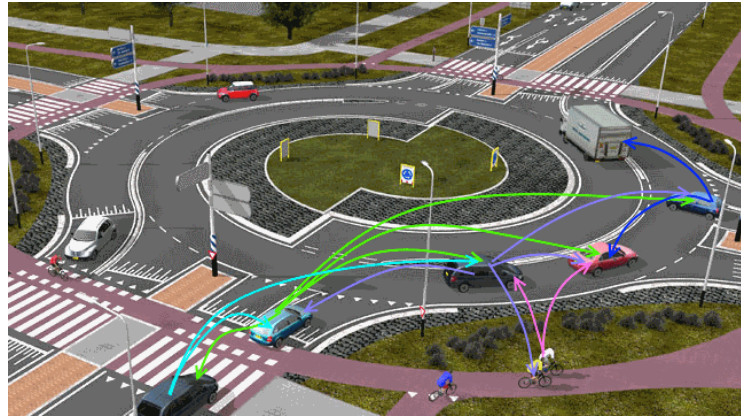


iRoundabouts: Roundabout control for connected vehicles and roadside communication



Problem description

Currently more and more communication exists between vehicles (V2V) and between vehicles and infrastructure (V2I). At the moment, V2I is already used at some intersections to optimise the control there, the so-called intelligent intersections (in Dutch abbreviation: iVRI), so that the delay at intersections is reduced and the safety is improved.

At roundabouts no control is present, and drivers determine the speed at which a roundabout is approached and when to enter the roundabout, which can lead to unnecessary delays, reducing the capacity, especially when the demand is high. The question is, how the traffic at roundabouts can benefit from V2V and V2I, by reducing the delay and increasing the capacity.

Assignment

The goal of this assignment is to design control for a roundabout using communication (V2V and V2I) so that the delay is reduced and the capacity is increased.

Information:

Transport & Planning department

Thesis supervisor: Prof.dr.ir Serge Hoogendoorn

Daily supervisor: dr.ir. A.M. Salomons

Consultant: dr.ir. L.G.H. Fortuijn

Contact: a.m.salomons@tudelft.nl