

Power Electronics Electrical Machines Energy Control Power Systems



EUROPEAN PHD SCHOOL

22 - 26 May 2023, Gaeta/Italy

ORGANISED BY



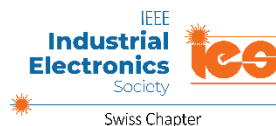
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EXHIBITORS



PROGRAMME

MONDAY May 22, 2023

08:30 – 09:00 **Registration desk** open
09:00 – 09:30 **Opening Session** @ Conference Room
09:30 – 10:15 **Keynote 1** @ Conference Room
Dr. Greg Ombach (Airbus, DE)
Aircraft Electrification
10:15 – 10:45 *Coffee Break*
10:45 – 11:30 **Keynote 2** @ Conference Room
Dr. Fabio Carastro (Semikron Danfoss, DE)
Advanced SiC Power Modules for E-Mobility
11:30 – 13:00 **Presentations by participant companies**
13:00 – 14:30 *Welcome Lunch*
14:30 – 16:00 **Poster Session A** (last year PhD's)
16:00 – 16:15 *Coffee Break*
16:15 – 18:30 **PhD-Company Meetings (Recruitment)**
19:30 *Transfer to dinner*
20:00 – 22:30 **Social Dinner and Award Ceremony**

TUESDAY May 23, 2023

09:00 – 10:00 **Keynote 3** @ Conference Room
Prof. Carlo Alberto Nucci (Univ. of Bologna, IT)
Mission Climate Neutral and Smart Cities
10:00 – 12:30 **Lecture 1** @ Conference Room
Prof. Michael Hartmann (TU Graz, AT)
**Industrial Variable Speed Drives in LV and MV.
Still something to do?**
12:30 – 13:30 *Lunch Break*
13:30 – 15:30 **LIVE DEMO SESSION** by companies
15:30 – 17:30 **Lecture 2** @ Conference Room
Dr. Christof Zwysig (Celeroton, CH)
**Design Challenges in Ultra-High-Speed Turbo
Compressor Systems**

WEDNESDAY May 24, 2023

09:00 – 10:00 **Keynote 4** @ Conference Room
Marco Aimo Boot (Iveco Group, IT)
Heavy Duty Vehicle Electrification
10:00 – 12:30 **Lecture 3** @ Conference Room
Prof. Peter Zacharias (Univ. of Kassel, DE)
Magnetics in Power Electronics
12:30 – 13:30 *Lunch Break*
13:30 – 14:30 **Poster Session B** (1st and 2nd year PhD's)
14:30 – 18:00 **Lecture 4** @ Conference Room
Prof. Dong Dong (Virginia Tech/CPES, US)
**Modular Soft-switched High-Frequency High-Power DC
Transformer (DCX) for Electrified Energy Systems**
20:00 – 22:30 **Pizza Dinner**

THURSDAY May 25, 2023

09:00 – 10:00 **Keynote 5** @ Conference Room
Dr. Damiano D'Aguanno (Mercedes AMG, UK)
**Electric Machine Design and Optimization Trends in
Automotive and Formula 1 Motorsport**
10:00 – 12:30 **Lecture 5** @ Conference Room
Dr. Daniel Chartouni, Silvio Colombi (ABB, CH)
Power Converters & Battery Systems
12:30 – 13:30 *Lunch Break*
13:30 – 15:30 **Lecture 6** @ Conference Room
Prof. Thiago Batista Soeiro (Univ. of Twente, NL)
**Electric Vehicle Battery Charging: Power Electronics and
Grid Integration**
15:30 – 16:00 *Coffee Break*
16:00 – 18:30 **Lecture 7** @ Conference Room
Prof. Giampaolo Buticchi (Univ. of Nottingham Ningbo China, CN), **Dr. Abraham Marquez Alcaide** (Univ. of Sevilla, ES)
Control for Reliability in Power Electronics

FRIDAY May 26, 2023

08:30 – 09:30 **Keynote 6** @ Conference Room
Enrico Poli (STMicroelectronics, IT)
**Smart Power for Motor Control:
Challenges and Opportunities of GaN Technology**
09:30 – 12:00 **Lecture 8** @ Conference Room
Prof. Andreas Kuechler - (Technical University of Applied
Sciences Wuerzburg-Schweinfurt, DE)
Electrical Insulation at High Electrical Field Stresses
12:00 – 13:00 **Final Test for ECTS** @ Conference Room
13:00 – 13:45 *Lunch Break*
13:45 – 20:00 **Cultural Excursion**

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The European PhD School on 'Power Electronics, Electrical Machines, Energy Control and Power Systems' is organised by the University of Cassino in cooperation with ECPE European Center for Power Electronics since 2011. It's a unique event in Europe for young power electronics engineers from academia to exchange experience and technical information about their PhD projects.

The PhD School starts with an Industry Day covering keynote presentations from industry experts as well as a dialogue session for detailed face-to-face discussions between PhD students and industry representatives. The 1st day ends with a social dinner including the PhD School Award celebration. The rest of the week is dedicated to high-level lectures from several experts from academia but also from industry, related to the following thematic areas:

- Power Electronics
- Electrical Machines
- Energy Control
- Power Systems

More information and registration: ecpe.org/phdschool

More information about the Industry Day for Recruitment see last page!

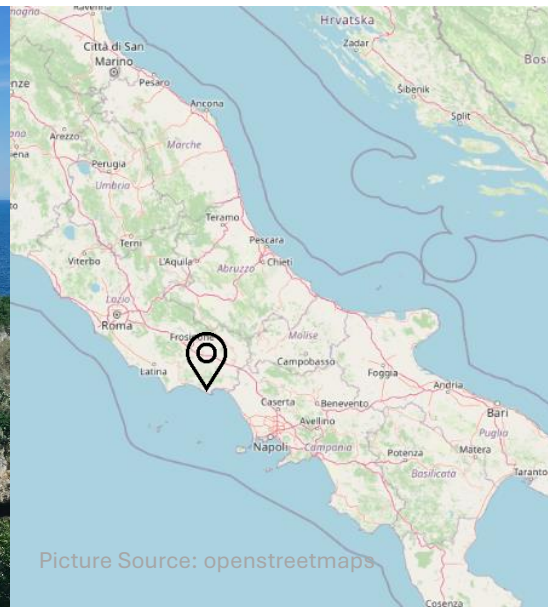


Picture Source: Martina Pellechia, istock

Gaeta is a city in the province of Latina, in Lazio, Southern Italy. Set in the Gulf of Gaeta, it is 120 km from Rome and 80 km from Naples. The European PhD School on 'Power Electronics, Electrical Machines, Energy Control' takes place at the beautiful Angevin Castle located in the ancient part of Gaeta.



Picture Source: glass_bear, istock



Picture Source: openstreetmaps



Picture Source: ECPE

AWARDS 2023

European PhD School Award 2023

On a voluntary basis, each last-year stage PhD student can present the research activity to a qualified PhD School Commission at the Poster session A. At the end of the session, the 'European PhD School Award 2023' will be assigned by the Commission, with a grant of 1.000,00 Euro.

Young PhD School Award 2023

Each PhD student attending the 2023 edition of the PhD School, except the ones participating to the Poster session A (see above), is requested to prepare a poster of her/his research activity. For first year PhD students the poster can be prepared with the planned project and activities.

The 'Young PhD School Award 2023' will be assigned by the Commission, with a grant of 500,00 Euro.

Research activity:

All PhD students have to send the research activity document and a copy of their CV.

Further details after registration.



EUROPEAN PHD SCHOOL

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EUROPEAN PHD SCHOOL

Contact Organisation



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Registration: www.ecpe.org/phdschool

Registration is also open to academic and industry delegates!

Industry Day for Recruitment Monday, 22 May 2023



Pictures Source: ECPE

If your company is interested in participation at the Industry Day please contact lena.somschor@ecpe.org

Industry Day for Recruitment – the meeting point for companies and PhD students!
In the frame of the PhD School event, ECPE organizes the Industry Day for Recruitment, where HR people from industry can meet PhD students on-site. Established companies in the field of power electronics, electrical drives and systems participate every year. Moreover, a special session with presentations is dedicated to the participating companies.