

**Date:** 20th July, 2023

**Time:** 4 PM

**Venue:** RM-101, CSE

**Title:** Computational Modelling of Human Non-verbal Behaviour 'in-the-wild'

**Abstract:**

Non-verbal human behaviour understanding plays an important role in day-to-day communication and social interaction. The information gained from the non-verbal cues can therefore be beneficial to gain insights of complex mental states. Over the past few years, several attempts were made to bridge the gap between human cognitive ability and machine intelligence to understand gestural cues in complex interaction scenarios. However, due to lack of properly labelled data, annotation complexity and computational constraints, these models lag in the ability to encode gestural cues properly. To this end, my research aims to develop computational models which can learn and model non-verbal gestural cues in social interaction scenarios preferably with limited supervision. This research is a stepping-stone in empowering AI models to understand complex human-human interactions. There are several real-world scenarios such as monitoring students in classroom for engagement, group cohesiveness analysis in task driven environments, localising the influential/dominant person in an interaction environment, emergent leader detection, mob monitoring etc, where it could be deployed.

**Bio:**

Shreya is currently a Research Academic at Optus-Curtin Centre of Excellence in AI in School of Electrical Engineering, Computing and Mathematical Sciences at Curtin University. Prior to this, She was a postdoctoral research fellow at Monash University where the position was funded by DARPA. Shreya obtained her PhD from Monash University in Oct 2022. Her PhD thesis was on 'Automatic Eye Gaze Estimation with Limited Supervision'. Her core research area is Affective Computing using Computer Vision and Machine Learning techniques. She has prior experience in working with multimodal data for human behaviour understanding, affective computing, human centred ai, rehabilitation robotics in different real-world applications.