



# EURASIP Journal on Information Security

## Special Issue on Practicable Privacy Enhancing Technologies and Security Solutions for the Smart Grid User Domain

Intelligent energy networks, often termed “Smart Grids”, introduce information and communication technologies in traditional energy grids, to enable the collection of fine-grained monitoring data and to provide bi-directional communication. This enables a variety of new use-cases, such as the widespread integration of renewable energy sources, smart charging of electric vehicles, demand response management, real-time energy pricing and smart home (energy) management. However, the fine-grained, and sometimes personal data made available in this way has led to privacy concerns and the possibility of controlling in-home appliances remotely has led to security concerns. A large number of recent contributions propose the use of privacy-enhancing technologies (PETs) and applied cryptography, such as secure signal processing, aggregation through homomorphic encryption, or differential privacy, to address these concerns and to strike a balance between the functionality needed in smart grids and the consumer requirements for security and privacy. However, apart from off-the-shelf security methods and simple anonymization and pseudonymization for privacy, none of these technologies has been widely adopted for real world use yet.

In this special issue, we invite contributions that deal with deploying PETs and security methods in the real world or suggest new method that achieve real-world applicability, including acceptance through the consumer.

### Potential topics include, but are not limited to:

- Privacy-preserving Smart Metering
- Privacy and Security for Consumer Energy Management Systems (CEMS) and Smart Homes
- Privacy Enhancing Technologies for Electric Mobility
- Usable Security and User Acceptance of Security Methods in the Smart Grid User Domain
- Privacy and Security in Demand Response Management and other Smart Grid Use Cases



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Papers

# Submission Instructions

Before submission authors should carefully read over the Instructions for Authors, which are located at [jis.eurasipjournals.com/authors/instructions](http://jis.eurasipjournals.com/authors/instructions). Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at [jis.eurasipjournals.com/manuscript](http://jis.eurasipjournals.com/manuscript) according to the submission schedule. They should choose the correct Special Issue in the “sections” box upon submitting. In addition, they should specify the manuscript as a submission to the “Special Issue on Practicable Privacy Enhancing Technologies and Security Solutions for the Smart Grid User Domain” in the cover letter. All submissions will undergo initial screening by the guest editors for fit to the theme of the special issue and prospects for successfully negotiating the review process.

## Lead Guest Editor

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## Submission Schedule

Manuscripts due:  
October 15, 2015