

1st International Forum on Research and Technologies for Society and Industry

Leveraging a better tomorrow

Torino, Italy, 16-18 Sep. 2015

Organized by the IEEE Italy Section and Politecnico di Torino, Italy

Call for papers

Research and innovation are the keys for a structural change towards a more sustainable economy able to create new job opportunities, as well as to fuel productivity and growth. Countries investing in research and innovation are more resilient to the economic crisis, react promptly to the great societal challenges of our time, and perform better in the strong global competition that continuously shapes economies and societies.

Grounded on these evidences, the core purpose of this forum is to foster technological innovation and excellence in the fields of electrical, electronic and information science and engineering, to promote the transition towards a vibrant innovation-based society. Specifically, the main purposes of the event are:

- to promote and to strengthen partnerships and cooperation between academia and industry;
- to increase the public's understanding and awareness of how engineering and technology can positively affect people quality of life;
- to promote discussion between research community and government bodies about effective and successful research policies;
- to disseminate recent advancements, discoveries and novel applications;
- to discuss ideas and to promote cooperation between researchers working in different research areas.

The technical program of this flagship event includes panels, technical sessions, tutorials, and exhibitions. Panels are a fundamental feature of RTSI 2015. They are expected to bring together leading representatives from politics, industry and academia for an interactive discussion about strategic issues. Specifically, the theme of RTSI 2015 "leveraging a better tomorrow" is focused on how technological innovation can positively affect society. Probable topics of panels for this edition are: smart energy systems, smart building, and smart mobility. In tutorials, experts present challenging or emerging topics to young researchers or to the wide public. To propose a tutorial please contact the tutorial chair danproto@unina.it

Exhibitions encompass innovative world-class hardware and/or software products, with a significant potential social impact. To propose an exhibition please contact the exhibition chair paolo.pegoraro@diee.unica.it

The technical sessions focus on challenging and emerging issues in the areas of electrical, electronic and information science and engineering, and cover both theoretical aspects and practical applications. Potential research topics and application areas include, but are not limited to:

Research topics

Advanced power systems
Antenna & microwaves
Big data and open data
Biomechanics and biorobotics
Control systems
Communication and networking
Computational electromagnetics
Electronic devices and systems
Electromagnetic compatibility
Ethic issues in research and technology
Intelligent systems & knowledge discovery
Knowledge discovery and management
Instrumentation and measurement
Magnetic and electric materials

Nanotechnology
Photonics
Power electronics
Power quality
Electric Machine and Drives
Renewable and energy storage
Robotics
Sensors and instrumentation
Signal and image processing
Real-time and embedded systems
Security and safety
Smart energy systems
Software technologies

Application areas

Automotive and transportations
Cyber-physical systems and critical infrastructures
Engineering education
Environmental and structural monitoring
Healthcare Information Systems
Human-machine interfaces
Internet of things
Systems and infrastructures for smart cities

The following Technical Sessions have been approved:

Advances in magnetics: applications, characterization, modeling
Big Data for Enterprise, Government, Healthcare, and Environment - Innovative solutions and emerging applications
From bioengineering research to healthcare applications: novel methods and technologies
High Availability electrical components and systems: fault-tolerant design and operation; failure detection and diagnosis

Human-centered robotics: rethinking the interaction between men and machines
IoT-based solutions for Smart Societies
LED for lighting: what is new in the year of light
Measurements, Traceability and Quality Assurance for Industry and Civil Society
Millimeter-waves Communications
Remote Sensing for UAV surveillance applications
Security and safety of embedded and cyber physical systems

SmartGrids and microgrids: enabling technologies for a more efficient and more resilient electrical system
Vehicle electrification and Smart connection with infrastructure

Prospective Authors of papers are invited to submit a draft paper (typically 4-5 pages in standard IEEE two-column format) via the EDAS site suggesting the related Technical Session. In addition, papers on generic research topics and application areas listed above are welcome. The paper should contain a complete description of the proposed technical contribution along with some results, suitably framed in the related state of the art. Each paper will be reviewed in terms of relevance with respect to the scope of the event, originality and quality of the technical content, overall organization and writing style. The paper must be prepared according to the Author's instructions reported on the RTSI 2015 website.

Submission of papers implies intention to register and present the related content at the conference. Proceedings papers presented at the Conference will be submitted for inclusion in the IEEE Xplore digital library.

Extended versions of presented papers can be submitted for publication in one of the following journals, according to the respective scope: IEEE Magnetic Letters, IEEE Transactions on Instrumentation and Measurement, IEEE Systems Journal, Journal of Magnetism and Magnetic Materials, Physica B. Agreement with other perspective Journals is on the way

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IMPORTANT DATES

Submission of draft papers: **4 May 2015**
Notification of acceptance: **15 June 2015**
Final submission: **10 July 2015**
Early registration: **20 July 2015**

Contact

ermanno.cardelli@unipg.it

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Technically co-sponsored by: