

Empowering Future
Mobility Solutions

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歡迎



Partner Dialogs

dSPACE positions itself as a reliable partner for simulation and validation

“Empowering Future Mobility Solutions” was the motto of the first dSPACE World Conference, where industry leaders from all over the world gave attendees a glimpse of their latest development activities. dSPACE showcased its unique chain of solutions for data- and scenario-driven development as well as a comprehensive solution portfolio for developing and testing e-mobility applications.



Martin Goetzler, CEO of dSPACE GmbH, opens the conference.



Autonomous Driving | Cloud Simulation

- Driving millions of test kilometers over night
- Scenario-based testing according to PEGASUS
- Scalability in private and public cloud systems
- Simulation as a Service (SaaS)

UΔ UNDERSTAND.AI | A dSPACE COMPANY

The right data at the right quality and quantity to train and test your AI.

Autonomous Driving | Scenario Generation

- Simulation scenarios from real world data
- Based on sensor raw data or object lists
- Accurate 3-D environments
- Scenario database with complementary edge cases



The first dSPACE World Conference took place in November 2019 in Munich, Germany. More than 500 automotive industry experts from 30 countries came together, taking a break from their day-to-day business, to be inspired by presentations from global players and innovation leaders. The participants also used the conference as a platform to discuss pioneering solutions in the areas of e-mobility and autonomous driving with other industry experts.

Partner for Simulation and Validation

“Amid the dynamic transformation of our industry, the dSPACE World Conference has provided concepts

and solutions for the challenges that our customers are currently facing,” said Martin Goetzler, CEO of dSPACE. Developing electric and autonomous vehicles brings about new requirements for simulation, validation, and homologation. “In this environment, dSPACE has clearly positioned itself as a reliable partner for simulation and validation,” added Goetzler.

Exhibition Highlights

In addition to the presentations, the conference focused on new technologies and solutions from dSPACE and its partners. dSPACE employees demonstrated around 30 exhibits, showing how vehicle manufacturers can test batteries or motors for

electric cars and how they can bring autonomous driving onto the road faster by using end-to-end solutions. An important part of the exhibition was the solution offering for a data-driven development process, which was fully represented from data recording and scenario generation to cloud testing and validation with the demo stations.

Thank You

dSPACE would like to extend a heartfelt ‘Thank you’ to all of our speakers, guests, and partners. We appreciate your commitment and enjoyed spending time with you during the two conference days. We are looking forward to seeing you again at the next dSPACE World Conference. ■

05 E-Mobility

Power Electronics Simulation

- Real-time simulation of power electronics circuits
- Ideal for chargers, converters and smart grids
- Learn to use FPGA without programming
- Highest switching frequencies up to 400 kHz

06 E-Mobility

Battery Management Testing

- Exact battery cell voltage emulation
- High scalability due to modular design
- Cost-effective customization
- Open ready-to-use multi-cell battery models

Smart Charging Solution

- Prototyping and testing charging communication
- Region-specific charging standards supported
- Fault simulation at protocol level
- Emulation of charging stations with real power

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Our Speakers

1. **Stefan Teuchert, Senior Vice President, MAN Truck & Bus SE**
Keynote: Truck 4.0 – The digital challenge of a truck OEM – autonomous driving
2. **Dr. Peter Oel, Head of E/E Integration, Simulation and Test, Volkswagen AG**
Keynote: 24/7: integration & test factory as a service
3. **Alex Heslop, Electrical Engineering Director, and Andy Griffiths, Chief Engineer – Software Integration & Validation, Jaguar Land Rover**
Keynote: New Defender, new electrical architecture: Enabling the software validation factory – the challenges found and fixed, the challenges that need fixing
4. **Alejandro Vukotich, Senior Vice President Fully Automated Driving and Driver Assistance, BMW AG**
Keynote: Automated Driving at BMW Group – our way towards future mobility
5. **Prof. Philipp Slusallek, Scientific Director, German Research Center for Artificial Intelligence**
Keynote: Understanding the World with AI: Training and Validating Autonomous Systems Using Synthetic Data
6. **Dr. Ondrej Burkacky, Partner, McKinsey & Company, Inc.**
Keynote: Automotive Software Market 2030: the rise of verification and validation
7. **Dr. Tim Fricke, Modeling & Simulation Specialist, BMW AG**
Enabling Efficient Testing of Higher-Level Automated Driving Systems
8. **Gene Afanasyev, Senior Validation Engineer, NIO**
System Validation through Continuous Integration
9. **Ola Jakobson, Test Environment Architect, Volvo Car Corporation**
VCC Complete HIL rigs meeting our next generation core based service oriented architecture
10. **Heiko Ehrich, Head of Department Automotive Electronics, TÜV NORD Mobilität GmbH & Co. KG**
Homologation for automated and connected driving – Current status on regulation and existing challenges
11. **Dr. Philipp Freidl, Lead Engineer Radar MMIC Lab Validation, and Dr. Patrick Hölzl, Engineer Radar MMIC Lab Validation, Infineon Technologies AG**
Radar Target Simulation in the context of Radar MMICLab Validation
12. **Jordan Roe, Hardware-in-the-Loop Verification and Validation, Nexteer Automotive**
End-to-End HiL Testing Using Electro-mechanical Test Benches
13. **Dr. Chen Ma, Product Owner, Volkswagen AG**
Virtualization of ECU compound test – an agile journey
14. **Jean-Marie Quelin, Powertrain management system validation specialist, Groupe Renault**
E-mobility impacts on HiL powertrain validations
15. **Fabian Mürdter, R&D Engineer, ZF Friedrichshafen AG**
AI-in-the-Loop – Next Gen AD validation at ZF
16. **Xi Liu, Senior R&D engineer, Expert in Test Automation, Beijing Electric Vehicle Co. LTD**
Relying on dSPACE: Development of Automated Testing Platform for EV Control Units in BJEV
17. **Yuji Yasui, Chief Engineer, Honda R&D**
Honda's automated driving technologies aiming at collision-free society with the joy and freedom of mobility for everyone.
18. **Ahmed Yousif, Software Design Engineer, Valeo**
Virtual Validation and Verification

A video about the conference and the presentation slides are available at



www.dspace.com/go/dWC19