

# Power Electronics Electrical Machines Energy Control Power Systems



## EUROPEAN PHD SCHOOL

27 - 31 May 2024, Gaeta/Italy

### ORGANISED BY



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# PROGRAMME

## MONDAY 27 May

- 08:30 – 09:30 **Registration desk open and welcome coffee**  
09:30 – 10:00 **Opening Session @ Conference Room**  
10:00 – 10:45 **Keynote 1 @ Conference Room**  
**Roland Huempfer** (Huawei Technologies, DE)  
**Power Electronics for Green Data Centres**  
10:45 – 12:30 **Presentations by participating companies**  
12:30 – 14:00 **Welcome Lunch**  
14:00 – 14:45 **Keynote 2 @ Conference Room**  
**Riccardo Morici** (Alpionic, IT)  
**Innovation in DC charging EVSE**  
14:45 – 15:00 **Poster Set-up**  
15:00 – 16:15 **Poster Session A** (last year PhD's)  
16:15 – 18:00 **PhD-Company Meetings (Recruitment)**  
*@ Exhibition Area with Open Bar*  
19:30 **Transfer to dinner**  
20:00 – 22:30 **Social Dinner and Award Ceremony**

## TUESDAY 28 May

- 09:00 – 10:00 **Keynote 3 @ Conference Room**  
**Thomas Ferianz** (Infineon Austria, AT)  
**GaN Gate Driving Solutions**  
10:00 – 12:30 **Lecture 1 @ Conference Room**  
**Petar Grbovic** (Univ. of Innsbruck, AT)  
**Multi-Level and Partial Power Processing Converters**  
12:30 – 13:30 **Lunch Break**  
13:30 – 15:30 **LIVE DEMO SESSION @ Exhibition Area**  
15:30 – 17:30 **Lecture 2 @ Conference Room**  
**Prof. Andreas Kuechler** (THWS Schweinfurt, DE)  
**Electrical Insulation at High Electrical Field Stresses**  
**Prof. Michael Galea** (University of Malta, MT)  
**Electrical Insulation: Lifetime Prediction and Reliability-Oriented Design Aspects**

## WEDNESDAY 29 May

- 09:00 – 10:00 **Keynote 4 @ Conference Room**  
**Prof. Vito Nardi** (Enertronica Santerno, IT)  
**Power Electronics Optimization and New Trends in Utility Scale PV Systems**  
10:00 – 12:30 **Lecture 3 @ Conference Room**  
**Prof. Markus Henke** (TU Braunschweig, DE)  
**Advanced Electrical Machines**  
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. Richard Zhang** (Virginia Tech, US)  
**Power Electronics for Renewables and Next Generation Grids**  
20:00 – 22:30 **Pizza Dinner**

## THURSDAY 30 May

- 09:00 – 10:00 **Keynote 5 @ Conference Room**  
**Antonello Antoniazzi, Dejan Pejovski** (ABB, IT)  
**Semicond. Circuit Breakers for Protection of DC Microgrids**  
10:00 – 12:45 **Lecture 5 @ Conference Room**  
**Power Semiconductors**  
- **Dr. Munaf Rahimo** (MTAL, CH)  
**High Voltage/High Power Semiconductors (Si, SiC)**  
- **Prof. Elison Matioli** (EPFL, CH)  
**Fast Switching GaN**  
12:45 – 13:45 **Lunch Break**  
13:45 – 16:00 **Lecture 6 @ Conference Room**  
**Dr. Jae Seung Lee, Masanori Ishigaki** (Toyota Research Inst. North America, US)  
**Mobility and Society Electrification**  
16:00 – 16:30 **Coffee Break**  
16:30 – 18:00 **Lecture 7 @ Conference Room**  
**Dr. Luca Dalessandro** (ETIX, CH)  
**Innovation & Entrepreneurship: Best Practices from PhD to Venture**

## FRIDAY 31 May

- 08:30 – 10:00 **Keynote 6.1 & 6.2 @ Conference Room**  
**Abel Ferreira** (Vestas Wind Systems, DK/PT)  
**Wind Power** (contrib. to Net-Zero CO<sub>2</sub> emissions)  
**Prof. Jin Xuan** (University of Surrey, UK)  
**Hydrogen: Technology Development & System Integration**  
10:00 – 11:45 **Discussion @ Conference Room**  
**Speakers & PhD Students**  
**Future Grids & the Role of Power Electronics**  
11:45 – 12:00 **Final Test presentation for ECTS @ Conference Room**  
**(the exam will be performed online after the PhD School week)**  
12:15 – 12:30 **2024 PhD School edition closing remarks**  
12:30 – 13:30 **Lunch Break**  
13:30 – 18:30 **Cultural Excursion**

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# PHD\_SCHOOL PEOPLE

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for Power Electronics

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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](http://ecpe.org/phdschool)**

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

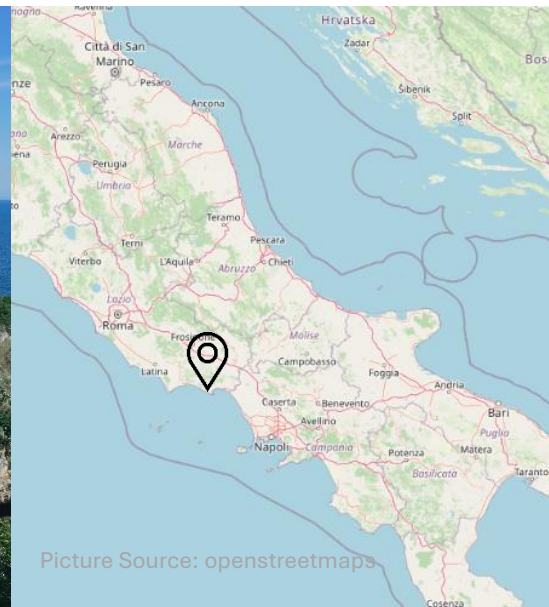


Picture Source: Martina Pellechia, istock

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 2024

## European PhD School Award 2024

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' will be assigned by the Commission, with a grant of 1.000,00 Euro.

## Young PhD School Award 2024

Each PhD student attending 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' 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, their CV and the poster as PDF in advance.

Further details with confirmation of registration.



# EUROPEAN PHD SCHOOL

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Greg Ombach, Airbus, Germany



# EUROPEAN PHD SCHOOL

## Contact Organisation



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Registration: [www.ecpe.org/phdschool](http://www.ecpe.org/phdschool)

## Industry Day for Recruitment Monday, 27 May 2024



Pictures Source: ECPE

If your company is interested in participation at the Industry Day please contact [lena.somschor@ecpe.org](mailto:lena.somschor@ecpe.org) or visit [www.ecpe.org/phdschool](http://www.ecpe.org/phdschool)

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 industry representatives 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.