(Ateeque Ahmed)
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PROFILE

- ➢ Current Designation (**Assistant Professor**)
- ➢ Qualification (B.Tech. (IT) – 2019, B.Ed. – 2023, M.Tech (CSE-AI/ML) – 2025)
- ➢ Published **two research papers** on *Human–Robot Collaboration (HRC)* using **AI, ML, multimodal emotion recognition, and context-aware object detection**.
- ➢ Areas of specialization : Artificial Intelligence & Machine Learning

RESEARCH INTEREST:
- ➢ Artificial Intelligence & Machine Learning
- ➢ Natural Language Processing

SUMMARY OF RESEARCH ACCOMPLISHMENT:
- ➢ Published **two research papers** on *Human–Robot Collaboration (HRC)* using **AI, ML, multimodal emotion recognition, and context-aware object detection**.
- ➢ **JETIR (2025):** Proposed a hybrid AI framework that integrates facial, vocal, and physiological emotion recognition with real-time object detection through machine learning and sensor fusion. Demonstrated how robots adapt dynamically to human emotions and environmental context, improving collaboration in healthcare, manufacturing, and service sectors.
- ➢ **Scopus Indexed (2025):** Introduced a context-aware decision-making model combining emotion recognition and object detection to enable adaptive and empathetic robotic behavior. Highlighted the role of deep learning and multimodal fusion for safe and intelligent human–robot interaction.
- ➢ **Key Outcomes:**
  - o Designed multimodal frameworks integrating AI and sensor fusion for adaptive HRC.
  - o Achieved **~90% accuracy in emotion detection** and **~91% in object detection** (JETIR results).
  - o Advanced development of **emotionally intelligent, context-responsive robotic systems**.
  - o Provided a foundation for future applications in **healthcare robotics, smart**

manufacturing, and service-based AI systems.

PROFESSIONAL MEMBERSHIP:
- NIL

COURSE TAUGHT:

- Theory of Automata and Formal Languages
- Object Oriented Concepts using Java
- Artificial Intelligence
- Computer Graphics and Multimedia Applications

ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILTY

- Course Coordinator – (BCA- Final Year)

PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

- **Ahmed, Ateeque, & Aleem, Saima** (2025). **Enhancing Human-Robot Collaboration through Multimodal Emotion and Context-Aware.**
  - *Available at SSRN 5237859*.
- https://doi.org/10.52783/jisem.v10i51s.10448

PUBLISHED NON-SCI-SCOPUS BUT PEER REVIEWED RESEARCH PAPERS

- **Ahmed, Ateeque, & Aleem, Saima** (2025). **Integrating Multimodal and Context Aware Emotion and Object Detection for Seamless Human-Robot Collaboration**
- http://www.jetir.org/papers/JETIR2503115.pdf

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