

Dr. Nauman Qadeer

Assistant Professor

Department of Computer Science

Federal Urdu University for Arts, Science & Technology

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EDUCATION

Ph.D. in Computer Science - 2023

Tracking Mechanically Thrown Objects for Intelligent Industrial Catching Robot

GPA **3.90** / 4.0

COMSATS University Islamabad, Pakistan

World Rank # 251-300 in CS & Information Systems - QS ranking by Subject 2024

M.S. in Computer Science (18 years education degree) - 2004

GPA **3.94** / 4.0

University of Agriculture Faisalabad, Pakistan

M.Sc. in Computer Science (16 years education degree – equivalent to B.S.) - 2001

GPA **3.81** / 4.0 (1st Position - *Gold Medalist*)

Bahauddin Zakariya University Multan, Pakistan

EXPERIENCE

Assistant Professor (June 18, 2022 – Now)

Lecturer (Sept. 1st 2005 – June 17, 2022)

Department of Computer Science

Federal Urdu University for Arts, Science & Technology Islamabad, Pakistan

Job Duties

- **Teaching** (in Spring & Fall semesters)

- Programming Fundamentals (S22, S20, F19, S19, F18, S18, S17, F16, S16, F15, S15, F14, F13, S13, F11)
- Digital Image Processing (F21, F20, S20, F19, S19, F18, S18, F17, S17, F16)
- Data Structures & Algorithms (S24, F23, S23, F22, F14, F13, F12, F07, F06, S06, F05)
- Compiler Construction (F21, S20, F18, S18, S15, S14, S13, F07, S07, F06, F05)
- Object Oriented Programming (F14, S14, F11)

- **Research**

- Computer Vision
- Automated Video Surveillance
- Deep Neural Networks
- Robotics and Automation
- Smart City and Industry 4.0 Applications

- **Additional Duties**

- **Director IT** - Islamabad campus (Feb. 2024 – Present)
- **MS/PhD Program Coordinator** (Nov. 2023 – Present)
- **Convener Industrial Liaison Committee** (June 2017 – May 2019)

Lecturer (Feb. 27th 2002 – Feb. 26th 2005)

Department of Computer Science

University of Agriculture Faisalabad, Pakistan

Job Duties

- **Teaching** (in Spring & Fall semesters)

- Programming Fundamentals (F04, S04, F03, S03, F02, S02)
- Data Structures & Algorithms (F04, S04, F03, S03, F02, S02)
- Compiler Construction (F04, S04, F03, S03, F02, S02)

PUBLICATIONS

1. **Qadeer N.**, Shah J.H., Sharif M., et al. “Multi-Camera Tracking of Mechanically Thrown Objects for Automated In-Plant Logistics by Cognitive Robots in Industry 4.0”, *The Visual Computer* (IF: **3.5**, ISSN: 0178-2789), pp. 1-20, 2024
2. **Qadeer N.**, Shah J.H., Sharif M., et al. “Intelligent Tracking of Mechanically Thrown Objects by Industrial Catching Robot for Automated In-Plant Logistics 4.0”, *Sensors* (IF: **3.576**, ISSN: 1424-8220), vol. 22(6), pp. 2113, 2022
3. Ali S., Ghazal R., **Qadeer N.**, et al. “A Novel Approach of Botnet Detection Using Hybrid Deep Learning for Enhancing Security in IoT Networks”, *Alexandria Engineering Journal* (IF: **6.8**, ISSN: 1110-0168), Accepted in May 2024
4. Ashraf M., Abrar M., **Qadeer N.**, et al. “A Convolutional Neural Network Model for Wheat Crop Disease Prediction”, *Computers, Materials & Continua* (IF: **3.86**, ISSN: 1546-2218), vol. 75 (2), pp. 3867-3882, 2023
5. Nadeem A., Mehmood A., Rizwan K., Ashraf M., **Qadeer N.**, et al. “Dataset of Large Gathering Images for Person Identification and Tracking”, *Computers, Materials & Continua* (IF: **3.86**, ISSN: 1546-2218), vol. 74 (3), pp. 6065-6080, 2023
6. Nadeem A., Ashraf M., **Qadeer N.**, et al. “Tracking Missing Person in Large Crowd Gathering Using Intelligent Video Surveillance”, *Sensors* (IF: **3.576**, ISSN: 1424-8220), vol. 22(14), pp. 5270, 2022
7. Nadeem A., Ashraf M., Rizwan K., **Qadeer N.**, et al., “A Novel Integration of Face Recognition Algorithms with Soft Voting Scheme for Efficiently Tracking Missing Person in Challenging Large Gathering Scenarios”, *Sensors* (IF: **3.576**, ISSN: 1424-8220), vol. 22(3), pp. 1153, 2022
8. Ansari G.J., Shah J.H., Farias M.C.Q., Sharif M., **Qadeer N.**, et al. “An Optimized Feature Selection Technique in Diversified Natural Scene Text for Classification Using Genetic Algorithm”, *IEEE Access* (IF: **3.745**, ISSN: 2169-3536), vol. 09, pp. 54923, 2021
9. Ghazal R., Malik A.K., Raza B., **Qadeer N.**, et al. “Agent-Based Semantic Role Mining for Intelligent Access Control in Multi-Domain Collaborative Applications of Smart Cities”, *Sensors* (IF: **3.576**, ISSN: 1424-8220), vol. 13, pp. 4253, 2021
10. Ghazal R., Malik A.K., **Qadeer N.**, et al. “Intelligent Role-Based Access Control Model and Framework Using Semantic Business Roles in Multi-Domain Environments”, *IEEE Access* (IF: **3.745**, ISSN: 2169-3536), vol. 08, pp. 12253-12267, 2020
11. Gulzar K., **Qadeer N.**, et al. “Cost Efficient Automobile Security Using Face Recognition and GSM Module”, *Journal of Computing & Biomedical Informatics* (ISSN: 2710-1606), vol. 4(1), pp. 207-216, 2022
12. Nadeem A., Rizwan K., **Qadeer N.**, et al. “Ensuring Safety of Pilgrims using Spatio-temporal Data Modeling and Application for Efficient Reporting and Tracking of Missing Persons in a Large Crowd Gathering Scenario”, *ARPJ Journal of Engineering and Applied Sciences* (ISSN: 1819-6608), vol. 15(24), pp. 3125-3132, 2020
13. Ghazal R., **Qadeer N.**, Raza H., Malik A.K. “Automated Semantic Role Mining using Intelligent Role Based Access Control in Globally Distributed Banking Environment”, *In 21st International Conference on Information Technology–New Generations (ITNG 2024), Las Vegas, Nevada, USA, April 14-16, 2024*
14. **Qadeer N.**, Shah J.H., & Sharif M. “Automated Localization and Segmentation of Left Ventricle in Cardiac MRI using Faster R-CNN”, *In Proceedings of the IEEE 18th International Conference on Frontiers of Information Technology 2021 (FIT 2021), Islamabad, Pakistan, Dec. 13-14, 2021*, pp. 108-113
15. Nadeem A., Rizwan K., Mehmood A., **Qadeer N.**, et al. “A Smart City Application Design for Efficiently Tracking Missing Person in Large Gatherings in Madinah Using Emerging IoT Technologies”, *In Proceedings of the IEEE Mohammad Ali Jinnah University International Conference on Computing (MAJICC 2021), Karachi, Pakistan, July 15-17, 2021*, pp. 1–7
16. Ghazal R., **Qadeer N.**, Malik A.K., et al. “Intelligent Agent-based RBAC Model to Support Cyber Security Alliance among Multiple Organizations in Global IT Systems”, *In 17th International Conference on Information Technology–New Generations (ITNG 2020), Las Vegas, Nevada, USA, April 5-8, 2020*, *Advances in Intelligent Systems and Computing*, vol. 1134, Springer, pp. 87-93
17. **Qadeer N.**, Velik R., Zucker G., Boley H. “Knowledge Representation for a Neuro-Symbolic Network in Home Care Risk Identification”, *7th IEEE International Conference on Industrial Informatics (INDIN 09), Cardiff, UK, June 24-26, 2009*, pp. 277-282
18. Hayat M.U., **Qadeer N.**, “Intra Component GUI Test Case Generation Technique”, *IEEE International Conference on Information and Emerging Technologies (ICIET) 2007, Karachi, Pakistan, July 6-7, 2007*, pp. 1-5
19. Ghazal R., Malik A.K., **Qadeer N.**, Ahmed M., “Intelligent Multi-Domain RBAC Model”, chapter 3, *Innovative Solutions for Access Control Management*, ISBN: 1522504494, IGI Global USA, May 2016, pp. 66-95

RESEARCH PROJECTS (Completed)

Pr. #	Project Title	Duration	Funding	My Role	Research Output
RP-1	Automated In-Plant Logistics by Cognitive Catching Robots in Industry 4.0	2017 – 2022	1. RSP Project, King Saud University Riyadh, KSA (Project # 2021/34) 2. NRPU Project, Pakistan (Project # 7794) 3. University of Florence, Italy	Ph.D. Research Project	1, 2
RP-2	Automated Wheat Crop Disease Prediction using Computer Vision	2021 - 2022	Deanship of scientific research University of Jeddah, KSA (grant # UJ-21-DR-135)	Key Participant	4
RP-3	Tracking Missing Persons in Large Gathering Scenarios using Computer Vision and Emerging IoT Technologies	2020 – 2022	Deanship of scientific research Islamic University of Madinah, KSA (grants # 1442/505 & 1442/96)	Key Participant	5, 6, 7 12, 15
RP-4	Intelligent Role Based Access Control for Multi-domain Collaborative Environment	2016 - 2021	1. Governors State Univ. Illinois, USA 2. Sacred Heart Univ. Fairfield, USA 3. Deanship of scientific research Majmaah University, KSA	Key Participant	9, 10, 13 16, 19

SUPERVISED THESIS (Selected)

- Auto Time Table Management using Machine Learning Techniques [Areej Malik – B.S.(CS) 2018-2022]
- Auto Labeling in Snapthat Images [Mobin-al-Hassan – B.S.(CS) 2017-2021]
- Fake News Identification in Document Text Images [Rehan Qayyum & Waleed Mughal – B.S.(CS) 2017-2021]
- Online Smart Voting System using Computer Vision Algorithms [Roshina Syed – B.S.(CS) 2017-2021]
- Detecting COVID-19 in Chest X-Ray Images using Deep Neural Networks [Muhammad Naveed Khan – B.S.(CS) 2017-2021]
- Automated Information Extraction from Time Table Image [Maryam Chaudhary – M.Sc.(CS) 2016-2018]
- DNN based Heart Disease Prediction using Left Ventricle MR Images [Muhammad Kamran – B.S.(CS) 2016-2020]
- Driver Fatigue Detection in Live Video using Machine Learning [M. Ali & Gulafshan – B.S.(CS) 2016-2020]
- An Intelligent System for Missing Persons Identification [M. Hamza Rafique & M. Jamal – B.S.(CS) 2016-2020]
- Mobile Application for Tabbasum Welfare Trust for Cancer Patients [Rabia Sabir & Syeda Darakhshan – B.S.(CS) 2016-2020]
- Trajectory Prediction of Tennis Ball Throws [Hamza Zareen – B.S.(CS) 2014-2018]
- Intelligent Traffic Monitoring System [Hamza Aslam – B.S.(CS) 2014-2018]
- Smart Mobile Assistant for University Teachers [Naeem Iqbal – B.S.(CS) 2014-2018]
- Traffic Violation and Reporting System using Smart Phone [Hassan Rauf – B.S.(CS) 2014-2018]
- Criminal Identification & Management System for Islamabad Police [Muhammad Hassaan – B.S.(CS) 2013-2017]
- Requirements Specification and Verification of Real Time Embedded System [M. Najam-Us-Saqib – B.S.(CS) 2012-2016]
- Intra Component GUI Test Case Generation Technique [M. Umar Hayat – M.S.(CS) 2005-2007], external supervisor of this student from Muhammad Ali Jinnah University Islamabad, Published paper of this Research Thesis: **18**

SCIENTIFIC ACTIVITIES & ACCOMPLISHMENTS

Invited Peer Reviews (51)

- Journal of King Saud University-Computer and Information Sciences (IF: 6.9) 02
- Computer Systems Science and Engineering (IF: 4.397)..... 18
- Pattern Analysis and Applications (IF: 3.9) 02
- Computers, Materials and Continua (IF: 3.860) 12
- IEEE ACCESS (IF: 3.476) 07
- Intelligent Automation & Soft Computing (IF: 3.401) 08
- Journal on Artificial Intelligence (JAI)..... 01
- International Conference on Neural Information Processing, China (ICONIP 2023)..... 01

Competitions Won

2nd Position in National Inter-University 3MT Competition at SZABIST Islamabad

Memberships of International Scientific Societies

- Senior Member IEEE
- Member IEEE Robotics and Automation Society
- Member IEEE Computational Intelligence Society
- Member IEEE EMBS Technical Committee on BioRobotics
- Member IEEE EMBS Technical Committee on Biomedical Imaging and Image Processing
- Member IEEE Special Interest Group on Humanitarian Technology
- Member IEEE Industrial Electronic Society
- Member IEEE Consultants Network

International Workshops Attended

- Attended Euro-pass Workshop for “Higher Education System in Austria”, Austrian Agency for International Cooperation in Education & Research (OEAD), Vienna (Austria), 19th May 2010