

Departmental Seminar

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Seminar Title : Enhanced Facial Emotion Recognition via Thermal Imaging and Deep Learning: KTFEv2 Study  
Speaker : Jasleen Kaur (223ee1239)  
Supervisor : Prof. Dipti Patra (Phone: 2410)  
Venue : Seminar Room, EE-401  
Date and Time : 30 Dec 2024 (05:15 PM)  
Abstract : Facial emotion recognition plays a crucial role in human-computer interaction and psychological research. Early emotion recognition techniques using visible images could be easily tampered as emotion can be faked on the physical level. So, thermal imaging-based methods were considered to capture the natural and spontaneous intensity of emotions. Currently, only a handful of research studies are being performed using thermal cameras to detect emotions. This article proposes a deep-learning approach to identify and classify seven basic human emotions from the KTFEv2 thermal dataset, a novel version of the original KTFE. The results obtained by our method surpass the current existing work on this dataset in terms of accuracy, precision, f1- score and support. The overall accuracy achieved was 84.12%.