

# Intersection Modeling for Connected and Automated Vehicles

## Problem description

Connected and automated vehicles are expected to deliver various benefits for traffic safety and efficiency. The technology is developing rapidly, yet existing traffic flow models are not sufficiently detailed for planning and control of operations related to connected and automated vehicles. This calls for more elaborate models that can accurately capture the behavioral aspects of automated vehicles.



## Assignment

The aim of this study is to develop a method for modeling intersections in the existence of connected and automated vehicles (SAE levels 1-4). This will be achieved by:

- Conducting a state-of-the-art on the topic of automated vehicles and intersection modeling
- Considering different intersection types and defining requirements for modeling each type in existence of connected and automated vehicles
- Identifying the existing models that have the potential for incorporating automation concepts
- Upgrading one (or more) of the existing models by incorporating connected and automated vehicles into the model
- Performing a case study to test the developed model(s)

## Information:

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