Shahid Iqbal

Assistant Professor, Department of Computer Engineering
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Google Scholar: Dr. Shahid Iqbal https://scholar.google.com/citations?user=LL8Y8O0AAAAJ&hl=en

RESEARCH PROFILE

Assistant Professor of Computer Engineering at Bahauddin Zakariya University with over a decade of university teaching and four years of prior industry experience in database administration and Linux systems. Research focuses on AI, IoT, Computer Communication and Networks, DBMS with a particular interest in Wireless Body Area Networks (WBAN) for remote health monitoring. Ph.D. in Computer Systems Engineering. Seeking to advance a research-led academic career through collaborative projects, funded research, and postgraduate supervision.

RESEARCH INTERESTS

- Artificial Intelligence and its applications in Health and Agriculture
- Wireless Body Area Networks (WBAN) and remote patient monitoring
- IoT
- AI and Cyber Security Governance
- Computer communication and networks
- Database Systems and data management

EDUCATION

Ph.D. (Computer Systems Engineering) **2024**
Quaid-e-Awam University of Engineering, Science & Technology (QUEST), Nawabshah, Sindh
- Thesis title: [A QoS-Aware Multi-hop Routing Protocol for healthcare applications of WBSN]

M.E. (Computer Systems), specialization: Computer Networks & Performance Evaluation **2011**
NED University of Engineering & Technology, Karachi — First Division

B.E. (Computer Systems) **2008**
Quaid-e-Awam University of Engineering, Science & Technology (QUEST), Nawabshah — First Division

ACADEMIC APPOINTMENT

Assistant Professor (BS-19) **October 2012 – Present**
Department of Computer Engineering, Faculty of Engineering & Technology, Bahauddin Zakariya University, Multan
- **Teach undergraduate courses:** Database Management Systems, Software Engineering, Parallel & Distributed Computing, Operating Systems, Software Project Management, Applications of ICT
- **Teach graduate courses:** Advance Operating Systems, Parallel & Distributed Computing, Advance Artificial Intelligence

PUBLICATIONS

1. **Shahid Iqbal** (Corresponding Author), et al. (2026). *A Deep Learning Hybrid Framework CNN-LSTM Agricultural Classification of Yield*. **Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan**, Vol. 31, No. 1. *(HEC Category: Y)*
2. **Shahid Iqbal** (Corresponding Author), et al. (2026). *Comparative Performance Analysis of Machine Learning and Deep Learning Models for IoT-Based Crop Yield Prediction*. **International Journal of Agriculture Innovation and Cutting-Edge Research**, Vol. 4, No. 2. DOI: https://zenodo.org/records/20053000. *(HEC Category: Y)*
3. **Shahid Iqbal** (Corresponding Author), et al. (2026). *Overcoming Big Data Challenges: Scalability, Quality, and Privacy in AI Integrated Systems*. **Global Research Journal of Natural Science and Technology (GRJNST)**, Vol. 4, No. 2, Article ID: 2051. DOI: https://doi.org/10.53762/grjnst.04.02.03. *(HEC Category: Y)*
4. **Shahid Iqbal**, et al. (2025). *Dynamic smart contracts framework on Ethereum private blockchain for real estate management*. **The Journal of Engineering (IET)**, Vol. 2025, e70063. DOI: https://doi.org/10.1049/tje2.70063. *(HEC Category: X/W | Impact Factor: 1.0)*
5. **Shahid Iqbal**, et al. (2025). *The Solar AI Nexus: Reinforcement Learning Shaping the Future of Energy Management*. **Wiley Interdisciplinary Reviews: Energy and Environment**, Vol. 14, e70012. DOI: https://doi.org/10.1002/wene.70012. *(HEC Category: W)*
6. **Shahid Iqbal** (Corresponding Author), et al. (2025). *An AI-Based Approach in Precision Agriculture for Crop Yield Prediction*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 5, No. 1. DOI: https://doi.org/10.58325/ijisct.004.02.00144. *(HEC Category: Y)*
7. **Shahid Iqbal** (1st Author), et al. (2024). *Enhancing Lung Cancer Detection with Hybrid Machine Learning: Integrating Ant Colony Optimization*. **Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan**, Vol. 29, No. 3. *(HEC Category: Y)*
8. **Shahid Iqbal**, et al. (2024). *Transforming Farming with Technology: A Smart Novel Agriculture Framework and Infrastructure*. **Sukkur IBA Journal of Computing and Management Sciences (SJCMS)**, pp. 53–69. *(HEC Category: Y)*
9. **Shahid Iqbal**, et al. (2024). *Optimized Water Quality Forecasting Using Machine Learning*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 3, No. 2. DOI: https://doi.org/10.58325/ijisct.003.02.0094. *(HEC Category: Y)*
10. **Shahid Iqbal**, et al. (2024). *Future Debugging and Advent of ABERT for Adaptive Neural Localization of Software Anomalies*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 3, No. 2. DOI: https://doi.org/10.58325/ijisct.003.02.0097. *(HEC Category: Y)*
11. **Shahid Iqbal**, et al. (2024). *Smart Growth Predictions: Deep Learning Applications in Economic Forecasting*. **Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan**, Vol. 29, No. 2. *(HEC Category: Y)*
12. **Shahid Iqbal**, et al. (2024). *Uncovering Sentiments: A Big Data Analytic Framework for Twitter Data using Unsupervised Learning*. **Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan**, Vol. 29, No. 2. *(HEC Category: Y)*
13. **Shahid Iqbal**, et al. (2024). *Cloud Computing Security Using Intelligent Intrusion Detection Mechanisms*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 3, No. 1. DOI: https://doi.org/10.58325/ijisct.003.01.0082. *(HEC Category: Y)*
14. **Shahid Iqbal**, et al. (2024). *Effective Tomato Leaf Disease Identification Model Using Mobilenetv3 Small*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 3, No. 1. DOI: https://doi.org/10.58325/ijisct.003.01.0079. *(HEC Category: Y)*
15. **Shahid Iqbal** (1st Author), et al. (2024). *A Deep Learning Based Model for the Classification of Cotton Crop Disease*. **Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan**. *(HEC Category: Y)*
16. **Shahid Iqbal** (1st Author), et al. (2024). *Implementing Machine Learning Models – An Analysis of Agricultural Weather and Soil Data*. **Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan**. *(HEC Category: Y)*

17. **Shahid Iqbal** (1st Author), et al. (2023). *A Multi-Hop QoS-Aware and Predicting Link Quality Estimation (PLQE) Routing Protocol for Reliable WBSN*. **IEEE Access**, Vol. 11. *(HEC Category: W | Impact Factor: 3.4)*
18. **Shahid Iqbal** (1st Author), et al. (2023). *RLTD: A Reliable, Link Quality, Temperature and Delay Aware Routing Protocol for Wireless Body Sensor Networks*. **VFAST Transactions on Software Engineering**, Vol. 11, No. 2. *(HEC Category: Y)*
19. **Shahid Iqbal**, et al. (2023). *Enhancing SCTP Performance through the Selection of Appropriate Retransmission Policies*. **VFAST Transactions on Software Engineering**, Vol. 11, No. 2. *(HEC Category: Y)*
20. **Shahid Iqbal**, et al. (2023). *Enhancing Social Interaction: FER Assistance for ASD Children's Emotion Recognition*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 2, No. 2. DOI: https://doi.org/10.58325/ijisct.002.02.0067. *(HEC Category: Y)*
21. **Shahid Iqbal**, et al. (2023). *Implementation of AR and VR Using 5G in Conventional Industry Applications*. **International Journal of Information Systems and Computer Technologies (IJISCT)**, Vol. 2, No. 2. DOI: https://doi.org/10.58325/ijisct.002.02.0067. *(HEC Category: Y)*
22. **Shahid Iqbal**, et al. (2020). *Multi-objective-optimization of process parameters of industrial-gas-turbine fueled with natural gas by using Grey-Taguchi and ANN methods for better performance*. **Energy Reports**, Vol. 6. *(HEC Category: W)*

Conference Publication:

Shahid Iqbal, et al. (2019). *RLT: A Reliable, Link Quality and Temperature-Aware Routing Protocol for Wireless Body Sensor Networks*. In *Proceedings of the 2nd International Conference on Sensors, Signal and Image Processing (SSIP '19)*, Prague, Czech Republic, October 8–10, 2019, ACM, pp. 6–10. DOI: https://doi.org/10.1145/3365245.3365248

STUDENT SUPERVISION

Undergraduate (B.E.) final-year projects supervised:

- Remote Patient Monitoring System
- Biometric Voting System Online Admission & Examination System
- Hospital Management System Student Management System
- Smart Attendance System
- Artificial Intelligence Based System for Detection of Heart Diseases Using Electrocardiogram Signal Analysis
- Cropsense: Smart Hydroponic Monitoring And AI-Based Disease Detection System

PROFESSIONAL SERVICE & ADMINISTRATIVE ROLES

- **Deputy Director of Student Affairs**, Bahauddin Zakariya University
- **Departmental Director of Student Affairs**, Department of Computer Engineering
- **Member, Board of Studies**, Department of Computer Engineering
- **Member, Admission Committee**, Faculty of Engineering & Technology
- **In-charge, General Purpose Computer Lab**, Department of Computer Engineering

(INDUSTRY EXPERIENCE)

System Operation Support Engineer (SOSE) **October 2008 – October 2012**

Etilize Private Limited, Karachi — a multinational product-data and digital content provider

- Administered and optimized MySQL and Oracle databases supporting production operations.
- Developed stored procedures and triggers to automate reporting; wrote Bash/shell scripts on Linux.

- Provided application and database support to more than 400 users.

TECHNICAL SKILLS

Programming & Modelling	C, C++, Visual Basic, Assembly, PHP, HTML, SQL, UML, Python
Databases	MySQL, Oracle AI Database 26ai, MS SQL Server,
Networking	LAN/WAN technologies, IP addressing and subnetting, Linux servers, Cisco Packet Tracer; Cisco training (CTTC Karachi),
Systems & Tools	Linux (Ubuntu, Red Hat), Windows, MATLAB, IBM Rational Rose, MS Visio, MySQL Workbench, XAMPP, IoT
Methodologies	Software development life cycle models, Agile, XP, Incremental Delivery

PROFESSIONAL MEMBERSHIP

Professional Engineer, Pakistan Engineering Council (PEC), Registration No. **COMP/5767**

REFERENCES

Available on request.