

*The Electrical and Computer Engineering Program presents*

# Cognitive Radio and Adaptive Wireless Communication Systems

**Prof. Huseyin Arslan**

Univ. of South Florida and Turkish Research and Technological Research Council

**Monday, 17 Jan. 2011, 12–1 p.m.**

**Lecture Hall 238**

*light lunch will be served*

Today's wireless services have come a long way since the rollout of the conventional voice-centric cellular systems. The demand for wireless access in voice and high data rate multi-media applications has been increasing. New generation wireless communication systems are aimed at accommodating this demand through better resource management and improved transmission technologies.

The interest in increasing the Spectrum Access and improving the Spectrum Efficiency combined with both the introduction of Software Defined Radios and the realization of the idea that machine learning can be applied to radios has created new intriguing possibilities for wireless radio researchers. In this presentation, we will discuss the cognitive radio, software defined radio, and adaptive radio concepts from several aspects. Cognitive radio and cognitive networks are investigated from a broad aspect of wireless communication system



**Huseyin Arslan**

Dr. Arslan has received his PhD. degree in 1998 from Southern Methodist University (SMU), Dallas, Tx. From January 1998 to August 2002, he was with the research group of Ericsson Inc., NC, USA, where he was involved with several project related to 2G and 3G wireless cellular communication systems. Since August 2002, he has been with the Electrical Engineering Dept. of University of South Florida. In addition, he has worked as part time consultant for various companies and institutions including Anritsu Company, The Scientific and Technological Research Council of Turkey- TUBITAK, Lecroy, and XG technologies.

Dr. Arslan's research interests are related to advanced signal processing techniques at the physical layer, with cross-layer design for networking adaptivity and Quality of Service (QoS) control. He edited one book on cognitive radio and one book on UWB. Dr. Arslan is a senior member of IEEE.

**FOR MORE INFORMATION:**

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