IEEE Region 8

IEEE Italy Section

Politecnico di Torino

2023 20th IEEE INTERNATIONAL CONFERENCE ON

SMART TECHNOLOGIES

IEEE EUROCON 2023

TORINO, ITALY / 6-8 JULY 2023

RenaissScience! A new era for scientific ideas and applications

IMPORTANT DATES

Deadline for Submission of Special Session Proposals

NOVEMBER 30, 2022

Deadline for Tutorial Proposals

NOVEMBER 30, 2022

Deadline for Submission of Papers

FEBRUARY 28, 2023

Notification of Acceptance

MARCH 22, 2023

Deadline for Submission of Camera-Ready Papers

APRIL 30, 2023

Early Registration

MAY 8, 2023

VENUE

Elegant and earnest, Turin boasts a one-of-a-kind artistic and cultural heritage: the elegant aristocratic residences of times gone by, breathtaking Baroque architecture, bountiful museums and priceless monuments still stand tall today, creating a unique blend between past and present.

LOCATION

POLITECNICO DI TORINO

WEBSITE

2023.ieee-eurocon.org

EUROCON is a major international forum for the exchange of ideas, theory basics, design methodologies, techniques and experimental results between academia, research institutions and practitioners from industry. It covers all fields of electrical and electronic engineering, ICT and computer science covered by IEEE Societies.

IEEE EUROCON 2023 is one of the flagship conferences of the IEEE Region 8 (the largest region of IEEE, including Europe, Africa, and Middle East). IEEE EUROCON 2023 provides a unique opportunity to bring together researchers and practitioners from different fields, to discuss on the latest developments in these fields and promote cross-disciplinary interactions needed in today's engineering activities. IEEE Eurocon 2023 is the 20th edition or the Eurocon Conferences.

In addition to technical papers, further activities will promote tutorials, industry-academia interactions, women in engineering events, engagement of students and young professionals, and recruitment of IEEE members and student members.

PAPER SUBMISSION

Prospective Authors of papers are invited to submit a paper (4-6 pages in standard IEEE two-column format) via EDAS at the link

https://edas.info/newPaper.php?c=30538

Each paper will be reviewed by considering originality, relevance with respect to the scope of the conference, quality of the technical content, structure, language, and writing style.

Submission of papers implies intention to register and present the related content at the conference.

The accepted papers presented at the Conference will be submitted for inclusion in the ***IEEE Xplore Digital Library***.

TORINO, A MULTIFACETED CITY RICH IN HISTORIC SPLENDOUR

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Gianluca Mazzilli, *Athena Srl*

TRACKS AND SESSIONS

TRACK 1
Transportation Electrification

TRACK CHAIRS
Mattia Ricco, *University of Bologna, Italy*
Vitor Monteiro, *University of Minho, Portugal*
Alessandro Massi Pavan, *University of Trieste, Italy*

1.1 - Battery energy management in traction application
1.2 - Communications for transportation systems
1.3 - Heavy-duty private and public transportation
1.4 - On-board electrification
1.5 - Power quality and grid integration
1.6 - Powertrain design and control for traction application
1.7 - Renewable and stationary storage integration
1.8 - Vehicular technology
1.9 - Special Session - Vehicle-to-grid (V2G), vehicle-to-building (V2B), and vehicle-to-home (V2H) technologies

TRACK 2
Magnetism and Spintronics

TRACK CHAIRS
Vito Puliafito, *Politecnico di Bari, Italy*
Rocío Yanes Díaz, *University of Salamanca, Spain*

2.1 - Edge-computing and energy harvesting with magnetic materials
2.2 - Magnetic materials and components for energy applications
2.3 - Magnetic measurements, instrumentation and characterization methods
2.4 - Magnetic nanoparticles for applications (biomedicine, actuation, remediation)
2.5 - Magnetization dynamics
2.6 - Nanomagnetism
2.7 - Spintronics for smart technology

TRACK 3
Quantum Technologies, Personalized Medicine, Metaverse and Beyond: when Computer Science Exceeds the Imagination

TRACK CHAIRS
Marco Santambrogio, *Politecnico di Milano, Italy*
Seda Ogrenci Memik, *Northwestern University, USA*

3.1 - Computer science
3.2 - eXtended Realities, Digital Twins and the Metaverse
3.3 - Heterogeneous high-performance computing through the looking glass
3.4 - Information technologies for life science
3.5 - Personalized medicine
3.6 - Post Moore's Law emerging technologies: Quantum solutions and beyond

TRACK 4
Electron Devices and Solid-State Circuits

TRACK CHAIRS
Susanna Reggiani, *University of Bologna, Italy*
Lluis F. Marsal, *Universitat Rovira i Virgili, Spain*
Lodovico Ratti, *University of Pavia, Italy*

4.1 - Flexible electronics: from functional to green materials and devices
4.2 - Modeling and simulation of advanced solar cell technologies
4.3 - Modeling for next generation RF & microwave devices
4.4 - Novel computing paradigms: from von Neumann to the human brain
4.5 - Special Session - Smaller and smarter: new trends in radiation detectors
4.6 - Solid-state circuits

TRACK 5
Power Components and Applications

TRACK CHAIRS
Samuele Grillo, *Politecnico di Milano, Italy*
Nikolaos Paterakis, *University of Eindhoven*

5.1 - Advanced dielectrics and functional materials
5.2 - Special Session - Application of clustering methods for power systems analysis
5.3 - Applied superconductivity
5.4 - Diagnostics and maintenance of electrical insulation systems
5.5 - Dielectrics: characterization, aging, and failure
5.6 - Special Session - Electrical insulation for power electronics
5.7 - Electrical machines, power converters and drives
5.8 - Energy management and energy communities
5.9 - Management and control of converter-dominated power systems and microgrids
5.10 - Power quality, reliability and resilience
5.11 - Renewable energy
5.12 - Smart grids

TRACK 6
Healthcare

TRACK CHAIRS
Sergio Cerutti, *Politecnico di Milano, Italy*
Christian George Benar, *Université de la Méditerranée, France*

6.1 - Biomedical technologies
6.2 - Biometrics & Digital Twins
6.3 - Computational intelligence in healthcare
6.4 - Data management in medical applications
6.5 - Internet of Things for smart healthcare
6.6 - Sensors for biomechanics
6.7 - Technology and digital innovations in healthcare organizations and managemental systems

TRACK 7
Industry 4.0

TRACK CHAIRS
Giancarlo Fortino, *University of Calabria, Italy*
Laura Giarrè, *Università di Modena e Reggio Emilia*
Giuseppe D'Aniello, *Università di Salerno, Italy*

7.1 - Applications of industrial electronics
7.2 - Artificial intelligence in industrial automation
7.3 - Control systems for industrial applications
7.4 - Electromagnetic compatibility
7.5 - Human-centered cyber-physical production systems and human assistance technologies in smart factories
7.6 - Instrumentation and measurement
7.7 - Photonics
7.8 - Reliability
7.9 - Robotics and automation
7.10 - Systems, Man and Cybernetics

TRACK 8
Sensors and Signals

TRACK CHAIRS
Antonio Iodice, *University of Naples Federico II, Italy*
Jan Haase, *Nordakademie University of Applied Sciences, Germany*

8.1 - Aerospace and Electronic Systems
8.2 - Antennas and Propagation
8.3 - Fiber Optic Sensors
8.4 - Geoscience and Remote Sensing
8.5 - Information Theory
8.6 - Microwave and millimeter-wave circuits for telecom, satcom and remote sensing
8.7 - Signal Processing
8.8 - Smart Sensors

WEBSITE AND CONTACTS

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