

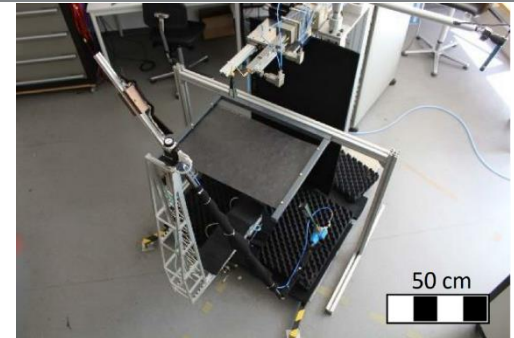
A few physical phenomena like reflections negatively influence a radar sensor's performance from its function point of view. Automotive radars are illuminating environment targets and highway barriers as reflection surfaces, which reproducibly generates several multipath reflections.

Therefore, studying the attenuation, reflection, and absorption of the traffic barriers is one of the key tools for software verification test-beds in advanced driver assistance systems (ADAS).

A measurement setup has been developed by IHE to carry out deterministic tests and investigate attenuation, reflection, and absorption of radar wave propagation in the environment. For this purpose, different materials like a car bumper, traffic barriers (like road signs, and guardrail), asphalt are prepared to study. The goal is to compare the influences and effects of the specular reflections to diffuse reflections.

Requirements:

- Self-motivation and having fun working independently
- Basics knowledge of radar wave propagation
- Interested in working at laboratory environment
- Good (Previous experience) programming skills (MATLAB)



Setup for the measurement of diffuse reflection



Setup for the measurement of specular reflection

Ansprechpartner

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