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Real-time Personalized Driver Support System for Pilot Assist Promotion in Different Traffic Conditions.

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Abstract

The complexity of advanced in-vehicle systems and level of automation provided is currently increasing, making the understanding of smart systems design and limitations challenging to a driver. As a result, misinterpretation of the system's capabilities can be detrimental to perceived usefulness and the system's usage. The personalized real-time driver support concept presented in this paper is designed to improve the driver's understanding of Pilot Assist (PA) and increase PA usage effectiveness in various traffic contexts. The designed communication informs drivers about PA capabilities in various traffic conditions, helping drivers recognize the appropriate context for PA activation and reflect on their own PA use strategy.

Keywords: vehicle data; ADAS; personalized support; context-awareness; context reasoning; real-time data processing