NEW NIGHT VISION ROAD SYSTEM

Researchers at the University of Granada (UGR), Spain, have developed a microchip that improves night vision fo system complements the illumination of the car and will alert drivers to obstacles on the road, the scientists explain. Tl invented in the framework of the EU-funded DRIVSCO (Learning to emulate perception action cycles in a driving scl project, in which the UGR participates.

The new system will extend the field of vision beyond the range normally illuminated by conventional headlig information extracted automatically from night visors. Information about movement or depth is provided in real time b cameras installed on the car, so that, for instance, bends in the road, pedestrians and other cars will be more easily new microchip facilitates the extraction of information from the cameras. In addition, it can be used to set off an alai acoustic or other means - to alert the driver.

The system could, in the future, help to reduce road deaths: Four out of ten fatal car accidents occur at night, altl about 60% less traffic then than during the day. This is due to reduced visual acuity and field of vision, as illumina insufficient for ideal vision. 'Dipped headlights only illuminate about 56 metres when the breaking distance at 100 km metres,' says Eduardo Ros Vidal from the UGR, the researcher who carried out the study.

DRIVSCO is a project funded under the Sixth Framework Programme. It investigates real-time vision and its applica industry. Researchers are focusing, first and foremost, on night-vision scenarios with infrared illumination as the comı relevant application domain, they say. DRIVSCO brings together universities and industry from Spain, Lithuania, G Denmark and Belgium in a joint effort to design intelligent cars that could make driving easier and safer.

The central idea is that cars should learn to drive autonomously by correlating information about the environment and the driver. Starting on the basis of a fully operational human-machine interface, such a system should be largely inde learning, using a variety of predictive mechanisms. 'We envision a system that can learn to drive a car during daylight learned control strategies in an autonomous way to the system's augmented field of infrared night-vision,' t researchers say.
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