HUMANITY CENTERED ROBOTICS INITIATIVE

BROWN

Edwin Olson
University of Michigan

"Autonomous Cars and My Gray Hair"

Wednesday, October 8, 2014
12:00 – 1:30pm
Barus and Holley Room 190

In this talk, I'll describe our fleet of autonomous cars (developed with Ford). I will describe some of our successes including precision localization and trajectory optimization, as well as some of our ongoing work (in which we question the usefulness of precision localization and trajectory optimization).

Sociological and human factors problems have a huge impact on the technological requirements--- how safe does an autonomous car need to be? When do humans and autonomy function well together, and when are the results poor? The aviation industry has already seen a profound shift towards automation--- what lessons can we learn from those experiences?

Edwin Olson is an Associate Professor of Computer Science and Engineering and the University of Michigan. He is the director of the APRIL robotics lab, which studies Autonomy, Perception, Robotics, Interfaces, and Learning. His active research projects include applications to explosive ordinance disposal, search and rescue, multi-robot communication, railway safety, and automobile autonomy and safety.

In 2010, he led the winning team in the MAGIC 2010 competition by developing a team of 14 robots that semi-autonomously explored and mapped a large-scale urban environment. For winning, the U.S. Department of Defense awarded him $750,000. He was named one of Popular Science's "Brilliant Ten" in September, 2012. In 2013, he was awarded a DARPA Young Faculty Award.

He received a PhD from the Massachusetts Institute of Technology in 2008 for his work in robust robot mapping. During his time as a PhD student, he was a core member of their DARPA Urban Challenge Team which finished the race in 4th place. His work on autonomous cars continues in cooperation with Ford Motor Company on the Next Generation Vehicle project.

This presentation is part of the HCRI's Multidisciplinary Speaker Series that showcases diverse and groundbreaking research undertaken by leaders in science, technology, design, and impact of robotics on society.

For more information on this talk and the HCRI Speaker Series,
contact hcri@brown.edu or visit hcri.brown.edu.