Autonomous Cooperative Driving: Communications Issues (ACDC)

A project in Research for Innovation
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Partners:
Kapsch TrafficCom, Qamcom, Scania, Volvo Cars, Volvo Group Trucks Technology, Halmstad University

Motivation
Autonomous Cooperative Driving can increase traffic safety, reduce fuel consumption, and lead to more efficient road use and the possibility of driverless vehicles in certain environments.

Goal
To support autonomous cooperative driving with dependable wireless real-time communications

Two Main Application Scenarios
• Platooning (road trains), including special cases like joining in the middle of the platoon to arrange for best fuel saving
• Fully autonomous driving in a restricted area like a construction site, a harbor, or a mine

Main Research Questions
• How can wireless communication enable/enhance autonomous cooperative driving and what application requirements on the communication will there exist in such applications?
• How can we design and configure communication protocols and methods to fulfill the requirements on dependable wireless real-time communications?

Contact Information
Project leader: Prof. Magnus Jonsson,
+46 (35) 16 71 77, Magnus.Jonsson@hh.se

Publications

Role
Knowledge Foundation