



9th international VDI Congress

MarketPlace



First program update – stay tuned!

Conference Language: English October 13 and 14, 2020



Virtual exhibition	Live Experience	Self Experience
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- Live chats
- Product innovations
- Best networking opportunities

- 4 Live Keynote Speeches
- Moderated Live Speakers Corners
- F2F-Discussion forums
- Exhibitor Presentations

- With over 50 presentations from the automobile, commercial vehicles and mobile machines industry
- Electric and electronics
 - Software and Architecture
 - Automated Driving/Working & Electrification

Lecturer companies amongst others (will be updated regularly):

AVL List | BMW | Continental | DSA | Elektrobit | ESCRYPT | Fraunhofer IESE | Hella | Infineon Technologies | IPG Automotive | ITK Engineering | KPIT Technologies | Mahle International | NXP Semiconductors | P3 automotive | Plus.ai | Robert Bosch | Schaeffler Automotive Buehl | secunet Security Networks | Visteon Electronics Germany | Vitesco Technologies | ZF Group/WABCO GmbH

1st Congress Day Tuesday, October 13, 2020

Auditorium

- 09:00 **Welcoming address by the Congress Chairmen**
Dr.-Ing. Klaus Harms, Consultant, Bosch Management Support GmbH, Stuttgart
Dr.-Ing. Hans-Josef Welfers, freelance consultancy, Wegberg, former MAN Bus & Truck
Dipl.-Ing. Peter Hieronymus, Head of Engineering, CLAAS E-Systems GmbH, Dissen
- 09:05 **Overview and Trends – Automobile, Commercial Vehicles, Off-Highway Machines**
Congress Chairmen
- 09:45 **Visit to the Self-Experience Area, Networking Lounge and Exhibit Hall**
- 11:00 **Keynote I – Automobile**
Dr. Olaf Toedter, KIT – Karlsruhe Institute of Technology
- 11:30 **Keynote II – Commercial Vehicles**
tba
- 12:00 **Keynote III – Mobile Machines**
Prof. Dr.-Ing. habil. Thomas Herlitzius, Institute of Natural Materials Technology, TU Dresden
- 12:30 **Visit to the Self-Experience Area, Networking Lounge and Exhibit Hall**

Exhibition Hall

- 13:00 **Exhibitor Presentation I – ETAS**
- 14:00 **Visit to the Self-Experience Area, Networking Lounge and Exhibit Hall**

Breakout Room

- 15:00 **Moderated Speakers Corner**
– 15:30
- 16:00 **Moderated Speakers Corner**
– 16:30
- 17:00 **Moderated Speakers Corner**
– 17:30

2nd Congress Day Wednesday, October 14, 2020

Auditorium

- 08:30 **F2F – Discussion forums**
– 10:00
- 10:00 **Visit to the Self-Experience Area, Networking Lounge and Exhibit Hall**

Exhibition Hall

- 13:00 **Exhibitor Presentation II**
- 13:20 **Exhibitor Presentation III**

Breakout Room

- 15:45 **Moderated Speakers Corner**
– 16:15
- 16:15 **Moderated Speakers Corner**
– 16:45

Auditorium

- 17:00 **Closing Keynote IV**
tba
- 17:30 **Closing Remarks by the chairmen**



First primary program – further specialist presentations in a few weeks

Automobile

Architecture/Safety and Security

WP.29 Road to cybersecurity type approval: First lessons learned & what to do next

Dipl.-Inform. Sebastian Rist, Project Leader, Engineering, Consulting, Testing, Co-Author: Dr. Moritz Minzlaff, ESCRYPT GmbH, Bochum, Germany

Automated vulnerability analysis of control units from a security perspective – a reaction to the ever increasing number of required pentests in the automotive industry

Harry Knechtel, Head of Department Production, Division Industry, secunet Security Networks AG, Munich, Germany

ISO 26262 Driven fail operational safe architecture as secondary channel for automated driving features

Dr. Manaswini Rath, Vice President and Global Head, Autonomous Driving, KPIT Technologies GmbH, Munich, Germany

Architecture and Hardware

The revolution of the EE architecture – The agenda for automotive industry

How to master the transformation into a Zonal EE architecture

Dr. Marcus Wärmer, Head of Cockpit Domain Controller, Visteon Electronics Germany GmbH, Karlsruhe, Germany

Innovating E/E and functional architectures – Offering a future proven in-vehicle infrastructure

Dipl.-Ing. (FH) Philipp Neubauer, Solution Manager Body HPC Platform, VNI Central Engineering, Conti Temic microelectronic GmbH, Markdorf, Germany

Next generation SOC's for domain and zonal architectures. Implications for required semiconductors

Stefan Singer, Fellow & Director, EMEA CAS Automotive, NXP Semiconductors Germany GmbH, Munich, Germany

Architecture/Connectivity and Interfaces

Deliver richer in-car user experiences with new cockpit architectures and services

Frank Uhlig, Head of Custom UX, Elektrobit Automotive GmbH, Ulm

Automated Driving/Sensors and Connectivity

Data Quality Matters: A data management and data quality evaluation method

Thomas Sievers, Purchasing Quality and Technology Software, Robert Bosch GmbH, Hildesheim, Germany, co-author: Christian Hertneck, Kugler Maag Cie GmbH, Kornwestheim, Germany

C2X Mesh Networks

João Barros, Founder and CEO, Veniam Inc., Mountain View, CA, USA

Automated Driving/Safe-Secure-Reliable

Safety first for Autonomous Driving

Simon Fürst, Principal Expert Autonomous Driving Technologies, BMW Group, Unterschleißheim, Germany

Validation of the SOTIF – The necessity of holistic V&V strategies

Jann-Eve Stavesand, B. Sc., Head of Consulting, Corporate Development & Strategy, dSPACE GmbH, Paderborn, Germany

Coverage-based test case generation and virtual validation framework for ADAS/AD systems

Dipl.-Ing. Hermann Felbinger, Senior Test Engineer Cyber Physical Systems, Reliability & Cyber-Physic. Syst. Testing, AVL List GmbH, Graz, Austria

Methods for the generation and execution of scenarios for virtual test driving with Automated Driving functions

Martin Herrmann, M. Sc., Business Development Manager ADAS and Automated Driving, Business Development, co-author: Dipl.-Ing. Alexander Frings, both IPG Automotive GmbH, Karlsruhe, Germany

Electrification/E-Mobility Market Strategy

Benchmark of modern electrification concepts – Which electric vehicles fascinate customers with their technologies?

Simon Schäfer, Senior Management Consultant, P3 automotive GmbH, Stuttgart, Germany

High voltage architecture for future electrified vehicles

Dr. Philip Brockerhoff, Expert for Power Semiconductors, Technology and Innovation, HV systems and Modules, co-author: Sebastian Dietz, both of Vitesco Technologies GmbH, Regensburg, Germany

Virtual validation of energy management strategies for E-Mobility

Oliver Bleisinger, M. Sc., Business Area Manager Automotive, Business Area Automotive, Fraunhofer Institute for Experimental Software Engineering, Kaiserslautern, Germany

Electrification/Power Electronics and Drives

Flatness based field oriented control – Approaching model uncertainties in automotive high-current inverters

Robert Filusch, M. Sc., Software Engineer, Corporate Advanced Engineering Mechatronics, co-authors: Dipl.-Ing. (FH) Holger Oechslen, Dipl.-Ing. Markus Cramme, all of Mahle International GmbH, Stuttgart, Germany

Approaches for increasing the utilization of permanently excited synchronous motors in automotive applications

Ivan Kromov, M. Sc., Lead Engineer, Model-Based Design, Co-author: Jannik Zimmer, M. Sc. (TU), ITK Engineering GmbH, Ruelzheim, Germany

Highly integrated rotor position sensors for electrified powertrains and electrically supported automotive systems

Dr.-Ing. Harry Weber, Development Engineer, Hardware and System Engineering Position Sensors, co-authors: Dr.-Ing. Fabian Utermöhlen, Sadri Brojaj, all of Hella GmbH & Co. KGaA, Lippstadt, Germany

Commercial Vehicles

Digitalisation

Blockchain-based data monetization: How the European commercial vehicle market could benefit from distributed data sharing

Stefan Schneider, M. Sc., Product Manager Data Monetization, VNI CVS Intelligent Transportation Systems, co-authors: Dr. Karoline Bader, Dipl.-Ing. (FH) Volkmar Knaup, all of Continental Aftermarket & Services GmbH, Schwalbach am Taunus, Germany

Connectivity & Digitalization – Leveraging upcoming diagnostics standards in the commercial vehicle industry

Dr. Tobias Katz, Head of Sales & Project Management, Executive Board, and Mario Ortegon, Head of Strategy & Innovation, Software Development, DSA Daten- und Systemtechnik GmbH, Aachen, Germany

Architectures

Architecture transformation – what is coming next?

Olaf Locks, Head of E/E-Architecture, Holistic Engineering and Technologies, co-authors: Ludwig Ramsauer, both of Continental Automotive GmbH, Regensburg, Jörg Lützner, Continental Automotive GmbH, Schwalbach am Taunus, Germany



Electric Propulsion

Schaefflers solutions for electric powertrains in commercial vehicles

Dipl.-Ing. Florian Zieffle, Head of Product Group Heavy Duty R&D, Business Division e-Mobility, Schaeffler Automotive Buehl GmbH & Co. KG, Buehl, Germany

Advanced design of electrical machines for trailers with electric axles

Dr.-Ing. Felix Müller-Deile, System Development Engineer, Product Innovation, co-authors: Dr.-Ing. Johannes Heseding, Dipl.-Ing. Gerd Schünemann, all of ZF Group, WABCO GmbH, Commercial Vehicles Control Systems, Hanover, Germany

Power semiconductor technologies for truck electrification Si IGBTs and SiC MOSFETs

Dipl.-Ing. Martin Gleich, Head of Business Development Automotive SiC solutions, Infineon Technologies AG, Neubiberg, Germany

Automated Driving

The roadmap for trucking's autonomous future

Dr. Shawn Kerrigan, COO, Plus.ai, Cupertino, CA, USA

Autonomous trucks: The pursuit for safer, more efficient logistics

Chuck Price, CTO, TuSimple, San Diego, USA

Mobile Machines

The path to autonomous work/AI, sensors, V2X, battery management

Machine Learning for Industrial Signal Processing

Dr. Wolfgang Fuhl, Postdoc, Human Computer Interaction, University of Tübingen, co-authors: Dr. Thomas Motz, Dr. Andreas Hartel, both of Liebherr-Elektronik GmbH, Lindau, Germany

Challenges and solution approaches regarding the protection of systems with machine learning components

Dr.-Ing. Daniel Schneider, Department Head, Embedded Systems Quality Assurance, Fraunhofer IESE, Kaiserslautern, Germany

Core functions of Battery-Management-Systems in lithium-ion batteries for working machines

Dr.-Ing. Georg Walder, Founder & Executive Director, R & D, INVENOX GmbH, Garching, Germany

Equipment Setup and Work Planning – a precondition for highly automated operations

Dr.-Ing. Georg Kormann, Manager Engineering, Intelligent Solutions Group, co-authors: Ralf Carbon, Thiago Burgos de Oliveira, all of John Deere GmbH & Co. KG, Kaiserslautern, Germany

Standardization of systems/interfaces

Agricultural Industry develops a standard for data exchange in the ATLAS Large-Scale Pilot

Dr. Hara Spathi, Project Manager, co-author: Norbert Schlingmann, both of Agricultural Industry Electronics Foundation e. V. (AEF), Frankfurt am Main, Germany

Listen to 50+ expert presentations – whenever and wherever you like! The presentations will also still be available in follow-up to the event.

Program Committee



Automobil



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With the kind support of the **ELIV Program Committee** (on behalf of the program committee)



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Commercial Vehicles



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Dr.-Ing. Hans-Josef Welfers, former MAN Bus & Truck, Wegberg, Germany (**chair**)



Mobile Machines



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Dr.-Ing. Alexander Flaig, Bosch Rexroth AG, Elchingen, Germany
Dipl.-Ing. Peter Hieronymus, CLAAS E-Systems GmbH, Dissen, Germany (**chair**)
Dipl.-Ing. Roman Hofmann, Liebherr-Elektronik GmbH, Lindau, Germany
Dipl.-Ing. Ralf Leinenbach, HYDAC ELECTRONIC GmbH, Saarbrücken, Germany

VDI Society Automotive and Traffic Systems Technology

The VDI Society for Vehicle and Transport Technologies, VDI-FVT in short, has around 28,000 members that are affiliated to at least one of its 8 technical sections. This makes it the second biggest of the VDI's dedicated societies. VDI-FVT is the community for engineers working in the vehicle industry, as well as for engineers dealing with transport and traffic outside manufacturing industries.

Traditionally, a majority of members work in automotive. VDI-FVT is the German affiliate of the world federation of automotive engineers' societies, FISITA, and it is the intellectual sponsor of many big conferences on automotive technology and thus fosters exchange and knowledge transfer both nationally and internationally. It also sponsors Formula Student Germany, awarding VDI membership to all German participants, and promotes other student competitions for transport engineers. VDI-FVT has recently reconstituted technical sections for rail and marine technologies, as well as space and aircraft. It is putting a strong focus on transport and traffic in general and aims to mediate between technology and society.

Exhibition & Sponsorship

The trade show accompanying our ELIV Marketplace congress has become one of its highlights. National and international exhibitors display their innovative EE solutions.

For more information on individual **sponsoring offers and exhibition opportunities** please contact:

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 Group Leader Exhibition & Sponsorship
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 Email: slominski@vdi.de

Your opportunities as exhibitor:

- Strengthen your company image and increase your recognition even in times of Covid-19
- Save your travel costs and visit easily from your (mobile) office
- Live consultation of participants at any time possible
- Maximum awareness before, during and after the event (two more months)
- Ideal opportunity to present product innovations in the virtual space with an even higher reach
- Lead generation and specific data analytics

The current list of exhibitors and sponsors can be found at:
www.vdi-wissensforum.de/eliv-marketplace/#p2113