

Radar Perception Model for Automated Driving Tests

Virtual testing of ADAS/AD functions requires realistic sensor perception models. In the SENSE project low-, medium-, and high-fidelity sensor models are developed for radar, lidar and camera sensors. Work in the automated driving group at the institute is focused on radar sensor modelling:

- Model of radar wave propagation and reflection using ray-tracing
- Model of interaction with surfaces using extended Phong reflectance function
- Design and execution of measurements and simulations to validate model
- Model of signal and data processing of radar sensor with focus on $r - \phi$ and $r - f_d$ measurement quantity maps (IF3)

