DeepPAVE: Deep learning-based Personalized Autonomous VehiclE

FORUM8 9th CPWC

Deep Learning Configuration

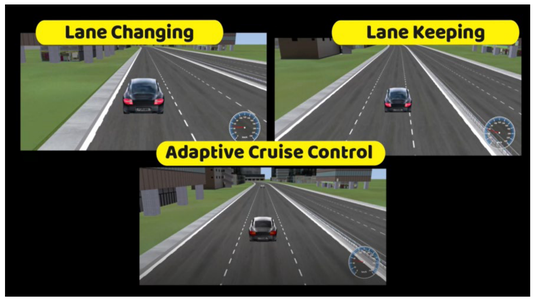
Team: HAVI

Overview

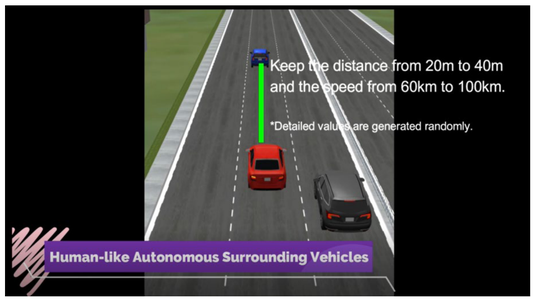
The project proposes a system that uses UC-win/Road to obtain individual driving data and use it to train a deep learning model in order to create a personalized autonomous driving model.

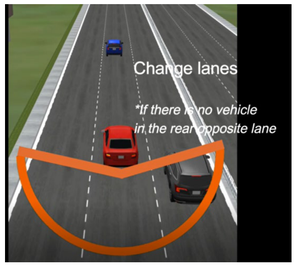
Data Generation

Driving with ADAS:



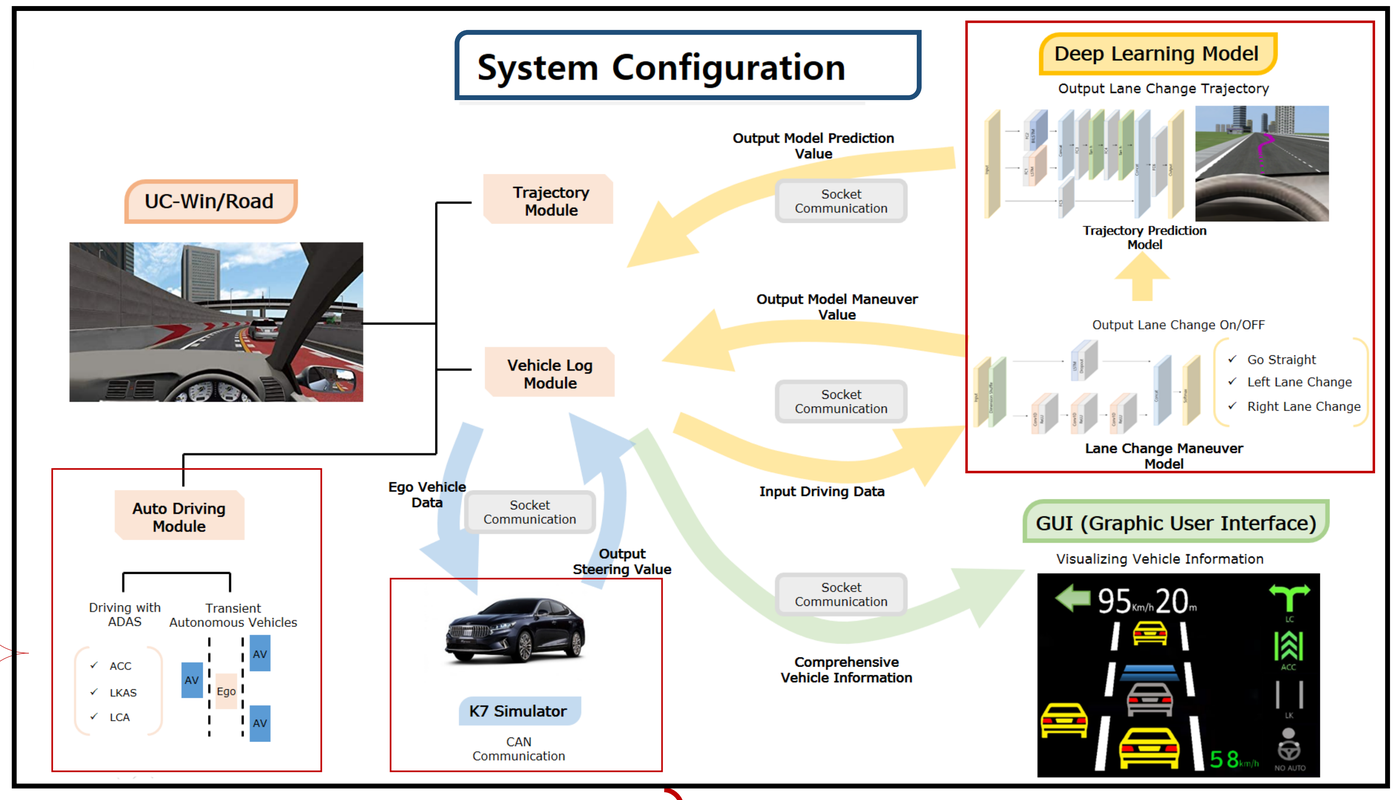
Endless Road Situation:



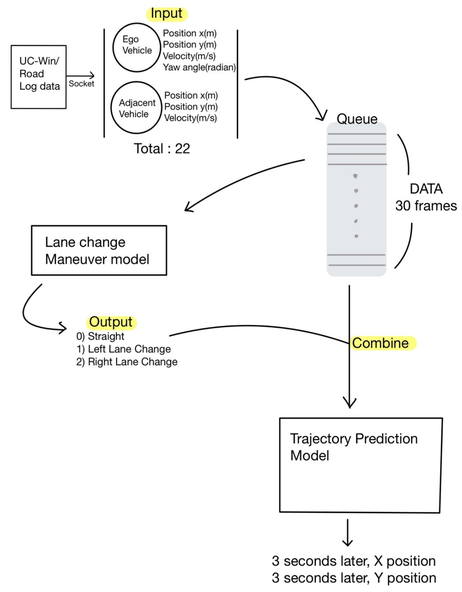


Unlike the existing UC-win/Road traffic simulation, the system generates human-like driving vehicles.

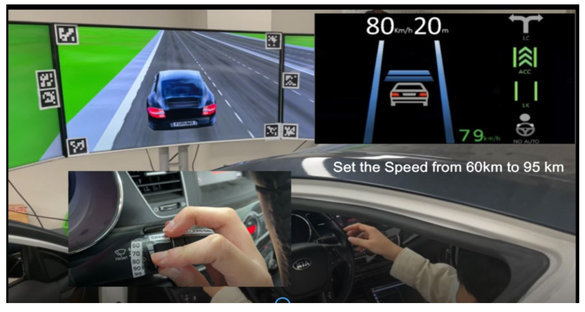
System Configuration



Deep Learning Model



K7 Simulator



Results

Aggressive Model

Defensive Model

The new driving models reduce the frustration or anxiety of drivers that can come from mechanical autonomous driving.