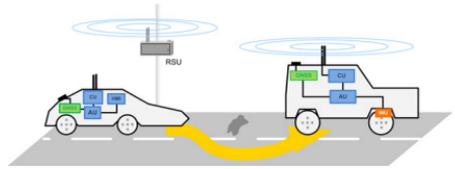


Cooperative road damage evasion application

Fabian de Ponte Müller | Jonathan Brembeck | Bernhard Kloiber
 fabian.pontemueller@dlr.de | www.dlr.de



The Cooperative Road Damage Evasion Application is a novel safety application that enables a vehicle to locally circumnavigate road damage (e.g. potholes) detected by other vehicles. Through special on-board sensors, a vehicle can detect this type of hazard. The exact geographic location of the pothole is pinpointed using accurate positioning technology, such as EGNOS/Galileo, or differential correction data from a Road Side Unit (RSU).

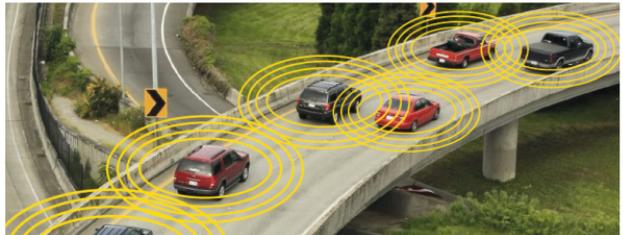


© DLR

To communicate the hazard to other road participants, the application uses vehicle-to-vehicle communication based on existing WAVE/DSRC standards. Suitable protocols are used to distribute the notification among vehicles in a predefined region.

Vehicles featuring WAVE/DSRC communication equipment will receive the notification and act appropriately, i.e. calculate an evasive manoeuvre, warn the driver through the vehicle's human machine interface (HMI), or autonomously circumnavigate the pothole.

ITRI: Connected Vehicle



Industrial Technology Research Institute (ITRI) // Taiwan's leading research institute for technology advancement is a not-for-profit R&D organisation financed equally by Taiwan's Ministry of Economic Affairs and national industry. Founded in 1973, ITRI functions as an incubator for Taiwan's industries. ITRI initiated a prototyping prize to integrate GNSS technology into WAVE / DSRC (Wireless Access in Vehicular Environments and Dedicated Short-Range Communications). The concept of this prize focuses on "connected vehicle", expecting to enable ESNC to inspire more innovative applications.

Industrial Technology Research Institute (ITRI)
 Sec. 4, Chung Hsing Rd.
 Chutung, Hsinchu
 Taiwan, R.O.C.

Ms Ann Chung
 +886 35 91 65 28
 annchung@itri.org.tw
 www.itri.org.tw

