme In Iot-Enabled Wsn", Peer-To-Peer Networking And Applications, 2019.
DOI: [10.1007/s12083-019-00745-z](https://doi.org/10.1007/s12083-019-00745-z)
24. Eid Rehman, Muhammad Sher, Husnain Abass Naqvi, Khan Bahadar Khan, Kamran Ullah, "Secure Cluster-Head Selection Algorithm Using Pattern For Wireless Mobile Sensor Networks", Tehnicki Vjesnik - Technical Gazette, vol: 26, 2019.
DOI: [10.17559/TV-20170319133811](https://doi.org/10.17559/TV-20170319133811)
25. Syed Muhammad Saqlain, Muhammad Sher, Faiz Ali Shah, Imran Khan, Muhammad Usman Ashraf, Muhammad Awais, Anwar Ghani, "Fisher Score And Matthews Correlation Coefficient-Based Feature Subset Selection For Heart Disease Diagnosis Using Support Vector Machines", Knowledge And Information Systems, vol: 58, pp. 139-167, 2018.
DOI: [10.1007/s10115-018-1185-y](https://doi.org/10.1007/s10115-018-1185-y)

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26. Muhammad Fahad Umer, Muhammad Sher, Yaxin Bi, Yongtang Shi, "A Two-Stage Flow-Based Intrusion Detection Model For Next-Generation Networks", Plos One, vol: 13, pp. e0180945, 2018.
DOI: [10.1371/journal.pone.0180945](https://doi.org/10.1371/journal.pone.0180945)
27. Aiiad Albeshri, "Cryptanalysis And Improvement Of A Multi-Server Authentication Protocol By Lu Et Al.", Ksii Transactions On Internet And Information Systems, vol: 12, 2018.
DOI: [10.3837/tiis.2018.01.025](https://doi.org/10.3837/tiis.2018.01.025)
28. Syed Muhammad Saqlain, Muhammad Sher, Faiz Ali Shah, Imran Khan, Muhammad Usman Ashraf, Muhammad Awais, Anwar Ghani, "Fisher Score And Matthews Correlation Coefficient-Based Feature Subset Selection For Heart Disease Diagnosis Using Support Vector Machines", Knowledge And Information Systems, vol: 58, pp. 139-167, 2018.
DOI: [10.1007/s10115-018-1185-y](https://doi.org/10.1007/s10115-018-1185-y)
29. Shafina Bibi, Nadeem Anjum, Muhammad Sher, "Automated Multi-Feature Human Interaction Recognition In Complex Environment", Computers In Industry, vol: 99, pp. 282-293, 2018.
DOI: [10.1016/j.compind.2018.03.015](https://doi.org/10.1016/j.compind.2018.03.015)
30. Imran Khan, M. Sher, Syed M. Saqlain, Husnain A. Naqvi, Anwar Ghani, M. Usman Ashraf, Javed I. Khan, "Role-Based Efficient Information Extraction Using Rule-Based Decision Tree", International Journal Of Advanced And Applied Sciences, vol: 4, pp. 74-83, 2017.
DOI: [10.21833/ijaas.2017.01.011](https://doi.org/10.21833/ijaas.2017.01.011)
31. Azeem Irshad, Muhammad Sher, Shehzad Ashraf Chaudhry, Qi Xie, Saru Kumari, Fan Wu, "An Improved And Secure Chaotic Map Based Authenticated Key Agreement In Multi-Server Architecture", Multimedia Tools And Applications, vol: 77, pp. 1167-1204, 2017.
DOI: [10.1007/s11042-016-4236-y](https://doi.org/10.1007/s11042-016-4236-y)
32. Muhammad Usman, Muhammad Awais, Muhammad Sheraz, Ijaz Shoukat, Muhammad Sher, "Proactive Intention-Based Safety Through Human Location Anticipation In Hri Workspace", International Journal Of Advanced Computer Science And Applications, vol: 8, 2017.
DOI: [10.14569/IJACSA.2017.080451](https://doi.org/10.14569/IJACSA.2017.080451)
33. Muhammad Fahad Umer, Muhammad Sher, Yaxin Bi, "Flow-Based Intrusion Detection: Techniques And Challenges", Computers & Security, vol: 70, pp. 238-254, 2017.
DOI: [10.1016/j.cose.2017.05.009](https://doi.org/10.1016/j.cose.2017.05.009)
34. Eid Rehman, Muhammad Sher, Syed Hussnain Abbas Naqvi, Khan Badar Khan, Kamran Ullah, "Energy Efficient Secure Trust Based Clustering Algorithm For Mobile Wireless Sensor Network", Journal Of Computer Networks And Communications, vol: 2017, pp. 1-8, 2017.
DOI: [10.1155/2017/1630673](https://doi.org/10.1155/2017/1630673)
35. Azeem Irshad, Muhammad Sher, Shehzad Ashraf Chaudhry, Saru Kumari, Arun Kumar Sangaiah, Xiong Li, Fan Wu, "A Secure Mutual Authenticated Key Agreement Of User With Multiple Servers For Critical Systems", Multimedia Tools And Applications, vol: 77, pp. 11067-11099, 2017.
DOI: [10.1007/s11042-017-5078-y](https://doi.org/10.1007/s11042-017-5078-y)
36. Shireen Tahira, Muhammad Sher, Ata Ullah, Muhammad Imran, Athanasios V. Vasilakos, "Handover Based Ims Registration Scheme For Next Generation Mobile Networks", Wireless Communications And Mobile Computing, vol: 2017, pp. 1-15, 2017.
DOI: [10.1155/2017/8789513](https://doi.org/10.1155/2017/8789513)
37. Azeem Irshad, Muhammad Sher, Muhammad Usman Ashraf, Bander A. Alzahrani, Fan Wu, Qi Xie, Saru Kumari, "An Improved And Secure Chaotic-Map Based Multi-Server Authentication Protocol Based On Lu Et Al. And Tsai And Lo???S Scheme", Wireless Personal Communications, vol: 95, pp. 3185-3208, 2017.
DOI: [10.1007/s11277-017-3990-0](https://doi.org/10.1007/s11277-017-3990-0)

Publications.

38. AtaUllah Ghafoor, Muhammad Sher, Muhammad Imran, Imran Baig, "Disjoint Key Establishment Protocol For Wireless Sensor And Actor Networks", Journal Of Sensors, vol: 2016, pp. 1-15, 2016.
DOI: [10.1155/2016/5071617](https://doi.org/10.1155/2016/5071617)
39. Imran Khan, Muhammad Sher, Javed Khan, Syed Saqlain, Anwar Ghani, Husnain Naqvi, Muhammad Ashraf, "Conversion Of Legal Text To A Logical Rules Set From Medical Law Using The Medical Relational Model And The World Rule Model For A Medical Decision Support System", Informatics, vol: 3, pp. 2, 2016.
DOI: [10.3390/informatics3010002](https://doi.org/10.3390/informatics3010002)
40. Azeem Irshad, Muhammad Sher, Shehzad Ashraf Chaudhary, Husnain Naqvi, Mohammad Sabzinejad Farash, "An Efficient And Anonymous Multi-Server Authenticated Key Agreement Based On Chaotic Map Without Engaging Registration Centre", The Journal Of Supercomputing, vol: 72, pp. 1623-1644, 2016.
DOI: [10.1007/s11227-016-1688-9](https://doi.org/10.1007/s11227-016-1688-9)
41. Imran Khan, Muhammad Sher, Dr. Samina Aslam, Syed M. Saqlain, M. Usman Ashraf, Javed I. Khan, Dr. Muhammad Rauf, Anwar Ghani, "Medical Drop Box (Mdb); A National Health Information Exchange And Management System For Medical Industry", The Professional Medical Journal, vol: 23, pp. 489-498, 2016.
DOI: [10.17957/TPMJ/16.3279](https://doi.org/10.17957/TPMJ/16.3279)
42. Hina Nasir, Nadeem Javaid, Muhammad Sher, Umar Qasim, Zahoor Khan, Nabil Alrajeh, Iftikhar Niaz, "Exploiting Outage And Error Probability Of Cooperative Incremental Relaying In Underwater Wireless Sensor Networks", Sensors, vol: 16, pp. 1076, 2016.
DOI: [10.3390/s16071076](https://doi.org/10.3390/s16071076)
43. Anwar Ghani, Husnain Naqvi, Muhammad Sher, Muazzam Ali Khan, Imran Khan, Azeem Irshad, Yong Deng, "Spread Spectrum Based Energy Efficient Collaborative Communication In Wireless Sensor Networks", Plos One, vol: 11, pp. e0159069, 2016.
DOI: [10.1371/journal.pone.0159069](https://doi.org/10.1371/journal.pone.0159069)
44. Imran Khan, Shehzad Ashraf Chaudhry, Muhammad Sher, Javed I. Khan, Muhammad Khurram Khan, "An Anonymous And Provably Secure Biometric-Based Authentication Scheme Using Chaotic Maps For Accessing Medical Drop Box Data", The Journal Of Supercomputing, vol: 74, pp. 3685-3703, 2016.
DOI: [10.1007/s11227-016-1886-5](https://doi.org/10.1007/s11227-016-1886-5)
45. Azeem Irshad, Muhammad Sher, Omer Nawaz, Shehzad Ashraf Chaudhry, Imran Khan, Saru Kumari, "A Secure And Provable Multi-Server Authenticated Key Agreement For Tmis Based On Amin Et Al. Scheme", Multimedia Tools And Applications, vol: 76, pp. 16463-16489, 2016.
DOI: [10.1007/s11042-016-3921-1](https://doi.org/10.1007/s11042-016-3921-1)
46. Muhammad Fahad, Muhammad Sher, Imran Khan, "Towards Multi-Stage Intrusion Detection Using Ip Flow Records", International Journal Of Advanced Computer Science And Applications, vol: 7, 2016.
DOI: [10.14569/IJACSA.2016.071046](https://doi.org/10.14569/IJACSA.2016.071046)
47. , "An Efficient And Anonymous Chaotic Map Based Authenticated Key Agreement For Multi-Server Architecture", Ksii Transactions On Internet And Information Systems, vol: 10, 2016.
DOI: [10.3837/tiis.2016.12.023](https://doi.org/10.3837/tiis.2016.12.023)
48. , "An Improved Multi-Server Authentication Scheme For Distributed Mobile Cloud Computing Services", Ksii Transactions On Internet And Information Systems, vol: 10, 2016.
DOI: [10.3837/tiis.2016.12.021](https://doi.org/10.3837/tiis.2016.12.021)