Dwight Look College of ENGINEERING
TEXAS A&M UNIVERSITY

SEMINAR

SYSTEMS, CONTROLS, AND ROBOTICS SEMINAR SERIES

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4:00 p.m. / 100 Harrington Education Classroom Center

Automobiles as Platforms for Open and User Innovation

ABSTRACT

There are about a billion licensed cars, trucks and buses on the planet and these automobiles are rich concentrations of technology, masterfully engineered to be safe, "green," "smart," and be quality products, designed with an emotional appeal. It takes large concentrations of capital investment to manufacture automobiles and the increasing complexity of the under-the-hood and behind-the-dash systems have made tinkering with a car or even gaining read-only access to car data an increasing difficult pursuit, especially for the individual user-innovator.

This talk describes OpenXC, an open-source hardware & software development environment that transforms automobiles into rich platforms for education, research and product and service innovation. Using a set of examples that has been created by the "crowds," both within and outside of Ford we show how automobiles can become more accessible to the user-innovator and can also be developed as probes for a public good - especially with a billion on the roads on all corners of this planet. Some of the examples shown are serious, others hilarious, some for science and others for art, some are all-software apps and others are hardware accessories, all, however, show the joy of learning and innovating, by breaking and making and collaborating.

BIO

Dr. K. Venkatesh Prasad is the senior technical leader of Vehicle Design and Infotronics for Ford Research and Innovation. He is a member of Ford's 12-person global Technology Advisory Board, chaired by the CTO. Dr. Prasad is responsible for the research, architecture, standards, applications development and vehicle system integration of electrical, electronics and embedded software technologies.

Before joining Ford Motor Company in 1996, Prasad worked as a senior scientist at RICHO Innovations in Menlo Park, California, developing automatic "lip reading" as a novel human-machine interface. In addition, he was at Caltech and the NASA Jet Propulsion Laboratory in Pasadena, California, where he worked on the world's first telerobotic visual surface inspection system helped to design the International Space Station.

Dr. Prasad earned a Ph.D. in electrical and computer engineering from Rutgers University in 1990, and a master's degree from Washington State University, Pullman. Before coming to the U.S., in 1984, he obtained engineering degrees from IIT-Madras (1984) and NIT-Trichy (1980).

Pizza and drinks will be served at 3:45 p.m.