



Spring 2010 CIS Colloquium Series

Distributed Radio Systems

Jonathan M. Smith
(University of Pennsylvania)

11am-12pm, Wednesday, April 7
4th Floor Conference Room (Wachman Hall, CC 447)

Abstract: Networks of radios are commonplace, but distributed systems of radios, with multiple interconnected radio nodes operating as a common resource, are not. This talk illustrates some of the desired properties and opportunities of a distributed radio system and argues that such radio systems are particularly valuable in urban environments with complex reflection and interference characteristics. The addition of environmental awareness (cognitive radio) allows adaptation in the faces of dynamics caused by mobility. Active adaptation to some dynamics such as shadowing is possible, and this adaptation can be automated using robots, leading, for example, to a mobile mesh of LANdroids.

Bio: Jonathan M. Smith is the Olga and Alberico Pompa Professor of Engineering and Applied Science and a Professor of Computer and Information Science at the University of Pennsylvania. He served as a Program Manager at DARPA 2004-2006, and was awarded the OSD Medal for Exceptional Public Service in 2006. He is an IEEE Fellow. His current research interests range from programmable network infrastructures and cognitive radios to disinformation theory and architectures for computer augmented immune response.

Refreshments will be served!