Call for Papers for Workshop on Resiliency in Public Safety Communication Systems (RPSCS)

Workshop Co-Chairs

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http://icc2016.ieee-icc.org/cfw

Scope

Many of today's critical networked infrastructures, such as transportation and power systems, rely heavily on communication technologies and systems. The resiliency of such communication systems in face of natural disasters, malicious attacks, or even day-to-day wear and tear has become of great importance to maintain the continuous operation of such critical systems. Resilience can have many definitions that range from the ability of a communication system to operate under harsh environments or to withstand malicious attacks, all the way to its adaptability to failures or other unexpected events. In particular, resilience of public safety communication networks during emergencies can become a matter of life or death, since first responders and public safety personnel rely heavily on wired and wireless communication capabilities to execute their search and rescue operations. At the same time, critical infrastructure networks and other civil protection network deployments need to be highly robust, and function effectively in the presence of dynamically varying external and internal conditions. The goal of this workshop is to bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to resilient and robust communication networks, as well as their applications in public safety and critical infrastructure systems.

Topics of Interest

Topics of interest include, but are not limited to the following:

- New definitions of resiliency as it applies to wired and wireless communication systems.
- Public safety communication (PSC) systems relying on 4G LTE and 5G wireless technologies.
- Public safety spectrum sharing, future spectrum requirements for PSC networks.
- Resiliency studies for PSC networks and infrastructure against natural disasters, and terrorist/cyberattacks
- Use of unmanned aerial vehicles (UAVs) for enhancing PSC and communication resiliency.
- Resilient cyber-physical systems and smart cities.
- Synergies between resilient control systems and resilient communication networks.
- Advanced technologies such as device-to-device, multi-hop, and relay-based communications for enhanced PSC.
- Propagation channel measurements and modeling for PSC.
- Interworking and interoperability between public safety networks and commercial networks.
- Game-theoretic techniques, resource allocation, and power control for resilient and public safety communications.
- Software defined radio (SDR) testbeds and experimentation on resilient systems.
- Software-defined management and control mechanisms for improving PSC communication resilience.
- The role of cyber-physical systems in resiliency.
- Resilient rapidly deployable communication networks.

Important Dates

Paper submission deadline: December 4, 2015 Acceptance notification: February 21, 2016 Camera-ready paper: March 13, 2016