

# Seminar on Electromagnetic Noise in Power Electronics

- Electromagnetic noise in power electronic systems is frequently misunderstood and ignored during the design process until problems arise. This seminar provides methods on this topic in theory and practice:

- Fundamental vocabulary, the interference model, as well as examples
- Models of sources, paths and simulation principles for power electronic components
- Measurement setups, equipment, laws and regulations for conducted emissions
- Mitigation techniques for localization, general counter measures and aspects of filter design

- This seminar consists of three parts:

- Theoretical Presentation of the aspects, which include simulation exercises (2 days)
  - Laboratory exercise in a group up to five students (2-3 hours)
  - Submission of a paper on a specific part of the seminar, which includes the results of the laboratory exercise
- The workload of this Seminar corresponds to 4 SWS
  - Date and time: November 24th and 25th 9 a.m. to 4 p.m.
  - Location: zoom link will be provided after registration
  - Registration: [emc@isea.rwth-aachen.de](mailto:emc@isea.rwth-aachen.de)

