Automated Driving 2020

From Driver Assistance to Autonomous Driving

13. – 14.10.2020
Wiesbaden, Germany
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
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

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.
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.

Scientific Director of the Conference

Prof. Dr. Torsten Bertram
TU Dortmund University

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 Schöggl
AVL List GmbH

Dr. Falk Schubert
BMW Group

Winfried Schultalbers
IAV GmbH

Walter Schwertberger
MAN Truck & Bus SE

Prof. Andre Seeck
Federal Highway Research Institute (BAST)

Dr. Dietmar Stapel
Helia 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

09:30 Presentation in request

09:30 – 10:30, Plenum
KEYNOTE LECTURES
Moderation: Prof. Dr. Prof. h.c. Dr. h.c. Torsten Bertram, TU Dortmund

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 Kaths, 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
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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<tr>
<td>14:00 – 15:30</td>
<td>Parallel Strand I</td>
<td><strong>PLAN AND THINK I</strong></td>
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<td>14:00</td>
<td>Progress on the “AUTOSAR Adaptive Platform” for intelligent vehicles</td>
<td>Rinat Asmus, Project Lead AUTOSAR Development Partnership, AUTOSAR GbR</td>
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<td>14:30</td>
<td>Methodology to define requirements for redundant and safe autonomous vehicle sensor setups for different SAE levels of automation</td>
<td>Felix Modes, Development Engineer for Autonomous Driving Sensor Setups, BMW Group; Miguel Hurtado, Advanced Senior Engineer, FIAT Chrysler Automobiles (FCA)</td>
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<td>15:00</td>
<td>Creating trust in the lines-of-code behavior – from the Start-up-OTA solution to a successful Tier1</td>
<td>Rudolf von Stokar, Managing Director, Aurora Labs GmbH</td>
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<td>15:30</td>
<td>Refreshment break with coffee and tea in the exhibition area</td>
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<td>16:00 – 16:30</td>
<td>Parallel Strand I</td>
<td><strong>LAW</strong></td>
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<td>16:00</td>
<td>Legal evaluation of monetizing automotive data</td>
<td>Oliver Köster, Lawyer and Partner, Beiten Burkhardt Rechtsanwaltsgesellschaft mbH</td>
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<td>16:30 – 17:00</td>
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<td><strong>SCIENCE PITCH</strong></td>
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<td>17:00 – 17:30</td>
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<td><strong>KEYNOTE LECTURE</strong></td>
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<td>17:00</td>
<td>Keynote Lecture</td>
<td>Self-driving vehicles will revolutionize the transportation system</td>
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14:00 – 15:30, Parallel Strand II

INSURANCE TOPICS

Moderation: Meris Neininger, 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 Ehring, 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

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, Jobtitle, Business Development Manager ADAS/AD Testing Solutions, Hella Aglaia Mobile Vision GmbH
PROGRAM

WEDNESDAY, 14.10.2020

12:30 Lunch in the exhibition area

13:30 – 14:30, Plenum

PLAN AND THINK II
Moderation: Dr. Peter Schöggl, 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

16:00  Challenges and success factors for automated driving
Dr. Peter Schöggl, Head of Business Field Racing and Vehicle, AVL List GmbH, Austria

16:30  Closing remarks
Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group

Eventual program changes reserved
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, windshield 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

Cooperation partner

www.continental-automotive.com
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 ESCRIPT consequently offers holistic solutions for embedded security, operational technology security, and enterprise IT security.

Cooperation partner

www.etas.com
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Phone +49 611 7878-320
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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

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.
Automated Driving 2020
13. – 14.10.2020, Wiesbaden, Germany

Further Information and Online Registration:
www.atzlive.de/en/audri

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The organizer

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.