

Call for Papers on Multiphysics Aspects of Power Electronics Packaging - Power Die, Power Module and Converter Level

The IEEE Transactions on Components, Packaging, and Manufacturing Technology (T-CPMT) is a flagship journal focused on advancing the knowledge and dissemination of research on multiple electronics packaging technologies. T-CPMT is pleased to announce a Call for Papers for a Special Section focused on multi-physics aspects of packaging of power electronics at the die/chip, module and converter scales. This can include fundamental research aspects related to emerging high-voltage, high-temperature, high-switching-frequency power electronics, packaging materials, thermal materials and interfaces, fluid-based thermal management technologies, reliability, multi-physics integration at the device, module and converter levels. It could also include the demonstration of the power die and/or the power module and/or the converter in multiple applications cutting across transportation, data centers, radio frequency, directed energy, wind, solar, as well as grid-tied applications. Transportation is intended to capture light-, medium- and heavy-duty on-road vehicles, off-highway vehicles for construction, agriculture, mining, aviation, marine, rail, and aerospace. Advancements in topologies, thermal management and reliability in the power die, modules and converters based on silicon, silicon carbide, gallium nitride, other wide-bandgap and ultra-wide-bandgap materials are solicited. Within the converter, in addition to device packaging/power modules, contributions focused on capacitors, magnetics, gate drivers, and circuit boards are also encouraged. Original research, review or perspective articles are all solicited with emphasis on original research. **Authors should select "Special Section on Power Electronics" when submitting their papers and noting in their cover letter that the manuscript is being submitted for the Special Section on Power Electronics Packaging.** This will ensure that the manuscript is assigned correctly.

The timeline for this Special Section is:

Call for Papers: April 30, 2023

Draft Manuscripts due: August 15, 2023

January 15, 2023: Submission of Final Manuscripts and Copyright Forms

February 2024: Publication

The editorial board will consist of the following:

Dr. Sreekant Narumanchi, Lead Associate Editor, National Renewable Energy Laboratory (NREL), Golden, CO, USA

Dr. Fang Luo, Guest Editor, Stony Brook University, Stony Brook, NY USA.

Dr. Przemyslaw J. Gromala, Guest Editor, Robert Bosch GmbH, Reutlingen, Germany,

For questions, please reach out to Sreekant Narumanchi (sreekant.narumanchi@nrel.gov).