



## About Power Electronics Challenges in Aviation

Dr. Marco Bohllaender  
Rolls-Royce Deutschland Ltd & Co KG

### Abstract:

The aviation market is in change. The degree of aircraft propulsion electrification increases rapidly and requires power semiconductor and power electronic solutions to fulfil different requirements than in any other industry and application. The invited lecture will give a survey on those challenges and depict their impact on the power electronic system design in electrified aircrafts.

### Curriculum Vitae:



Dr. Marco Bohllaender studied Electrical Engineering at Chemnitz University. He joined Infineon AG as development engineer and was responsible for the product development of converter power stages. In 2013 Dr. Bohllaender received his PhD in power electronics with the title “Power cycling test-based lifetime analysis methods for power semiconductors in offshore wind energy plants” at Chemnitz University. In the same year he joined Siemens AG as power electronics system architect for automotive inverters. In 2017 he took over the role of a power electronics expert at Siemens eAircraft and worked in several flight demonstrator projects. Today, Dr. Bohllaender is lead engineer in a product development project and head of the Power Electronics and Wiring team at Rolls-Royce Electrical, a business unit inside Rolls-Royce plc.

### Contact Details:

Dr. Marco Bohllaender  
Rolls-Royce Deutschland Ltd & Co KG  
Guenther-Scharowsky-Strasse 1  
91058 Erlangen  
+49 152 22726816  
marco.bohllaender@rolls-royce-electrical.com  
www.rolls-royce.com