Special Issue on Trust and Security in Wireless Sensor Networks

Concurrency and Computation: Practice and Experience (by Wiley)

Concurrency and Computation: Practice and Experience (by Wiley) seeks original manuscripts for a special issue on the theme of *Trust and Security in Wireless Sensor Networks*. Many applications of Wireless Sensor Networks (WSNs) such as surveillance of infrastructure, habitat monitoring, health care and traffic control require secure communications and quality of service. But in practice, wireless sensor networks are prone to different types of malicious attacks, such as denial of service, routing protocol attacks as well as replay attacks, traffic analysis and physical attacks on nodes. Traditional cryptographic schemes may not be sufficient to prevent such novel misbehaviors encountered in sensor networks. Therefore, in a certain sense, trust is a prerequisite for secure communication between sensor nodes. It is necessary to use the notion of trust and trust management schemes to build secure and dependable wireless sensor network applications. Moreover, traditional trust management schemes developed for wired and wireless networks may not be suitable for networks with small sensor nodes due to limited bandwidth and stringent node constraints in terms of power and memory, and also the highly distributed, dynamic and uncertain environments in which they must operate. Therefore, it is important to design, develop and deploy trust management schemes and security solutions that take into account the intrinsic features of wireless sensor networks.

Topics of Interest: We invite submissions presenting novel research on all topics related to Trust, Security and Privacy in WSNs including but not limited to those listed below:

- Distributed trust and reputation systems and architectures
- Trust management frameworks
- Trusted hardware platform support
- Verification of trusted computing architectures
- Trustworthy key management and key distribution systems

- Applications of trust and reputation management
- Security and privacy aspects of trusted computing
- Security policy and management of trustworthy
- Ethical, social, economic drivers for trustworthy WSNs and legal issues.
- Trusted O/S support
- Building trustworthy software/applications

Paper submissions: We welcome original, high quality contributions on the theme of *Trust and Security in Wireless Sensor Networks* focusing on the aspects of *design, development and deployment of trust management schemes and security protocols*. Submissions of substantially revised and extended versions of selected papers whose topic falls into the main theme of the special issue, presented at the 4th International Conference on Security of Information and Networks (SIN 2011), are also encouraged provided that the new content exceeds 30% of the paper. Papers should not exceed a maximum of **twenty pages** and they should be prepared using the Latex template provided by Wiley (**http://onlinelibrary.wiley.com/journal/10.1002/%28ISSN%291532-0634**). Please submit papers to Manuscript Central (**http://mc.manuscriptcentral.com/cpe**) as **"SIN2011 Special Issue"**.

Important Dates:
Invitation for selected papers from SIN2011: **November 30, 2011**
Submission deadline for all papers: **January 15, 2012**
Completion of first-round reviews: **April 15, 2012**
Submission deadline for revised papers: **May 15, 2012**
Final acceptance notifications: **June 15, 2012**
Final publication materials due: **June 30, 2012**

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