

A Concept for a C2X-based Crossroad Assistant

Reference:

D. Burgstahler, M. Pelzer, A. Lotz, F. Knapp, H. Pu, T. Rückelt and R. Steinmetz: A Concept for a C2X-based Crossroad Assistant (accepted for publication). In: Proceedings of the the 2nd IEEE PerCom Workshop on Smart Environments: Closing the Loop (SmartE 2015), March 2015.

Abstract:

In urban crossroad areas the traffic flow is commonly not efficient. This results in an unnecessary high traffic density within cities and a resulting environmental pollution by the waste of fuel. To improve this situation, the driver should be enabled to better slow down, to better accelerate, to better decide, to better come in and to better follow within crossroads. This can be achieved by a C2X-based crossroads assistant that brings information about crossroads with lanes and traffic lights on time to the driver to decide on a convenient crossing strategy. Within this paper we introduce our concept for such a crossroads assistant that is based on newly standardized C2X message types. We have developed a novel graphical user interface for interpreting this new information sources in an intuitive, informative but not distractive way to the driver. A first prototype is already implemented and under test.