

# Call for Papers – Power Semiconductor User Forum

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Power semiconductors are key components in any kind of power supply, DC/DC converter or inverter. But the market for MOSFET, IGBT and other devices is extremely diversified. There are a lot of manufacturers who offer such components in an overwhelming variety. On top of that, there are also emerging the new wide-bandgap semiconductors such as silicon carbide (SiC) and gallium nitride (GaN). How should the average user find his way out of this jungle and identify the most suitable power semiconductor for his application? What are the pros and cons of different power semiconductor solutions?

The »Power Semiconductor User Forum«, organized by Markt&Technik and DESIGN&ELEKTRONIK from **28 to 29 October 2020 in Munich**, is there to provide guidance for developers. This conference will provide the most important basics and application advices for MOSFET & Co. Will a Superjunction MOSFET be sufficient for the targeted application, or might it make more sense to switch to GaN transistors? Will the selected driver IC also operate with other power semiconductor technologies? What variances are to be expected with regard to the information in the data sheet? Which aspects are critical for a qualified preliminary selection and which further questions to the manufacturers will make decision-making and sourcing easier?

We look forward to receiving your proposals. The following subjects are mentioned as inspiration:

- Types of power semiconductors (MOSFET, IGBT, Modules, SiC, GaN)
- Pros and cons of each type
- Packaging and interconnection technology for power semiconductors and power modules
- Package types and their respective pros and cons
- Assembly and termination technology
- Failure mechanisms, reliability and degradation
- Thermal management (within and to the outside of the component)
- Circuitry (e.g. driver and protection)
- Electromagnetic compatibility
- Converter and inverter topologies and their respective pros and cons
- Application examples (electro mobility, regenerative energies, traction, white/brown goods etc.)
- Interaction with other components (e.g. passives, DC link, bus bar, etc.)
- Cost analysis
- Standards

Until **15 May 2020** you have the opportunity to actively contribute to the program.

Please submit only technically in-depth papers; product- and marketing-related submissions will not be considered.

For more details (in German) visit: [www.leistungshalbleiter-anwenderforum.de](http://www.leistungshalbleiter-anwenderforum.de)

**Location of event:** Novotel Messe München Hotel, Munich Germany

**Date:** 28 – 29 October 2020

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WEKA FACHMEDIEN GmbH, Richard-Reitzner-Allee 2, D-85540 Munich, Germany