



Current positions

Full Professor and Head of the Institute of Electrical Engineering at KIT (since 2015)

Head of Application Groups at the Battery Technical Center of the KIT (since 2018)

Previous positions (two selected)

Head of Power section development and Project manager, Research & Development of Low and Medium Voltage Converters for Energy and Industrial applications, Siemens AG, Nürnberg, Germany (2005-2015)

Scientific degrees

Dr.-Ing. (PhD) in Electrical Engineering at University of Federal Armed Forces Munich, Germany (2008)

Recent research topics

Battery applications, Mobile and stationary storage solutions, Multilevel converters, DC/DC-converters, Power Hardware-in-the-Loop applications, Fault tolerant power electronics, Condition monitoring, Grid and motor control

Awards, honors, memberships

Member of Scientific Committee, Europ. Power Electronics Ass. (since 2016)

Inventor of the year, Siemens AG (2009)

VDE/ETG Best Paper Award (2005)

Publications/Patents (5 most important)

- D. Bernet, **M. Hiller**: Grid-Connected Voltage Source Converters with integrated Multilevel-Based Active Filters, *IEEE Ener Conv*, 2018, [doi:10.1109/ECCE.2018.8557648](https://doi.org/10.1109/ECCE.2018.8557648)
- P. Himmelmann, **M. Hiller**, D. Krug, M. Beuermann: A new Modular Multilevel Converter for Medium Voltage High Power Oil & Gas Motor Drive Applications, *EPE'16 ECCE Europe*, 2016, [doi:10.1109/EPE.2016.7695692](https://doi.org/10.1109/EPE.2016.7695692)
- **M. Hiller**, R. Sommer, M. Beuermann: Medium-Voltage Drives, *IEEE Ind Appl Mag*, Volume 16, Issue 2, 22-30, 2010, [doi:10.1109/MIAS.2009.935494](https://doi.org/10.1109/MIAS.2009.935494)
- **M. Hiller**, Method for Controlling a Multi-Phase Power Converter having distributed Energy Accumulator at low output frequencies, European Patent EP2255434B1
- **M. Hiller**: Dynamic Torque Control for Switched Reluctance Drives Based on a New Online Machine Model. EPE 2005, Dresden, Germany, 2005