



Friedrich-Alexander-Universität
Department Elektrotechnik-Elektronik-
Informationstechnik

EEI-Kolloquium

SiC-MOSFET Inverter in High-Performance PHEV Applications

Dr.-Ing. Maximilian Hofmann

Fraunhofer IISB

Montag, der 19.06.2023, 17:15 Uhr

Live: Waeber-Saal, Fraunhofer IISB

Online:

<https://fau.zoom.us/j/64131090368?pwd=clB3em9QOUNhOForjE0TC9NaG5LUT09>

Improving the efficiency of traction inverters and electric machines is a key driver for the use of new technologies in the powertrain of electrified vehicles. As efficiency becomes more of a focus and SiC-MOSFET technology costs continue to decrease, SiC-MOSFET-based traction inverters are becoming increasingly attractive for lower voltage, lower power applications.

In this presentation, the potential of a 650 V SiC-MOSFET-based traction inverter for high-performance PHEV vehicles with a 400 V traction battery is investigated and compared to a state-of-the-art design based on 650 V Si-IGBT technology.