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Ford and Intel Research Demonstrates the Future of In-Car Personalization and Mobile Interior Imaging Technology

- Joint research project between Ford and Intel explores new applications for interior cameras, using data from existing vehicle sensors to enhance the in-vehicle experience for drivers and passengers
- Mobile Interior Imaging, also known as Project Mobii, uses facial recognition software to offer enhanced privacy controls, and a more secure and personalized in-vehicle experience
- A mobile phone app enables a driver to remotely access the vehicle, allowing for a quick check of belongings left inside or authorizing/declining other drivers to operate the vehicle

DEARBORN, Mich.--(BUSINESS WIRE)-- As vehicles become an integral part of the Internet of Things, Ford and Intel are researching new opportunities for the connected car, including giving drivers the ability to remotely peer into their car using a smartphone, or a vehicle that could identify its owner using facial recognition software.

The joint research project, called Mobile Interior Imaging, or Project Mobii, explores how interior-facing cameras could be integrated with sensor technology and data already generated within and around the vehicle to create a more personalized and seamless interaction between driver and vehicle that transforms the driving experience.

The Mobii research was a collaboration between Intel ethnographers, anthropologists and engineers alongside Ford research engineers, and incorporates perceptual computing technology to offer a more enjoyable and intuitive vehicle experience.

“Our goal with the Mobii research is to explore how drivers interact with technology in the car and how we can then make that interaction more intuitive and predictive,” said Paul Mascarenas, chief technical officer and vice president, Ford Research and Innovation. “The use of interior imaging is purely research at this point; however, the insights we’ve gained will help us shape the customer experience in the long term.”

Ford now uses exterior vehicle cameras for driver-assist features such as lane-keeping assist and lane departure warning. The Mobii research examines new applications for interior cameras, including driver authentication. The use of facial recognition software offers improved privacy controls, and enables Project Mobii to identify different drivers and automatically adjust features based on an individual’s preferences.

“As a trusted technology leader and innovator, Intel understands the challenges automakers are facing and is a committed partner in this unprecedented opportunity,” said Doug Davis,

vice president, Internet of Things Group at Intel. “Project Mobii is a great example of Intel collaborating with Ford to help enable a secure, more connected driving experience.”

Improved privacy and parental controls

Upon entering the vehicle, the driver is authenticated by Project Mobii through a front-facing camera using facial recognition software. The in-car experience is then personalized to display information specific to that driver, such as calendar, music and contacts. If Project Mobii detects a passenger in the car, a privacy mode activates to display only navigation.

If Project Mobii does not recognize the driver, a photo is sent to the primary vehicle owner’s smartphone. That owner can then set permissions and specify features that should be enabled or disabled. If the driver is the child of the vehicle owner, for example, restrictions could be automatically set to require safety belt use and to limit speed, audio volume or mobile phone use while driving.

Gesture recognition software enables intuitive interaction for the driver. A combination of natural gestures and simple voice commands can simplify such tasks as turning the heat up and down, or opening and closing a sunroof while driving.

About Ford Motor Company

Ford Motor Company, a global automotive industry leader based in Dearborn, Mich., manufactures or distributes automobiles across six continents. With about 183,000 employees and 65 plants worldwide, the company’s automotive brands include Ford and Lincoln. The company provides financial services through Ford Motor Credit Company. For more information regarding Ford and its products worldwide, please visit http://corporate.ford.com.

About Intel

Intel (NASDAQ: INTC) is a world leader in computing innovation. The company designs and builds the essential technologies that serve as the foundation for the world’s computing devices. As a leader in corporate responsibility and sustainability, Intel also manufactures the world’s first commercially available “conflict-free” microprocessors. Additional information about Intel is available at newsroom.intel.com and blogs.intel.com, and about Intel’s conflict-free efforts at conflictfree.intel.com.

Ford Motor Company
Emily Olin, 281-380-9661
emily.olin@hkstrategies.com
or
Intel
Danielle Mann, 973-997-1154
danielle.mann@intel.com

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