## PREFACE

Autonomous lane keeping is one of the many driver assistance systems that modern vehicles are implementing. Traditional lane detection systems rely on a combination of very specific, hand-made features and heuristics, usually followed by post-processing techniques, which are computationally expensive and susceptible to scaling problems due to changes in road scenes.

So in this project we have performed traditional method of lane detection and also modern approach which uses pixel-segmentation. The modelling lane detection problem as an instance segmentation problem, where each lane represents a separate instance can receive end-to-end training. Also used a learnt perspective transformation, conditioned on the image, as opposed to a fixed "bird's-eye view" transformation, to parametrize the segmented lane instances before fitting the lane which is performed on TuSimple dataset. In this project, we have used CuLane dataset for detecting the lane at night by using SCNN algorithm which gives better accuracy. In Semantic segmentation we have use two algorithm U-NET and F-SCNN on Cityscape dataset in which U-net gives the best accuracy among both of the algorithms.