



Title:

International Workshop on Cryptographic security and information hiding technology for Cloud or Fog-based IoT system

Abstract:

Internet of Things (IoT) is an emerging paradigm that involves a network of smart objects containing embedded technologies to collect, communicate, sense, and interact with their internal states or the external environment. Recently Cloud or Fog Computing has become significant research area in IoT, due to its capability of massive data processing. It is a promising technology that leverages the cloud or Fog computing/architecture functionalities to exploit the computational, storage and communication capability of sensors. However, it has recently been shown that this kind of computing/architecture might be vulnerable to various kinds of attacks, due to the public nature of its network. Therefore, ensuring security and privacy in this paradigm is considered as one of its most important challenges. Cryptographic security and information hiding technology can provide authentication, confidentiality, integrity, anti- eavesdropping, availability etc. for these computing models or platforms.

This workshop aims at seeking original articles with novel perspectives and solutions to address the cryptographic security and information hiding technology for Cloud or Fog-based IoT system. We expect this Special Collection can provide scientists, researchers, and industrial practitioners with a chance to publish original manuscripts that demonstrate and explore current advances in all aspects of security, privacy, trust and covert communication issue for Cloud or Fog computing/architecture IoT system.

Scope and Topics:

Potential topics include but are not limited to:

- ✧ Data Security and Privacy-preserving.
- ✧ Attacks and Countermeasures
- ✧ Trust Model, Data Aggregation and Information Sharing
- ✧ Secure Hardware and Software for IoT
- ✧ Coverless Information Hiding
- ✧ Steganography and Steganalysis
- ✧ Digital Watermarking, Fingerprinting and Forensics
- ✧ Multimedia Authentication and Encryption
- ✧ Covert/Subliminal Channels



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Bio: Dr. Wang was born in Hunan (China) in 1977. He received the Ph.D. degree from the Hunan University, Changsha, China, in 2011. He is currently an associate professor at School of Computer Science and Engineering, Hunan University of Science and Technology, Xiangtan, China, and also a post doctor at the University of Alabama, USA. His current research interests include communications, networks, IOT, WSN and network security. He is a member of the IEEE.

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Haibo Zeng is currently a faculty member at Virginia Tech, USA. He received his Ph.D. in Electrical Engineering and Computer Sciences from University of California at Berkeley, a B.E. and M.E. in Electrical Engineering from Tsinghua University, Beijing, China. He was a senior researcher at General Motors R&D until October 2011, and a faculty member at McGill University, Canada from November 2011 to August 2014. He has published over 90 peer reviewed journal and conference papers, many at top venues. His work has received four best paper/best student paper awards (including those at RTSS'17 and ECRTS'13) and four other best paper nominations.

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Dr. Jiang completed his PhD degree in communication engineering and software engineering at University of Technology, Sydney, and he was the winner of a prestigious UNSW Vice-Chancellor's Postdoctoral Research Fellowship from University of New South Wales (successful rate 4.8%). His current research interests include authentication, privacy preservation in IoT paradigm, Bio-inspired algorithms and metaheuristics, Big data-driven cyber security, Cloud-based Communication, AI, Network Protocols and Mesh networks. To date, he has published over 80 international journal and conference papers in the field. He has regular services as journal reviewers such as for IEEE Transactions on Parallel and Distributed Computing ; IEEE/ACM Transactions on Networking ; IEEE Transactions on Neural Networks and Learning Systems.

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Dr. Laing is a post-doctor researcher of Department of Computer Science, the University of Western Ontario, CA. He obtained the Ph.D. degree from the University of Western Ontario. His research interests include Trust Management, Trust Recommender Systems, Big Data, Peptide Mass Fingerprinting, etc. He has published more than 20 top-level papers in the top journals or conferences.

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