

# “Ben Franklin Racing Team and the DARPA Urban Challenge”

**Dr. John Spletzer**

Computer Science and Engineering  
Lehigh University

**Thursday, November 29<sup>th</sup>  
4:00 pm, Packard Lab 101**

Refreshments served starting at 3:30 pm in lobby of Packard Lab

**Abstract:** The DARPA Urban Challenge was held earlier this month in Victorville, CA at the site of the former George AFB. This 55 mile race featured full-size robotic cars in urban terrain, and represented the first interactions of robot vehicles at speed in an unstructured environment. Lehigh participated in the DUC as part of the Ben Franklin Racing Team, a collaboration with the University of Pennsylvania and Lockheed Martin Advanced Technologies Laboratory. “Little Ben” – the team's entry – was one of only 11 vehicles to reach the finals, was the 4th robot (of only 6) to cross the finish line, and the only self-funded (Track B) entry of 78 teams to finish the race. This talk will cover Ben's evolution from OEM Toyota Prius to DUC contender, and the many hurdles overcome by the team along the way. It will also provide an insider's perspective of the DARPA Grand Challenge series, and the subsequent evolution of mobile robotics during this period.

**Bio:** John Spletzer is a P.C. Rossin Assistant Professor of Computer Science and Engineering at Lehigh University. Professor Spletzer received his PhD in Computer and Information Science from the University of Pennsylvania (CIS) in 2003. He also holds Master degrees in CIS (Penn, '99) and Mechanical Engineering (Johns Hopkins, '93). Prior to returning to full-time studies for his PhD, Professor Spletzer served as a test engineer for the U. S. Army, where he helped develop NBC defense equipment and related sensor systems to include long-range infrared (IR) LIDAR systems, as well as passive IR viewers for driving in degraded visibility conditions. His research focus is mobile robotics, with emphasis on assistive technologies for driving and multi-agent systems.

