Toyota Research Institute Partners with University of Michigan to Accelerate Artificial Intelligence Research

August 10, 2016

ANN ARBOR (August 10, 2016) – Research focused on artificial intelligence, robotics and autonomous driving at the University of Michigan (U-M) will get a major boost thanks to an initial $22 million commitment from the Toyota Research Institute (TRI), announced today by TRI-CEO Gill Pratt in an address to the U-M faculty.

“Toyota has long enjoyed an excellent working relationship with the University of Michigan, and we are excited to expand our collective efforts to address complex mobility challenges through artificial intelligence,” said Pratt. “We look forward to collaborating with U-M’s research faculty and students to develop new intelligent technologies that will help drivers travel more safely, securely and efficiently. We will also focus on expanding the benefit of mobility technology to in-home support of older persons and those with special needs.”

Under the agreement, TRI will provide an initial $22 million over four years for research collaborations with the U-M faculty in the areas of enhanced driving safety, partner robotics and indoor mobility, autonomous driving and student learning and diversity.

Recently, TRI announced the establishment of its new Ann Arbor research facility (TRI-ANN) and the hiring of U-M robotics professors Ryan Eustice and Edwin Olson to support autonomous vehicle research. Both will retain U-M faculty positions part-time. TRI-ANN is the third TRI facility, joining TRI offices in Palo Alto near Stanford and in Cambridge, near MIT.

TRI was drawn to Ann Arbor because of the broad strengths of the university and the region, particularly in areas related to the emergence of high-level driver-assist systems, eventually leading to fully autonomous vehicles. TRI will also be near two well-established Toyota Technical Center campuses.

The partnership builds on Toyota’s strong and active presence in the Ann Arbor community. The two offices of the Toyota Technical Center have long worked with U-M on connected vehicles and safety research. Toyota is a founding partner of U-M’s Mobility Transformation Center (MTC), an interdisciplinary public-private research and development initiative that is developing the foundation for a commercially viable ecosystem of connected and automated vehicles.

MTC operates Mcity, a unique “mini-city” on a 32-acre site on campus that allows researchers to test emerging vehicle technologies rapidly and rigorously in a safe, controlled environment. In addition, Toyota’s Collaborative Safety Research Center is a major sponsor of research at the U-M Transportation Research Institute (UMTRI) focused on advanced safety technologies.

"Our labs at U-M push the envelope of what robots can sense and understand about the world, and TRI provides an opportunity to apply these discoveries into real-world products," said Eustice, associate professor at U-M. "The challenges that TRI faces with autonomous cars will leverage our labs' research into complex behaviors, like merging and understanding the intention of other vehicles from their actions," added Olson, associate professor at U-M.

This collaboration is an effort to leverage robotics to improve quality of life in a variety of ways.

“At U-M, we are working closely with partners in industry and government to drive a revolution in connected, automated, and autonomous vehicles that will dramatically enhance the safety and efficiency of moving people and goods,” said S. Jack Hu, vice president for research at U-M. “Our expanding partnership with Toyota will help accelerate progress toward that goal.”

As part of this agreement, U-M will issue a broad call for proposals from faculty across the university to address challenges in mobility, safety and home robotics.

“For decades, U-M has provided a steady stream of ideas and people to fuel the broad ecosystem of automotive R&D facilities in this region and beyond,” said Alec Gallimore, the Robert J. Vlasic Dean of Engineering at U-M. “We look forward to working more closely with Toyota to spur a new era of innovation that will have worldwide impact.”