

Postgraduate Seminar Series

Venue: Graduate Seminar Room

Date & Time: May 11, 2024 at 3:00 PM

Speaker Information

Tamima Tarin (Std No. 0421052105) is a part time M.Sc. student in the department of CSE, BUET. She completed her undergraduate studies from American International University-Bangladesh (AIUB) in 2020. Her research interest lies in the fields of Data Mining, Neural Network, and Machine Learning. She is currently doing her postgraduate thesis under the supervision of Dr. A.K.M. Ashikur Rahman. She will be speaking about her ongoing research in this talk.



Effect of Smile On Facial Landmark Based Face Recognition

Smiles play a crucial role in making faces more recognizable, yet the influence of a smile on face recognition accuracy remains an understudied aspect, particularly in the domain of automated face recognition systems utilizing traditional machine learning algorithms. This research addresses this gap, recognizing the significance of understanding how smiles impact face recognition, especially given the prevalence of computationally efficient yet comparatively low accuracy faces recognition systems. To tackle this, we introduce a set of innovative features designed to capture the nuanced effects of smiles on face recognition processes. Subsequently, we conduct comprehensive experiments using a dataset comprising both smiling and neutral facial images, encompassing diverse individuals in terms of gender, ethnicity, and age groups. The experimental outcomes reveal a notable increase in discriminating power for smiling faces. What is particularly promising is that this enhancement is achieved with a minimal computational cost, suggesting that machine learning algorithms can effectively leverage smiles to improve accuracy and fairness in face recognition applications.