

March 3–4, 2027 | Bamberg



electrical + electronic systems
in hybrid & electric vehicles
electrical energy management

International Conference 2027

Call for Papers

Submit your abstract until: **October 31, 2026**

Driving the Convergence of E/E Systems for Electric Vehicles & Humanoid Robotics

Main Topics

Future E/E Architectures for passenger cars, heavy duty and other Vehicles

- E/E architectures, topologies and systems for
 - Hybrid/electric and hydrogen/fuel cell vehicles
 - Reliable power supply systems for automated driving and X-by-Wire
 - Domain, zonal and centralized architectures
- Electrical charging systems and vehicle-to-x solutions
- High voltage safety and standards incl. EMC
- Future voltage levels (48 V/400 V/800 V and beyond)
- Interoperability and EMC challenges

Energy management in future E/E architectures

- Electrical energy management and operating strategies
 - Control strategies for improved efficiency
 - Diagnostics and safety
 - Connectivity, big data, cloud computing and cyber security
- Battery management systems and algorithms
- Energy management for vehicle-to-x (grid, home, device)

Components for future E/E architectures

- Components for energy storage, power distribution and conversion
 - Batteries, converters, chargers and inverters
 - Semiconductors and passive components
 - Wiring harnesses and connectors
 - Integration
- New technologies and materials for power electronics and the requirements for qualification, reliability and robustness

Test and validation for hybrid and electric vehicles

- New test methods and tools for components, systems and vehicles
- Innovations for simulation and virtual development
- Software validation with non-deterministic self-learning and machine-learning algorithms

Focus Topics for 2027

- Standardization for future charging systems and its influence on vehicle systems
- Comprehensive BEV / FCEV solutions and their impact on energy and low voltage architectures
- High voltage and 48V components and systems
- Modelling und Simulation für Hybrid and Electric Vehicles
- Ultra fast Charging Technologies and Concepts (Charging beyond 500kW)
- Innovative Charging Technologies for convenience
 - @high temperature and @higher SOC
- Power supply and distribution concepts for fault-tolerant systems

NEW in 2027

E/E in Humanoid Robotics

Humanoid robotics is emerging as a highly dynamic application field for advanced electrical and electronic (E/E) systems.

Building on the strong technological commonalities with the automotive domain, **eehe 2027** introduces a dedicated **parallel session on E/E in Humanoid Robotics**.

The aim of this session is to explore and leverage synergies between both domains by transferring proven automotive technologies, architectures, and development approaches to humanoid robotic systems. In particular, both automotive systems and humanoid robots face comparable challenges with respect to scalable and reliable E/E architectures, power distribution, energy efficiency, and functional safety.

The increasing system complexity in humanoid platforms creates a strong demand for robust and standardized solutions, where automotive experience in high-volume, safety-critical environments provides a valuable foundation.

We invite contributions on topics including:

- Electrical and electronic system architectures for humanoid robots
- Power supply, battery systems, and energy management
- Electric actuators, drives, and motion control
- Sensors, perception, and sensor fusion
- AI, cognition, and embodied intelligence
- Embedded software and real-time control
- Functional safety, cybersecurity, and dependable systems
- Design, testing, validation, and industrial deployment of humanoid robots

Every presentation (20 minutes) is followed by a 10 minute Q & A session. The conference language will be English.

Deadline for abstract submission: October 31, 2026

- Title/Headline and Abstract in English
- Classification into Main Topics



Please upload your paper on
www.eehe.de/en/upload-cfp
(Upload will be open starting mid-July, 2026!)



Milestones

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(Upload will be open starting mid-July, 2026!)



October 31, 2026

Deadline for abstract submission

December 2026

Decision of Acceptance

February 19, 2027

Submission of final presentation

March 3–4, 2027 | Bamberg

Conference Venue

Welcome Kongresshotel Bamberg
Mußstraße 7 · 96047 Bamberg
Germany

Conference Chairmen



Dr.-Ing. Carsten Hoff
dSPACE GmbH



Dipl. Inf., Dipl.-Ing. (BA) Thomas Weber
Mercedes-Benz Group AG

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Dr. Ing. h. c. F. Porsche AG

Conference Fee

€ 1,585.– (regular) | € 545.– (Speaker/Poster Author)

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