



September 2-6, 2019 | Genova, Italy

## Newsletter contents :

- **EPE'19 ECCE Europe, Genova, Italy, 2-6 September 2019: [click here](#) (Early bird tariffs till 22 May 2019).** Register before 22 May to enjoy early the bird registration fee. Make sure to renew your [EPE membership](#) and/or [IEEE/PELS membership](#) on time to enjoy additional discounts! Details of the Industrial visits are available hereunder.
- *Second Design Automation for Power Electronics (DAPE) workshop on Friday, September 6, 2019, Genova*
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## EPSRC Centre for Doctoral Training in Power Electronics for Sustainable Electric Propulsion

*“Every year the UK industry needs more than 1,000 new engineers to drive the electric revolution in transport and energy.”*

*“This CDT will create a new generation of UK power electronics and electric drives specialists and leaders, who will ensure that the revolution of moving away from harmful fossil fuel propulsion progresses rapidly and successfully.”*

**Programme:**  
10 fully-funded PhD studentships

**Start and duration:**  
September 2019 – August 2023

**PhD - Type:**  
Industrial - Each student will have one industrial partner

### **Year 1 – Training at Newcastle University (Sem. 1) + University of Nottingham (Sem. 2):**

Typical subjects may include: power electronics, electric drives, control, mechatronics, materials, big data, manufacturing, entrepreneurial business, management. Other taught activities are available and selection will be tailored towards students need.

### **Year 1 (Sem. 3) to Year 4: Research at the location where industrial partner is based:**

Activities: research, workshops, tailored professional development training, team activities.

### **Who do we need?**

Due to our tailored programme and research diversity we need students from any subject area in engineering (e.g. electrical, mechanical, material, big data, etc.) and science (e.g. physics, chemistry, math, etc.) who have at least a Bachelor Degree. Equality, Diversity and Inclusion is at the heart of this CDT and statements can be found on participating partners' websites.

**For further information and where to apply:**  
<https://research.ncl.ac.uk/electric-propulsion>

## 1. [EPE'19 ECCE Europe, Genova, Italy, 2-6 September 2019](#)

<http://www.epe2019.com>

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Register before 22 May to enjoy the early bird registration fee. Make sure to renew your [EPE membership](#) and/or [IEEE/PELS membership](#) on time to enjoy additional discounts!

Do not forget to register for the tutorial of your choice!

**Monday 2 September: Tutorials:** [click here](#)

**Technical programme at-a-glance:** [click here](#)

**Friday 6 September : Technical visits:** [click here](#)

### **Phase and Motion Control S.p.A. – Genova, morning**

Phase Motion Control specializes in all types of high performance PM motors and generators, from a few mm diameter to several meters. The visit will walk through all phases of high performance electronic motor manufacturing and testing and high energy magnet handling. A separate department is devoted to power electronics and high power charging systems for EVs, with a short walk through the manufacture of HPC charging stations with built in high energy Li-ion batteries.

### **IIT (Italian Institute of Technology) – Genova, morning**

The mission of the IIT Graphene Labs (G@IIT), <https://graphene.iit.it/>, is to develop two dimensional (2D) crystals, both for exploring fundamental phenomena and for conceiving their application in technological solutions. The G@IIT strategic plan is developing within the ten-year European Flagship initiative Graphene, starting in 2013 and involving IIT researchers in different fields of activity, such as material production, energy generation and storage, health and biomedical applications, optoelectronics.

Graphene Labs give strong emphasis to Technology transfer and dissemination by bridging contacts with different stakeholders

The group of Smart Materials, <https://www.iit.it/research/lines/smart-materials> is based at the central research facility of the IIT in Genova. The research of the group deals with the development of new composite materials combining various polymers and changing their properties by introducing nanofillers or organic molecules in the matrices. They work on both the control of the chemistry and of the structure of the materials we develop, in order to achieve precise properties adjusted to the needs of various application fields. Since polymers are the main building blocks of the materials that we fabricate, they have intensified our efforts in using natural polymers principally of plant origin or biodegradable polymers, in order to develop new advanced composite materials with accurately modulated properties but at the same time with minimal environmental impact.

The iCub laboratory space, <https://iit.it/research/lines/icub>, hosts several research lines providing support on all aspects related to the robot design, modification, fabrication, programming and use in the daily research activities. Our skilled personnel consists of about 80 people, 60% of which involved in research, the remainder dedicated to engineering and administration. The laboratory presently sports four iCubs in different configurations as well as the machinery required to assemble, maintain and run the robots, measurement and calibration devices, and the ICT infrastructure.

### **ASG Superconductors SpA – La Spezia Plant – full day**

ASG Headquarters, with administrative offices and four production bays covering 15,000 sqm, is located in Genoa, near the port, in a strategic position in northwestern Italy.

In 2010, after winning the international contract to build 10 superconducting coils for the ITER project, ASG began work on a new production facility in La Spezia, also in Liguria and close to the port, which was completed in less than 18 months.

The visit will take place in the La Spezia plant.

The new ASG Superconductors production facility contains four bays, covers a total surface area of 25,000 sqm and is fitted with the new technology and logistics equipment needed to manufacture and handle large-scale components, like the superconducting coils for the ITER project now in production, which exceed 15 meters in length and weigh over one tons each.

The factory also has a clean area (controlled temperature and humidity areas complying with specific environment and air cleaning procedures) that covers 4,600 sqm and meets ISO Class 8 standards.

- **Exhibition : Plan your participation: Check for updated information at <http://www.epe2019.com>**

*Already confirmed:*

Contributors:

- *ABB SpA Marine & Ports*
- *MONT-ELE*
- *NIDEC INDUSTRIAL SOLUTIONS*
- *Phase Motion Control S.p.A.*
- *Plexim GmbH*
- *Poseico SpA*
- *Rohde & Schwarz*

Exhibitors:

- *COMER s.r.l.*
- *dSpace*
- *DEWESOFT SRL*
- *ECPE European Center for Power Electronics e.V.*
- *EGSTON Power Electronics GmbH*
- *EUROCONTROL SpA*
- *HIOKI Europe GmbH*
- *imperix ltd*
- *Mathworks – Speedgoat GmbH*
- *Mersen*
- *MUECAP GmbH – ICEL s.r.l*
- *OMICRON Lab*
- *OPAL - RT Europe*
- *PCIM Europe*
- *PEM (Power Electronics Measurements) Ltd*
- *Powersys*
- *RGM SpA*
- *Typhoon HIL*
- *Yokogawa*
- *ZES Zimmer Electronic Systems GmbH*
- *Zurich Instruments AG*

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- **Hotels : make sure to book your room on time to enjoy the best possible rate:**

<https://www.cbgenova.it/en/events-57/epe-2019-ecce-europe.html>

## **2. IEEE Design Automation for Power Electronics – DAPE Workshop**

- **September 6, 2019, Magazzini Del Cotone Conference Center, Genova, Italy**
- **Co-Located with IEEE EPE 2019 ECCE Conference**

IEEE PELS and IEEE CEDA will hold the second Design Automation for Power Electronics (DAPE) workshop on Friday, September 6, 2019, the day after and in the same venue as EPE 2019 ECCE Europe at the Magazzini Del Cotone Conference Centre, Genova, Italy.

The purpose of this workshop is to understand the problems of Design Automation in Power Electronics, identify methodologies that have been used so far by academia and industry and identify the tools that have been developed to resolve the issues during design. The focus of the workshop is to bring together the experts in both power electronics and design automation and have them presenting their perspectives on the emerging needs.

The workshop is organized as a single-track event with two technical lecture sessions and one world café discussion session. The organization of the lecture sessions will contain talks from academia and industry. Afternoon sessions will be divided into groups to work on questions that are of interest for the community. For each group one set of questions is answered for 20 minutes and documented by the table-host. After the first round, the groups are mixed and the participants work in another group on another set of questions for ten minutes before the moderator/table-host reveals the results documented from the first round. In this manner, the workshop participants will actively provide their input as to where the design automation field needs to go to best serve the needs in power electronics design activity.

**The workshop is especially good for: Designers** in the field of power electronics, packaging, and systems;  
**Providers** of design automation tools including simulation, physical design, and design for reliability;  
**Manufacturers** of test and characterization equipment for high-power, high-voltage systems;  
**Researchers** in universities and research labs working on power electronic design automation.

**Invited speakers from Industry and Tools, Academia and the Scientific Agencies:**

Workshop General Chair:

Alan Mantooth, University of Arkansas

Workshop Organising Committee:

Miroslav Vasic, Politecnico University of Madrid

Yarui Peng, University of Arkansas

Peter Wilson, University of Bath

Kevin Hermanns, PE-Systems GmbH

More information online at <https://e3da.csce.uark.edu/dape/>

### 3. ECPE: Calendar of Events 2019

Date	Location	Event	Topic
5 – 6 June 2019	Bremen, Germany	ECPE Workshop	<a href="#">Humidity and Condensation in PE Systems - Degradation Mechanisms and Lifetime Modelling</a> Chairmen: Prof. N. Kaminski (University of Bremen), M. Piton (Alstom)
3 – 4 July 2019	Leinfelden-Echterdingen (near Stuttgart Airport), Germany	ECPE Workshop	<a href="#">Availability of Power Electronics by Fault-Tolerant Designs for Automotive and Aircraft</a> Chairmen: Prof. E. Wolfgang (ECPE), Prof. V. Pickert (Newcastle University), Dr. W. Wondrak (Daimler)
9 – 10 July 2019	Nuremberg, Germany	ECPE Tutorial	<a href="#">Thermal Engineering of Power Electronic Systems - Part I: Thermal Design and Verification</a> Chairman: Prof. U. Scheuermann (Semikron)
15 – 16 Octobre 2019	Nuremberg, Germany	ECPE Tutorial	<a href="#">Thermal Engineering of Power Electronic Systems - Part II: Thermal Management and Reliability'</a> Chairman: Prof. U. Scheuermann (Semikron)
6 - 7 November 2019	Barcelona, Spain	ECPE Tutorial	<a href="#">Power Circuits for Clean Switching and Low Losses'</a> Chairmen: Dr. R. Bayerer (Physics of Power Electronics)
20 - 21 November 2019	Frankfurt am Main, Germany	ECPE Tutorial	<a href="#">Power Semiconductor Devices &amp; Technologies'</a> Chairmen: Dr. A. Mauder (Infineon Technologies)

For the information about ECPE Workshops and Tutorials, please visit the ECPE website [www.ecpe.org](http://www.ecpe.org)

### 4. Future EPE ECCE Europe and Technically Sponsored Conferences

**2019:**

- *ICPE 2019 – ECCE Asia, 27 - 31 May 2019 Busan, Korea (South)*  
<http://www.icpe2019.org/>
- *CIGRE Aalborg 2019 - International Symposium, 4 - 7 June*  
<https://cigre aalborg2019.dk/>
- *EMR'19 Summer School, 17 - 19 June 2019, Lille, France*  
<http://www.emrwebsite.org/>
- *LDIA 2019, 1 - 3 July 2019 at MICROCITY EPFL Neuchatel, Switzerland*  
<https://ldia2019.epfl.ch/>

- *PhD Summer School Mont-Soleil, Switzerland, 12 - 16/17 August 2019*  
<http://www.societe-mont-soleil.ch/summer-phd-school-mont-soleil.html>
- *SLED 2019, Torino, Italy, 9 - 10 September 2019*  
<https://attend.ieee.org/sled-2019/>
- *EPE 2019 ECCE EUROPE, 2 - 6 September 2019, Genova, Italy*  
<http://www.epe2019.com/>
- *Power electronics Ee2019, Novi Sad, Serbia, October 23 - 26, 2019*  
[www.dee.uns.ac.rs](http://www.dee.uns.ac.rs)

**2020:**

**EPE 2020 ECCE EUROPE, 7-11 September 2020, Lyon, France**

**2021:**

**EPE 2021 ECCE EUROPE, 6-10 September 2021, Ghent, Belgium**

**2022:**

**EPE 2022 ECCE EUROPE, 5-9 September 2022, Hanover, Germany**

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