SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: https://cde.nus.edu.sg/ece

Area: Signal Analysis & Machine Intelligence (SAMI)

Host: Assoc Prof Bharadwaj Veeravalli

TOPIC	:	**Domain Adaptation for Road-centric Scenes**
SPEAKER	:	**Mr Mohamed Mikhail Kennerley** **Graduate Student, ECE Dept, NUS**
DATE	:	**Monday, 10 March 2025**
TIME	:	**10:00AM-11:00AM**
VENUE	:	**Microsoft Teams** **Join the meeting now** **Meeting ID: 464 212 832 083** **Passcode: XZ3M4LY7**

ABSTRACT

For vision models to accurately predict objects in an image, it needs to be trained with data sharing similar distributions as the target images. However, in many use-cases this is not possible, either due to cost or other barriers. Domain adaptation aims to address this by transferring the knowledge from a model trained in a labelled source domain to an unlabeled target domain via an unsupervised or semi-supervised manner. We will introduce two methods utilising domain adaptation, the first focuses on the day-to-night adaptation task where we implement domain-specific augmentations and a two-phased pseudo-labelling approach to strengthen the training of the base model. The second is a more general approach which takes into account the class distribution, addressing the inherent class imbalance prevalent in road-centric scenes.

BIOGRAPHY

Mikhail Kennerley is a PhD Graduate Student in NUS, ECE.