

21<sup>st</sup> European Conference  
on Power Electronics  
and Applications

# EPE'19

September 2-6, 2019

Genova, Italy

# ECCE EUROPE

[www.EPE2019.com](http://www.EPE2019.com)



November 15<sup>th</sup>, 2018  
Abstract submission deadline

March 1<sup>st</sup>, 2019  
Notification of provisional acceptance

June 3<sup>rd</sup>, 2019  
Final submission deadline

## CALL FOR PAPERS



UNIVERSITÀ DEGLI STUDI  
DI GENOVA

Photo Merlo

## Organization and Venue

The Power Electronics community will gather in Genova, Italy, from 2 to 6 September 2019, to exchange views on research progresses and technological developments in the various topics described hereunder. On Monday 2 September a number of tutorials will be organised and several technical visits are planned on Friday 6 September. The 21st Conference on Power Electronics and Applications (and Exhibition), EPE'19 ECCE (Energy Conversion Congress and Expo) Europe is co-sponsored by the EPE Association and IEEE PELS. It will take place at the Magazzini del Cotone Conference Centre in downtown Genova.

## Aims of the Conference

EPE ECCE Europe is the place for specialists in power electronics, systems and components, to present papers and attend sessions on state-of-the-art technology in this challenging and evolutionary sector. The conference aims to be a meeting forum for researchers, developers and specialists from academia and industry. Papers are encouraged on all topics described hereunder for interdisciplinary discussions of new ideas, research, development, applications and the latest advances in the field of power electronics and adjustable speed drives.

A characteristic trend from previous EPE ECCE Europe Conferences has been an increasingly large industrial participation, as well as growing exhibition, which allows for enhanced exchanges between academia and industry.

## Topics

Electrical energy generation and supply to users is on transition to distributed generation from traditional to renewable energy sources and development of Smart grids on "macro" "micro" and "nano" levels. Very fast research and development of smart DC grids is highly challenging and power electronics is the driving force of those new technologies. Power electronics in mechatronic and adaptronic systems, industrial robotics and wide range health care and biorobots with artificial intelligence are topics for further research.

The explosive development of electric mobility, current and expected, will provide new challenges and opportunities; on one side, the progressive removal of fossil fuels, both in transport and heating/cooling, will increase the usage of electric energy; on the other side, a vast number of batteries, both on wheels and in fast charging stations, may contribute to resolve the intrinsic unpredictability of renewables. Ultrafast vehicle charging stations, in particular, are expected to be realized with significant storage capacity.

Also, increasing the efficiency of power supplies reduces electrical energy consumption and may be counted as another way to reach that goal. Power electronics is also becoming crucial in electric power system, as it includes various types of energy storage technologies. In response to all these challenges, novel topologies, control structures and power components are being introduced to improve performance of power electronics systems. Especially, new wide bandgap materials (SiC & GaN) and the incoming power modules are a serious chance for a big step forward in a broad range of applications.

A wide spectrum of topics will be addressed during the largest European conference in power electronics – EPE'19 ECCE Europe. Researchers, application engineers and experts from academia and industry will meet to discuss and exchange ideas.

### I POWER ELECTRONICS COMPONENTS AND CONVERTERS

**Topic 1: DEVICES, COMPONENTS, PACKAGING AND SYSTEM INTEGRATION**

**Topic 2: POWER CONVERTERS TOPOLOGIES AND DESIGN**

**Topic 3: MEASUREMENT AND CONTROL**

### II POWER ELECTRONICS APPLICATIONS

**Topic 4: ELECTRICAL MACHINES AND DRIVE SYSTEMS**

**Topic 5: RENEWABLE ENERGY POWER SYSTEMS**

**Topic 6: GRIDS, SMART GRIDS, AC & DC**

**Topic 7: POWER SUPPLIES**

**Topic 8: ELECTRIC VEHICLE PROPULSION SYSTEMS AND THEIR ENERGY STORAGE**

**Topic 9: INDUSTRY SPECIFIC ENERGY CONVERSION AND CONDITIONING TECHNOLOGIES (ECCT)**

**Topic 10: DATA ANALYSIS, ARTIFICIAL INTELLIGENCE, AND COMMUNICATION ISSUES**

## Presentation of Papers

Contributions to EPE'19 ECCE Europe must be presented either as a lecture presentation or as a dialogue presentation. A manuscript must be submitted in English in both cases for inclusion in the Conference Proceedings (electronic version only). Papers for lecture sessions will be strictly limited and selected on the basis of wide audience appeal, ease of understanding and potential stimulation of broad ranging discussion.

Dialogue presentations will take place in the afternoon. No lecture session will be organized during the dialogue sessions.

## Content of Synopses

The synopses should consist of a 3 to 5 pages anonymous summary, including an abstract with no more than 50 words; topic number and indication of the preference for dialogue or lecture presentation (to be clearly mentioned), key diagrams and a references list. The synopses will be submitted using the host of the conference on the Internet. A link to the site will be available from: [www.epe2019.com](http://www.epe2019.com), a link from [www.epe-association.org](http://www.epe-association.org) will be available as well. Detailed information and guidelines can be downloaded from the site to help you preparing the needed material for submitting a synopsis. The site will be open for upload from 8 November 2018 onwards.

Authors of papers provisionally selected for presentation will receive a notification and can download the instructions for preparing the dialogue papers and/or the lecture papers from the Internet site. Final selection will be based on the full paper. The paper will only be included in the Conference Proceedings after receipt of one full registration fee per paper in due terms. Student registration fee is only valid for student participants, not for authors. One single author may not present more than two (2) papers. In that case, the fee to present the two papers will be 150% of the registration fee. A selection of outstanding conference papers will be published afterwards in the EPE Journal, which is an ISI registered journal.

The conference proceedings will be submitted to the IEEE Xplore® digital library

All presented papers will be listed in the Web of Science (formerly Web of Knowledge), INSPEC database for Engineering. Selected papers published in the EPE Journal will be automatically included in the Web of Science – Core Collection and get a WOS-Accession number. The Organising Committee works toward ensuring that all conference papers are listed in the Core Collection as well. It is already the case since the 2014 edition.

## Tutorials – Call for Proposals

Several tutorials will be held prior to the conference. Authors willing to propose a tutorial at EPE'19 ECCE Europe are invited to send a proposal to Brigitte Sneyers at the scientific secretariat (EPE Association, c/o VUB-IrW-ETEC, Pleinlaan 2, B-1050 Brussels, Belgium, e-mail: [bsneyers@vub.ac.be](mailto:bsneyers@vub.ac.be)) before 11 January, 2019. The proposal will consist of a three-page summary including tutorial title, name and affiliation of the lecturer(s), tutorial objectives and audience, topical outline and provisional schedule of the tutorial.

The tutorials will be organized on Monday 2 September 2019. The tutorials will take place at the Polytechnic School of the University of Genova, close to the city center of Genova. Tutorial proposals are welcome in all topics related to the conference topics.

## Deadlines

Intending authors should note the following deadlines:

Receipt of synopses:	14 November 2018
Notification of provisional acceptance:	1 March 2019
Receipt of full typescript for final review:	5 June 2019



## Working Language

The working language of the conference is English, which will be used for all printed material, presentations and discussions.

## Programme and Registration

The provisional programme and registration form will be available from the Internet site early summer 2019. Access to the full papers will be given with password to all registered participants, 1 or 2 weeks before the conference, to allow attendees to prepare their participation. Additional information will be available on: <http://www.epe2019.com>

## Venue

The conference will take place at the Magazzini del Cotone Conference Centre in downtown Genova, which offers facilities and services of international quality meeting standards. Wi-Fi access will be free for attendees, everywhere in the congress centre.

## Exhibition

There will be an exhibition integrated in the event. If you would like to know more details please go to [www.epe2019.com](http://www.epe2019.com) You can also contact us via e-mail to [bsneyers@vub.ac.be](mailto:bsneyers@vub.ac.be) or [info@epe2019.com](mailto:info@epe2019.com)

## Conference Organizing Committees

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Mario Marchesoni, Università di Genova, Italy

### Programme Chairperson

Philippe Lataire, Vrije Universiteit Brussel, Belgium (EPE)

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