



Kiel University
Christian-Albrechts-Universität zu Kiel

Faculty of Engineering

Chair of Power Electronics

A FRIENDLY TEAM

We are happy to be a nice group of people where there are no barriers among professors, research assistants, technical and administrative staff, and students. Frequently, we meet in the Chair's kitchen to enjoy a cup of coffee during a break and discuss about technical and non-technical matters. Moreover, we do our best to promote women in engineering.

You are welcome to join, we will take care of you!

LOCATION

The Chair of Power Electronics is part of the Faculty of Engineering of the Christian-Albrechts-Universität (CAU) and it is located on the east side of Kiel's fjord. Kiel is the capital of the state of Schleswig-Holstein, the land of horizons, a beautiful place where to study and grow professionally in the field of power electronics and wind energy due to the many competence centres in this field.

In 2015 the CAU will celebrate its 350-year anniversary!

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Contact

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Chair of Power Electronics



TEACHING

The M.Sc. in Electrical Engineering and Information Technology and the M.Sc. in Electrical Engineering, Information Technology and Business Management have two teaching semesters with five power electronics courses, a power electronics laboratory course that provides hands-on experience, a seminar course where students are challenged to look into research topics, and many lectures of worldwide renowned guests. The M.Sc. courses in power electronics are organized such as they are completely self-standing and synergic in providing education for design and control of power converters and their integration within electric drives and renewable energy systems. If you want to follow the entire power electronics path you can either start in spring or autumn semester.

Course overview

	Spring	Autum	Optional courses
Kernel Courses → Study Plans ↘	Design of Power Electronics Converters	Modelling and Control of Power Electronics Converters	
Renewables & Smart Grid (Study Plan 1)	Renewable Energy Systems	Grid Converters for Renewables	Microprocessor Non-linear control systems Optimization and optimal control
Electric Drives (Study Plan 2)	Microprocessor	Electric Drives	A course on EMC Non-linear control systems Optimization and optimal control
		Seminars	
		PE Laboratory	

All the power electronics courses are in English.

For more information please visit our Web page.



RESEARCH

The Chair of Power Electronics believes in a rigorous scientific research which is always validated experimentally and often in cooperation with a company. Recently, this has been further expanded thanks to the only ERC Consolidator Grant given by the European Union to a project related to power electronics and power systems: **HEART**. The **H**ighly **E**fficient **A**nd **R**eliable smart **T**ransformer (HEART) is a 5 years 2 Mio. Euro project employing 5 researchers working under the advice of industries and the best research centres working on solid-state transformers. We would like to provide a new durable HEART to the future electric grid. Moreover, we make research in the field of renewable energies and electric drives for industrial automation and e-mobility.

Join us in making the new industrial revolution based on power electronics technologies possible!

LABORATORY

Our laboratories are well equipped with many different types of converter fed electric drives, a micro-grid, grid-connected power converters, a power semiconductor test-bench, converter control equipment and high quality measuring equipment. Therefore, several power converter prototypes were built in the laboratory.

Come to practice and improve your technical skills by transforming ideas into working solutions!

We have planned to buy over 1 Mio. Euro of new equipment in 2015. Moreover, a new MV-laboratory equipped with a Real Time Digital Simulator, connection to the MV grid and advanced facilities for analyzing power electronics will be created in 2015.