

Location

The conference will be held in Hersonissos, a picturesque town in northern Crete. Hersonissos offers many accommodation options, two sandy beaches, traditional and international cuisine restaurants, souvenir shops and a famous nightlife. It is situated 26 km east of Heraklion. Heraklion is the largest city of the island of Crete and one of the Mediterranean region's most fascinating and vibrant cities. The city is also the commercial and technological centre of the island. It offers a wealth of museums, a summer-long arts festival, historical sightseeing, amazing nightlife and events throughout the year.

Participants can reach Heraklion either by plane from several cities or by boat via Athens. Heraklion's only airport, Nikos Kazantzakis, (airport Code: HER), is served by 8-10 direct flights per day from Athens (ATH), 2-4 direct flights per day from Thessaloniki (SKG), and 3-5 direct flights per week from Amsterdam via Transavia Airlines. During tourist season there may also be frequent charter flights from many major European cities. The port of Heraklion is located close to the city. Three major ferry companies provide daily service between Piraeus, the port of Athens and Heraklion, Crete.



Student Participation

Students working on research subjects consistent with the theme of the conference are highly encouraged to attend the ISAP and present their works. The organizers will be actively pursuing a program to provide partial financial assistance and a reduced rate to a number of students.

Important Dates

March 20, 2011	Submission of full paper
April 30, 2011	Author notification of acceptance
August 6, 2011	Deadline for final manuscripts and early registration
September 25, 2011	Conference

Official Language

The working language of the Conference will be English.

Conference Secretariat

ISAP2011 Conference Secretariat
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Conference Website

<http://www.isap-power.org>

To the Authors

The authors are invited to submit an electronic file of the full paper in IEEE PES standard double column format not exceeding 6 pages until February 26, 2011, to the conference website.

Following ISAP Conference tradition, a number of papers will be selected for publication in the International Journal of "Engineering Intelligent Systems".



Call for Papers

16th International Conference on Intelligent System Applications to Power Systems

Sponsored by



IEEE



Power & Energy Society®

IEEE Power and Energy Society

September 25-28, 2011
Hersonissos, Crete, Greece

Organized by

National Technical
University of Athens



Invitation

On behalf of the local organizing committee we invite you to attend the 16th ISAP 2011 Conference. The "Intelligent Systems Application to Power Systems" continues the tradition of preceding conferences on topics selected since "Expert Systems Application to Power Systems" (ESAP) in 1998 and "International Forum on Applications of Neural Network to Power Systems" (ANNPS). It is specifically dedicated to discuss innovative solutions in the area of operation, control, planning and maintenance of large interconnected but also isolated or weakly interconnected power systems, as well as their particular components. ISAP 2011 focuses on power systems operating in competitive environment, renewable energy and distributed generation, but also other subjects of interest in modern power systems. Employment of novel software technologies are in the special scope of the conference, but also intelligent approaches achieved with conventional programming are sought for. Proposed subjects should be beyond the phase of declarations of interest or presentations of ideas; papers reporting practical realization and application will have priority.

The conference will be held in Crete, an island characterized by high wind power penetration (approx. 20% annually), where a pilot control center based on intelligent techniques was installed. The Conference will provide opportunities for tutorials and technical visits including:

- **The Island Energy Management System**
- **One of the wind parks**
- **The Insulator Testing Center of Public Power Corporation**

The event is organized by the National Technical University of Athens with the technical co-sponsorship of the IEEE Power and Energy Society.



Preferential Subjects

The Conference welcomes papers on intelligent systems application to Electric Power and Energy Systems (Generation, Transmission, Distribution, Markets, Operations, and Planning) with preference to :

Modern Grid Operation and Control

- Smart grids
- Automated metering applications
- Demand-side participation and response
- Isolated and weakly interconnected power systems
- Microgrids and small island systems
- Self-healing grids
- Wide area system monitoring and control
- Fault diagnostics
- Protection

Electric Power and Energy System Analysis, Uncertainty and Risk Assessment

- Power system security, reliability and adequacy
- Power system economics and pricing
- Load and price forecasting and estimation
- Grid integration of renewables including solar and wind
- Vehicle to grid integration
- Complex interactive cyber-physical systems

based on Intelligent System Techniques including but not limited to:

- Intelligent estimation and classification techniques including neural nets, fuzzy systems, data mining, decision trees
- Knowledge based systems including rule-based systems, expert systems, model-based reasoning
- Advanced optimization techniques including genetic algorithms, particle swarm optimization, ant colonies, immune systems, and bacterial foraging
- Multi-agent systems, evolutionary intelligent agents, adaptive distributed computing and control
- Hybrid intelligent systems
- Computational neuroscience
- Game theory
- Molecular and quantum computing



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