

*The Electrical and Computer Engineering Program presents  
ECEN Seminar Series*

# Fundamental Challenges in Cyber-physical Systems

Dr. PR Kumar  
Texas A&M University

**Monday, 9<sup>th</sup> May, 2016**

**12 – 1 PM**

**Lecture Hall 143**

Cyber-physical systems represent a third generation platform enabling large scale control systems, after the earlier two generations of analog control and digital control. This new platform poses multiple challenges at many levels to building reliable systems, both at the level of enabling mechanisms as well as in application design and analysis. We will address several problems related to providing guarantees on timeliness of communications, proofs of safety, and design of distributed systems.



Dr. PR Kumar is a University Distinguished Professor at Texas A&M University and holds the College of Engineering Chair in Computer Engineering. His research is currently focused on energy systems, wireless networks, secure networking, automated transportation, and cyber-physical systems. Dr. Kumar is a member of the National Academy of Engineering of the USA, and a Fellow of the World Academy of Sciences. He was awarded an honorary doctorate by the Swiss Federal Institute of Technology in Zurich. He received the Outstanding Contribution Award of ACM SIGMOBILE, the IEEE Field Award for Control Systems, the Donald P. Eckman Award of the American Automatic Control Council, and the Fred W. Ellersick Prize of the IEEE Communications Society. He is an ACM Fellow and a Fellow of IEEE. He was a Guest Chair Professor and Leader of the Guest Chair Professor Group on Wireless Communication and Networking at Tsinghua University, Beijing, China. He is an Honorary Professor at IIT Hyderabad. He is a D. J. Gandhi Distinguished Visiting Professor at IIT Bombay. He was awarded the Distinguished Alumnus Award from IIT Madras, the Alumni Achievement Award from Washington University in St. Louis, and the Daniel C. Drucker Eminent Faculty Award from the College of Engineering at the University of Illinois.

## FOR MORE INFORMATION:

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