

ENERGY 2015

Forward

The Fifth International Conference on Smart Grids, Green Communications and IT Energy-aware Technologies (ENERGY 2015), held between May 24-29, 2015 in Rome, Italy, continued a series of events considering green approaches for smart grids and IT-aware technologies. It addressed fundamentals, technologies, hardware and software needed support, and applications and challenges.

There is a perceived need for a fundamental transformation in IP communications, energy-aware technologies and the way all energy sources are integrated. This is accelerated by the complexity of smart devices, the need for special interfaces for an easy and remote access, and the new achievements in energy production. Smart Grid technologies promote ways to enhance efficiency and reliability of the electric grid, while addressing increasing demand and incorporating more renewable and distributed electricity generation. The adoption of data centers, penetration of new energy resources, large dissemination of smart sensing and control devices, including smart home, and new vehicular energy approaches demand a new position for distributed communications, energy storage, and integration of various sources of energy.

The conference had the following tracks:

- Smart grid applications
- Energy-aware technologies
- Green communications and Smart grid technologies

Similar to the previous edition, this event attracted excellent contributions and active participation from all over the world. We were very pleased to receive top quality contributions.

We take here the opportunity to warmly thank all the members of the ENERGY 2015 technical program committee, as well as the numerous reviewers. The creation of such a high quality conference program would not have been possible without their involvement. We also kindly thank all the authors that dedicated much of their time and effort to contribute to ENERGY 2015. We truly believe that, thanks to all these efforts, the final conference program consisted of top quality contributions.

Also, this event could not have been a reality without the support of many individuals, organizations and sponsors. We also gratefully thank the members of the ENERGY 2015 organizing committee for their help in handling the logistics and for their work that made this professional meeting a success.

We hope that ENERGY 2015 was a successful international forum for the exchange of ideas and results between academia and industry and to promote further progress in the area of green approaches for smart grids and IT-aware technologies. We also hope that Rome, Italy provided a pleasant environment during the conference and everyone saved some time to enjoy the historic beauty of the city.

ENERGY 2015 Chairs

ENERGY Advisory Chairs

Stefan Mozar, CCM Consulting / CQ University - Sydney International Centre, Australia
Mardavij Roozbehani, Massachusetts Institute of Technology, USA
Mark Apperley, University of Waikato, New Zealand
Steffen Fries, Siemens, Germany

ENERGY Industry Liaison Chairs

Dave Cavalcanti, Philips Research North America, USA
Marco Di Girolamo, Hewlett-Packard Company - Cernusco sul Naviglio, Italy
Dragan Obradovic, Siemens AG, Germany

ENERGY Special Area Chairs on Nano-Grids

Peter Müller, IBM-Zurich, Switzerland

ENERGY Special Area Chairs on Smart Grids

Ritwik Majumder, ABB AB / Corporate Research Center - Vasteras, Sweden

ENERGY Special Area Chairs on IT-energy- aware, Planning

Brian P. Gaucher, IBM Research Division - Yorktown Heights, USA

ENERGY Special Area Chairs on Grid, Green Communication

Gargi Bag, ABB Corporate Research, Sweden
Ken Christensen, University of South Florida, USA

ENERGY Special Area Chairs on Vehicular

Grzegorz Swirszcz, IBM Watson Laboratory, USA