Thursday, March 29
Scaife Hall Auditorium
Room 125 at 4:30 p.m.
Refreshments at 4:00 p.m.

Jim Thorp
Emeritus Professor of ECE
Virginia Tech

James S. Thorp is the Hugh P. and Ethel C. Kelley Emeritus Professor of Electrical and Computer Engineering at Virginia Tech. He was the Department Head of the Bradley Department of Electrical and Computer Engineering at Virginia Tech from 2004 to 2009. He was the Charles N. Mellowes Professor in Engineering at Cornell University from 1994-2004 and the Director of the Cornell School of Electrical and Computer Engineering from 1994 to 2001, a Faculty Intern, American Electric Power Service Corporation in 1976-77 and an Overseas Fellow, Churchill College, Cambridge University in 1988. He was an Alfred P. Sloan Foundation National Scholar and was elected a Fellow of the IEEE in 1989 and a Member of the National Academy of Engineering in 1996. He received the 2001 Power Engineering Society Career Service award, the 2006 IEEE Outstanding Power Engineering Educator Award, and shared the 2007 Benjamin Franklin Medal with A.G. Phadke.

ECE Seminar Hosts
Gabriela Hug   ghug@ece.cmu.edu
Lujo Bauer     lbauer@cmu.edu
Soummya Kar    soummyak@andrew.cmu.edu
Jeff Weldon    jweldon@ece.cmu.edu

Synchrophasors and the Enlightened Grid

The development of synchrophasors measurements from their origins in digital relays to the deployment of about 1000 units through the stimulus program will be described. Synchrophasors use GPS timing signals to measure voltages and currents in the transmission system synchronously with time errors of less than a microsecond. The data is transmitted with a time tag to central locations for monitoring, protection, and control. How synchrophasors can address significant existing power system problems and some recent results including two DOE demonstration projects involving dynamic state estimation and adaptive relaying will be presented.