

Conference chair

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Accompanying trade exhibition

An accompanying trade exhibition is planned for both days of the conference. Interested companies will have the opportunity to present their products, processes, and services related to the topic and explain them through personal consultations.

Instead of or in addition to the exhibition space, online options for your company presentation are also available.

Please contact the conference organizer CMD to plan your exhibition or online presence.

Conference information:

<https://diagnose-tagung.de>



Conference fees, plus 19 % value added tax

Registration until 04/05/26 from 04/06/26

Participants	1.280,00 €	1.480,00 €
University Staff	750,00 €	810,00 €
Speakers*	without charge	without charge

Onlineticket 750,00 € 750,00 €

* The fee applies to one speaker per presentation. One co-author per presentation can register for the conference at a reduced rate (-50%).

The conference fees include participation at the conference, refreshments during breaks, and participation at the evening event.

Registration form: <https://diagnose-tagung.de>



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Conference location

Internationales Congress Center Dresden
Ostra-Ufer 2, 01067 Dresden, Germany
www.dresden-congresscenter.de



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Program

19th Conference

Diagnostics in Mechatronic Vehicle Systems

Software-defined Vehicle, Artificial Intelligence
Predictive and Diagnostics Maintenance,
Standardization, SOVD, Open-SOVD,
PTI and ADAS, Battery Diagnostics

May 12 and 13, 2026, in Dresden

Chair of Vehicle Mechatronics

Prof. Dr.-Ing. B. Bäker, Dipl.-Ing. A. Unger

With contributions from:

BMW AG, ASAM e.V., Bertrandt GmbH, Bosch Engineering GmbH, Clarios Germany GmbH, DEKRA SE, DSA Daten- und Systemtechnik GmbH, ETAS GmbH, Fraunhofer Institute for Integrated Circuits, FSD Fahrzeugsystemdaten GmbH, MAN Truck & Bus SE, Mercedes-Benz Tech Innovation GmbH, Peerox GmbH, Porsche AG, ROSI Technology GmbH, Softing Automotive Electronics GmbH, TU Dresden, Upstream Security Ltd., Vector Informatik GmbH

Exhibitors and sponsors (February 15, 2026)

BMW AG, ASAM e.V., Bertrandt AG, DSA Daten- und Systemtechnik GmbH, Elbflora e.V., ETAS GmbH, FSD Fahrzeugsystemdaten GmbH, ROSI Technology GmbH, Softing Automotive Electronics GmbH, SPEKTRA Schwingungstechnik und Akustik GmbH Dresden, tracetrone GmbH, TU Dresden, Vector Informatik GmbH

Focusing on the future vehicle diagnostics

Dear conference attendees,

For 19 years, the Diagnostic Conference in Dresden has been a central platform for professional discourse on the further development of vehicle diagnostics. However, in view of the profound changes in the automotive industry, this exchange is taking on a new strategic dimension: the transformation toward software-defined, highly networked, and automated vehicle systems requires a fundamental rethinking of existing diagnostic concepts.

Technological developments such as V2V communication, cloud-based services, electromobility, connected vehicle fleets, and service-on-demand functions are changing not only vehicle architecture but also value creation structures throughout the entire vehicle life cycle. Modern vehicles are evolving into software-centric, continuously upgradeable system platforms. This shifts diagnostics from reactive fault detection to an integral part of a data-driven, proactive system and service concept.

Particularly in the context of software-defined vehicles (SDV), service-oriented vehicle diagnostics (SOVD), and new vehicle operating systems, fundamental questions arise regarding scalability, cybersecurity, over-the-air updates, data-based condition monitoring, and AI-supported fault prediction. Diagnostics thus becomes a strategic enabler for availability, functional safety, customer satisfaction, and new business models. Against this backdrop, the conference addresses the following key questions, among others:

- What role will SDV and SOVD concepts play in future service-oriented diagnostic architectures?
- How must the diagnosis of automated and autonomous driving functions evolve structurally?
- How are artificial intelligence, data-driven analysis methods, and new vehicle operating systems changing value creation in diagnostics, testing, and inspection processes?
- What technological and regulatory frameworks will define the next generation of vehicle diagnostics?

We look forward to discussing current challenges and potential solutions with you, and to actively supporting technological change together.

Sincerely,

Prof. Dr.-Ing. B. Bäker

Dipl.-Ing. A. Unger

Program

Tuesday, May 12, 2026

8:00 AM **Registration for the conference**

8:30 AM **Welcome and opening**
Prof. Dr.-Ing. Bernard Bäker, Andreas Unger

Key Note Speech

08:45 AM **Neue Klasse – Diagnose für eine neue Generation Software Defined Vehicle**
Andreas Buchner, Dr. Christoph Gebhart (BMW AG, München)

09:15 AM **Coffee break with a visit to the exhibition**

Diagnostics and Software-Defined Vehicle

10:15 AM **Fahrzeugarchitekturen in Software-Defined Vehicles: Herausforderungen und Lösungsansätze durch holistische Architekturmodelle**
Friedrich Wattenberg, Dr. Till Fuchs, Pia Greulich (Dr. Ing. h.c. F. Porsche AG, Weissach), Moritz Weigel, Andreas Unger, Prof. Dr.-Ing. Bernard Bäker (TU Dresden)

10:45 AM **Betrachtung der technischen und prozessualen Chancen und Limitierungen des Steuergeräte-Updates im Software Defined Vehicle**
Julian Mayer, Markus Steffelbauer (Softing Automotive Electronics GmbH, Haar b. München)

11:15 AM **Full Circle Diagnostics and Repair**
Sven Sauerzapf, Ivo Köhler, Dr. Claudio Seitz (ETAS GmbH, Stuttgart)

11:45 AM **Lunch break with a visit to the exhibition**

Predictive Maintenance and AI

1:15 PM **Predictive Maintenance/Diagnostics bei MAN Truck and Bus SE**
Markus Wollner (MAN Truck & Bus SE, München)

1:45 PM **Predictive Maintenance basierend auf NVH-AI-Algorithmen**
Martin Neugebauer (Bosch Engineering GmbH, Heilbronn)

2:15 PM **Proactive Diagnostics in Software-Defined Vehicles: AI-Based Early Detection and Root Cause Analysis Using the Upstream PQD Platform**
Arnon Shafir (Upstream Security Ltd., Frankfurt am Main)

2:45 PM **Coffee break with a visit to the exhibition**

Standardization – SOVD

3:30 PM **ASAM SOVD v1.2 – Die Evolution der SDV Diagnose**
Bernd Wenzel (ASAM e.V., Chemnitz), Tobias Weidmann (Vector Informatik GmbH, Stuttgart)

4:00 PM **On-Board-Diagnose mit SOVD in der Fahrzeugproduktion: Architektur und Praxiserfahrungen**
Dr. Boris Böhlen, Dr. Diana Fischer (DSA Daten- und Systemtechnik GmbH, Aachen)

4:30 PM **Conclusion of the first day**

7:00 PM **Start of the evening event**

Wednesday, May 13, 2026

Virtual validation for testing and diagnostics

8:30 AM **Vom Heilig's Blechle zum Container: Wie virtuelle Absicherung Fahrzeug und Cloud vereint**
Nic Eckstein, Andreas Osterrieder (Bertrandt GmbH, Ehningen)

9:00 AM **Diagnose blitzschnell in Serie**
Simon Müller, Daniel Hirsch, et.al. (Vector Informatik GmbH, Stuttgart)

9:30 AM **Coffee break with a visit to the exhibition**

Artificial Intelligence in Diagnostics

10:30 AM **Next-Gen Diagnoseintelligenz: Revisionsübergreifendes ODX-Reasoning mit lokaler KI in der Fahrzeugentwicklung**
Dr.-Ing. Kordian Komarek, Dr.-Ing. Michael Grimm (ROSI Technology GmbH, Leonberg)

11:00 AM **Vom Maschinen-Wissensmanagement zur Demokratisierung der Fahrzeugdiagnose**
Marcel Meyer, Marcus Windisch (Peerox GmbH, Dresden)

11:30 AM **Semantische APIs und Generative AI in Diagnose-Anwendungen**
Benjamin Lippelt, Simone Kriso (ETAS GmbH, Stuttgart)

12:00 Uhr **Lunch break with a visit to the exhibition**

New approaches for the PTI

1:15 PM **PTI-Net Innovation und Evolution für die HU von Morgen**
Sandro Teschner (FSD – Zentrale Stelle, Dresden)
Dr. Andreas Frotzschner (Fraunhofer Institut für Integrierte Schaltungen, Dresden)

1:45 PM **Untersuchung des Einflusses von Sensor-degradationen auf die Funktionsweise von Fahrerassistenzsystemen als Grundlage für neue Prüfverfahren für die Hauptuntersuchung**
Daniel Burckhardt, Daniel Block, Silvio Schwarzkopf, André Stoller (FSD GmbH, Dresden), Thomas Ost, Felix Linke, Christoph Bahnert, Simon Tilgner (DEKRA SE, Stuttgart)

2:15 PM **Coffee break with a visit to the exhibition**

Outlook – OpenSOVD and Battery Diagnostics

2:45 PM **Von der CES auf die Straße: Wie Eclipse OpenSOVD die Fahrzeugdiagnose verändert**
Alexander Mohr, Jörg Leuser (Mercedes-Benz Tech Innovation GmbH, Ulm)

3:15 PM **Advanced Battery Diagnostics for Automotive Workshops: A Machine Learning Approach to Cranking Performance Prediction**
Renhao Xie, Markus Hoh (Clarios Germany GmbH, Hannover)

3:45 PM **Summary and Conclusion**
Andreas Unger, Prof. Dr.-Ing. Bernard Bäker

4:00 PM **End of the event**