CAFÉ SCI TO DISCUSS SMART TRAFFIC SIGNALS
LOCAL PROFESSOR TO TALK ABOUT REAL-TIME OPTIMIZATION OF URBAN TRAFFIC FLOWS

PITTSBURGH, Jan. 20, 2015 — At Carnegie Science Center’s next Café Scientifique, a local professor and researcher will discuss the power of real-time optimization on urban traffic flows. The event will be held Monday, Feb. 2, from 7–9 pm, as Café Sci presents “Smart Traffic Signals.”

Dr. Stephen F. Smith is a research professor in the Robotics Institute at Carnegie Mellon University, where he is director of the Intelligent Coordination and Logistics Laboratory. Smith’s research focuses on the theory and practice of next-generation technologies for planning, scheduling, coordination, and optimization. For the past several years, he has directed the SURTRAC (Smart URban TRAffic Control) adaptive traffic signal control project, which has developed a decentralized system for real-time optimization of urban traffic flows. Current research with SURTRAC focuses on optimization of traffic flows involving passenger vehicles, buses, pedestrians, and bicyclists, and on integration of smart signal control with connected vehicle technology.

Traffic congestion in United States metropolitan areas is an increasing problem, now estimated to cost travelers $121 billion annually in lost time and fuel consumption, and to release 56 billion pounds of carbon dioxide into the atmosphere each year. In this talk, Smith will describe recent research aimed at addressing this problem through smart traffic signals. A smart traffic signal perceives approaching traffic in real time and dynamically allocates green light time to move traffic through the intersection as efficiently as possible. Signal plans are coordinated with neighboring smart signals. Smith will summarize how this technology works, present results obtained from an initial experimental deployment of smart traffic signals in the East Liberty neighborhood of Pittsburgh, and discuss future opportunities for smart signal systems to exploit emerging connected vehicle technology (which will shortly enable direct communication between traffic signals and vehicles) to enhance the safety and mobility of urban travelers.

The evening includes time for informal discussion, eating, and drinking. Admission is free, and food and drinks are available for purchase. Doors open at 6 pm.
For more information and to RSVP, visit CarnegieScienceCenter.org or call 412.237.3400.

About Carnegie Science Center

Carnegie Science Center is dedicated to inspiring learning and curiosity by connecting science and technology with everyday life. By making science both relevant and fun, the Science Center’s goal is to increase science literacy in the region and motivate young people to seek careers in science and technology. One of the four Carnegie Museums of Pittsburgh, the Science Center is Pittsburgh’s premier science exploration destination, reaching more than 700,000 people annually through its hands-on exhibits, camps, classes, and off-site education programs.

About Carnegie Museums of Pittsburgh

Founded by Andrew Carnegie in 1895, Carnegie Museums of Pittsburgh is a collection of four distinctive museums dedicated to exploration through art and science: Carnegie Museum of Art, Carnegie Museum of Natural History, Carnegie Science Center, and The Andy Warhol Museum. Annually, the museums reach more than 1.2 million people through exhibitions, educational programs, outreach activities, and special events.

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