
VDV Recommendation 191 “Advanced Driver Assistance Systems (ADAS) for Tramcars for Avoidance of Collision with Obstacles Situated Directly on the Track – Function Level 1 ADAS”

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Nowadays, very different kinds of advanced driver assistance systems (ADAS) are available for all kinds of vehicles. In the last few years several VDV member companies have tested them in tramcars and light rail vehicles, especially in respect of avoidance of collision with obstacles situated directly on the track. Meanwhile, they have gained so much experience with the test operation of ADAS that it seemed meaningful to write this VDV Recommendation to support other VDV member companies with the introduction of such systems.

This VDV Recommendation is particularly intended to support the public transport companies operating tramways and light rail systems (street-running systems according to Section 2 of BOStrab (Section 4 (1) of PBefG)) by the preparation of the technical specifications, the homologation procedures (putting into service according to Section 62 of BOStrab) and the regulations governing the contractual acceptance of ADAS according to the German Civil Code (BGB) by the procurement of new vehicles or the retrofit of existing vehicles. However, it also includes recommendations on the introduction and operation of ADAS.

In this VDV Recommendation ADAS are systems used to avoid collision with obstacles situated directly on the track; these systems are called “function level 1 ADAS” in this document. These ADAS have deliberately been so designed that they only detect and react on simple potential obstacles. It is the intention to start off a generic development of the ADAS just as in the automotive field.

Christoph Hessel
T8 | Head of urban rail rolling stock
T +49 30 399932-23 | hessel@vdv.de

Udo Stahlberg
T1 | Head of electrical power installations and funicular railways
T +49 221 57979-132 | stahlberg@vdv.de

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