Call for Papers for Workshop on Wireless Physical Layer Security

Workshop Co-Chairs

Zhu Han University of Houston, USA

Jemin Lee Singapore University of Technology and Design, Singapore

Xiangyun Zhou Australian National University, Australia

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

Scope

The emergence of large-scale, dynamic, and decentralized wireless networks imposes new challenges on classical security measures such as cryptography. To this end, researchers have been seeking for new security technologies to complement cryptography and significantly improve the overall security of wireless communication networks. One of the most promising ideas is to exploit the physical layer characteristics of the wireless channel such as fading or interference, which are traditionally seen as impediments, for improving the security of wireless transmission against passive (e.g., eavesdropping) or active (e.g., jamming) attacks. This emerging security technique, known as physical layer security, has drawn considerable attention in the past few years.

The workshop is part of ICC'16. It builds on the success of the previous two editions (ICC'14 and ICC'15). The workshop is expected to bring together academic and industrial researchers in an effort to identify and discuss the major technical challenges and recent results related to physical layer security in wireless networks. It will feature a keynote and a panel discussion given by world leading researchers in the field.

Topics of Interest

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

- Secrecy capacity and rate-equivocation region of MIMO, broadcast, or multiple access channels.
- Practical code design for physical layer security.
- Smart jamming attacks and countermeasures.
- Advanced signal processing and other space-time secure transmission techniques.
- Secure relaying and cooperative transmission techniques.
- Secure cross-layer design techniques.
- Game theory for wireless physical layer security.
- Secrecy graph and other stochastic geometry approaches.
- Secret key generation and agreement.
- Experimental results on enhancing secrecy at the physical layer.

Important Dates

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