The World’s Largest Congress for Automotive Electronics, Software and Applications!

21st International Congress and Exhibition
October 18-19, 2023, Bonn, Germany

Top Speakers:
Kai Lars Barbehön, BMW
Dr. Frank Kindermann, NIO
Magnus Östberg, Mercedes-Benz
Mathias Pillin, Bosch
Igal Raichelgauz, Autobrains
Vishnu Gurusamy Sundaram, Stellantis
Dr.-Ing. Yankin Tanurhan, Synopsys
Dominik Wee, Microsoft
Dr. Rolf Zöller, Porsche & Porsche Digital

Main Topics:
- Open Source Software
- Software Technologies
- E/E-Architecture
- Automotive AI
- Automated Driving
- Security
- Electronics Technology
- E-Vehicle Mobility
- System Engineering and Processes

Congress Highlights:
- Automotive Trend Session: Open Source
- Panel Discussion: Transformation of Working Environment
- Parallel Conference
- E/E Commercial Vehicles
- Start-up Area and Special Start-up Program
- Extensive Exhibition
- Interactive Communication Points
- Meet with the Speakers
- Night of Electronics

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The world’s largest congress for Automotive Electronics, Software and Applications!

ELIV – Program Overview

1st Congress Day
Wednesday, October 18, 2023

07:45 Registration

08:45 Opening of the Congress, Current Market Situation & Hour of Topical Interest
Dr. Rolf Zöller, Director E/E Smart Connected Vehicle Porsche AG and Managing Director Porsche Digital, Chairman of the Program Committee and Dr. Karl-Thomas Neumann, former CEO of Continental AG, Volkswagen China and Adam Opel GmbH, Founder & Owner

09:00 Transforming the Future of Mobility with the Power of AI and the Cloud
Dominik Wee, Corporate Vice President – Manufacturing & Mobility, Sales, Business Strategy & Development, Microsoft Corporation, Munich

09:40 NIO – Smart Electric Vehicles and Battery Swapping
Dr. Frank Kindermann, Head of Battery System Europe, NIO GmbH, Munich

10:10 Re-Thinking E/E Architecture Design – A More Comprehensive Approach to Solve Future Challenges
Dipl.-Ing. Kai Lars Barbehön, Vice President Central Control Units, Wire Harness, Power Supply, BMW Group, Munich

10:40 Coffee break, Exhibition and Start-up Area visit

11:25 Parallel Sessions

Session 1: New York (Ground Floor)
Software – Open Source
Moderation: Dipl.-Ing. Uwe Michael, mps, Rödermark

Automated Driving – Systems
Moderation: Dr. Torsten Wey, Ford, Cologne

Electronics Technology
Moderation: Ralf Lenninger, Former Continental, Regensburg

Session 2: Nairobi (Ground Floor)
Automated Driving – Sensors
Moderation: Jürgen Bortolazzi, Porsche AG, Weissach

E-Vehicle architecture – Strategy
Moderation: Dr. Jutta Schneider, Mercedes-Benz, Sindelfingen

Session 3: Wien (Ground Floor)
E-Vehicle Mobility – System
Moderation: Dipl.-Ing. Dieter Rödder, Robert Bosch, Stuttgart

Session 4: Bangkok (Basement)
E-Vehicle Mobility – System
Moderation: Dr.-Ing. Dieter Rödder, Robert Bosch, Stuttgart

Future of Transportation
Moderation: Jörg Lützner, Continental Automotive GmbH, Schwalbach

Architecture & Software
Moderation: Dipl.-Ing. Christof Kellerwessel, former Ford, Cologne

Session CV: Addis Abeba
( Basement)

12:55 Lunch break, Exhibition and Start-up Area visit

14:25 Parallel Sessions

Software – Automotive Trend
Session – Open Source
Moderation: Dipl.-Inf. Elmar Frickenstein, Elstein Consulting & former BMW AG, Munich

Automated Driving – Sensors
Moderation: Joachim Langenwalter, Autobrains AI Technologies, Berlin

E-Vehicle architecture – Aspects
Moderation: Dipl.-Ing. Stefan Teuchert, MAN Truck & Bus, Munich

16:25 Coffee break, Exhibition and Start-up Area visit

17:10 Parallel Sessions

Software
Moderation: Kai-Uwe Balszuweit, BMW Group, Munich

Automotive AI – Innovations
Moderation: Joachim Langenwalter, Autobrains AI Technologies, Berlin

E-Vehicle architecture – Aspects
Moderation: Dipl.-Ing. Stefan Teuchert, MAN Truck & Bus, Munich

18:40 End of the first Congress Day

19:00 Night of Electronics at the MS RheinEnergie
All participants are cordially invited. Discuss the results of the day with fellow experts and use your chance to network.

Register at: www.eliv-congress.com
08:30 Parallel Sessions

Session 1: New York (Ground Floor)
Software
Moderation: Dr. Riclef Schmidt-Clausen, CARIAD SE, Ingolstadt

Session 2: Nairobi (Ground Floor)
Automotive AI – Applications
Moderation: Kay Talmi, HELLA GmbH & Co. KGaA, Berlin

Session 3: Wien (Ground Floor)
System Engineering and Processes
Moderation: Dipl.-Ing. Martin Schleicher, Continental, Erlangen

Session 4: Bangkok (Basement)
Security - Vulnerabilities
Moderation: Dipl.-Ing. Martin Schleicher, Continental, Erlangen

Conference CV: Addis Abeba (Basement)
Propulsion
Moderation: Dipl.-Ing. (FH) Stefan Riegl, MAN Truck & Bus SE, Munich

10:00 MB.OS – Our Chip-to-Cloud Architecture for a Luxury Experience
Magnus Östberg, Chief Software Officer – Executive Vice President, Research & Development, Mercedes-Benz AG, Sindelfingen

10:30 Always Fresh Cockpit Experience Built on Cloud Native Technology
Vishnu Gurusamy Sundaram, M. Sc., Senior Vice President, Cockpit, Mobile and Apps, Stellantis, Auburn Hills, MI, USA

11:00 Coffee break, Exhibition and Start-up Area visit

11:45 Parallel Sessions

Panel Discussion:
Transformation of working environment
Moderation: Dipl.-Ing. Stefan Singer

Software – Cloud & Data
Moderation: Dipl.-Ing. Stefan Singer

System Engineering and Processes
Moderation: Dr.-Ing. Dieter Rödder, Robert Bosch, Stuttgart

Security – Challenges
Moderation: Dipl.-Ing. Henning Harbs, Volkswagen AG, Wolfsburg

Components, Subsystems & Integration
Moderation: Dr. Falk Hecker, Knorr-Bremse Systeme fuer Nutzfahrzeuge GmbH, Schwieberdingen

13:15 Lunch break, Exhibition and Start-up Area visit

Plenary Speeches and Award Ceremony – New York (Ground Floor)
Moderation: Dr. Rolf Zöller, Porsche AG und Porsche Digital, Weissach

14:30 Liquid AI – Closing the Gaps toward Autonomous Driving
Igal Raichelgauz, B. Sc., Founder & CEO, Autobrains Technologies Ltd., Tel Aviv-Yafo, Israel

15:00 Semiconductors Are Driving Sensing and Thinking
Dr.-Ing. Yankin Tanurhan, Senior Vice President of Engineering, Solutions Group, Synopsys, Inc., Sunnyvale, CA, USA

15:30 Conclusion and Discussion
By Members of the Program Committee

16:00 Award Ceremony “Auto Electronic Excellence Award 2023”, best Start-up and Closing of the Congress

16:15 End of the Congress
1st Congress Day

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Plenary Speeches – New York (Ground Floor)

Moderation: Dr. Rolf Zöller, Porsche AG und Porsche Digital, Weissach

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09:10 Transforming the Future of Mobility with the Power of AI and the Cloud

- Unlocking new business models, increasing efficiencies, creating new monetization opportunities using the power of AI and cloud computing
- Accelerating innovation in the software-defined and autonomous vehicle space
- Opening up new opportunities with the industrial metaverse

Dominik Wee, Corporate Vice President – Manufacturing & Mobility, Sales, Business Strategy & Development, Microsoft Corporation, Munich

09:40 NIO – Smart Electric Vehicles and Battery Swapping – Smart EVs: next generation of BEV

- Battery Swapping: fully recharged within less than 5 minutes
- User Centric: aiming for the highest User satisfaction
- Driven by Design: a premium car

Dr. Frank Kindermann, Head of Battery System Europe, NIO GmbH, Munich

10:10 Re-Thinking E/E Architecture Design – A More Comprehensive Approach to Solve Future Challenges

- Automotive E/E architectures are significantly shaped by the top trends of digitalization
- Today’s prevailing domain oriented E/E architectures result in hardly manageable functional interdependencies
- Zonal physical electrical power system architectures in combination with high-performance integration platforms will lead into the future
- Why and how BMW derives the central E/E infrastructure for the BMW NEW CLASS from a new, holistic E/E architecture approach

Dipl.-Ing. Kai Lars Barbehon, Vice President Central Control Units, Wire Harness, Power Supply, BMW Group, Munich

10:40 Coffee break, Exhibition and Start-up Area visit

Simply download the Event-App and register!

The App will be available for download at the Apple App Store and the Google Play Store for all participants as of October.

App areas:
- Digital congress program: create your own agenda at once
- General event information
- Evaluation and question function
- Exhibition information
- Service information

Networking:
- Digital Business Card: create your Digital Business Card. Share your data quickly and easily with other participants and save new contacts directly
- Use the "Offer" and "Search" function to find and contact other participants
- Meeting Arrangement: request appointments with other participants

Register at: www.eliv-congress.com
Criticality Driven Data Acquisition in Autonomous Driving – A Basis for Completeness and Safety Argumentation
- Method developed in VVMethods
- Basis for ISO21448 SOTIF validation
- Efficient data acquisition in automated driving
- Smart Data analytics in automated driving
Dipl.-Ing. (FH) Max Nestoriuc, Teamleader ADAS Systemdesign & Validation, Co-authors: Himanshu Walia, M. Sc., both of AVL Deutschland GmbH, Stuttgart, Dipl.-Ing. Thomas Gunt schning, AVL List GmbH, Graz, Austria

Estimation of Body Height, Weight, and Gender of Vehicle Occupants Using Machine Learning
- Deep Learning
- Vehicle Occupant Monitoring
- Feature Estimation
Patrick Laufer, M. Sc., Development Engineer, Vehicle Safety, IAV Fahrzeugsicherheit GmbH & Co. KG, Munich

A Holistic Approach for Designing a Battery Electric Vehicle Thermal Management System
- Virtual testing of entire vehicle in a single simulation environment
- Explore design space to refine system requirements
- Develop an electrothermal model of battery pack capturing individual cell behavior
- Assess impact of powertrain and cooling system designs on overall performance
1st Congress Day

12:25
12:15 Accelerating Software Defined Vehicles through Open Source Software

- Advantages of open source software for software-defined vehicles
- Overview of Automotive Grade Linux, an open source platform supported by 150+ members
- Production use cases for open source infoartainment

Dan Cauchy, Executive Director of Automotive Grade Linux, The Linux Foundation, San Francisco, CA, USA

12:35
Overview funding projects in the context of Automotive Open Source

Prof. Dr.-Ing. Habil. Alois Knoll, Chair of Robotic, Artificial Intelligence and Embedded Systems, Technical University of Munich

12:55 Lunch break, Exhibition and Start-up Area visit

Register at: www.eliv-congress.com
14:45 Eclipse SDV: Chances and Challenges of Collaboration in the Open
- Collaboration on implementation
- The advantages of Open Source in the automotive industry
- Jointly building a platform with scale
- How Open Source can help to attract developers
Michael Plagge, Vice President Ecosystem Development, Eclipse Foundation AISBL, Brussels, Belgium

15:05 Automotive Radar Technology Innovations Power Next-gen ADAS and Autonomous Driving
- 28nm RFCMOS single-chip Radar integration
- High-resolution 4D Imaging Radar technology
- Next-generation vehicle architectures – enabling new Radar capabilities
Matthias Feulner, Senior Director Marketing, ADAS, NXP Semiconductors Germany GmbH, Munich

15:05 Analysis of WBG Based Hybrid Semiconductors Approach for Bidirectional PFC in On-Board Charger Applications
- On board charger
- Wide band gap devices
- PFC
Dr. Ing. Domenico Nardo, Power Specialist for automotive applications, Technical Marketing, Co-authors: Francesco Gennaro, Giuseppe Aiello, all of STMicroelectronics GmbH, Aschheim

15:05 Strategically Migrating, Mapping and Scaling Software to New SoC, Domain & Zone Architectures and HPC
- Timing, Performance and Event Chains
- Mapping & software to new hardware
- Exploring architecture variants
Dr. Ralf Münzenberger, CEO, Co-author: Olaf Schmidt, both of INCHRON AG, Erlangen

15:25 Towards the Next Step in Vehicle E/E Architectures
- Path towards future software-defined vehicle E/E architectures
- Technology enablers such as cross-domain integration platforms
- Focus on cost-efficient and salable solutions shaping future E/E designs
Dr. Thorsten Huck, Vice President Competence Center E/E Architectures, Co-author: Dr. Andreas Achtzehn, both of Robert Bosch GmbH, Abstatt

15:25 How Data-Driven Approaches Enhance Agile and Quality-Assured Software Development for Automated Driving
- Data collection and management
- Data virtualization for digital twin creation
- Different Use-Cases for Data-Driven Software Development
- Processes/Methods/Tools Enabling Agile and Quality-Assured Software Development
Dipl.-Ing. Klaus Fuchs, Senior Product Manager, ADAS/AD, AVL Software and Functions GmbH, Regensburg and Dipl.-Ing. Gernot Hasenbichler, Senior Product Manager, ADAS/AD, AVL List GmbH, Graz, Austria

15:25 An OEM Perspective of Open Source – Slot Reserved for BMW
Combining SD Maps and ADAS Perception for Advanced Augmented Reality Guidance
- Overall In-car Augmented Reality Architecture
- Using Navigation and ADAS Perception input for Augmented Reality
- Situation Analysis
- 3D Scene Creation
Dr. Martin Pfeifle, CTO, NNG Kft., Budapest, Hungary, Co-authors: Prof. Dr.-Ing. Niclas Zeller, Hochschule Karlsruhe, Dr. Andreas vom Felde, StradVision, Munich

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15:25 Power Electronic System Technology for Future High-Power Charging Systems on Highways or Large Inner-City Electric Charging Stations with Several MVA System Size
- System Topology
- Power Electronics
- Design
- Measurement Results
Dipl.-Ing. Andreas Hensel, Head of Group, Power Electronics and Grids, Co-author: Dipl.-Ing. David Derix, both of Fraunhofer ISE, Freiburg
1st Congress Day

**15:55**
Panel Discussion on “Open source”

**Moderation:** Elmar Frickenstein, Elstein Consulting & former BMW AG

**Panelist:**
- Francis Chow, Red Hat
- Michael Plagge, Eclipse Foundation
- Boris Engel, Microsoft
- Robert Day, ARM
- Dr. Mathias Pillin, Bosch Mobility

**Development and Testing Autonomous Vehicles (AV) at Scale**
- Data at scale for hybrid cloud infrastructures for smart AD data logging and processing
- Linear scalability of performance with optimized costs
- Lower cost of infrastructure from edge to cloud, by avoiding the need to store data across multiple locations
- Based on open source and secure standards to maintain a single source of truth
- Data management and data orchestration, scalable based on the containerized applications
  
  **Dipl.-Ing. Frank Kraemer, System Architect, Technical Presales, IBM, Frankfurt am Main**

**Mastering Complexity in Modern Vehicle Software Updates**
- Software dependency model as an interface between engineering and after sales
- Unifying over-the-air-updates and workshop operations
- Tracing software updates for UN-ECE SUMS
- Detecting and handling invalid vehicle states
  
  **Dr. rer. nat. Oliver Meyer, Head of Department, System Development Lifecycle Management & After Sales, Co-author: Dr. rer. nat. Boris Böhlen, both of DSA Daten- und Systemtechnik GmbH, Aachen**

**Multi-Level GaN Inverter – Development of HV Solutions for Highest EV Performance and Efficiency**
- Benefits include higher voltages, reduced harmonic losses, and improved NVH characteristics and EMC behavior
- GaN components show additional superior influence on systems over traditional silicon applications
- New ways to improve e-motor efficiency and reduce losses in the WLTP drive cycle by 25%
  
  **Lukas Roslaniec, PhD, Department Leader & Engineer, Power Electronics, Co-author: Thomas Hackl, both of hofer powertrain, Nürtingen**

**16:25**
Coffee break, Exhibition and Start-up Area visit

**Software**

**Moderation:** Kai-Uwe Balszuweit, BMW Group, Munich

**What It Really Takes to Empower Software Defined Vehicles**
- The industry’s journey to bring truly software defined vehicles at scale to the roads
- Key levers: decoupling hardware and software at decisive points in the vehicle architecture, data-driven development and operations, scalable service architectures
- Tangible contributions a software-defined Tier1 can bring to the industry
  
  **Dr. Mathias Pillin, Member of the Business Sector Board Bosch Mobility Solutions, Head of Mobility Technology, Gerlingen**

**Automotive AI – Innovations**

**Moderation:** Joachim Langenwalter, Autobrains AI Technologies, Berlin

**How to Become a Leader By Development of AI: ChatGPT Research Papers Analyzed**
- AI can facilitate fascinating things.
- The development methodology from ChatGPT reveals important learnings about successful AI development.
- These learnings can be well transferred to automotive use cases.
- If the learnings are followed, automotive can be successful with AI.
  
  **Dr. Ulrich Bodenhausen, Manager Consulting, Product Group Consulting, Vector Consulting Services GmbH, Stuttgart**

**Continuous System Architecture Development for Automated Driving Features**
- Agile development processes and methods applied to Model-based Systems Engineering
- Continuous, parallelized system architecture development with SysML and CI/CD
- Toolchain to automate model quality assurance, configuration and integration

  **Anuj Malvankar, M. Sc., Team Leader, Systems Engineering Processes, Co-authors: Stephan Riediger, Vijay Konkeni, all of FEV.io GmbH, Aachen**

**Vehicle Architecture – Aspects**

**Moderation:** Dipl.-Ing. Stefan Teichert, MAN Truck & Bus, Munich

**Achieving Ubiquitous Connectivity for Future Vehicles**
- In-vehicle 5G mmWAVE helps to solve the capacity issue for V2N & V2X
- Non-terrestrial-networks (NTN) complement the cellular terrestrial-networks (TN) to close the existing coverage gap, starting with 5G Rel. 17, further enhancements in 5G advanced and towards 6G
- The digital in-vehicle connectivity architecture supports the integration of 5G mmWAVE and e.g. Satellite Broadband Communication

  **Dipl.-Ing. Thomas Hinzmann, Head of Systems Engineering, MAN Truck & Bus SE, Munich**

**Connectivity**

**Moderation:** Dr.-Ing. Michael Winkel, HELLA Fahrzeugkomponenten, Bremen

**Unlocking the Power of Automated Driving Technology Today**
- How autonomy will transform the trucking industry
- Market opportunity for highly automated driving (HAD) products
- Plus’s unique approach to empowering driver-in and fully autonomous solutions via Open Autonomy Platform
- Plus’s case study of building and commercializing high-performance modular autonomous driving software solutions that are affordable and scalable across vehicle types and applications

**Autonomous Driving**

**Moderation:** Dr.-Ing. Michael Winkel, HELLA Fahrzeugkomponenten, Bremen

**Register at:** [www.eliv-congress.com](http://www.eliv-congress.com)
17:40 The Digital, Connected, Software-Driven Future of Automotive
- Digital transformation of automotive driven by electrification, autonomy
- Changing vehicle architectures as cars become increasingly software-defined
- Smart, connected cars of the future require new digital technology like cloud connected services, advanced driver assistance systems, and customized in-vehicle infotainment
- AI and wireless technologies will support evolving transportation trends

Enrico Salvatori, SVP & President Europe/MEA, Qualcomm, Munich

Seeing with Sound: AI-Based Detection of Participants in the Automotive Environment from Passive Audio
- Using passive sound field to extend ADAS capability
- Overcoming challenges with AI
- Practical system architecture on limited automotive MCUs
- Performance in live testing

Jeffrey Sieracki, PhD, Director of AI Engineering, AloT Center of Excellence, Co-authors: Rui Yang, Matthew Caggiano, all of Renesas Electronics, Columbia, MD, USA

18:10 Maintaining Open-Source Based Software or What Is the True Cost of Free?
- Regulations like UNECE R 156 and ISO/SAE 21434 mandating long periods of fixes and updates
- Need for car manufacturers to take a proactive approach to software maintenance and support
- Problems and possible solutions associated with open-source components and platforms in the automotive industry

Dr. Joachim Schlosser, Senior Manager, Strategic Consulting, Co-author: Jens Petersohn, both of Elektrobit Automotive GmbH, Munich

How Can AI Reduce Automotive Software Development Costs by 30%?
- Enabling root cause analysis for integration validation
- Identification of high probability testing focus
- Enabling continuous and seamless OTA updates at 10% of the cost
- Evidence of effects to regulated systems from software updates in accordance with UNECE WP.29 (R156)
- Pre-error detection of software function deviations, on the road

Zohar Fox, CEO and Co-founder, Management, Aurora Labs, Tel Aviv, Israel

18:40 End of the 1st Congress Day

19:00 Night of Electronics at the MS RheinEnergie
The VDI invites all participants, sponsors and exhibitors to join the “Night of Electronics” aboard Europe’s largest event liner, the MS Rheinenergie. This evening reception is the perfect opportunity to network and continue the discussions of the first congress day in a relaxed atmosphere. Meet your peers and business partners and enjoy a varied entertainment program.

18:10 Development of a Centralized EE Architecture
- Challenges and Tasks of the Centralized and Service Oriented End-to-End EE Architecture
- STLA Brain: a new Stellantis Tech new platform
- Collaboration model strategies with new Stellantis partnerships

Leandro Lara, Vice President, HW Engineering & EE Architecture, Stellantis, Paris, France

17:40 Automated Perception Services to Improve the Safety of Road Users
- Radar detection range extension via V2X
- Cooperative blind spot detection
- Non-line-of-sight perception

Dr. rer. nat. Patrick Friedel, Advanced Engineering Program Manager, Advanced Engineering Electronics, Co-authors: Shan Danfeng, Kamill Eliasch, all of HELLA GmbH & Co. KGaA, Lippstadt/Nanjing, China

18:10 Key Factors of a robust and safe Automated Driving Function – Transferable Insights of City-Bus Platooning in Munich
- System performance – Required upgrade of the electronic architecture
- Redundancy for operational reliability and safety
- Methods for a well-structured development and test phase
- Application example: Analysing the platooning of EBUSCO 3.0 12m city-buses

Nicole Kechler, M. Sc., Member of Scientific Staff, R&D, Karlsruhe Institute of Technology (KIT), Co-authors: Niranjan Venkatesh, M. Sc., Ebusco, Deurme, The Netherlands, Prof. Dr.-Ing. Eric Sax, Institut fuer Technik der Informationsverarbeitung (ITIV) – Karlsruhe Institute of Technology (KIT)

19:00 Automated Trucking: Vision, Current State, and Challenges
- Safe Autonomous driving
- Daimler Truck dual partnership strategy
- Development Strategy Torc Robotics for Autonomous Trucks

PhD Axel Gern, Managing Director, Development, Torc Europe GmbH, Stuttgart

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2nd Congress Day

Thursday, October 19, 2023

New York (Ground Floor)

Software
Moderation: Dr. Rüdiger Schmidt-Clausen, CARIAD SE, Ingolstadt

08:30 Transcending Physical Time – Accurate Simulation of Novel HW/SW-Decoupled Systems
- Despite all attempts to create hardware abstraction layers, automotive software is often tightly coupled to HW timing behavior
- Next generation middleware can help decouple timing dependencies from functional code
- We get more robust code with higher portability across HW generations and vendors
- We can build highly accurate test feedback loops without perfect HW simulators

Christian Ueberer, CTO, Engineering, ETAS GmbH, Stuttgart, Co-authors: Dr. Karsten Muehlmann, Dr.-Ing. Philipp Mundhenk, both of Robert Bosch GmbH, Stuttgart

Automotive AI – Applications
Moderation: Kay Talmi, HELLA GmbH & Co. KGaA, Berlin

08:30 AI-Based Energy Management of Next Generation Architectures
- New power distribution concept in the upcoming Server-Zone E/E architecture
- Investigation in different Electrical and Electronic (E/E) structures, and evaluate their advantages, features, and potentials
- Division of responsibilities between the server and different zones improved using machine learning or artificial intelligence

Dipl.-Ing. Martin Schlecker, Head of Department, Vehicle Control Unit, Co-authors: Thomas Zipper, Dr. Lin Li, all of AVL Software and Functions GmbH, Regensburg

System Engineering and Processes

Virtual Homologation (UNEC R 155/156/157) – New Opportunities for the Automotive Industry to Enable More Efficient Development Processes and Improving Safety and Quality of Vehicles for High Scaling Software Updates Based on Current and Future Automation
- Number of homologation relevant software updates will explode in near future
- New approaches for homologation/type approval are required in order to fulfill customer expectations and in compliance with legal authorities and OEMs product roadmaps
- Partnerships between legal authorities, certifiers, OEMs and technology companies

Dipl.-Ing. Robert Lokner, MBA, Director Automotive, Automotive Industry, Microsoft Corporation, Munich and Dipl.-Ing. Alexander Kraus, CTO, Mobility Division, TÜV SUD Auto Service GmbH, Munich

Bangkok (Basement)

Security – Vulnerabilities
Moderation: Dipl.-Ing. Martin Schleicher, Continental, Erlangen

Automotive Software Vulnerabilities: Strategies for Early Detection, Mitigation, and Prevention in the Software-Development-Lifecycle
- Root causes of automotive software vulnerabilities
- Most common weakness classes of automotive software vulnerabilities
- Testing methodologies for detecting vulnerabilities
- Preventing most vulnerabilities during development

Dr.-Ing. Andreas Weichslgartner, Senior Technical Security Engineer, Architecture, Security & Technologies, CARIAD SE, Nuremberg

Conference CV: Addis Abeba (Basement)

Propulsion
Moderation: Dipl.-Ing. (FH) Stefan Riegl, MAN Truck & Bus SE, Munich

Hydrogen – A Game Changer in the Automotive Industry ... and Beyond
- H2 market and potentials
- The road to net zero: H2 as preferred solution?
- Bosch’s Contribution in mobile applications
- ...and beyond (stationary applications)

Dr. Silke Spitzer, Senior Vice President SW Engineering Powertrain Solutions – Electronic Controls, Robert Bosch GmbH, Plochingen

Wien (Ground Floor)

System Engineering and Processes

09:00 A Unified Middleware for SoC-Agnostic Application Development
- Production-ready middleware based on open source
- Unified application framework for microcontrollers, microprocessors and hardware accelerators
- Relocation of applications with minimum effort

Dipl.-Ing. (FH) Stefan Duda, Vice President Product, Co-author: Laurent Emmerich, both of Apex.AI GmbH, Munich

Generative AI – How AI Models Change the Way We Develop Automotive Products
- Generative AI can help us develop better products and is a key enabler for self-supervised learning
- From design and prototyping to quality control and user experience
- Optimization of products, material usage and final performance

Dr.-Ing. Pia Dreiseitel, Growth Field Manager AI Technologies, Research and Advanced Engineering, Co-author: Dr. Dilara Yesilbas, both of Continental Automotive Technologies GmbH, Frankfurt am Main/Regensburg

09:00 An Approach to Digital Lifecycle Management as a Service
- New customer experience by modularizing the automotive ecosystem
- Strategic development and control of software updates for new user experiences in automotive industry
- Software updates as a new approach to create customer value

Dipl.-Inf. Henry Bastian, Product Manager DLCM Control Center, Digital Lifecycle Management, Co-authors: Dipl.-Ing. Benjamin Baron, Dr. Frank Althoff, all of CARIAD SE, Wolfsburg

New Standards and Best Practices to Mitigate Supply Chain Security Risks of Software-Driven Products
- Insights into new standards regarding supply chain security risks
- Insights on how these standards influence software driven products in automotive industry
- Sharing best practices how to mitigate risks in this context


Electrified Commercial Vehicle Trailers – How to Turn a Conventional Trailer into a Hybrid Vehicle
- Electrification/hybridisation of heavy duty trailers
- Decarbonisation of commercial vehicle transport
- eMobility

Dr. Nils Pfufmann, Team leader System Solutions Trailer, ZF Friedrichshafen AG, Hannover

Conference CV: Addis Abeba (Basement)

Register at: www.eliv-congress.com
09:30 Automotive OS Reloaded – Refocus and Reality Check
- The three big promises of the SW defined vehicle – are we on track?
- Tectonic shifts: The Automotive Landscape is changing fast
- Breaking the Gordian Knot for Scalable SW Platforms

Dr. Dipl.-Phys. Dipl.-Math. Christof Horn, Head of Automotive Europe Industry X, Industry & Transformation, Accenture, Kronberg

11:45 A Leap in Innovation? – What European OEMs Can Learn from Chinese OEMs in Terms of User Experience
- History of Chinese OEM brands and their arrival on the European market
- Development and latest advancements of Chinese vehicles
- What European OEMs can learn from their Chinese counterparts and how Chinese OEMs can succeed in Europe

Audrey Matarage, Independent consultant, Audrey Matarage Consulting, Stuttgart

11:45 Sustainable Software Development for Cloud-Native Vehicles
- Standardization of Vehicle APIs across the Automotive Industry
- Creating open Eco Systems like Machines, Devices, Applications and DevOps
- Defining the next generation of Zonal Architectures to realize the SDV

Martin Bornemann, Vice President, Advanced Technology & Architecture, CTO Office, Co-author: Florian Baumann, both of Aptiv Services Deutschland GmbH, Wuppertal

11:00 MB.OS – Our Chip-to-Cloud Architecture for a Luxury Experience
- Why designing an own architecture
- Mercedes-Benz Operating System – separation of software and hardware
- Outlook – what’s next

Magnus Östberg, Chief Software Officer – Executive Vice President, Research & Development, Mercedes-Benz AG, Sindelfingen

10:30 Always Fresh Cockpit Experience Built on Cloud Native Technology
- Staying ahead of the curve with Cockpit Experience
- Multimodal Engaging Experience
- Preparing the architecture for Scalability with Cloud and EDGE
- Working with the ecosystem

Vishnu Gurusamy Sundaram, M. Sc., Senior Vice President, Cockpit, Mobile and Apps, Stellantis, Auburn Hills, MI, USA

10:00 MB.OS – Our Chip-to-Cloud Architecture for a Luxury Experience
- Why designing an own architecture
- Mercedes-Benz Operating System – separation of software and hardware
- Global footprint and continuous integration
- Outlook – what’s next

Magnus Östberg, Chief Software Officer – Executive Vice President, Research & Development, Mercedes-Benz AG, Sindelfingen

11:00 Coffee break, Exhibition and Start-up Area visit

Panel Discussion
Moderation: Dipl.-Ing. Stefan Singer

Software – Cloud & Data
Moderation: Dipl.-Ing. Stefan Singer

System Engineering and Processes
Moderation: Dr.-Ing. Dieter Rödder, Robert Bosch, Stuttgart

Security – Challenges
Moderation: Dipl.-Ing. Henning Harbs, Volkswagen AG, Wolfsburg

Why Trusted Execution Environments are Critical for Automotive Security
- Introduction to Trusted Execution Environments
- Common Automotive Use Cases
- Future Use Cases to support Software Defined Vehicles

Andrew Till, B.A., General Manager Secure Platform, Executive Team, Trustonic Limited, Cambridge, United Kingdom

Components, Subsystems & Integration
Moderation: Dr. Falk Hecker, Knorr-Bremse Systeme fuer Nutzfahrzeuge GmbH, Schwieberdingen

AWARD project
- Project presentation
- Hub to hub use case
- Forklift use case
- Port use case

Julien Collier, M. Sc., Project Manager, System, Easy Mile, Toulouse, France

Tales from an Automotive Penetration Testing Team
- Automotive Cyber Security
- ECU Zero-day vulnerabilities
- Security aware automotive development

Itay Lidovski, Security Researcher, Consulting and Research, Co-author: Amit Geynis, both of Argus Cyber Security, Ramat-Gan, Israel

Master Algorithm for Event-based Co-Simulation with FMI 3.0 for Timing Accurate Software-in-the-Loop
- Master Algorithm for discrete event driven co-simulation
- Simulation of FMI 3.0 FMUs with Event mode
- Clock Based synchronization of FMUs at events
- Timing Accurate Software-in-the-loop

Mythreya Vinnakota, Researcher, Regional Digital Technologies, Bosch Global Software Technologies PVT LTD, Bengaluru, India, Co-authors: Dr. Oliver Kotte, Dr. Laura Beermann, Robert Bosch GmbH, Renningen

Challenges in the Synchronous Development of Software, Hardware and Mechanics for Drive Systems
- Challenges due to different development processes of software, hardware and mechanics
- New holistic development process based on systems engineering
- Future possibilities using Big Data, AI and virtual development methods

Dr.-Ing. Peter Fietkau, Manager Drive System Electronics, Systems Engineering, Co-author: Laetitia Diebolder, both of Dr. Ing. h.c. F. Porsche AG

Sustainable Software Development
Moderation: Dipl.-Ing. Stefan Singer

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2nd Congress Day

12:15 Panel Discussion: Transformation of Working Environment

Panelists:
- Rui Cordeiro, M. Sc, CEO, Critical TechWorks, Porto, Portugal
- Sebastian Dörner, Software Engineering Community Advocate, People & Culture, Porsche Digital GmbH, Ludwigsburg
- Andreas Heim, VP of Design, Process and Technology Engineering, Automotive Business Group, Flex, Stuttgart
- Joe Justice, Chair Of The Board Of Directors, Agile Business Institute, Tokyo, Japan
- Joachim Langenwalter, Senior Vice President Autonomous Driving, Autobrains AI Technologies GmbH, Berlin

12:45 Rust for Automotive: A Modern, Memory-Safe and Secure Programming Language
- Rust programming language on the rise for automotive and industrial applications
- Rust for embedded applications
- Rust compiler support for Infineon AURIX: Challenges, solution & benefits

Dipl.-Ing. Mario Cupelli, CTO, HighTec EDV-Systeme GmbH, Saarbrücken

A Review of using Artificial Intelligence in Large Projects for Requirements Classification
- Distributing requirements in large projects to ~30 teams
- Using state-of-the-art transformer AI models
- Review of EU regulations and Bosch principles using AI for this purpose

Dr.-Ing. Lutz Trautmann, Group leader for SW and System Architecture and Requirements Management, Cross-Domain Computing Solutions, Robert Bosch GmbH, Hildesheim

Hamza Ghezal, Master Student, Technical University of Clausthal, Co-authors: Steffen Witke, Robert Bosch GmbH, Hildesheim, Prof. Dr. Steffen Herbold, University of Passau

Software Defined Vehicle: Combining Real-Time Safety Critical Functions with Cloud Connectivity
- The importance of the right choice of RTOS and middleware for Software Defined Vehicles
- Possible ways of consolidating vehicle safety critical and cloud connected applications
- Managing complexity and performance in a heterogeneous software architecture
- Outlook on central computer architectures and cloud native automotive development

Nikola Velino, Senior Business Development Engineer, Green Hills Software LLC, Santa Barbara, CA, USA and Sreeja KS, Senior Architect, Transportation Business Unit, Co-author: Jyotsana Singh, both of Tata Elxsi Ltd., Trivandrum/Bangalore, India

Addressing the Challenge of Integrating Everything - Creating a Blueprint for Automotive Integrated Development
- Integrate standards, regulations, and different domains
- Holistic approach how to master complexity
- To manage work product and product maturity
- Challenges of integrating “everything”

Christian Hübscher, Principal Consultant and Ralf Geppert, Consultant, both of Kugler Maag Cie GmbH by UL Solutions, Kornwestheim

Where is Everybody? Looking for Remote Attacks on Cars in the Wild
- Honeybot application in the automotive domain
- Systems that an automotive honeypot should mimic
- Existing open-source tools that can be used to build an automotive honeypot

Nicolas Ig, M. Sc., PhD Student, Corporate Research – Reliable Distributed Systems, Co-authors: Dr. Paul Duplys, Dr. Dominik Sisejkovic, all of Robert Bosch GmbH, Renningen/ Ludwigsburg/Hildesheim

Distributed Development along the Automotive Supply Chain: 8 Insightful Recommendations for OEMs and Suppliers to Jointly Implement Cybersecurity
- Cybersecurity as a new quality dimension in distributed development in the automotive industry
- Success factors for cybersecurity on the side of the OEM and for Tier-N-Suppliers
- Requirements for compliance with UN Regulation No 155 and application of ISO/SAE 21434
- Best practices and reliable tips for collaboration in cybersecurity challenges: Cybersecurity management/Engineering

Manuel Sandler, Partner, Consulting, CYRES Consulting Services GmbH, Munich

The Challenges to Move to Fail-Safe Operation in E/E Architecture
- Specific challenges regarding fault-tolerant power-net architectures in commercial vehicles
- Comparison with redundancies in already existing systems in commercial vehicles (in particular brake systems) and in aviation
- Concept of a fail tolerant, ASIL capable and modular power-net architecture for commercial vehicles

David Kiss, Product Owner, R&D, Knorr-Bremse SfN GmbH, Budapest, Hungary

Enabling a Software Platform for Faster-feature Deployment in Next-generation Commercial Vehicles
- How to migrate existing functions to HPC environments
- How to increase significant reuse of existing legacy software and systems
- How to create hybrid functions that include service and signal driven designs
- How to speed-up integration activities for such functions

Omkar Panse, Vice President, Head of Middleware Solutions, KPIT Technologies Ltd., Pune, India and Nico Hartmann, CTO, Qorix, Munich

13:15 Lunch break, Exhibition and Start-up Area visit

Register at: www.eliv-congress.com
Plenary Speeches and Award Ceremony – New York (Ground Floor)
Moderation: Dr. Rolf Zöller, Porsche AG und Porsche Digital, Weissach

14:30 Liquid AI – Closing the Gaps toward Autonomous Driving
   • Hitting the supervised learning wall - today's AD road-blockers
   • Technology solutions for cost efficient AD
   • Liquid AI: A technical deep dive
   • Autobrains’ vision for a safe transition to AD
Igal Raichelgauz, B. Sc., Founder & CEO, Autobrains Technologies Ltd., Tel Aviv-Yafo, Israel

15:00 Semiconductors Are Driving Sensing and Thinking
   • Impact semiconductor chips and software have had on our world
   • Macrotrends driving these innovations
   • Resulting discontinuities that must be overcome
   • A new world where semiconductors drive sensing and thinking across many applications is within reach
Dr.-Ing. Yankin Tanurhan, Senior Vice President of Engineering, Solutions Group, Synopsys, Inc., Sunnyvale, CA, USA

15:30 Conclusion and Discussion
Management Summary of the Sessions: The most important take-aways presented by members of the Program Committee

16:00 Award Ceremony “Auto Electronic Excellence Award 2023” and best Start-up

16:15 End of the Congress
Power Electronics and Circuit Board Design for E-Mobility – The Latest Megatrends Without Ignoring the Enablers or the Classic Topics

In modern vehicles, power electronics are becoming increasingly important due to electro-mobility and the increasing number of electronically controlled functions. An important component of power electronics are printed circuit boards. Various electronic components are connected to each other on these, allowing them to communicate with each other. The demands on printed circuit boards are also increasing rapidly – higher currents and low volumes bring with them a conflict of objectives that developers must meet.

In this workshop you will first receive a practice-oriented overview of the energy storage devices, switching elements and basic circuits of the power electronics used in modern vehicles. These are presented using practical examples. Furthermore the challenges in the layout and design of printed circuit boards for automotive applications will be discussed. In addition to larger currents and the associated higher temperatures, e.g. an EMC-compliant design and thermal management must be taken into account. You will learn which materials and assemblies are suitable for use in electric vehicles. You will get an overview of the advantages and disadvantages of the various offers on the market and be able to take them into account when designing printed circuit boards.

Who is the target group of this workshop?
- Development Engineers
- Project managers
- Technical executives
in the vehicle and supplier industry and at development service providers in the E/E sector

Content of this workshop
- Energy storage, consumers, systems, the need for voltage transformation
- Basics HV and the voltage transformation
- Basic voltage transformation circuits
- Interference suppression, mains filter, XY-capacitors, mains filter structure
- Requirements for interference suppression capacitors (DIN EN)
- Components (power transistor, diodes, relays)
- Electronics design process of a circuit board and assembly
- Circuit board manufacturing
Exhibition & Sponsorship

List of Exhibitors (June 13, 2023)

3D Mapping Solutions GmbH
ANavS Sensor Technologies GmbH
Apex.AI GmbH
APL Automobil-Prüftechnik Landau GmbH
ARM Limited
Aurora Labs
AVL List GmbH
Bertrandt AG
Brose Fahrzeugteile SE & CO. KG, Bamberg
Cadence Design Systems GmbH
Continental Engineering Services GmbH
CTAG
Deep Safety GmbH
Digitalwerk GmbH
dSPACE GmbH
EDAG Engineering GmbH
Elecsys AG
Elmos Semiconductor SE
EPICNPOC SAS
ETAS GmbH
FERCHAU Automotive GmbH
FEV Europe GmbH
Fraunhofer Institute for Integrated Circuits IIS
GLIWA embedded systems GmbH & Co. KG
GMV
Göpel electronic GmbH
Green Hills Software GmbH
Hamamatsu Photonics Deutschland GmbH
Hella GmbH & Co. KGaA
HighTec EDV-Systeme GmbH
Infineon Technologies AG
Inova Semiconductors GmbH
IPG Automotive GmbH
KIT Karlsruher Institut für Technologie
Kitagawa GmbH
KooSys GmbH
KPI Technologies GmbH
Kugler Maag CIE by UL Solutions
Magn Magna Steyr Fahrzeugtechnik GmbH & Co. KG
MathWorks
MD Elektronik GmbH
Microchip Technology
MicroNwa AG
National Instruments Corporation
OPAL-RT Germany GmbH
Dr. Ing. h.c. F. Porsche AG
Porsche Digital GmbH
Prisma Sales Service GmbH
QualiTe Inc.
Renesas Electronics Europe GmbH
Scantinel Photonics
Silicon Mobility
STAR COOPERATION
STMicroelectronics International NV
Swissbit AG
TASKING Germany GmbH
Tata Technologies GmbH
TDK Corporation
TDK Europe GmbH
TDK-Micronas GmbH
Tracecronic GmbH
TRUSTONIC
Vector Informatik GmbH
Volkswagen AG
XKrug GmbH

Start-up Area

ELIV offers young companies the opportunity of presenting their latest developments and products in automotive electronics in the start-up area. Get the chance to meet the exclusive, international group of participants consisting of decision-makers and specialists from vehicle manufacturers, suppliers, and service providers as well as representatives from universities! In addition to a full-service package with a 4 sqm booth space in the start-up area, a presentation slot on the start-up stage is also included.

Interested in taking part?
To apply, request the registration documents for the Start-up Area. We are happy to provide assistance and further information:

Jasmin Habel
Project Consultant
Exhibition & Sponsorship
Phone: +49 211 6214-213
Mail: jasmin.habel@vdi.de

The program of the start-up stage is expected to be published in mid-August. You can look forward to exciting presentations. More info at: www.eliv-congress.com/exhibition-and-sponsoring/start-ups/

See who is already participating in the start-up area:
ANavS Sensor Technologies GmbH | Deep Safety GmbH | Elecsys AG | EPICNPOC SAS | KooSys GmbH | Scantinel Photonics
Brose is the fourth-largest family-owned automotive supplier. Every second new car worldwide is equipped with at least one Brose product. The company’s intelligent solutions for vehicle access and interiors provide greater comfort and flexibility. Innovative concepts for thermal management increase efficiency and contribute to environmental and climate protection. Brose’s systems understanding enables new functions in all kinds of vehicles – whether on four or two wheels. Including the joint venture Brose Sitech, the company employs 30,000 people at around 70 locations in 25 countries.

Contact: Brose Fahrzeugteile SE & Co. Kommanditgesellschaft
Christoph Maag, Vice President Electronics Brose Group
Berliner Ring 1 | 96052 Bamberg
Phone: +49 951 7474 4744 | Fax: +49 951 7474 1767
E-Mail: christoph.maag@brose.com
Web: www.brose.com

dSPACE is a leading provider of simulation and validation solutions worldwide for developing connected, autonomous, and electrically powered vehicles. Our range of end-to-end solutions is used particularly by automotive manufacturers and their suppliers to test the software and hardware components in their new vehicles, long before a new model is allowed on the road. Our portfolio ranges from end-to-end solutions for simulation and validation to engineering and consulting services as well as support.

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E-Mail: info@dspace.de
Web: www.dspace.com

KPIT Technologies is a global partner to the automotive and Mobility ecosystem for making software-defined vehicles a reality. It is a leading independent software development and integration partner helping mobility leapfrog towards a clean, smart, and safe future. With 10,000+ automobilievers across the globe specializing in embedded software, AI, and digital solutions, KPIT accelerates its clients’ implementation of next-generation technologies for the future mobility roadmap. With engineering centers in Europe, the USA, Japan, China, Thailand, and India, KPIT works with leaders in automotive and Mobility and is present where the ecosystem is transforming.

Contact: KPIT Technologies GmbH
Frankfurter Ring 105b
80807 Munich
Web: www.kpit.com

Tata Technologies GmbH, a subsidiary of Tata Technologies, is strategically set up to help German OEMs and Tier 1s conceptualize, develop, and realize better products that are safer, cleaner, and improve the quality of life for all the stakeholders. It leverages our global diverse talent pool of 11,000+ innovators spread across 27+ countries, and global best practices to help our customers develop competitive products and win at the marketplace.

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E-Mail: Rahul.prathap@tatatechnologies.com
Web: www.tatatechnologies.com

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Contact: MathWorks | Friedlandstr. 18 | 52064 Aachen
Phone: +49 241 4757-6700 | Email: contact@mathworks.de
Web: www.mathworks.de/automotive
Program Committee

Members of the Program Committee

Kai-Uwe Balszuweit, Vice President Quality Management E/E Systems, BMW Group, Munich
Jan Becker, CEO, Apex.AI, Inc., Palo Alto, CA, USA
Dipl.-Ing. Harald Deiss, Vice President Electronic Systems, ZF Friedrichshafen AG, Auerbach
Dipl.-Ing. Elmar Frickenstein, Elstein Consulting & former BMW AG, Munich
Steffen Glemser, Senior Director Electronic Systems, ZF Friedrichshafen AG, Auerbach
Dipl.-Ing. Christof Kellerwessel, former Ford-Werke GmbH, Cologne
Joachim Langenwalter, Senior Vice President Autonomous Driving, Autobrains AI Technologies GmbH, Berlin
Ralf Lenninger, former Continental AG, Regensburg
Dipl.-Ing. Uwe Michael, mps, Rödermark
Dr. Burkhard Milke, Director GME Electrical Systems & Infotainment, Opel Automobile GmbH, Rüsselsheim
Dr.-Ing. Dieter Rödder, Senior Vice President Advance Engineering Systems 1 – Future Automotive Systems, Robert Bosch GmbH, Stuttgart
Maik Rohde, Head of IIoD-System, Volkswagen AG, Wolfsburg
Dipl.-Ing. Martin Schleicher, Head of Software Strategy, Continental AG, Erlangen

Dipl.-Ing. Stefan Singer

Dr. Riclef Schmidt-Clausen, Senior Vice President Intelligent Cockpit & Body, CARIAD SE, Ingolstadt
Dr. Jutta Schneider, Director Vehicle Powernet and EE Hardware, Mercedes-Benz AG, Sindelfingen
Dipl.-Ing. Stefan Teuchert, President and CEO E/E Function Development, MAN Truck & Bus SE, Munich
Dr.-Ing. Michael Winkler, CEO, HELLA Fahrzeugkomponenten GmbH, Bremen
Joachim Ziethen, Member of the Executive Board BU Electronics – Product Center Body/Lighting Electronics, HELLA GmbH & Co. KGaA, Lippstadt
Dr. Rolf Zöller, Director Smart Connected Vehicle Porsche AG and Managing Director Porsche Digital, Weissach (Chair)

Scientific Support

The VDI Society Automotive and Traffic Systems Technologies (FVT) with its five Technical Divisions offers a home for engineers from a wide range of disciplines in the fields of “road”, “rail”, “air” and “water” transport. Through active interplay with the working groups of the VDI Regional Associations, the students and young engineers as well as the other VDI Technical Societies, the VDI FVT is networked nationally and internationally with other cooperation partners. The stated task of the VDI FVT is to strengthen the perception of the engineering profession and to establish the VDI as a technical-scientific opinion leader in professional circles, politics and society. The aim here is to promote the interaction of the various mobility areas and to provide technical impetus, as well as to develop perspectives for cross-sectional topics relating to “People and Mobility” and “Means of Transports and Infrastructure.

More information: www.vdi.de/fvt

Media Partner
General Information

ELIV – Electronics in Vehicles

Good Reasons to be part of this industry meeting:

- ✓ Technical content of high quality: more than 80 expert presentations with technical depth
- ✓ ELIV is the world’s largest Congress for Automotive Electronics, Software and Applications – be part of the community in Bonn!
- ✓ Reach out to long-known fellow experts, find new project partners and pave the way to establish new business ties
- ✓ Free entrance to the parallel running “E/E in Commercial Vehicles”
- ✓ Speakers corners – debate with the presenters personally
- ✓ Great trade exhibition with about 100 international exhibitors gives an overview of new products and solutions

Who you will meet:

Delegate groups: decision-makers, engineers, technicians, developers etc. from the field of industry (OEM, Tier 1+2), economy, research & development

24%  Car Manufacturers
28%  Tier 1 / Tier 2 – Automotive suppliers
17%  Software Providers
 7%  Hardware Providers
 6%  Electronics
10%  Mobile Communications
 8%  Cities, Fleet, Infrastructure

Register at: www.eliv-congress.com
Free entrance to the parallel running "E/E in Commercial Vehicles"

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ELIV – Electronics in Vehicles

The ELIV (Electronics in Vehicles) congress is an exceptional event that brings together top industry professionals and experts in the field of automotive electronics. It offers a unique combination of strategic keynote presentations and an unparalleled technical program, making it a perfect platform for both technical executives seeking insights into industry trends and engineers involved in research and development looking to acquire the latest technical know-how.

Participation Fee

EUR 1,890.00 plus VAT

The following services are included:
- Access to Keynotes and Sessions of the ELIV and parallel Conference E/E Commercial Vehicles
- Digital event documentation
- Event-App Access
- Beverages during breaks
- Lunch on both Congress Days
- Night of Electronics at the MS RheinEnergie
- Visit to the exhibition, Start-up Area and special Start-up Program

Venue

World Conference Center Bonn
Platz der Vereinten Nationen 2
53113 Bonn
Germany

Accommodation

A limited number of rooms have been reserved for congress participants. Please visit www.eliv-congress.com for further information.

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

Any more questions?
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