



Ford is trying to limit the damage of potholes

Ford adds pothole detection technology

The Ford Focus is being fitted with technology that senses when a wheel is falling into a pothole and adjusts the suspension to limit how far the wheel drops.

Because the tyre and wheel do not fall as far, they do not strike the opposite side of the hole as harshly on exit. The rear suspension can respond even faster, with a signal from the front wheel providing a pre-warning to the rear wheel before it reaches the pothole.

“Our engineers are always searching for the roughest roads to really test our suspension to the limit, but more and more we’re noticing that the rough roads are finding us,” said Guy Mathot, Ford Focus vehicle dynamics supervisor. “Potholes are a problem that isn’t going away anytime soon, but with our ad-

vanced suspension technology for all-new Focus, we’ve been able to reduce their impact.”

The detection system is a feature of continuously controlled damping technology on the car. Every two milliseconds suspension, body, steering and braking inputs are monitored, and suspension responses adjusted for the smoothest ride.

Ford develops its suspension systems using a specially created road at its facility in Belgium. This consists of replicas of some of the worst potholes and road hazards from around the world.

Engineers refine the systems with hundreds of hours of testing on a diverse range of European public roads, monitoring loads and strains with equipment similar to that used by seismologists to study earthquakes.

Genivi and Fastr pool resources to tackle cyber security

The Genivi Alliance and Future of Automotive Security Technology Research (Fastr) are joining forces to form a single automotive security team to advance both organisations’ efforts, interests and expertise in automotive security.

Together, the team will build on what each organisation has already established in the areas of threat modelling, secure over-the-air updates and developing secure software.

The Genivi Alliance is a collaborative community of car makers and their suppliers developing open software for in-vehicle infotainment (IVI) and the connected car. Fastr is a non-profit research consortium dedicated to automotive cyber security.

The combined security activities will operate under the Genivi security team.

“By combining our strengths and areas of interest, Genivi is augmenting its existing security-related efforts by leveraging Fastr’s foundational research and deep understanding of emerging security technologies,” said Steve

Crumb, executive director of the Genivi Alliance. “I believe that our focus on writing secure code, coupled with the quality of research and experience of Fastr experts will result in easily adopted guidelines and approaches that bring great benefit to the automotive industry at large.”

As vehicles become increasingly connected and software-powered, Genivi and Fastr recognised an emerging need for a comprehensive, end-to-end security model. The work of the combined security team will look at automotive cyber security holistically and deliver guidelines and research that helps stakeholders build, deliver and manage more secure vehicles in the future.

“Our common vision for re-architecting the vehicle so that cyber security is at its very foundation helps drive safety and trust in tomorrow’s connected and autonomous vehicles,” said Joe Gullo, executive director of Fastr. “We are excited to unify our expertise and jointly work towards innovations in technology to achieve these goals.”