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NEWS RELEASE

Latest head-up display technology incorporates augmented reality driving experience

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The demand for head-up displays (HUDs) has been catalyzed by the move toward assisted and autonomous driving; and as drivers increasingly need to be aware of what tasks the car is carrying out, new advances incorporating augmented reality (AR) are fast gaining traction. In an interview with Automotive World, Visteon's Chief Technology Officer Markus Schupfner explains how HUDs could become the driver's main source of information in the future.

Click here to read Markus's interview with Automotive World in full

HUDs help to create a greater sense of awareness and highlight things that drivers may not have noticed themselves, be it speed limits or road layouts. Compared to the infotainment stack in the center of the dashboard, a HUD can also provide a more effective visual aid for navigation by 'projecting' directions onto the road.

To many drivers, this is a small and intuitive change to the HMI, but one with a significant benefit.

Visteon is developing a windshield HUD that can process AR – a technology that is seeing considerable interest from automakers. In partnership with the company's autonomous driving computer, this HUD can also carry out object recognition. Through this, an environmental model of the car's surroundings can be created, and both static objects, such as parked cars, and dynamic objects, like cyclists, can be recognized. This information can be sent to the second layer of the HUD, and displayed via AR to the driver.

Automotive World notes that early expectations for the roll-out of Level 5 autonomous vehicles may have been too lofty, and the timeline for their widespread deployment has been pushed back somewhat. The issue, Markus says,

is that drivers may have a hard time trusting robotic vehicles.

Level 4 autonomous driving is likely to arrive much sooner, he suggests. There are already production programs in place for such vehicles to hit the market in 2021, and this is helping to steer the industry's innovation in HMI systems.