QRS 2017

Workshop on Security, Reliability, and Resilience in Wireless Sensor Networks and Smart Grid

July 25-29, 2017 • Prague, Czech Republic
http://paris.utdallas.edu/qrs17

As the next-generation electric power system, Smart Grid can provide efficient, reliable, and safe energy automation service with two-way communications for power generation, transmission, and distribution. To this end, Wireless Sensor Networks (WSNs) have been recognized as a promising technology to facilitate the monitoring, communication and control in Smart Grid.

Challenges remain unsolved in deployment and operation of WSNs for Smart Grid. First of all, heterogeneous network topologies in energy distribution network bring technical challenges in design and management of the sensor networks. Second, how to measure and analyze the traffic of WSN in order to manage WSN more effectively still need to be studied. Third, quality of service necessities for smart grid environment causes challenges for big data transmission optimization in WSN. Forth, how to protect WSNs reliability and enhance system resilience in various environments is one of the bottlenecks which are restricting the large scale WSNs application currently. Finally, resource constraints of WSNs increase security, safety and resilience concerns related to their utilization in Smart Grid.

In light of those challenges, this special collection intends to bring together state-of-art research and developments in topology management, transmission optimization, resource allocation, traffic analysis and measurement, security, safety and reliability of wireless sensor networks for Smart Grid. Therefore, we organize the **workshop in the 2017 IEEE International Conference on Quality, Reliability, and Security (QRS 2017), from July 25th to 29th in Prague, Czech Republic**. We invite researchers to contribute original research articles comprehensive review articles, short papers as well as doctoral research papers that seek to understand the various techniques addressing those challenges and providing future improvements for the security, reliability and resilience of WSN systems in Smart Grid.

TOPICS OF INTEREST

- Traffic analysis and management of WSN and Smart Grid
- Emerging technologies in topology management in WSN and Smart Grid
- Effective transmission protocols in WSN and Smart Grid
- Performance analysis of TCP variants for big data collection in WSN and Smart Grid
- Emerging technologies in big data transmission in WSN and Smart Grid
- Case studies in efficient big data transmission in WSN and Smart Grid
- Malware Detection and Analysis in WSNs and Smart Grid
- Physical- Layer Security modeling and validation technology of WSNs and Smart Grid
- Demand Side Management in WSNs and Smart Grid
- Security and privacy management of WSN for Smart Grid
- Traffic analysis and management of WSN and Smart Grid
- Distributed Renewable Energies in WSNs and Smart Grid
- Intrusion Detection and Prevention Theory and System in WSNs and Smart Grid
- Attack and Defense Theory and System in WSNs and Smart Grid
- Fault diagnose for WSNs and Smart Grid
- Security, Reliability and Resilience Analysis Technology in WSNs and Smart Grid
- Optimization Methods in Reliability of WSNs and Smart Grid
- Maintenance Modeling and Analysis of WSNs and Smart Grid
- Warranty Modeling and Analysis of WSNs and Smart Grid
- Case studies in Security, Safety and Reliability of WSNs and Smart Grid

SUBMISSION INSTRUCTIONS

Authors are invited to submit original, unpublished research papers as well as industrial practice papers. Simultaneous submissions to other publications and conferences are not permitted. Detailed instructions for electronic paper submission, panel proposals and review process can be found at http://paris.utdallas.edu/qrs17. The length of a camera ready paper will be limited to eight pages, including the title of the paper, the name and affiliation of each author, a 150-word abstract, and up to 6 keywords. Authors must follow the IEEE Computer Society Press Proceedings Author Guidelines to prepare papers. At least one of the authors of each accepted paper is required to pay full registration fee and present the paper at the workshop. Arrangements are being made to publish selected accepted papers in reputable journals. The submissions must be in PDF and uploaded to the conference submission site.

Each submission will be reviewed by three members of the Program Committee and evaluated on originality, contribution, soundness, presentation and relatedness. The program committee as a whole will make final decisions about which submissions to accept for presentation at the conference. Papers must be submitted electronically through http://banana.utdallas.edu/qrs2017/start/www/SRR2017.

IMPORTANT DATES

- April 23, 2017   Submission deadline
- May 25, 2017   Author notification
- June 5, 2017   Camera-ready dues
- July 25-29, 2017   Workshop

PROGRAM CHAIRS

- Dr. Yun Lin, Harbin Engineering University, China, linyun@hrbeu.edu.cn
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