Dr. Nauman Qadeer

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

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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 2023*

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

EXPERIENCE

Assistant Professor – BPS 19 (June 18, 2022 – Now)

Lecturer – BPS 18 (Sept. 1st 2005 – June 17, 2022)

Department of Computer Science

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

Job Duties

- **Teaching**
  - 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
  - Smart City & Industry 4.0 Applications
- **Additional Duties**
  - **Post Graduate** (i.e. MS/PhD) **Program Coordinator** (Nov. 2023 – Present)
  - **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

- **Teaching**
  - 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

Journal Papers

J1. **Qadeer N.**, Shah J.H., Sharif M., Dahan F., Khokhar F.A., Ghazal R., "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**, HEC "**W**" category)

J2. **Qadeer N.**, Shah J.H., Sharif M., Khan M.A., Muhammad G., Zhang Y., "Intelligent Tracking of Mechanically Thrown Objects by Industrial Catching Robot for Automated In-Plant Logistics 4.0", *Sensors* (IF: **3.576**, HEC "**W**" category), vol. 22(6), pp. 2113, 2022

J3. Ashraf M., Abrar M., **Qadeer N.**, Alshdadi A.A., Sabbah T., Khan M.A., "A Convolutional Neural Network Model for Wheat Crop Disease Prediction", *Computers, Materials & Continua* (IF: **3.86**, HEC "**W**" category), vol. 75 (2), pp. 3867-3882, 2023

J4. 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**, HEC "**W**" category), vol. 74 (3), pp. 6065-6080, 2023

J5. Nadeem A., Ashraf M., **Qadeer N.**, Rizwan K., Mehmood A. et al., "Tracking Missing Person in Large Crowd Gathering Using Intelligent Video Surveillance", *Sensors* (IF: **3.576**, HEC "**W**" category), vol. 22(14), pp. 5270, 2022

J6. Nadeem A., Ashraf M., Rizwan K., **Qadeer N.**, AlZahrani A. 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**, HEC "**W**" category), vol. 22(3), pp. 1153, 2022

J7. Ansari G.J., Shah J.H., Farias M.C.Q., Sharif M., **Qadeer N.**, & Khan H. U., "An Optimized Feature Selection Technique in Diversified Natural Scene Text for Classification Using Genetic Algorithm", *IEEE Access* (IF: **3.745**, HEC "**W**" category), vol. 09, pp. 54923, 2021

J8. 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**, HEC "**W**" category), vol. 13, pp. 4253, 2021

J9. Ghazal R., Malik A.K., **Qadeer N.**, Raza B. et al., "Intelligent Role-Based Access Control Model and Framework Using Semantic Business Roles in Multi-Domain Environments", *IEEE Access* (IF: **3.745**, HEC "**W**" category), vol. 08, pp. 12253-12267, 2020

J10. Gulzar K., **Qadeer N.**, Aamir M., Nawaz A. et al. "Cost Efficient Automobile Security Using Face Recognition and GSM Module", *Journal of Computing & Biomedical Informatics* (HEC "**Y**" category), vol. 4(1), pp. 207-216, 2022

J11. Nadeem A., Rizwan K., **Qadeer N.**, Ullah S. 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* (HEC "**X**" category), vol. 15(24), pp. 3125-3132, 2020

International Conference Papers

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", *In 21st International Conference on Information Technology–New Generations (ITNG 2024), Las Vegas, Nevada, USA*, April 14-16, 2024

C2. **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

C3. Nadeem A., Rizwan K., Mehmood A., **Qadeer N.**, Noor F., & AlZahrani A. "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

C4. Ghazal R., **Qadeer N.**, Malik A.K., Raza B., & Ahmed M. "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

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 Chapter

B1. 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	**J1** **J2**
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	**J3**
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	**J4** **J5** **J6** **J11** **C3**
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	**J8** **J9** **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 [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: **C6**

SCIENTIFIC ACTIVITIES & ACCOMPLISHMENTS

Invited Peer Reviews

- Computer Systems Science and Engineering (**IF: 4.397**) ………………………...…… **18**
- Computers, Materials and Continua (**IF: 3.860**) ……………………….…....…..…..**11**
- IEEE ACCESS (**IF: 3.476**) ……………………………….……..…... **07**
- Intelligent Automation & Soft Computing (IF: **3.401**) …………………..…….…..…. **07**
- Journal on Artificial Intelligence (JAI) ……………….….…....................... **01**
- International Conference on Neural Information Processing, China (ICONIP 2023) **01**

National level Competitions Won

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

YouTube Teaching Channel

http://www.youtube.com/naumanacademyofsoftwaresciences (Nauman Academy of Software Sciences)

Memberships of International Scientific Societies

- **Senior Member IEEE**
- Member IEEE Consultants Network
- 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

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

Professional Trainings

- Two days Training on "E-Pak Acquisition & Disposal System (E-PADS)" organized by PPRA (Public Procurement Regulatory Authority) Pakistan, Islamabad (Pakistan), 13-14 March 2024