Dr. Nauman Qadeer

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PROFILE

- Motivated, analytical and determined researcher with problem solving skills
- Keen in critical analysis and research for proposing effective intuitive solutions
- Good communication, management and documentation skills
- Disciplined professional with team work spirit

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**
  - The primary duty is to conduct research focusing on design and development of novel machine learning models and AI algorithms for Robotics, Industrial Automation, Video Surveillance, Cyber Security and Smart City applications
  - Secondary duty is to teach advanced courses of Computer Science

- **Additional Duties**
  - Director IT - Islamabad campus (Feb. 2024 – 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**
  - The primary duty was teaching courses like Programming Fundamentals, Compiler Construction, Data Structures and Algorithms and Object Oriented Programming

EDUCATION

Ph.D. in **Computer Science** - 2023
>
> *Thesis*: 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 (**1**st Position - *Gold Medalist*)
> Bahauddin Zakariya University Multan, Pakistan

PUBLICATIONS

Peer-reviewed Journals

J1. **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*, pp. 1-20, 2024

J2. **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*, vol. 22(6), pp. 2113, 2022

J3. 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*, vol. 103, pp. 88-97, 2024

J4. Ashraf M., Abrar M., **Qadeer N.**, et al. "A Convolutional Neural Network Model for Wheat Crop Disease Prediction", *Computers, Materials & Continua*, vol. 75 (2), pp. 3867-3882, 2023

J5. 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*, vol. 74 (3), pp. 6065-6080, 2023

J6. Nadeem A., Ashraf M., **Qadeer N.**, et al. "Tracking Missing Person in Large Crowd Gathering Using Intelligent Video Surveillance", *Sensors*, vol. 22(14), pp. 5270, 2022

J7. 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*, vol. 22(3), pp. 1153, 2022

J8. 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*, vol. 09, pp. 54923, 2021

J9. 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*, vol. 13, pp. 4253, 2021

J10. 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*, vol. 08, pp. 12253-12267, 2020

J11. Gulzar K., **Qadeer N.**, et al. "Cost Efficient Automobile Security Using Face Recognition and GSM Module", *Journal of Computing & Biomedical Informatics*, vol. 4(1), pp. 207-216, 2022

J12. 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", *ARPN Journal of Engineering and Applied Sciences*, vol. 15(24), pp. 3125-3132, 2020

Peer-reviewed Conferences

C1. Ghazal R., **Qadeer N.**, Raza H., Malik A.K. "Automated Semantic Role Mining using Intelligent Role Based Access Control in Globally Distributed Banking Environment", *21st International Conference on Information Technology–New Generations (ITNG 2024), Las Vegas, USA*, April 14-16, 2024, pp. 51-55

C2. **Qadeer N.**, Shah J.H., & Sharif M. "Automated Localization and Segmentation of Left Ventricle in Cardiac MRI using Faster R-CNN", *IEEE 18th International Conference on Frontiers of Information Technology 2021 (FIT 2021), Islamabad, Pakistan*, Dec. 13-14, 2021, pp. 108-113

C3. 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", *IEEE Mohammad Ali Jinnah University International Conference on Computing (MAJICC 2021), Karachi, Pakistan*, July 15-17, 2021, pp. 1–7

C4. 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", *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

C5. **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

C6. 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

Book Chapters

B1. Ghazal R., Malik A.K., **Qadeer N.**, Ahmed M., "Intelligent Multi-Domain RBAC Model", chapter 3, *Innovative Solutions for Access Control Management*, IGI Global USA, May 2016, pp. 66-95

Poster Presentations

P1. **Qadeer N.**, Shah J.H., "Proactive Visual Perception Model of Intelligent Robots for Automated In-plant Logistics 4.0", The AI Research Summit at AI4 2024 Conference, *Las Vegas, USA*, August 13-14, 2024

RESEARCH PROJECTS (Completed)

Project Title	Duration	Funding	My Role	Research Output
Automated In-Plant Logistics by Cognitive Catching Robots in Industry 4.0	Nov. 2017 – Apr. 2022	1. University of Florence, Italy 2. RSP Project, King Saud University Riyadh, Saudi Arabia 3. NRPU Project, Pakistan	Ph.D. Research Project	**J1 , J2, P1**
Automated Wheat Crop Disease Prediction using Computer Vision	Sept. 2021 – Aug. 2022	Deanship of scientific research University of Jeddah Saudi Arabia	Key Participant	**J4**
Tracking Missing Persons in Large Gathering Scenarios using Computer Vision and Emerging IoT Technologies	July 2020 – June 2022	Deanship of scientific research Islamic University of Madinah Saudi Arabia	Key Participant	**J5 , J6 , J7 J12 , C3**
Intelligent Role Based Access Control for Multi-domain Collaborative Environment	March 2016 – Feb. 2021	1. Governors State Univ. Illinois, USA 2. Sacred Heart Univ. Fairfield, USA 3. Deanship of scientific research Majmaah University, Saudi Arabia	Key Participant	**J9 , J10 , C1 C4 , B1**

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 [M. 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 – 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] , Research Output: **C6**

SCIENTIFIC ACTIVITIES & ACCOMPLISHMENTS

Invited Peer Reviews (73)

- Computer Systems Science and Engineering...**18**
- Computers, Materials and Continua...**14**
- IEEE ACCESS **16**
- Intelligent Automation & Soft Computing **10**
- Journal of King Saud University-Computer and Information Sciences........................**04**
- Pattern Analysis and Applications...**04**
- International Journal of Computational Intelligence Systems **01**
- Journal on Artificial Intelligence **01**
- Discover Computing **01**
- International Conference on Neural Information Processing, China (ICONIP 2023)….. **01**
- 21st International Conference on Frontiers of Information Technology (FIT 2024)…...... **03**

Competitions Won

2nd Position in National Inter-University 3MT Competition at SZABIST Islamabad, Pakistan on 30th Nov. 2017

Memberships of International Scientific Societies

- Senior Member IEEE
- Senior Member IEEE Robotics and Automation Society
- Senior Member IEEE Computational Intelligence Society
- Senior Member IEEE Special Interest Group on Humanitarian Technology
- Senior Member IEEE Consultants Network

Attended International Research Summits & Workshops

- The AI Research Summit at AI4 2024 Conference, *Las Vegas,* USA, 13-14 August 2024
- Euro-pass Workshop for "Higher Education System in Austria", organized by OeAD (Austria's Agency for Education and Internationalization), Vienna, Austria, 19th May 2010