

Registration Seminar

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Seminar Title	: Visual-cue based Facial Emotion Recognition for Identifying Depression
Speaker	: Srinu Bevara ( Rollno : 919cs5014)
Supervisor	: Prof. Sambit Bakshi
Venue	: Computer Science Convention Hall
Date and Time	: 04 Jul 2024 (16:15)
Abstract	: Recent advancements in Facial Expression Recognition (FER) are reshaping human interaction. FER, pioneered in 1988, identifies emotions like anger and happiness using Facial Action Units (FAUs) and the Micro-Expression Training Tool (METT). It is applied in psychology and mental health for Automated Depression Diagnosis (ADD). Major Depressive Disorder (MDD) affects over 300 million people globally and is managed with antidepressants and tools like the Patient Health Questionnaire (PHQ). Research in this area faces significant challenges in accurately calculating eye gaze and handling facial movements within visual features. These developments signify an important shift in understanding and addressing emotional well-being through technology. Facial features play a crucial role in recognizing depression, emphasizing facial keypoints and eye gaze direction in both eyes. These elements are pivotal for the accurate detection and assessment of depressive states. This study evaluates and analyzes the most efficient model concerning its effectiveness in detecting key facial movements and eye gaze metrics for depression assessment with the objective to enhance performance of existing methods for capturing these facial features accurately. Additionally, a new predictive model is proposed and validated without increasing computational demands, leveraging a deep neural network approach to improve performance in depression detection and assessment.