Call for Papers for
Cognitive Radio and Networks Symposium

Scope and Motivation:

The emerging cognitive radio communications and networking technologies promise to mitigate the spectrum underutilization problem in wireless access, improve the interoperability and coexistence among different wireless/mobile communications systems, and make the future generation radio devices/systems autonomous and self-reconfigurable. The goal of this symposium is to bring together and disseminate the state of the art research contributions that address the various aspects of analysis, design, optimization, implementation, and application of cognitive radio communications and networking technologies. The scope of this symposium includes (but not limited to) the topics mentioned above.

Topics of Interest

The Cognitive Radio and Networks Symposium seeks original contributions in, but not limited to, the following topical areas:

- Challenges and issues in designing cognitive radios and networks
- Architectures and building blocks of cognitive radio networks
- Spectrum sensing, measurements and statistical modeling of spectrum usage
- Waveform design, modulation, interference aggregation, mitigation for cognitive radio
- Distributed cooperative spectrum sensing and multiuser access
- Cognitive medium access control, interference management, handoff and routing protocols
- Resource allocation for multiple-input multiple-output (MIMO)-based cognitive radio communications

- Distributed adaptation and optimization methods
- Energy-efficient cognitive radio communications and networking
- Cognitive machine learning techniques
- Self-configuration, interoperability and co-existence issues
- Dynamic spectrum sharing in unlicensed bands
- Security and robustness of cognitive spectrum-agile networks
- Cross-layer optimization of cognitive radio systems
- Applications and services based on cognitive radio networks (e.g., cognitive networking in TV whitespace, cognitive femtocell networks, public safety networks, and vehicular networks)
- Economic aspects of spectrum sharing (e.g., pricing, auction) in cognitive radio networks
- Regulatory policies and their interactions with communications and networking
- Cognitive radio standards, test-beds, simulation tools, and hardware prototypes