

# IAS 2011 Pre-conference Workshop

*7<sup>th</sup> International Conference on Information Assurance and Security  
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## “Green Energy-Aware Security (GEAS 2011)”

Green Computing and Networking are two important topics in the most recent research agenda, however, to be effective, these cannot be decoupled from security implications, in fact, security is a fundamental requirement in each local and distributed scenario. Furthermore, although the use of security mechanisms increases both the computational and the energy demand of a system, the characterization of security systems and mechanisms in terms of power consumption is still largely unexplored. In particular, the energy requirements of the most popular (de-jure or de-facto standards) security mechanisms and frameworks are underestimated issues.

In general, the design of new security solutions on different paradigm (Web, Grid, Cloud) and layer (network, transport, application) does not take directly into account energy consumption and demand.

Besides security mechanisms, also attacks to systems and the exploitation of their vulnerabilities lack a clear and analytical modeling in terms of their energy aftermaths, a fact that is rapidly turning into a critical issue as new security attacks focused on draining battery of mobile devices are emerging.

The aim of the 1st Workshop on **Green Energy-Aware Security (GEAS 2011)** is to embrace both security mechanisms and green-oriented techniques in order to stimulate future research in computer security in an energy aware perspective. In particular, the final aim of the workshop is to provide a venue for the discussion of models, architecture, design, implementation and assessment of energy-aware security solutions.

Scope of the Workshop on Green Energy Aware Security comprises (but is not limited to):

- Power Consumption Modeling of Security Protocols, Mechanisms and Countermeasures.
- Measurements and field trials on energy requirements of security mechanisms and devices.
- Security Mechanisms to protect energy-control facilities for green network.
- Security Weaknesses introduced by Green-enabled devices.
- Optimization of Power Consumption of Security Mechanisms.
- Ad-hoc security mechanisms for battery operated, or with limited power capacity devices.
- Energy Consumption Attacks.

### Organizer

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