Visteon

Visteon Showcases Smart, Learning Digital Cockpit of the Future

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Next-generation cockpits will feature integrated domain controllers, large free-form displays, and AI-enabled voice assistants and driver monitoring

LAS VEGAS, Jan. 07, 2019 (GLOBE NEWSWIRE) -- Visteon Corporation (Nasdaq: VC), a leading global supplier of automotive cockpit solutions, will offer a glimpse into the smart, learning digital cockpit of the future at CES 2019.

Visteon will showcase advanced technologies that will power the in-vehicle user experience of the automotive cockpit in the emerging era of more automated driving. Visteon's integrated solutions are aimed at improving safety on the road while enabling seamless access to information – from personal devices, the vehicle and the cloud – using the latest innovations in technology.

Key highlights of this new cockpit electronics architecture include:

- A high-powered cockpit domain controller that integrates the instrument cluster, infotainment and other cockpit functions into a single ECU with advanced graphics, over-the-air software updates, and state-of-the-art cybersecurity
- Large high-resolution displays that are curved and non-rectangular to deliver an enhanced viewing experience without limiting interior panel design
- A scalable autonomous domain controller for Level 2 and higher automated driving that is integrated with the cockpit domain controller for seamless interaction with the driver.
- A machine learning-based voice recognition and text-to-speech solution for a natural language, conversational smart assistant
- In-cabin driver and other occupant detection and identification technology, also based on machine learning for improved safety functionality

"The shift toward electric cars and improved automated driving technology is an opportunity to rethink the cockpit in terms of how drivers and passengers interact with the vehicle and their surroundings," said Visteon President and CEO Sachin Lawande. "As vehicles become more automated, there is a need for fresh approaches to the human-machine interface in the cockpit – to ensure control can shift safely and seamlessly between the driver and the vehicle, and to keep occupants informed, engaged and entertained.

"In the era of increased automated driving, the cockpit will become a smart, learning, mobile assistant," Lawande continued. "Visteon's industry-leading digital cockpit solutions offer automakers a complete suite of technologies to upgrade the user experience of their vehicles."

At CES, Visteon will demonstrate the integration between the SmartCore ™ cockpit domain controller and the scalable DriveCore ™ autonomous driving controller, which combine to create a seamless HMI between the driver and the vehicle. This interface manages the experience of drivers and passengers as the vehicle seamlessly takes control from the driver or gives it back.

"In addition to developing self-driving technology, Visteon has been focused on improving the experience of the driver and passengers in the increasingly more automated cars of the future," Lawande said. "As cars take over the driving function, it is important for the occupants to understand and trust the vehicle's actions, and for the vehicle to sense its surroundings and the driver's readiness to resume control. We are focused on delivering a comprehensive, flexible and scalable digital cockpit solution for Level 3 and higher applications."

High-resolution digital displays that are not just flat and rectangular are critical for the all-digital cockpits of the future. As displays get larger, the flat and rectangular-shaped display does not allow for the best viewing experience, or for the industrial design of the interior. Visteon will show an array of digital displays based on LCD and OLED technologies, including some with curved and non-rectangular shapes. The company will also demonstrate its new VX display solution that offers integrated haptic feedback, proximity sensing and knob-on-glass features.

Machine learning has emerged as a key new technology for solving problems – such as voice and image recognition – that have proven to be very difficult for conventional programming techniques. Visteon will demonstrate an in-vehicle conversational smart assistant using machine learning for voice recognition. The Visteon "say 'n serve" smart assistant solution is designed to use natural language processing for onboard or offboard commands in cars without always needing cloud connectivity. In addition, Visteon will demonstrate a driver monitoring solution that also uses machine learning technology. The Visteon "see 'n sense" in-cabin monitoring solution offers head-pose detection, gaze detection and identification capabilities that are key for enhanced safety.

Visteon will also showcase the industry's first V2X module that works with either Dedicated Short-Range Communications (DSRC) or cellular networks. This gives automakers the flexibility to offer support for either wireless technology, depending on the needs of the market.

CES 2019 will mark Visteon's 20 th year as an exhibitor, which ranks the company among the longest-running show participants in the automotive industry. For those attending CES, Visteon can be found in Central Plaza Pavilion 13.

About Visteon

Visteon is a global technology company that designs, engineers and manufactures innovative cockpit electronics products and connected car solutions for most of the world's major vehicle manufacturers. Visteon is a leading provider of instrument clusters, head-up displays, information displays, infotainment, audio systems, SmartCore ™ cockpit domain controllers, vehicle connectivity and the DriveCore ™ autonomous driving platform. Visteon also supplies embedded multimedia and smartphone connectivity software solutions to the global automotive industry. Headquartered in Van Buren Township, Michigan, Visteon has approximately 10,000 employees at more than 40 facilities in 18 countries. Visteon had sales of $3.15 billion in

2017. Learn more at www.visteon.com.

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