

ISLAM UD DIN

Lecturer, Computer Science · Bacha Khan University Charsadda (BKUC)

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PERSONAL PROFILE

Research **—** My research focuses on advancing Artificial Intelligence (AI), with particular emphasis on machine learning, deep learning, big data analytics, and bioinformatics. My work applies data-driven and computational approaches to biological and biomedical problems, especially in the analysis of epigenetic and genomic data. I have developed multiple machine learning and deep learning models for biological sequence analysis, resulting in 15 peer-reviewed publications, including papers in high-impact journals such as Scientific Reports, BMC Medical Genomics, and AIMS Bioengineering. My current PhD research aims to integrate scalable computational methods with biological and neuroscience-relevant data to support interdisciplinary research at the interface of computer science and life sciences.

Teaching **—** I have several years of teaching and academic experience at the undergraduate level, including core computer science subjects such as Programming Fundamentals, Object-Oriented Programming, Data Structures, Artificial Intelligence, and Machine Learning. My teaching philosophy emphasizes conceptual clarity, practical application, and integrating current research trends into classroom instruction. I am committed to mentoring students and supporting research-oriented learning in computer science and related interdisciplinary domains.

Research & Academic Service **—** I am actively involved in academic research and collaboration, working closely with faculty members and postgraduate students on interdisciplinary projects in AI, bioinformatics, and data science. In addition to my research activities, I serve as a reviewer for international peer-reviewed journals, contributing to the academic community through scholarly evaluation and knowledge dissemination.

RESEARCH PROFILES

Google Scholar: https://scholar.google.com/citations?user=B1c2mNkAAAAJ&hl=en

ResearchGate: https://www.researchgate.net/profile/Islam-Uddin-4

Web of Science: https://www.webofscience.com/wos/author/record/MVY-4726-2025

RESEARCH INTERESTS

Computational Neuroscience • Machine Learning & Deep Learning • Big Data Analytics • Bioinformatics & Epigenetics • Internet of Things (IoT)

EDUCATION

PhD in Computer Science ..... **2023 – Present**

Abdul Wali Khan University Mardan, Pakistan

MS in Computer Science **2021**

Abdul Wali Khan University Mardan, Pakistan

BS in Computer Science **2017**

Bacha Khan University, Charsadda, Pakistan

ACADEMIC & RESEARCH EXPERIENCE

Lecturer ..... **Sep 2026 – Present**

Bacha Khan University, Charsadda, Pakistan

Visiting Lecturer ..... **2024 – Jun 2026**

Department of Computer Science, Abdul Wali Khan University Mardan (AWKUM)

Research Assistant ..... **2020 – Jun 2022**

Department of Computer Science, Abdul Wali Khan University Mardan

- Teaching undergraduate and postgraduate Computer Science courses
- Supervising BS and MS research projects
- Conducting research in AI, ML/DL, Big Data, IoT, and Bioinformatics
- Serving as reviewer for international peer-reviewed journals

PUBLICATIONS

1. Khan S., Uddin I., Alarfaj F.K., Almusallam N. (2026). A novel computational framework for tumor-specific T cell antigen identification using a deep neural network. Journal of Computer-Aided Molecular Design, 40(1), 150.
2. Alzamel M., Uddin I., Khan S., Dilshad N., Ahmad N. (2026). Deep learning-based identification of N6-methyladenine sites via hybrid feature fusion and SHAP-driven feature selection. Scientific Reports.
3. Uddin I., Noor S., Ali Y.A., Khan S., Al-Razgan M. (2026). A hybrid deep learning framework for accurate N6,2′-O-dimethyladenosine site prediction. Biophysical Chemistry, 107639.
4. Khan S., Uddin I., Noor S., AlQahtani S.A., Ahmad N. (2025). N6-methyladenine identification using deep learning and discriminative feature integration. BMC Medical Genomics, 18(1), 58.
5. Uddin I., AlQahtani S.A., Noor S., Khan S. (2025). Deep-m6Am: a deep learning model for identifying N6,2′-O-dimethyladenosine (m6Am) sites using hybrid features. AIMS Bioengineering, 12(1).
6. Uddin I., Iqbal N., Bukhari S.A.C. (2025). Discriminative sequence features for DNA-binding protein detection using ML and DL techniques. 2025 IEEE International Conference on Future Machine Learning and Data Science.
7. Rahman A.U., Iqbal N., Uddin I., Bukhari S.A.C. (2025). Multifaceted fusion of GloVe and additive attention models for scalable fake news detection. 2025 IEEE International Conference on Future Machine Learning and Data Science.

8. Uddin I., Awan H.H., Khalid M., Khan S., Akbar S., Sarker M.R., et al. (2024). A hybrid residue-based sequential encoding mechanism with XGBoost improved ensemble model for identifying 5-hydroxymethylcytosine modifications. Scientific Reports, 14(1), 20819.

9. Khan S., Uddin I., Khan M., Iqbal N., Alshanbari H.M., Ahmad B., Khan D.M. (2024). Sequence-based model using deep neural network and hybrid features for identification of 5-hydroxymethylcytosine modification. Scientific Reports, 14(1), 9116.

EDITORIAL & REVIEWING EXPERIENCE

Reviewer for peer-reviewed journals including:

— Scientific Reports (Nature)

— Soft Computing (Springer)

— Neural Computing and Applications (Springer)

AWARDS

NCAA Certificate of Excellence