Title: Interaction between traffic and crosswalk agents

Level: Bachelor/Master

Keywords:
Autonomous driving, behaviour modeling, human-vehicle interaction

Supervisor: Naveed Muhammad, Co-supervisor: Yar Muhammad

Skills required: Programming

Description: This thesis project falls in the context of autonomous driving, and more specifically the interaction between vehicles in traffic and different agents at a crosswalk (such as cyclists and pedestrians).

For a safe and efficient drive, an autonomous vehicle doesn’t only need to predict the behaviour of other vehicles in traffic, but also that of pedestrians and cyclists etc. In this project you will study how such agents interact with traffic, and then model these interactions, so that they can then be employed in autonomous driving.

Some relevant literature:


Figure: Bicycles (left) and vehicles at an urban traffic scene from [2]. In this project you will study how vehicles and crosswalk agents such as cyclists interact in real-world traffic.