

The education of engineers in electrical engineering covers power devices, thermal/mechanical requirements of power electronic systems and power electronics topologies. The focus of research is on reliability. The possibilities of the Chemnitz Center for Microtechnologies can be used for power device processing and analysis.

Key Research Fields & Competence Areas:

- ∅ Dynamic avalanche, ruggedness of power devices
- ∅ Diamond like carbon a-C:H
- ∅ Recombination centers
- ∅ Packaging technologies and their reliability
- ∅ Grid connection of renewable energy sources

Institute Highlights:

- ∅ Active power cycling at increased temperature swings, experience up to $\Delta T=160^{\circ}\text{C}$ and $T_j = 200^{\circ}\text{C}$
- ∅ Investigation of reliability of advanced supercaps based on nanostructured materials
- ∅ PECVD reactor for deposition of a-C:H films, deposition area 32cm diameter

Contact Information:

Prof. Dr. Josef Lutz
Technische Universität Chemnitz
Fakultät für Elektrotechnik und Informationstechnik
Professur Leistungselektronik und elektromagnetische Verträglichkeit
Reichenhainerstr. 70
D-09126 Chemnitz
Mail: josef.lutz@etit.tu-chemnitz.de
<http://www.tu-chemnitz.de/etit/le/>

Center for microtechnologies
<http://www.zfm.tu-chemnitz.de/>