



The leading international congress for electrified powertrains, systems, components and methods

Call for Papers

Submit your abstract now!



The electrified powertrain Systems | Components | Methods

- **Market/Customer/Legislation/Environment/Sustainability**
- **Digitalisation & Artificial Intelligence in the Powertrain**
- **Drive Concepts**
- **Transmission/Drive Units**
- **E-Motor**
- **Inverter**
- **Battery, Fuel Cell, Hydrogen**
- **Charging Systems**
- **Thermal Management**
- **Simulation, Test and Validation**

Become a speaker now!

Deadline for abstract submission:
November 5, 2024

Chair



Dipl.-Ing. Konstantin Neiß,
Director Transmissions & Electric
Drivetrain, Mercedes-Benz AG,
Stuttgart

Vice Chair



Dipl.-Ing. Thomas Pfund,
President Business Unit E-Motors,
Schaeffler Automotive Buehl GmbH
& Co. KG, Buehl



+ Accompanying conference
Drivetrain Solutions for Commercial Vehicles

+ Exhibition
with more than 60 exhibitors



Preface

Dear Experts,

We are pleased to invite you to the international industry Get-Together of the powertrain Community, the VDI Congress "DRITEV 2025".

Society, politics and industry are now facing the huge task (one might even say: they are right in the middle), of doing their – significant – share to bring forward the turnaround in energy policy in their respective sphere of influence. This means for the automotive industry that they are continuously required to make extremely efficient powertrains – offering open drive solutions (HEV, PHEV, BEV, FCHEV) in the respective markets according to current trend technology. In doing so they have to be aware how much the respective markets, infrastructures and legal environment need or rather permit. In addition, many end users still lay great emphasis on the fun factor when they purchase a new car to drive. Nevertheless, economical boundaries like sales price or energy and maintenance cost are in significant focus. In consequence, a variety of drive technology systems and architectures will continue to be called for.

On the other hand, it's not just the efficiency or capability of a drive system that matters – what's more, ecologically sustainable manufacturing processes as well as efficient and economically and geopolitically robust supply chains need to be in place. At the same time ensuring that decent work conditions in which workers are able to make a living in a humane way is of vital importance; stretching across the entire process from raw material extraction up to manufacturing operations.

All of this will be addressed at the "DRITEV 2025", topics like digitalization and artificial intelligence in the drivetrain, e-motor, inverter, battery, fuel cell and charging systems will be another major focus in addition to traditional drive technology, which is predominantly shaped by mechanical engineering. In-depth subject knowledge contained in expert papers, speakers in key positions sharing their strategic outlooks and a few selected articles with a strong connection to social policy and geopolitical concerns will characterize the event, now and in future.

The "DRITEV 2025" offers you the unique opportunity to present your know-how, your technology and your strategic alignment from your own industry or research background to a top-ranking range of trade experts. Feel free to make use of this opportunity and hand in your relevant paper. We look forward to receiving your submissions.

On behalf of the Program Committee,
Your Congress Management

Dipl.-Ing. Konstantin Neifß
Dipl.-Ing. Thomas Pfund

Call for papers

Are you an expert in one of the fields listed under topics? If so, we ask you to contribute actively to the success of this congress with a lecture.

Please submit an abstract not exceeding one A4 page by November 5, 2024. You can register with your contribution online at www.dritev.com.

Dates:

- Deadline for abstracts: **November 5, 2024**
- Notification of authors: **mid of December 2024**
- Submission deadline for manuscripts: **April 8, 2025**

The abstract must include (one A4 page maximum):

- The informative title of your contribution
- Details of the speaker and the co-authors (names and contact details)
- A summary with specific information
- A statement as to the degree of innovation
- The assignment to which key topic (in the Word file as well, please)
- Indication of publications on the topic
- **The precise title and key points of your presentation for publication in the program brochure (obligatory)**

General information

German and English are the approved languages for presentation.

The duration of lectures will be approximately 25 minutes followed by a discussion of about 5 minutes. The authors of the accepted papers **agree to provide a detailed manuscript** (no more than 10-12 pages).

The manuscripts will be published in a VDI report. The manuscript as well as the presentation slides are to be written in English. Speakers (one author per lecture) will participate in the congress free of charge. Travel and accommodation costs will not be refunded.

Best Presentation Award for Junior Engineers

Once again in 2025 the best young lecturer (up to and including 33 years) will be honored with the Best Presentation Award. Speakers, who would like to participate in this contest, are requested to state their date of birth with their contact details.

Publish your research results in a scientific journal

The scientific journal "Engineering Research – Forschung im Ingenieurwesen" gives you the opportunity to publish an extended version of your conference publications.

Expand your conference contribution by going into more detail about the underlying theories, methodology used and the results of your study. You can then submit your manuscript via the following link, www.editorialmanager.com/fiin, (online submission) taking the formal submission requirements into account.

If your contribution passes the initial publisher's review, it will be further reviewed by independent experts in a double-blind process (peer review). www.springer.com/journal/10010

Topics

The electrified powertrain Systems | Components | Methods

We ask you to submit your paper on the following range of topics

1. Market/Customer/Legislation/Environment/Sustainability

- 1.1. Mobility concepts, Eco-Systems
- 1.2. Regional strategies and legislation
- 1.3. Geopolitical constraints
- 1.4. Cost optimisation (TCO)
- 1.5. Voice of customer
- 1.6. Circular economy, sustainability and ESG compliance
- 1.7. CO₂ emissions reduction, LCA
- 1.8. Resilient supply chains, material availability

2. Digitalisation & artificial intelligence in the powertrain

- 2.1. AI in the product development process
- 2.2. AI in the product

3. Drive Concepts

- 3.1. Drivetrain Topologies (ICE, xEV)
- 3.2. Integration and optimization of electrified powertrains
- 3.3. Efficiency rate and system performance
- 3.4. EE-architectures and vehicle power supply (LV and HV)
- 3.5. NVH & acoustics

4. Transmission/Drive units

- 4.1. Architectures/products
- 4.2. Axle drives, all-wheel system, torque vectoring and disconnect
- 4.3. Transmission components (clutches, gears, synchronizations)
- 4.4. Power density
- 4.5. Cooling, lubrication, tribology
- 4.6. NVH/active and passive vibration damping
- 4.7. Functional and physical integration

5. E-Motor

- 5.1. Technologies (PSM, ASM, FSM, AFM)
- 5.2. Dimensioning, calculation, simulation
- 5.3. Power density, efficiency rate, NVH
- 5.4. Design features – cooling concept, insulation system
- 5.5. System optimization: Inverter – e-motor

6. Inverter

- 6.1. Inverter architectures
- 6.2. Dimensioning and simulation
- 6.3. Power switches and their impact on power density, efficiency and costs
- 6.4. Functional and physical integration
- 6.5. Housing, cooling, sealing concepts and crash performance

7. Batterie, Fuel Cell, Hydrogen

- 7.1. Structure and design of storage system
- 7.2. Vehicle integration and crash concepts
- 7.3. Cell technology, contacting systems, cell inter-connections
- 7.4. Cooling & conditioning
- 7.5. Intelligent storage management
- 7.6. Thermal propagation

8. Charging Systems

- 8.1. On-Board charging system: Architecture, executions, vehicle integration
- 8.2. Charging infrastructure
- 8.3. Bidirectional charging system
- 8.4. Charging capacity and efficiency

9. Thermal Management

- 9.1. Thermal management architecture
- 9.2. Dimensioning and simulation architectures
- 9.3. Driving range optimization
- 9.4. Functional and physical integration
- 9.5. Operating strategies
- 9.6. Single components
- 9.7. Air-conditioning compressors

10. Simulation, Test and Validation

- 10.1. Innovative development methods and tools
- 10.2. Operating strategies
- 10.3. Driving profiles and load configuration
- 10.4. Test and validation

Questions concerning the content of the congress?

Contact



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Program Committee



1st line, from left to right

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2nd line, from left to right

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4th line, from left to right

Dr. Michael Wagner, Vice President Global Engineering and Product Management Drivetrain and Battery Systems, BorgWarner Drivetrain and Battery Systems Drivetrain Engineering GmbH, Heidelberg

Dipl.-Ing. Carsten Weber, Manager, Propulsion Systems Research & Advanced Engineering, Ford Werke GmbH, Cologne

Dr. Henning Wöhl-Bruhn, Head of Technical Development, Inverter Electric Drives, Volkswagen AG, Wolfsburg, Germany

Partners

VDI Society Product and Process Design (GPP)

VDI Society Vehicle and Transport Technologies (FVT)

Exhibition

The International VDI Congress Dritev belongs to the most prestigious events of the automotive industry in the world. In 2025 more than 60 companies will be presenting innovative and trendsetting products and services turning the exhibition into the central market place of the congress.

Who should exhibit?

Companies (especially manufacturers and engineering service providers) that offer products and services in the following areas:

- Transmission
- Electric motor
- Power electronics/Inverter
- Battery
- On board charging systems
- Energy and thermal management
- Integration of batteries and fuel cells
- Testing and validation
- Tribology
- Other drive related components

Participate in the exhibition for excellent return or show thought leadership by sponsoring the event!

Details about the exhibition and the sponsorship program 2025:



Contact

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You need help?
Please contact us!

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Early bird registration until
November 5, 2024!

✓ Please register for (price per person plus VAT):

25th International VDI Congress Dritev 2025 July 09-10, 2025, Baden-Baden, Germany		
<input type="checkbox"/> Early bird until November 5, 2024	<input type="checkbox"/> from November 6, 2024	<input type="checkbox"/> from March 1, 2025
EUR 1,790,-	EUR 1,890,-	EUR 1,990,-

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Participation Fee VDI-Members: **Save 50 € for each conference day.** VDI membership no.* _____

* For the price category 2, please state your VDI membership number.

I'm interested in sponsoring and/or the exhibition

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Terms and Condition of the VDI Wissensforum GmbH can be found on our website:
<https://www.vdi-wissensforum.de/en/terms-and-conditions/>

Conference Venue:

Kongresshaus Baden-Baden, Augustaplatz 10, 76530 Baden-Baden, www.kongresshaus.de

Accommodation: A limited number of rooms have been reserved for congress participants. A reservation form can be found at www.vdicongress.com/dritev/participant-information/

More Hotels close to the congress venue may be found via our HRS service. www.vdi-wissensforum.de/hrs

Services: The price includes beverages during breaks, lunch as well as the evening function. Participants will have online access to the congress documents (E-Book)

Exclusive offer: All participants at this event are entitled to a free three-month trial VDI membership. (Offer applies exclusively to new members.)



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