



## Trends in Power Electronics and Batteries for Electrified Vehicle Infrastructure

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### Abstract:

A tremendous growth in the quantity and diversity of electric vehicles is currently occurring. Different vehicle platforms have been progressively developed in recent years, and this development continues today. Among the most important questions is where and how to charge the vehicles. In Germany, it is expected that up to 15 million BEV will be on the roads by 2030.

This presentation will give an overview of the platforms, system functions and technical requirements for charging. Solutions for wall boxes and their inner circuitry will also be presented. Based on the use cases V2H and V2G, some trends in power electronics and options for storage systems will be discussed.

### Curriculum Vitae:



Born in 1962 in Lower Saxony

- Diplom in electrical engineering and PhD concerning field-oriented induction machines at Leibniz University Hannover
- Lecturer at Christian Albrecht University Kiel in realtime applications for power electronics
- STIL & Linde Group: Powertrain development for forklift trucks
- Sieb & Meyer AG: Inverter for small wind turbines and fuel cells
- SMA Solar Technology AG: Development for Sunny Island inverter and in technology department
- Volkswagen / VW Group Components: Onboard charger and powertrain inverter
- VW Group Charging: Systems for bidirectional charging
- Board member of ECPE e.V.
- Member of the Wilhelm-Busch-Gesellschaft

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