

HAREEM AYESHA

Lecturer, Institute of Computer Science & Information Technology

The Women University Multan, Pakistan

Email: hareem.ayesha@wum.edu.com | Phone: +92-302-3670416 |

<https://www.linkedin.com/in/hareem-ayesha-19385a14b>

PERSONAL INFORMATION

Date of Joining: August 2022	Employee ID: 6574
CNIC: 33203-4970351-8	Employment Type: Permanent
Designation: Lecturer (BPS-18)	ORCID: 0000-0002-5000-5008

ACADEMIC QUALIFICATIONS

Degree	Institution	Year	CGPA / Marks
MSCS	Bahauddin Zakariya University, Multan	2018-2020	CGPA: 3.79
MCS	Bahauddin Zakariya University, Multan	2016-2018	CGPA: 3.78
ADP-IT	University of Central Punjab, Lahore	2014-2016	CGPA: 3.95
HSSC (ICS)	BISE Multan	2012-2014	937/1100
SSC (Matric)	BISE Faisalabad	2010-2012	972/1050

TEACHING EXPERIENCE

Permanent Lecturer The Women University Multan	August 2022 – Present
- Teaching undergraduate and graduate courses in Computer Science and Information Technology - Courses Taught: Data Structures, Computer Vision, Data Mining, Database Systems, Web Technologies, Compiler Construction, Theory of Automata, IT Project Management, Natural Language Processing, Operating Systems, Object Oriented Programming, Programming Fundamentals, Introduction to Information and Communication Technology - Supervising Final Year Projects (FYPs) of undergraduate students (Supervised 36 Students till date)	
Visiting Lecturer University of Southern Punjab, Multan	May 2022 – August 2022
- Taught Software Engineering, Compiler Construction, Software Project Management and IT Project Management to undergraduate students - Supervised Final Year Projects (FYPs)	
Visiting Lecturer The Women University Multan	August 2021 – May 2022
Taught Introduction to Information and Communication Technology to undergraduate students	
Visiting Lecturer University of Education, Multan	November 2021 – May 2022
Taught Database Administration and Management and Data Mining to undergraduate students	
Visiting Lecturer Bahauddin Zakariya University, Multan	February 2021 – June 2021
Taught Object Oriented Programming to undergraduate students	

RESEARCH EXPERIENCE & SPECIALIZATION

Research Focus: Medical Image Analysis, Deep Learning, Machine Learning, Explainable Artificial Intelligence (XAI)

- MS Thesis: Deep Image Caption Generation using Neural Networks for Medical Images
- Research in COVID-19 detection and prediction using patient clinical data
- Breast cancer detection via mammographic image analysis using CNN and ensemble models

- Brain tumor identification using Deep Learning techniques on MRI images
- Melanoma detection from dermoscopic images using pigment network feature extraction
- PCOS identification from Clinical Data using Ensemble Machine Learning techniques

PUBLICATIONS METRICES

Research Profile: https://scholar.google.com/citations?user=GaJgE1oAAAAJ&hl=en	
Peer-Reviewed Journal Articles: 11	Book Chapters: 3
Google Scholar Citations: 260	h-index: 4

RESEARCH PUBLICATIONS

A. Peer-Reviewed Journal Articles

- Ayesha, H., Iqbal, S., Tariq, M., et al. (2021). Automatic medical image interpretation: State of the art and future directions. *Pattern Recognition*, 114, 107856. **[Impact Factor: 8.518]**
- Tariq, M., Iqbal, S., Ayesha, H., et al. (2021). Medical image based breast cancer diagnosis: State of the art and future directions. *Expert Systems with Applications*, 167, 114095. **[Impact Factor: 8.66]**
- Ayesha, H., Kousar, T., & Tariq, M. (2022). Effects of Text Messaging in our Society. *Machines and Algorithms*, 1(2), 35-42.
- Tariq, M. & Ayesha, H. (2023). Computer Aided Diagnosis System for Breast Cancer Detection. *Machines and Algorithms*, 2(1), 18-18.
- Ayesha, H., Tariq, M., & Israr, S. (2023). Computer Aided Deep Image Captioning for Medical Images. *Machines and Algorithms*, 2(1), 24-39.
- Shabir, A., Kanwal, K., Ayesha, H., et al. (2024). A hybrid cognitive radio reporting scheme for wireless regional area networks. *Journal of Computing & Biomedical Informatics*.
- Kanwal, K., Abubakar, M., Shabbir, A., Rehman, L., Ayesha, H., et al. Effective Deep Ensemble Methods for the Detection of Lung Cancer with SMOTE.
- Ayesha, H., & Rehman, L. (2024). Performance Evaluation of Machine Learning Models for Breast Cancer Prediction. *Machines and Algorithms*, 3(1), 61-73.
- Ayesha, H., Meeran, M. T., & Ullah, S. (2025). Optimized cross-domain medical image retrieval via multimodal feature fusion and deep learning-driven computational intelligence. *Kashf Journal of Multidisciplinary Research*, 2(05), 117-143.
- Ayesha, H., Javed, M. U., & Ashraf, M. B. (2025). Integrating Machine Vision Techniques for Accurate Brain Tumor Identification in Magnetic Resonance Images (MRI). *Spectrum of Engineering Sciences*, 368-385.
- Arshad, H. A., Ayesha, H., & Latif, A. (2025). A Novel Intelligent Approach for Melanoma Identification Based on Pigment Network Features. *Spectrum of Engineering Sciences*, 3(12), 680-696.

B. Book Chapters

- Iqbal, S., Tariq, M., Ayesha, H., & Ayesha, N. (2021). AI Technologies in Healthcare Applications. In *Artificial Intelligence and Internet of Things* (pp. 3-44). CRC Press.
- Iqbal, S., Ayesha, H., et al. (2022). COVID-19 Prediction, Diagnosis and Prevention Through Computer Vision. In *Prognostic Models in Healthcare: AI and Statistical Approaches* (pp. 79-113). Springer, Singapore.
- Ayesha, H., Iqbal, S., Tariq, M., et al. (2025). Explainable Artificial Intelligence Techniques in Healthcare Applications. In *Explainable Artificial Intelligence in Medical Imaging: Fundamentals and Applications*, p. 58.

C. Conference Abstracts / Proceedings

- Cross-Dataset Evaluation of Machine Learning Models for Breast Cancer Prediction. 2nd International Conference on Food & Applied Sciences (ICFAS 2024), Nathia Gali.
- Assessing the Expandability of Deep CNNs in Breast Cancer Detection via Mammograms. 1st International Conference on Emerging Trends & Challenges in AI (ICETCAI 2024), organized by Evolution Pakistan, SBBWU Peshawar & Women University Mardan.
- Image-Based Dietary Assessment; Tackling Health Challenges through CBIR and Feature Extraction. ICFAS 2024, Nathia Gali.
- AI-Driven Sustainable Healthcare: A Review of Innovations, Challenges, and Future Directions. 2-Days International SCI-ARTS Conference ISAC-25, Multan.

CONFERENCES, SEMINARS & WORKSHOPS

- Organizer & Participant: 1st International Conference on Emerging Trends and Challenges in Artificial Intelligence (3 days). Institute of Computer Science and Information Technology.
- Speaker: Seminar on 'Machine Learning Applied to Medical Imaging' (1 day). Department of Computer Science, BZU Multan.
- Participant: 2nd International Conference on Food & Applied Sciences ICFAS 2024, Nathia Gali (3 days).
- Organizer: TechXpo-2024 — Final Year Project Exhibition and Poster Competition. Institute of Computer Science and Information Technology.
- Participant: Seminar on 'Smart Business Intelligence' (1 day). Institute of Computer Science and Information Technology.
- Participant: Seminar on 'React Native – A Future Driven Technology' (1 day). Institute of Computer Science and Information Technology.
- Participant: 2-Days International SCI-ARTS Conference ISAC-25 2024, Multan. Organized by Evolution Pakistan & Women University Multan.

ADMINISTRATIVE & DEPARTMENTAL RESPONSIBILITIES

Responsibility	Period
Examination Incharge – BSIT Program	August 2025 – Present
Focal Person – PM Laptop Scheme Phase-IV	As Assigned
BS Information Technology Program Coordinator	July 2024 – July 2025
Member, Admission Committee – BSIT	October 2022 – July 2025
Focal Person – E-Bikes Scheme	July 2024 – December 2024
Computer Lab Incharge	October 2022 – July 2024
Focal Person – Scholarship	October 2022 – July 2024

TECHNICAL SKILLS & EXPERTISE

Research & Programming Tools

- **Languages:** Python, C++, C#, SQL, PHP, JavaScript, HTML, CSS, ASP.NET
- **Deep Learning Frameworks:** TensorFlow, Keras
- **Development Environments:** PyCharm, Jupyter Notebook, Google Colab, Visual Studio
- **Research Areas:** Medical Image Analysis, CNN, Transfer Learning, XAI, CBIR, Feature Fusion

Soft Skills

- Academic Writing & Research Dissemination | Curriculum Development | Student Mentoring
- Team Leadership | Time Management | Analytical & Critical Thinking

CERTIFICATIONS & ACHIEVEMENTS

- Data Mining with Python – Pirple (Certificate ID: bjaytx7pft) | No Expiry
- 3rd Position – MSCS Program, Bahauddin Zakariya University, Multan
- Runner-Up – Quiz Competition, VISIO SPARK, COMSATS University, Islamabad