Proposal for a Special Issue in Computers in Industry

Secure Collaboration in Design and Supply Chain Management

Increasing global competition has led to massive outsourcing of manufacturing businesses. Such outsourcing practices require effective collaborations between the manufacturing companies and their partners by sharing a large amount of information. In the meantime, since some of the partners are also potential competitors, protection of confidential information, particularly intellectual property, during the collaboration is becoming an increasingly serious problem. Therefore, secure collaboration is of critical significance in the global design and supply chain management.

Leakage of confidential information in the design and supply chain management may happen in many different ways. In addition to the risks arisen from security problems in the infrastructure underlying the collaboration, reverse engineering is another significant threat to design and supply chain management. Information security in general and IP protection in particular in the global design and supply chain management involve multiple domains including design chain management, supply chain management, reverse engineering, computer-aided design, information security, and engineering optimization.

This Special Issue on “Secure Collaboration in Design and Supply Chain Management” aims to publish theories and techniques that are related to the analysis and modeling of risks in the design and supply chain and to the approaches to mitigating the risks.

The following lists some related topics:

- Analysis and modeling of information leakage in design and supply chain management
- Modeling of reverse engineering process in terms of risk of information leakage
- Risk analysis based on Product Data Model (PDM)
- Optimal partner selection considering information security
- Mechanism for protecting confidential information in design and supply chain management
- Security and privacy requirement modeling in collaboration
- Security and privacy attacks and threat models in collaboration
- Security and privacy policies in collaboration
- Economics of privacy in collaboration
• Access control in collaboration
• Usability issues of security and privacy techniques in collaboration
• Privacy-aware data fusion and integration
• Application of secure multiparty computation to collaboration
• Cryptographic techniques and protocols for collaboration

The authors of selected papers presented at the special track in SDPS 2011 titled “Secure Collaboration in Design and Supply Chain Management” will be invited to revise and substantially extend their original papers for submission. It will also be open to other researchers who did not have a chance to submit and present their papers. Both groups of authors will be treated the same in the reviewing process.

**Guest Editors of the Special Issue:**

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**Proposed Schedules:**
Submission deadline: August 1st, 2011
Completion of first-round reviews: November 1st, 2011
Revised papers: January 31st, 2012
Target of the second (last) round of reviews: March, 10th, 2012
Target for sending the accepted manuscripts to the publisher: March 31st, 2012