The international VDI-Congress ELIV (Electronics In Vehicles) is the event for all experts dealing with electrics, electronics and system integration of mechanics and electronics. Running for more than 30 years, ELIV is the place where decision makers and experts from OEMs, suppliers and academia come together to share their knowledge, discuss innovations and gear up for future developments in vehicle electronics.

Networking and knowledge exchange is at the core of the event and delegates are encouraged to use the breaks and the evening reception at Europe’s largest event liner MS RheinEnergie to network and make new contacts.

More highlights than ever

The top highlights is the exhibition that includes more than 135 suppliers and service providers and is the central place for delegates to get up-to-date with the latest products and services.

Delegates will be able to get used to the latest trend: Last Mile Transportation. Try out the latest developments in the field of Last Mile Transportation directly on site.

Another launch at ELIV 2019 is the Start-up Area that offers young companies the opportunity to present their latest developments and products in vehicle electronics.

Read this show magazine and learn about all of the highlights awaiting you in Bonn.
**ANSYS Germany GmbH**

ANSYS, Inc., is a leading provider of system and software solutions for the automotive, aerospace, defense, rail transportation, nuclear, and industrial equipment. Our technology enables organizations to predict with confidence that their products will thrive in the real world.

**ANSYS Road-Triad Industry-Leading Scalability Technologies**

Automotive engineers consider complex real-world physics interactions and make value added design trade-offs. Every day, and in every automotive segment, they use industry-leading high-fidelity tools from ANSYS to position their companies for innovation leadership. Your Trusted Partner

Major automotive companies rely on ANSYS to realize their product promise of safe, reliable and secure automotive systems. ANSYS is a trusted partner throughout the automotive disciplines relating to electronics, software and electrical development – from concept development, pre-development and series development, to safeguarding, integration and series production.

You can find ANSYS at:

**www.ansys.com, info-germany@ansys.com, Phone: +49 8024 9054-0, Fax: +49 8024 9054-417**

**ArrK Engineering**

**Engineering. Digital. Driven**

Mobility is undergoing a revolution. Electric mobility and digitization are two major trends that are turning the automobile industry on its head. Innovation and value creation are increasingly defined less by combustion engines and mechanics, and more strongly by software and electronics. Driver assistance systems, new displays and operating concepts, and electrical drives are now indispensable on our roads. The future lies in autonomous driving and in the growing connectivity between vehicles and their environment.

**ARRK Engineering provides you with comprehensive support in all disciplines relating to electronics, software and electrical systems development – from concept development, prototyping and series development, to safeguarding, integration and series production of your components.**

**Within the field of Electronics & Software, ARRK Engineering is an advisor with high-focus on cockpit electronics and displays, autonomous driving and ADAS as well as software development and electric mobility.**

**Highlights to be showcased in Bonn 2019:**

- Displays & Head-Up Displays
- Camera Systems & Computer Vision
- Machine Learning & AI
- Advanced Driver Assistance Systems
- Connectivity & Cyber Security
- ADAS & Mobility

Stand 13B, ARRK Engineering GmbH, Staudenfeldweg 21, 01324 Döbeln, Germany

www.ansa.com; info-germany@ansa.com; Phone: +49 8254 8554-0; Fax: +49 8254 8554-417

**M Plan GmbH**

**M Plan is a leading provider of system and software solutions for the automotive, aerospace, defense, rail transportation, nuclear, and industrial equipment.**

**M Plan, as your partner for complex electronic and IT systems, provides software and system solutions that are tailored to your needs.**

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- Displays & Head-Up Displays
- Camera Systems & Computer Vision
- Machine Learning & AI
- Advanced Driver Assistance Systems
- Connectivity & Cyber Security
- ADAS & Mobility

Stand 9, M Plan GmbH, Döker-Schnieder-Straße 5, 50769 Köln, Germany

www.m-plan.com, kaesel@m-plan.com; Phone: +49 221 5776-420, Fax: +49 221 5776-499, Contact person: Dr. Michael Dallager

**ESG Mobility**

**ESG Mobility is an engineering partner, process expert, technology consultant and IT expert in one.**

**If you want to shape the future, you need forward-looking ideas. And a partner who understands them from the beginning.**

As your partner for complex electronic and IT systems, we design, develop, and implement software and system solutions that are tailored to your needs. We enable your company to make the most of the current opportunities and the future-changing potential of Industry 4.0.

**Highlights to be showcased in Bonn 2019:**

- Autonomous Driving & ADAS
- Sensor data management system
- Head unit communication to the cloud
- Software development and verification
- Validation of comfort electronics, ECUs

Stand 21, ESG Mobility GmbH, Ingolstädter Straße 40, 80337 München, Germany

www.m-plan.com, info-germany@ansa.com; Phone: +49 8254 8554-0; Fax: +49 8254 8554-417

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www.m-plan.com, kaesel@m-plan.com; Phone: +49 221 5776-420, Fax: +49 221 5776-499, Contact person: Dr. Michael Dallager
What if autonomous vehicles are getting deaf and blind?

See more. Sense more. Act more.

Sensors are the ears and eyes of autonomous vehicles. Complete sensor breakdown can quite easily be detected but what if the sensor is operational but sending incorrect data due to contamination, improper positioning or calibration or faults in the software? Incorrect sensor data misleads the perception of Arrows which autonomous driving is tuned upon. The vehicle itself becomes either stupid and deaf which might lead to false assumptions and dangerous decisions, causing risky maneuvers and possibly ending up in crashes.

This is exactly when Predictive AI Maintenance (PAM) systems act as co-drivers on the on-board systems of the autonomous vehicle. These cloud-based systems monitor the vehicles driving characteristics and the way of driving and compares them constantly with database-based knowledge. Each vehicle and its driving conditions are being continuously monitored. Predictive AI Maintenance (PAM) systems are therefore able to identify the individual vehicle and to act accordingly. Sensors send the data to the PAM system. Predictive Al Maintenance is then able to detect vehicle characteristics and the driving behavior. Predictive AI Maintenance is used as an early warning system.

In this way, Predictive AI Maintenance reduces the costs of maintenance and the need for technical checks. It also reduces the environmental impact of vehicles and improves the efficiency of vehicle operation. This is why Predictive AI Maintenance (PAM) systems are considered a key technology for the future of automobiles.

Reference Projects • Vehicle:

More than 120 projects featuring advanced driver assistance systems, infotainment, connected vehicles, cooperative and autonomous driving, big data and artificial intelligence for the automotive industry-09, ten 1 and ber 24.

Highlights to be showcased in Bonn 2019:

PAM system demonstration shown at our booth.

SBM Automotive

SBM is a global, technical research & engineering consultancy located in the centers of automotive innovation: China, Germany, India, Japan, UK & USA.

As a partner of the automotive industry, we work on smart solutions for smart vehicles.

Our research teams focus on the key areas of automotive electronics, testing and diagnostics, and allow our customers to benefit from our successful collaboration with car manufacturers all over the world. From the development of new vehicle control units to the optimization of existing systems, SBM has the expertise to ensure the success of our customers.

SBM is a partner of the automotive industry, offering a broad range of services and solutions in the key areas of automotive electronics, testing and diagnostics.

Softing Automotive

Softing Automotive focuses on key technologies in automotive electronics as well as closely related areas of the vehicle industry.

Softing Automotive includes key technologies and solutions for the entire life cycle of electronic control units and overall systems, from engineering through manufacturing to after-sales service.

Softing Automotive provides comprehensive solutions as well as consulting and engineering services.

In all its engineering and development, Softing Automotive is committed to standardization. We are an active member of the most important standardization committees in automotive electronics, such as AEB and FDI. Our customers therefore benefit immediately from the results of standardization.

Softing Automotive develops customer specific Predictive AI Maintenance (PAM) systems and is involved in research projects defining PAM prototypes for future use cases.

Reference Projects • Vehicle:

SBM will be showcasing a Mercedes A-Class at ELIV and will cover the following topics:

- SBM’s on-site demonstrator on the MBUX system
- ASH evaluation methodologies
- VPA evaluation and evolution

Highlights to be showcased in Bonn 2019:

- Quantifiable user experience evaluations
- Biometric consumer testing
- Autonomous vehicle evaluation
- Best practice guidance for past projects
- Consumer test methodologies
- Strategic consulting guidance
- Operational support

Softing Automotive • Test or Change the World at ELIV 2019

Stand 104, Softing AG, Richard-Weiss-Allee 6, 50446 Cologne, Germany, info@automotive.softing.com, Phone: +49 2204 9638 0, Fax: +49 2204 9638 4, Contact person: Markus Steflabauer
VDI-CONFERENCES 2019 / 2020 – VEHICLE TECHNOLOGY – THE PLACE TO BE TO MEET YOUR TARGET CUSTOMERS

10. VDI-Tagung Mensch-Maschine-Mobilität 2019
November 5-6, 2019 in Braunschweig

2. International VDI Conference Charging Infrastructure for Electromobility
November 6-7, 2019 in Nuremberg

International VDI Conference Automotive Drives
November 6-7, 2019 in Amsterdam

Automotive CAE
November 6-7, 2019 in Baden-Baden

Fahrzeugsicherheit 2019
November 6-7, 2019 in Berlin

Thermomanagement in elektromotorisch angetriebenen PKW
December 3-4, 2019 in Stuttgart

International VDI Conference Future of AI in Automotive
December 11-12, 2019 in Berlin

Ablichtung von E-Systemen in autonomen Lkw-Fahrzeugen
February 4-5, 2020 in Stuttgart

3. International VDI Conference Automotive Sensor Systems
February 11-12, 2020 in Munich

International engine congress
February 10-11, 2020 in Baden-Baden

Edition
June 20-29, 2020 in Bonn

Delfin
June 24-25, 2020 in Bonn

ELVA- Marketplacce
October 13-14, 2020 in Bonn-Baden

25. VDI/VW Gemeinschaftstagung Fahrzeugsicherung in Fahrzeugsicherung
November 2-3, 2020 in Wolfsburg

Innovative Antriebe 2020
November 2-3, 2020 in Dresden

International VDI Conference Safety Systems
May 27-28, 2020 in Düsseldorf

May 21-28, 2020 in Düsseldorf

EDrive
June 24-25, 2020 in Bonn

Delfin
June 24-25, 2020 in Bonn

Innovative Antriebe 2020
November 2-3, 2020 in Dresden

TECHNICAL ONLINE COURSE

# VDI tests new Digital Learning Products!
Test the new TECHNICAL Online Courses and Online Trainings (with ELIV related topics) live at VDI booth no. 2!

# Serious Business Gaming
Serious games provide a new approach to prepare and present technical topics in a fun and challenging way. They provide learning simulations and interactive quizzes, offering further education away from classic lecture formats.

www.vdi-international.com/toc-automotive

# Be part of it and receive a free gift voucher for your next Online Training
Share a video or photo showing you testing one of the Online Trainings live at ELIV 2019 and receive a voucher for your next digital mission!

# Your Benefits
- Try out a new way to acquire technical skills
- Receive your VDI Certificate and social media badge right on-site
- Find out about your personal learning pathway especially in times of huge industry developments

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