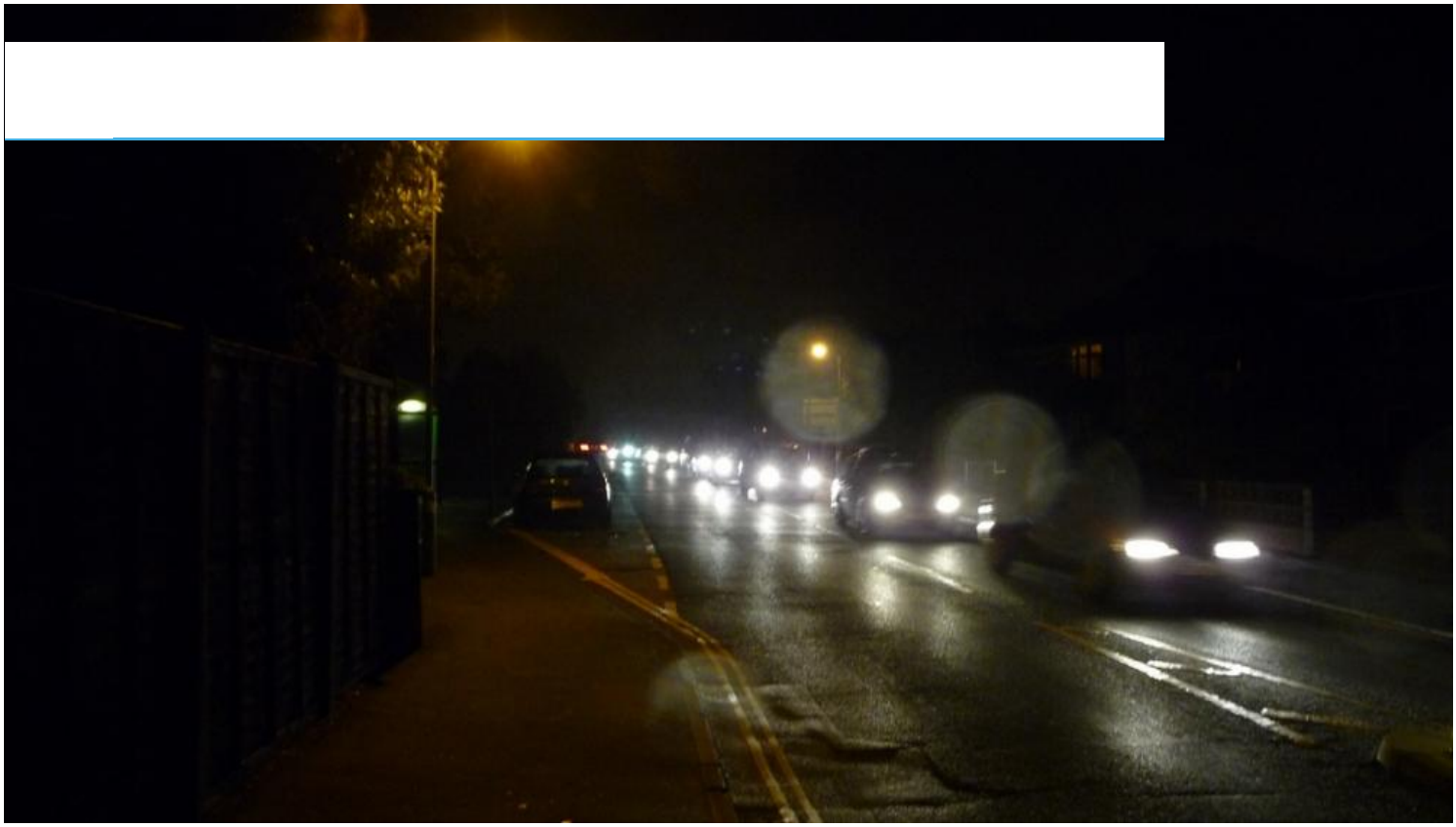
APPLICATIONS AND PLATFORMS
APP DEVELOPMENT

Smart headlights adjust to aid drivers in difficult conditions



News
Alice MacGregor, CloserStill Media
MONDAY 27 APRIL, 2015

Researchers at Carnegie Mellon University's Robotics Institute are developing smart headlights that not only **trace a car's movement** around bends, but are **programmable** to assist a driver in a wide range of driving conditions.

The research team, at the institute's **Illumination and Imaging Laboratory**, is looking into designing headlights which do not highlight raindrops and snowflakes in bad weather, instead passing light around the individual drops and improving visibility. Its near-future design would also be able to avoid glare even when the high beam is in use, detecting up-coming vehicles and disabling the range of light that is directed at it.

They also hope to incorporate GPS data to adjust the direction of the headlights according to the lane that a driver is occupying, illuminating it more brightly compared to surrounding lanes. The smart headlights would also be capable of alerting drivers to approaching obstacles, such as animals or pedestrians running onto the road.

The technology is supported by a looped system which will constantly read, assess and react to driving conditions. The prototype also features a built-in camera to capture visual data before transferring it to a computer processor installed in the vehicle, where it can be analysed.

“Even after 130 years of headlight development, more than half of vehicle crashes and deaths occur at night, despite the fact there is much less traffic then,” **said Srinivasa Narasimhan**, associate professor of robotics. “With our programmable system, however, we can actually make headlights that are even brighter than today's without causing distractions for other drivers on the road.”

Testing of the adaptive headlights has so far proved successful. Narasimhan suggested that the technology had been able to reduce visibility of rain four metres away by 70% and of snowflakes by 60%, when a car is moving at 30 km/h.

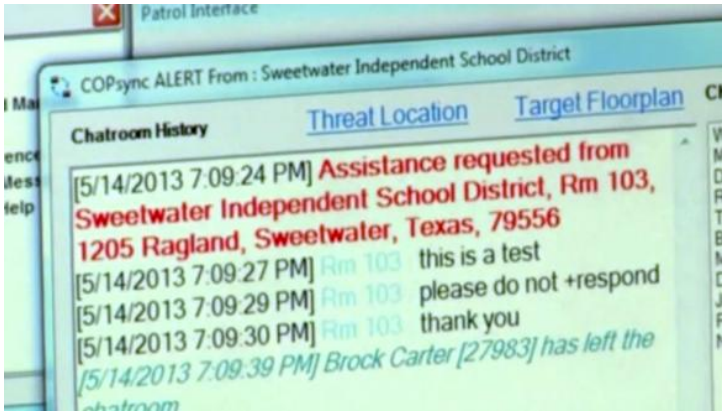
Related

Foxconn said to have partnered with Cowin in ‘affordable’ smart car project
Traffic app Waze to alert L.A. drivers of kidnappings and hit-and-runs
BT extends cybersecurity offering to connected cars

Tags: Smart, Car, transport, news

Latest Articles

APPLICATIONS AND PLATFORMS
SECURITY

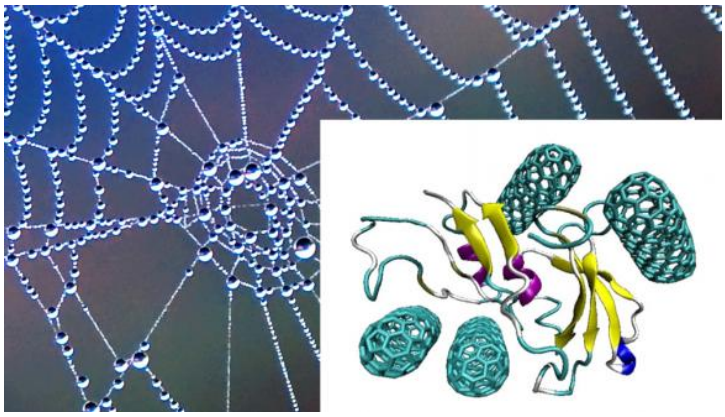


New technology could enhance safety for police officers on patrol

FEATURE

THURSDAY 7 MAY, 2015

THE STACK
APPLICATIONS AND PLATFORMS

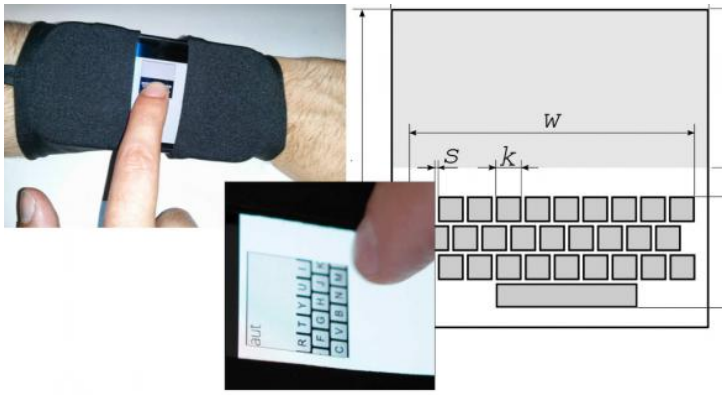


Mysterious osmosis lets spiders weave graphene-reinforced webs

NEWS

THURSDAY 7 MAY, 2015

APPLICATIONS AND PLATFORMS
APP DEVELOPMENT



Scientists torture QWERTY layout into the wearable/smartwatch space

NEWS

TUESDAY 5 MAY, 2015