RobustSENSE

Robust and Reliable Environment Sensing and Situation Prediction for Advanced Driver Assistance Systems and Automated Driving

GENERAL PROJECT DESCRIPTION
RobustSENSE vision is an autonomous vehicle capable of ensuring safe and comfortable travel to its occupants and other road users under all existing driving conditions. Main objective is to develop a sensor platform for automated and autonomous driving, that overcomes the limitations of existing sensors and provides enhanced sensing capabilities. The project will contribute to enhanced road safety with a more reliable, secure and trustable sensor platform:
• Reliable for safe operation under all driving conditions.
• Improving operability by self-diagnosis, adaptation and robustness.
• Trustable on every level of assistance and automated driving systems

CONTENT OF AVL WORK
• Specification of requirements and testing methods
• Research on metrics to rate and evaluate autonomous systems
• Realization of the sensor platform in a demonstrator vehicle at the test bed

AVL PROJECT RESULTS & RELEVANCE FOR AVL
• Learn about new requirements for sensor testing, sensor models and testing methods from experts in this area
• Specify and prototype possible AVL solutions

COMMENTS, NEXT STEPS
• AVL DE is invited to join largest german research project to develop future homologation technology for automated driving in 2019

FUNDING PROGRAM: ECSEL
PROJECT DURATION: 15/06/01 – 18/05/31

PARTNERS: Daimler, CRF, Bosch, Sick, Oplatek, Ficosa, Fraunhofer, FZI, CTAG, VTT

FURTHER INFORMATION: www.robustsense.eu
Multi sensor systems offer more possibilities. The degradation of a sensor signal can be at least partially compensated by that of another sensor. The realization of this approach requires, however, that all subsequent processing layers are designed for it. This means information fusion, system performance assessment and adaptivity in each processing layer. Adverse weather situations generally do not come when you need it (for testing etc.) And this situations are normally not repeatable. For developing and testing of an adverse-weather-stable ADAS system a simulation framework has been developed and demonstrated.