Hello Me! – How Similarity and Mimicry of In-Vehicle Assistants Effect Trust in HAVs

Open Bachelor/Master Thesis

Background and Research Goal

Multiple studies from the field of psychology suggest that similarity and mimicry in interpersonal communication correlate positively with trust. Hence, people mimic each other in many ways, for instance, through imitating the postures, facial expressions, gestures, moods, emotions, or speech. In the automotive context, trust is a major factor in relation to the acceptance of Highly Automated Vehicles (HAVs). Thus, the aim of this work is to investigate whether this knowledge can also be transferred to human-vehicle interaction.

As part of the work, an in-vehicle avatar should be designed and implemented prototypically, which is able to adapt to the appearance of the passenger, for example by using DeepFake and is further able to mimic the passenger. Subsequently, a user study should be conducted to evaluate whether similarity and mimicry have positive impacts on passengers trust in HAVs.

Based on bachelor/master level the scope is adapted.