

# Automated Driving 2020

From Driver Assistance to  
Autonomous Driving

13. – 14.10.2020

Wiesbaden, Germany



## KEYNOTE LECTURES

AVL List GmbH / Continental /  
Microsoft Corp. / Zenuity AB

# From Driver Assistance to Autonomous Driving

## / **SENSE**

Tomorrow's sensor systems and  
environment recognition

## / **PLAN AND THINK**

Recognizing, analyzing, and  
evaluating situations

## / **ACT**

Implementing functions of  
automated driving

### **HIGHLIGHT**

**Science Pitches**

**Knowledge transfer from science to economy**



**Dr. Alexander Heintzel**  
Editor-in-Chief  
ATZ | MTZ Group, Springer Nature

## Welcome

There is no ideal solution for automated driving. Only the “right” combination of sensors and algorithms supported by artificial intelligence is likely to produce the required results. The 6th International ATZ Conference “Automated Driving” will offer you the very latest information on methods and processes for the development of automated driving, as well as intensive discussions on the benefits for users and concrete business models. Automated driving is also a key area of focus for the insurance industry. An important question is that of liability. It is vital to acquire the necessary knowledge as early as possible in order to react appropriately.

This conference is an important trend barometer for progress and new issues on the way toward highly and fully automated driving. Industry experts will examine the current state of development and provide information about users and markets.

We cordially invite you to Wiesbaden to meet experts from leading OEMs, suppliers, development service providers, and research institutes to discuss the latest issues with them.

I look forward to welcoming you to the conference.

On behalf of the Scientific Advisory Board

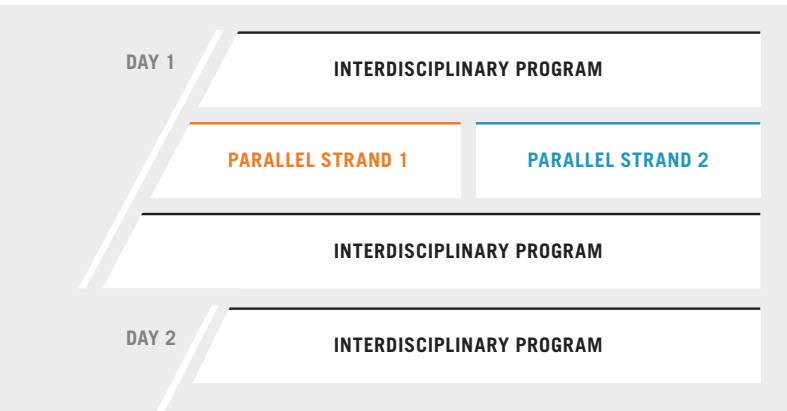
A stylized, handwritten signature in black ink, reading 'Alexander Heintzel'. The signature is written over a thin horizontal line.

**Stay at the cutting edge!**

- ✓ Technical presentations from internationally renowned speakers
- ✓ Networking in the expert community
- ✓ Innovative products and services

Automated Driving

Thanks to the rapid development of driver assistance systems, the digital world and mechanical automobiles are increasingly merging into one. Further, steps toward partially and fully automated driving for all types of transportation are consistently being taken, with the ultimate goal being to someday achieve a “zero accident rate”. Given the dynamic developments in this area, manufacturers have to constantly stay on the ball. Combining presentations and in-depth discussions, the international ATZ Conference “Automated Driving – From Driver Assistance to Autonomous Driving” offers you the ideal platform.



Accompanying exhibition on both days .....



## Scientific Advisory Board

Our Scientific Advisory Board, which is made up of prominent figures from the relevant field, provides support during the planning phase of the conference and helps to identify suitable topics.

With its expertise the board has made a valuable contribution to the choice of themes for the lecture program.



**Prof. Dr.  
Prof. h.c. Dr. h.c.  
Torsten Bertram**  
TU Dortmund University

Scientific Director of the Conference

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**Dr. Thomas Dieckmann**  
WABCO GmbH

**Hans-Georg Frischkorn**  
Strategy Consulting

**Dr. Robert Fuchs**  
JTEKT Corporation

**Dr. Karl-Heinz Glander**  
Aptiv Services Deutschland GmbH

**Dr. Michael E. Hafner**  
Daimler AG

**Dr. Alexander Heintzel**  
Springer Nature

**Prof. Dr. Dr. h.c. Rolf Isermann**  
TU Darmstadt

**Alexander Kocher**  
Elektrobit Automotive GmbH

**Ralph Lauxmann**  
Continental Teves  
AG & Co. oHG

**Frank Leimbach**  
DEKRA e.V.

**Friedhelm Pickhard**  
ETAS GmbH

**Steffen Schmidt**  
IPG Automotive GmbH

**Dr. Peter Schöggli**  
AVL List GmbH

**Dr. Falk Schubert**  
BMW Group

**Winfried Schultalbers**  
IAV GmbH

**Walter Schwerberger**  
MAN Truck & Bus SE

**Prof. Andre Seeck**  
Federal Highway Research Institute (BAST)

**Dr. Dietmar Stapel**  
Hella GmbH & Co. KGaA

**Dr. Andreas Teuner**  
ZF Group

**09:15 Welcome and opening of the conference**

Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group;  
Prof. Dr. Prof. h.c. Dr. h.c. Torsten Bertram, Head of the Institute  
of Control Theory and Systems Engineering (RST), TU Dortmund  
University

09:30 – 10:30, Plenum

**KEYNOTE LECTURES**

Moderation: Prof. Dr. Prof. h.c. Dr. h.c. Torsten Bertram, TU Dortmund

**KEYNOTE****09:30 Presentation in request****KEYNOTE****10:00 Partnering for the road ahead: How Microsoft is enabling the automotive industry – from cloud services to open platforms**

Robert Lokner, Sr. Industry Solutions Manager EMEA,  
Microsoft Corp., USA

10:30 Refreshment break with coffee and tea in the exhibition area

11:00 – 12:30, Parallel Strand I

**NEW METHODS AND PROCESSES**

Moderation: Dr. Karl-Heinz Glander, Aptiv Services Deutschland GmbH

**11:00 Development of safe and robust functions for urban autonomous driving based on agile methods and DevOps**

Dr. Roland Kallweit, Head of Department Automated Driving  
Systems, IAV GmbH

**11:30 Virtual test drives with multiple vehicles under test for the evaluation of collaborative assisted and automated driving functions**

Dr. Jakob Kath, Product Management Engineer, Vector Informatik  
GmbH [in cooperation with RWTH Aachen University and  
FEV Europe GmbH]

**12:00 Why current safety analysis methods fail at covering lethal system designs**

Simon Friedmann, Consultant, Elektrobit Automotive GmbH

12:30 Lunch in the exhibition area

The current conference program  
and further information  
can be found online:

<https://www.atzlive.de/en/audri>



11:00 – 12:30, Parallel Strand II

## USERS AND MARKETS

Moderation: Jörg Hölig, EDAG Engineering GmbH

- 11:00    Emergency braking in a city bus - a new approach  
for protecting standing passengers**  
Dr. Richard Matthaei, PE Technology Expert ADAS, WABCO GmbH
- 11:30    Maintaining performance of driver assistance systems and  
automated driving functions over the life cycle**  
Helge Kiebach, Head of Research, KTI GmbH & Co. KG
- 12:00    Achieving autonomous driving in the bus industry**  
Michael King, President, LHP Engineering Solutions, USA

14:00 – 15:30, Parallel Strand I

**PLAN AND THINK I**

Moderation: Hans-Günter Gromeier, ETAS GmbH

**14:00 Progress on the “AUTOSAR Adaptive Platform”  
for intelligent vehicles**Rinat Asmus, Project Lead AUTOSAR Development Partnership,  
AUTOSAR GbR**14:30 Methodology to define requirements for redundant and safe  
autonomous vehicle sensor setups for different SAE levels of  
automation**Felix Modes, Development Engineer for Autonomous Driving Sensor  
Setups, BMW Group; Miguel Hurtado, Advanced Senior Engineer,  
FIAT Chrysler Automobiles (FCA)**15:00 Creating trust in the lines-of-code behavior –  
from the Start-up-OTA solution to a successful Tier1**

Rudolf von Stokar, Managing Director, Aurora Labs GmbH

15:30 Refreshment break with coffee and tea in the exhibition area

16:00 – 16:30, Parallel Strand I

**LAW**

Moderation: Prof. Andre Seeck, Federal Highway Research Institute (BAST)

**16:00 Legal evaluation of monetizing automotive data**Oliver Köster, Lawyer and Partner, Beiten Burkhardt  
Rechtsanwaltsgesellschaft mbH

16:30 – 17:00, Plenum

**SCIENCE PITCH**

Moderation: Prof. Andre Seeck, Federal Highway Research Institute (BAST)

17:00 – 17:30, Plenum

**KEYNOTE LECTURE**

Moderation: Prof. Dr. Dr. h.c. Rolf Isermann, TU Darmstadt

**17:00 KEYNOTE Self-driving vehicles will revolutionize the transportation system**

Dr. Erik Coelingh, Technology Advisor, Zenuity AB, Sweden



14:00 – 15:30, Parallel Strand II

## INSURANCE TOPICS

Moderation: Meris Neiningen, Managing Editor Versicherungsmagazin

- 14:00 Report by ESWE Verkehr on the project autonomous driving with Minibus**  
Christian Giesen, Press Officer, ESWE Verkehrsgesellschaft mbH
- 14:30 New mobility solutions need new insurance products**  
Patrick Wirth, Director Innovation & Investment, Baloise Insurance, Switzerland
- 15:00 Software Updates and Liability Issues – a Legal Classification**  
Dr. Philipp Ehling, Lawyer and Partner, branmatt Rechtsanwaltsgesellschaft mbH

16:00 – 16:30, Parallel Strand II

## SENSE I

Moderation: Robert Unseld, Editor-in-Charge ATZelektronik

- 16:00 New perspectives on the use of unmanned aerial vehicles for the safety validation and development of highly automated driving functions**  
Julian Bock, Manager Artificial Intelligence, fka GmbH  
[in cooperation with RWTH Aachen University]

- 19:00 Networking Dinner at Restaurant Lumen**



Enjoy a pleasant evening and interesting conversations over dinner with colleagues and speakers.

08:30 – 09:00, Plenum

**KEYNOTE LECTURE**

Moderation: Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group

**KEYNOTE****08:30 Autonomous driving – the ticket to future mobility?**

Ralph Lauxmann, Senior Vice President AMS Strategy & Future Solutions, Continental Teves AG & Co. oHG

09:00 – 10:30, Plenum

**ACT**

Moderation: Dr. Robert Fuchs, JTEKT Corporation, Japan

**09:00 Human sensory monitoring for safer travel**

Anilkumar Hariharakrishnan, Project Manager, Harman Becker Automotive Systems GmbH, Deutschland

**09:30 Trajectory following control for automated driving**

Andreas Homann, Research Associate, RST, TU Dortmund University [in cooperation with ZF Group]

**10:00 Pessimizer: concept and implementation of a new safety verification strategy for a trajectory following controller**

Prof. Dr. Georg Schildbach, Professor of Mechatronics, Institute for Electrical Engineering in Medicine, University of Lübeck [in cooperation with EFS GmbH]

**10:30 Refreshment break with coffee and tea in the exhibition area**

11:00 – 12:30 Uhr, Plenum

**SENSE II**

Moderation: Dr. Andreas Teuner, ZF Group

**11:00 High-resolution gated depth estimation for self-driving cars in adverse weather**

Dr. Werner Ritter, Manager Vision Enhancement Technology, Environment Perception, Mercedes-Benz AG

**11:30 Automated testing of vehicle integrated environmental sensors**

Lukas Birkemeyer, Development Engineer, EDAG Engineering GmbH

**12:00 “Smart & Easy”: validation methods to make autonomous driving systems safe during operation**

Falk Wagner, [Jobtitel](#), Business Development Manager ADAS/AD Testing Solutions, Hella Aglaia Mobile Vision GmbH

**12:30** Lunch in the exhibition area

13:30 – 14:30, Plenum

## PLAN AND THINK II

Moderation: Dr. Peter Schöggel, AVL List GmbH, Austria

**13:30 Machine learning based development for highly-automated driving functions**

Dr. Thomas Böhme, Subject specialist, IAV GmbH, Germany

**14:00 High resolution neural style transfer for test data generation for ADAS/HAD functions**

Dr. Andrej Junginger, Specialist Machine Learning, ETAS GmbH

**14:30** Refreshment break with coffee and tea in the exhibition area

15:00 – 16:00, Plenum

## PLAN AND THINK III

Moderation: Robert Unseld, Editor-in-Charge ATZelektronik

**15:00 New challenges for DNNs in automotive radar perception**

Nicolas Scheiner, PhD student, Mercedes-Benz AG

**15:30 Clouds ahead – the transformation of vehicle development and data management processes**

Dr. Gerhard Niederbrucker, Manager Engineering and Validation Framework - Autonomous Driving & ADAS, ZF Friedrichshafen AG;  
Dr. Michael Kochem, Senior Consultant, IPG Automotive GmbH  
[in cooperation with PDTec AG]

16:00 – 16:30 Uhr, Plenum

## KEYNOTE LECTURE

Moderation: Robert Unseld, Editor-in-Charge ATZelektronik

### KEYNOTE

**16:00 Challenges and success factors for automated driving**

Dr. Peter Schöggel, Head of Business Field Racing and Vehicle, AVL List GmbH, Austria

**16:30 Closing remarks**

Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group



### Continental

Continental develops pioneering technologies and services for sustainable and connected mobility of people and their goods. Founded in 1871, the technology company offers safe, efficient, intelligent, and affordable solutions for vehicles, machines, traffic and transportation. In 2018, Continental generated sales of € 44.4 billion and currently employs more than 244,000 people in 60 countries and markets.

The “Autonomous Mobility and Safety” Business Area of Continental develops and produces integrated active and passive driving safety technologies as well as products that support vehicle dynamics. The product portfolio ranges from electronic and hydraulic brake and chassis control systems to sensors, advanced driver assistance systems, airbag electronics, and sensorics, plus electronic air suspension systems, windscreen washer systems, and headlight cleaning nozzles. The focus lies on a high level of system competence and the networking of individual components. Thus products and system functions are developed along the SensePlanAct chain of effects. They form the foundation for automated driving.  
[www.continental-automotive.com](http://www.continental-automotive.com)

Cooperation partner

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## ETAS GmbH

We excel in providing innovative solutions that drive the development of embedded systems for the automotive industry and related sectors. As a systems provider, we offer integrated tools and tool solutions as well as engineering services, consulting, training, and support.

ETAS has more than 1,400 associates working in 12 countries in Europe, Asia, and the Americas. Our customers include automakers, automotive component suppliers, ECU suppliers, and engineering service providers.

### Market challenges – ETAS solutions

The automotive industry is undergoing fundamental change. New, energy-efficient vehicle powertrains, (partially) autonomous driving, digitalization, connectivity, and cybersecurity – the list of innovations has never been so long. At the same time, new systems must be brought to market faster. Key technologies are electronics and software, which is exactly where ETAS' strengths lie. With our expert knowledge and the right tools, we enable the development of security-relevant software. The increasing connectivity of vehicle electronics requires protection against unauthorized access. The ETAS subsidiary ESCRYPOT consequently offers holistic solutions for embedded security, operational technology security, and enterprise IT security.

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[www.etas.com](http://www.etas.com)



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Media partners

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**ATZ** **ATZ** elektronik **versicherungs**  
magazin

## Registration fee

€ 1,395.– plus VAT

This includes the conference documentation, the catering during breaks and the evening event on 13.10.2020.

## Date

13. – 14.10.2020

## Venue

RheinMain CongressCenter (RMCC)  
Friedrich-Ebert-Allee 1  
65185 Wiesbaden, Germany

## Languages used in the presentations

German and English with simultaneous interpreting  
(German – English / English – German)

## Hotels

Some hotels have room blocks at reduced prices for the participants. You can find more information on the events page of our website.

**Online Registration  
and Further Information:**

[www.atzlive.de/en/audri](http://www.atzlive.de/en/audri)



## Participants

The ATZ conference “Automated Driving – From Driver Assistance to Autonomous Driving” is aimed at engineers and managers as well as experts involved in developing driver assistance systems and those who cooperate with these developers in the interdisciplinary field of vehicle-to-x technology. In addition to automotive engineers, the target group also includes function developers, software and IT engineers from industry, application-related research and teaching as well as experts working in fields relating to the social, economic, and legal background conditions.

# Further Information and Online Registration:



[www.atzlive.de/en/audri](http://www.atzlive.de/en/audri)

Automated Driving 2020

13. – 14.10.2020, Wiesbaden, Germany

## Your contact partner

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The organizer

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## **ATZlive** // Spotlight on Powertrain and Vehicle Engineering

Our events are firm fixtures in the diaries of automotive engineers and engine specialists. We offer a range of innovative conferences on the latest topics in the world of automotive engineering and engine technology, from the perspective of research, development and applications.

Our close collaboration with the editorial teams of our specialist magazines ATZ and MTZ keeps us fully up-to-date on the latest topics and trends on the market.

Springer, with its automotive technology brands in the ATZ and MTZ Group, is part of Springer Nature, one of the world's leading publishing groups for scientific, educational and specialist literature.