GM and SAE International Select 8 North American Universities for New Autonomous Vehicle Competition

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DETROIT (PRWEB) April 05, 2017 -- At WCX 17: SAE World Congress Experience, SAE International and General Motors announced the eight North American universities who will compete in the upcoming AutoDrive Challenge™.

This new autonomous vehicle design competition is a three-year challenge to develop and demonstrate a fully autonomous passenger vehicle. The competition's technical goal is navigating an urban driving course in an automated driving mode as described by SAE Standard (J3016) level 4 definition by Year 3.

The universities are:

- Kettering University
- Michigan State University
- Michigan Tech
- North Carolina A&T University
- Texas A&M University
- University of Toronto
- University of Waterloo
- Virginia Tech

"SAE International is excited to expand our partnership with GM to build the future STEM workforce through the AutoDrive Challenge™," said Chris Ciuca, director of Pre-Professional Programs at SAE International. "Building on our success through programs like Formula SAE, the AutoDrive Challenge™ launches a new platform to engage industry and academia in working towards a common goal of preparing the brightest young minds for the future of autonomous technologies."

Throughout the three-year competition, students will focus on autonomous technologies and allow for modification and testing. They will work with real-world applications of sensing technologies, computing platforms, software design implementation and advanced computation methods such as computer vision, pattern recognition, machine learning, artificial intelligence, sensor fusion and autonomous vehicle controls.

"GM is very excited to work closely with these eight universities over the next three years," said Ken Kelzer, GM vice president of Global Vehicle Components and Subsystems. "The students and faculty at these schools bring deep knowledge and technical skills to the competition. We are proud to help offer these students the hands-on experience necessary for them to make an immediate impact on the automotive world when they graduate."

GM will provide each team with a Chevrolet Bolt EV as the vehicle platform. Strategic partners and suppliers will aid the students in their technology development by providing vehicle parts and software. Throughout the AutoDrive Challenge™ competition cycle, students and faculty will be invited to attend technology-specific

workshops to help them in their concept refinement and overall autonomous technical understanding.

Beginning in fall 2017, Year 1 will focus on concept selection for university teams by having them become familiar with sensing and computation software. They will be tasked with completion of a concept design written paper as well as simple missions for on-site evaluation. These simple missions can include straight roadway driving and object avoidance/detection. The Year 1 final competition will be hosted at GM's Desert Proving Ground in Yuma, Arizona.
In Year 2 the teams will refine their concept selections into solid system developments and will have more challenging dynamic events for testing on-site, including dynamic object detection and multiple lane changing.

Year 3 will culminate with final validation of design and concept refinement. They will navigate complex objectives of on-site testing, including higher speeds, turnabouts and moving object detection.

General Motors Co. (NYSE: GM, TSX: GMM) and its partners produce vehicles in 30 countries, and the company has leadership positions in the world's largest and fastest-growing automotive markets. GM, its subsidiaries and joint venture entities sell vehicles under the Chevrolet, Cadillac, Baojun, Buick, GMC, Holden, Jiefang, Opel, Vauxhall and Wuling brands. More information on the company and its subsidiaries, including OnStar, a global leader in vehicle safety, security and information services, can be found at http://www.gm.com .

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