Dr. Nauman Qadeer

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PROFILE

- **22**+ years of teaching experience
- Passionate about teaching and learning, with the ability to inspire and share this enthusiasm with students
- Motivated, analytical and determined researcher with innovative problem solving skills
- Good communication skills
- Disciplined professional with team work spirit

EXPERIENCE

Assistant Professor (June 18, 2022 – Now)

Lecturer (Sept. 01, 2005 – June 17, 2022)

Department of Computer Science
Federal Urdu University for Arts, Science & Technology Islamabad, Pakistan

Job Duties

- **Teaching** (in Spring & Fall semesters)
    - Data Structures & Algorithms (S24, F23, S23, F22, F14, F13, F12, F07, F06, S06, F05)
    - 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)
    - Compiler Construction (F21, S20, F18, S18, S15, S14, S13, F07, S07, F06, F05)
    - Object Oriented Programming (F13, S13, F12)
- **Research**
    - Computer Vision
    - Deep Neural Networks
    - Robotics and Automation
    - Smart City and Industry 4.0 Applications
- **Additional Duties**
    - **Director IT** - Islamabad campus (Feb. 2024 – Present)
    - **Convener Industrial Liaison Committee** (June 2017 – May 2019)

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

Department of Computer Science
University of Agriculture Faisalabad, Pakistan

Job Duties

- **Teaching** (in Spring & Fall semesters)
    - Data Structures & Algorithms (F04, S04, F03, S03, F02, S02)
    - Programming Fundamentals (F04, S04, F03, S03, F02, S02)
    - Compiler Construction (F04, S04, F03, S03, F02, S02)

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

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

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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**W**" category), 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* ("**Y**" category), 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* ("**X**" category), vol. 15(24), pp. 3125-3132, 2020

International 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 (87)

- IEEE ACCESS………………………………………………………………...24
- Computer Systems Science and Engineering……………………………………………18
- Computers, Materials and Continua…………………………………………………...14
- Intelligent Automation & Soft Computing………………………………………………10
- Journal of King Saud University-Computer and Information Sciences……………….…04
- Pattern Analysis and Applications……………………………………………...…05
- Cluster Computing…………………………………………………….…...03
- International Journal of Computational Intelligence Systems……………………........01
- Journal on Artificial Intelligence……………………………………………….…………01
- Discover Computing……………………………………………………….…….. 01
- Scientific Reports…………………………………………...…..……………02
- 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