

Automated Driving 2021

From Assisted to Autonomous Driving

08 – 09 June 2021

Wiesbaden, Germany or
virtually via live stream

Hybrid event

Your choice:
Participate on site
or virtually via
live stream

KEYNOTE LECTURES

Continental // ETAS GmbH //
Hamburger Hochbahn AG //
RWTH Aachen University

From Assisted to Autonomous Driving

/ SENSE

Sensor systems and environment recognition

/ PLAN AND THINK

Recognizing, analyzing, and evaluating situations; Planning and deciding behaviour

/ ACT

Implementing functions of automated driving

HIGHLIGHT

Science Pitch:
3 minutes each – 3 slides – 3 questions



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

Welcome

Artificial intelligence and machine learning to continuously improve the control of traffic situations will remain exciting challenges for the implementation of automated driving and the path towards SAE levels beyond 2+. Perhaps the key is that, by iteratively adding more and more “+” to the 2, we will reach Level 3 one day without the users even noticing. From this perspective, evolution instead of revolution would have a double meaning: realistic development objectives and at the same time a user experience in the sense of a real driving experience.

As an annual trend barometer, the 7th International ATZ Conference “Automated Driving” takes up this theme. In addition to aspects relating to the further development of the current state of technology, we will include interesting new developments in the program to raise the topic to a new level. Only in this way can we create the constructive dialogue that makes our conference better every year and gives the industry the right impetus.

I look forward to welcoming you to the conference.

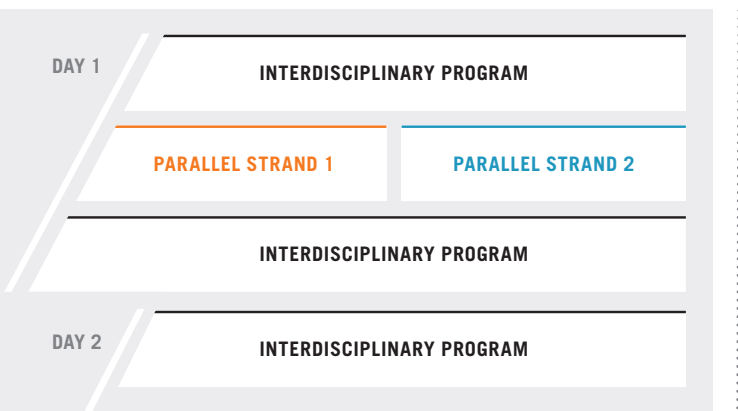
On behalf of the Scientific Advisory Board

Your Corona protection concept

In order to ensure that the ATZlive conference is safe and successful for all participants, even in times of Corona, we have drawn up a wide-ranging hygiene protection concept and are making detailed arrangements with the event partners. If you would prefer to participate virtually in the event for health reasons or due to travel restrictions, this year we will offer you a live stream with Q&A function, 1:1 video chat with participants and other useful functions in parallel.

Automated Driving

On the one hand, partially-, highly-, fully automated and autonomous driving serve the goal of avoiding accidents in the future, and on the other hand, robot cars are the basis for OEMs' data-driven business models. Depending on the SAE level, the human being changes from driver to passenger. AI processes help to develop and to realize self-propelled cars that satisfy every safety concept. Industry experts appreciate the International ATZ Conference "Automated Driving – from Assisted to Autonomous Driving", as it offers not only technical presentations but also the opportunity to inspect test vehicles and discuss with experts in the exhibition.



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

Maria Anhalt
Elektrobit Automotive GmbH

Ralph Lauxmann
Continental

Dr. Thomas Dieckmann
ZF Group

Frank Leimbach
DEKRA e. V.

Hans-Georg Frischkorn
Strategy Consulting

Steffen Schmidt
IPG Automotive GmbH

Dr. Robert Fuchs
JTEKT Corporation

Dr. Peter Schöggel
AVL List GmbH

Simon Fürst
BMW Group

Winfried Schultalbers
IAV GmbH

Dr. Karl-Heinz Glander
Aptiv Services Deutschland GmbH

Tino Schulze
dSPACE GmbH

Dr. Michael E. Hafner
Mercedes-Benz AG

Walter Schwerberger
MAN Truck & Bus SE

Christoph Hartung
ETAS GmbH

Prof. Andre Seeck
Federal Highway Research Institute (BAST)

Dr. Alexander Heintzel
Springer Nature

Dr. Dietmar Stapel
Hella GmbH & Co. KGaA

Jörg Hölig
EDAG Engineering GmbH

Dr. Andreas Teuner
ZF Group

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



08:45 Welcome and opening of the conference

Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group, Springer Nature, Germany; Prof. Dr. Prof. h.c. Dr. h.c. Torsten Bertram, Head of RST, TU Dortmund University, Germany

09:00 – 10:30, Plenum

KEYNOTE LECTURES

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

KEYNOTE**09:00 The future of automated driving**

(speaker inquired)

KEYNOTE**09:30 ETAS Continuous-X solutions for data-driven development of highly automated driving functions**

Zoran Cutura, Director Cross-Application Field Management, ETAS GmbH, Germany

KEYNOTE**10:00 Project "HEAT": Hamburg Electric Autonomous Transportation**

Katrin Schwager, Project Manager for Innovation and Change, Hamburger Hochbahn AG, Germany

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

11:00 – 12:30, Parallel Strand I

INFRASTRUCTURE

Moderation: Dr. Robert Fuchs, JTEKT Corporation, Japan

11:00 AD safety assurance platform and agile product development

Satoshi Taniguchi, Group Manager AD/ADAS Safety Assurance, Toyota Motor Corporation, Japan

11:30 HEAT as an example of efficient environmental perception for autonomous shuttle systems

Dr. Philipp Materne, Development Engineer, IAV GmbH, Germany

12:00 Digital twin to design and support the usage of alternative drive systems in municipal vehicle fleets

Dr. Sven Spieckermann, CEO, SimPlan AG, Germany [in cooperation with Frankfurt University of Applied Sciences; Hanau Infrastruktur Service; Hanauer Straßenbahn GmbH, all Germany]

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

INSURANCE TOPICS

Moderation: Meris Neiningner, Managing Editor Versicherungsmagazin

11:00 Insurance solutions for electric and autonomous cars

Patrick Wirth, Director Innovation & Investment, Baloise Insurance, Switzerland

11:30 The automotive insurance market in 2021

Stefan Schmuttermair, Actuary (DAV), Division Manager, E + S Rückversicherung AG, Germany

12:00 Autonomous driving – the car insurers' killer?

Onnen Siems, Managing Director, Meyerthole Siems Kohlruss – Gesellschaft für actuarielle Beratung mbH, Germany

14:00 – 15:30, Parallel Strand I

CUSTOMER EXPERIENCE

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

- 14:00 The future of cars is more than autonomous driving**
David Carvalho, Senior Vice President Experience Design / CX/UX/UI & Industrial Design, Pininfarina S.p.A., Italy
- 14:30 Trust in autonomous cars – how to build it for different customer groups**
Nils Köster, PhD student, Institute for Technology and Innovation Management (TIM), RWTH Aachen University, Germany
- 15:00 User needs follow technological developments or vice versa? Acceptance of automated driving**
Prof. Dr. Meike Jipp, Head of Department Human Factors, Institute of Transport Research, Institute of Transportation Systems, German Aerospace Center (DLR), Germany

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

16:00 – 17:00, Parallel Strand I

DATA-DRIVEN DEVELOPMENT I

Moderation: Christoph Hartung, ETAS GmbH

- 16:00 Augmented data for autonomous vehicles**
Dr. Simon Funke, Partnership Manager Automotive, understandAI GmbH, Germany [in cooperation with dSPACE GmbH, Germany]
- 16:30 Physics-based radar simulation for the validation of ADAS/AD in almost real time**
Gerd Prillwitz, Lead Application Engineer: Sensors and Photonics, ANSYS Inc., USA [in cooperation with Ansys Germany GmbH, Germany]

from

19:00 Networking Dinner

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

14:00 – 15:30, Parallel Strand II

SOFTWARE/DEVELOPMENT PROCESSES

Moderation: Dr. Andreas Teuner, ZF Group

- 14:00 Building the bridge between automotive software engineering and DevOps approaches for automated driving**
Dr. Detlef Zerfowski, Vice President Security & VRTE, ETAS GmbH, Germany [in cooperation with ETAS Ltd, UK and Robert Bosch GmbH, Germany]
- 14:30 Toward a software-defined vehicle**
Jan Becker, President, CEO, Co-Founder Apex.AI, Inc., USA
- 15:00 Substitution model of teleoperated driving**
Elisabeth Shi, HMI Research Associate, Federal Highway Research Institute (BAST), Germany

16:00 – 17:00, Parallel Strand II

SCIENCE PITCH: 3 minutes each – 3 slides – 3 questionsModeration: Dr. Peter Schöggel, AVL List GmbH, Austria;
Dr. Karl-Heinz Glander, Aptiv Services Deutschland GmbH, Germany**Validation concept for scenario-based distributed test benches of a highly automated vehicle**

Moritz Wäschle, Research Associate, Karlsruher Institute of Technology, Germany

Unobtrusive monitoring method for estimating the driver state using seat pressure sensors

Khazar Dargahi Nobari, PhD Student, TU Dortmund University

Assessment of driver reaction in response to an AES intervention during manual and automatic driving

Alexander Karl Böhm, Masterstudent, Technical University of Munich, Germany [in cooperation with JTEKT Corporation, Japan]

Pose estimation for intention detection of pedestrians in road traffic

Katharina Bartsch, PhD Student, TU Dortmund University, Germany

Hand over, move over, take over – what automotive developers have to add to enable driver take-over

Prof. Dr. Wolfram Remlinger, Head of Interior Design Engineering, University of Stuttgart, Germany

08:30 – 09:00, Plenum

KEYNOTE LECTURE

Moderation: Ralph Lauxmann, Continental

KEYNOTE**08:30 Automated driving – challenges and promising solutions**

Prof. Dr. Lutz Eckstein, Director, Institute for Automotive Engineering (ika), RWTH Aachen University, Germany [in cooperation with fka GmbH, Germany]

09:00 – 10:30, Plenum

SENSOR FUSION

Moderation: Ralph Lauxmann, Continental

09:00 Smart intersection – infrastructure-assisted driving in complex urban scenarios

Dr. Thomas Otto, Group Manager Cooperative Systems, Fraunhofer Institute for Transportation and Infrastructure Systems IVI, Germany

09:30 Navigation with uncertain map data for automated vehicles

Christopher Diehl, Research Associate, Institute of Control Theory and Systems Engineering, TU Dortmund University, Germany

10:00 How tactile sensing & data of vehicle-road dynamics informs automated driving

Yagil Tzur, Vice President Product, Tactile Mobility, Israel

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

11:00 – 12:00 Uhr, Plenum

DATA-DRIVEN DEVELOPMENT II

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

11:00 Generation of scenarios for virtual driving tests on the basis of accident databases

Alexander Frings, Manager Engineering Services, IPG Automotive GmbH, Germany

11:30 The autonomous driving data lake to increase development efficiencies

Bryan Berezdivin, WW Industry Lead - Autonomous Driving, Amazon Web Services, Inc., USA

12:00 Lunch in the exhibition area

13:30 – 14:30, Plenum

DEVELOPMENT PERFORMANCE

Moderation: Jörg Hölzig, EDAG Engineering GmbH

13:00 Over-the-air real-time automotive radar HIL with CarMaker for ADAS and AD validations

Dr. Kasra Haghighi, Founder and CEO, UniqueSec AB, Sweden [in cooperation with Toyota Motors Europe, Belgium]

13:30 A modular test strategy for highly autonomous driving based on Autonomous Parking Pilot and Highway Pilot

Andreas Bossert, Senior Expert Engineer Verification, Validation and Virtualization, ITK Engineering GmbH, Germany

14:00 From real world to pixel and beyond

Jérémy Dahan, Head of Technology Research, Elektrobit Automotive Americas Inc., USA [in cooperation with Elektrobit Automotive GmbH, Germany]

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

15:00 – 16:00, Plenum

DATA-DRIVEN DEVELOPMENT III

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

15:00 Mastering data pipeline for autonomous driving

Patrik Moravek, Product engineer, dSPACE GmbH

15:30 Smart fleet analysis regarding target fulfillment and test coverage

Erich Ramschak, Senior Product Manager ADAS & AD, AVL List GmbH, Austria

16:00 – 16:30 Uhr, Plenum

KEYNOTE LECTURE

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

KEYNOTE**16:00 Automated driving – Do we need a safety management system?**

Dr. Martin Grießer, Head of Systems Engineering, Continental, Germany

16:30 Closing remarks



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 2019, Continental generated sales of €44.5 billion and currently employs more than 233,000 people in 59 countries and markets. In 2021, the company celebrates its 150th anniversary.

The Autonomous Mobility and Safety business area develops, produces and integrates active and passive safety technologies and controls 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 as well as electronic air suspension systems all the way to windscreen washer systems and headlight cleaning nozzles. The focus lies on a high level of systems expertise and the networking of individual components. In this way, products and system functions are created along the SensePlanAct chain of effects. These make driving safer and easier and pave the way for autonomous mobility.

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 cyber security – 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. Increasing connectivity and the real-time communication of vehicle systems and other electronic systems make comprehensive and cost-efficient protection necessary. ESCRYPT is a wholly owned subsidiary of ETAS GmbH and offers highly secure IT security solutions for connected vehicles.

Cooperation partner



www.etas.com



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For information on the various presentation options, please contact:

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Phone +49 611 7878-320
elke.vanlon@springernature.com

Media partners

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

Registration fee

At the location:
€ 1.395,- plus VAT

Virtually via live stream:
€ 995,- plus VAT

This includes the conference documentation, the catering during breaks and the evening event on 08-06-2021. With the live stream booking option, catering during the breaks, soft drinks and the evening event are not available.

Date

08 – 09 June 2021

Venue

RheinMain CongressCenter (RMCC) or virtually via live stream
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 Assisted 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

Automated Driving 2021
08 – 09 June 2021, Wiesbaden, Germany
or virtually via live stream

Hybrid event

Your choice:

Participate on site
or virtually via
live stream

Your contact partner

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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.