DAGA 2017

March 6-9, 2017

Kiel, Germany

Speech Communication in Emergency Call Scenarios for Motorcycles

Frank Kettler, Radi Serafimov, Marc Lepage

Specifications for speech communication are available for eCall systems in cars, such as the Russian MGS/GOST R55531 Specification or ITU-T Recommendation P.1140. The requirements within the specifications are challenging but feasible to meet, and both specifications are designed with slightly different focus. A much more challenging topic are eCall systems for powered-two-wheelers (P2W) due to the acoustic environment, stronger limitations on microphone and loudspeakers and in particular the extreme situations in crash scenarios: bikers may be far away from the motorcycle after a crash which dramatically increases the problem of speech communication either from the driver to the emergency call center and vice versa. The advantage of possible speech communication is undisputable; however, reasonable requirements are needed for appropriate system design. The most important test case should be the so called “silent call” scenario which may require a completely different design and tuning strategy of such implementations. The contribution discusses challenges and the derivation of potential limits based on laboratory test results.

HEAD acoustics GmbH
Ebertstraße 30a
52134 Herzogenrath, Germany