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10
YEARS

plus

10th International Munich Chassis Symposium
25 and 26 June 2019 | Munich | Germany



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Simultaneous Interpreting
German and English

chassis.tech

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NEW CHASSIS SOLUTIONS

Urban mobility
drives innovations

AUTOMATED DRIVING

AI conquers the chassis

STEERING TECHNOLOGIES

Steer-by-wire offers
new opportunities

/// PLENARY LECTURES **Bosch Engineering GmbH | Honda R&D Co., Ltd. | IHS Global SRL | Dr. Ing. h.c. F. Porsche AG | TRE GmbH | Volkswagen AG | WiTech Engineering GmbH**

/// ONE FOR ALL **Four congresses in one event**

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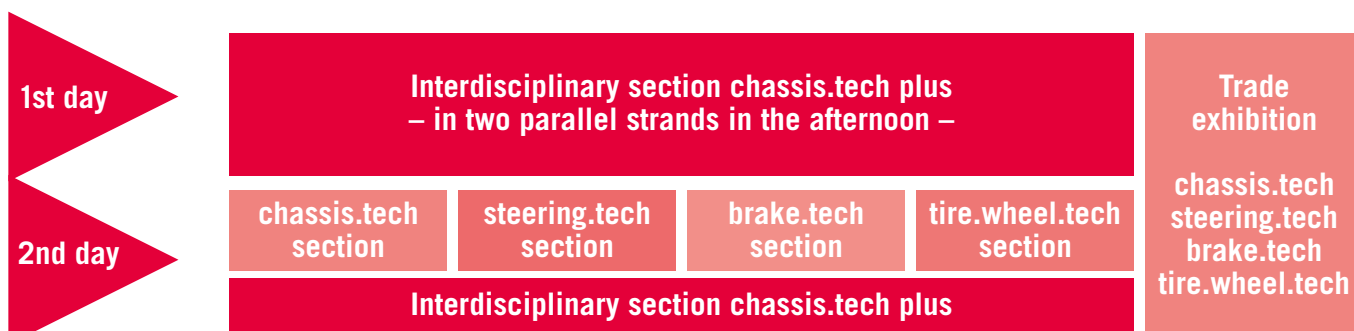
WELCOME

The increasing automation of driving functions and the electrification of powertrains present new challenges for the chassis with regard to complexity, redundancy, data security, and installation space. At the same time, the mobility of the future will also require entirely new vehicle concepts, particularly in urban areas. The intelligent chassis must be connected, electrified, and automated in order to be best prepared for this future. Will the chassis remain a strategic key area of expertise in 2025 or will it be just another component? This is one of the questions that will play an important role at the anniversary event of the International Munich Chassis Symposium chassis.tech plus. 2019 will mark the 20th anniversary of chassis.tech, which is being held for the tenth time in its present form as chassis.tech plus and will bring together leading experts from all over the world for an exchange of ideas and experience on the chassis, steering systems, brakes, and tires/wheels.

After a short review of the past and a look into the future by Prof. Dr. Ulrich Seiffert, renowned keynote speakers such as Friedrich Eichler (Volkswagen), Atsushi Tsubouchi (Honda), Stephen Mitas (Porsche) and former Formula 1 world champion Nico Rosberg (TRE) will provide an overview of the latest approaches. Speakers from industry and research will discuss current developments in the chassis, steering systems, brakes, and tires/wheels in four parallel strands of lectures. The program is rounded off by two plenary sessions at the beginning and end of the conference.

We look forward to welcoming you to the Bayerischer Hof in the center of Munich and hope you have an exciting conference.

Prof. Dr. Peter E. Pfeffer
Munich University of Applied Sciences
Scientific Director of the Symposium



>> **CHASSIS.TECH PLUS SECTION** Festsaal

Moderator:

Prof. Dr. Peter E. Pfeffer,
Automotive Engineering,
Munich University of Applied Sciences

8:00 Registration

9:15 **Welcome, opening, and review
of 10 years of chassis.tech plus**

Dr. Alexander Heintzel, Editor-in-Chief
ATZ | MTZ Group, Springer Nature;
Prof. Dr. Peter E. Pfeffer, Automotive Engineering,
Munich University of Applied Sciences;
Prof. Dr. Dr. Hans-Hermann Braess,
Honorary Chairman steering.tech

KEYNOTE LECTURES I

9:30 **Vehicle development – how good are the forecasts?
A look back and into the future**

Prof. Dr. Ulrich Seiffert, Managing Partner,
WiTech Engineering GmbH

10:00 **How “Automated Driving” changes the
requirements for classic chassis development –
a journey through time**

Friedrich Eichler, Head of Chassis Development,
Dr. S. Busch, S. Kreutz, Dr. J. Reichel,
K. Schebsdat, Volkswagen AG

10:30 **Chassis for future mobility:
challenges and solutions**

Nico Rosberg, Shareholder, TRE GmbH,
F1 World Champion 2016

11:00 **Opening of the accompanying trade exhibition
and refreshment break in the exhibition area**

KEYNOTE LECTURES II

11:30 **The chassis market and technology trends:
understanding the impact of automotive
megatrends on the chassis sector**

Patricio Barbale, Senior Analyst – Automotive
Planning Solutions, IHS Global SRL, Italy

12:00 **Will driving still be fun in the future?
Driving dynamics systems in the course of time**

Dr. Frank Schmidt, Executive Vice President
Engineering, Bosch Engineering GmbH

12:30 Lunch in the exhibition area

>> PARALLEL STRAND I

Festsaal

Moderator:

Stefan Resch, Corporate Strategy & Innovation,
TÜV SÜD AG

INNOVATIVE CHASSIS SOLUTIONS

- 14:00 **A solution for future urban mobility – the Schaeffler mover as synthesis of powertrain and chassis**
Dr. Manfred Kraus, Head of Mover Development,
B. Wuebbolt-Gorbatenko, Dr. C. Harkort,
Schaeffler-Paravan-Technologie GmbH
- 14:30 **New concept for the front and rear suspension taking advantage of the opportunity offered by the electrification process**
Luca Dusini, Vehicle Dynamics and Simulation,
G. Battaglia, Maserati S.p.A., Italy
- 15:00 **Detection of wet road conditions in the new generation of the 911**
Yves Billet, Manager Chassis Mechatronics,
Dr. Ing. h.c. F. Porsche AG
- 15:30 Refreshment break in the exhibition area

RISK ANALYSES AND VIRTUAL METHODS

- 16:00 **Liability risks in the design and execution of tests and simulations**
Dr. Philipp Ehrling, Attorney, GH Legal
- 16:30 **Simplified modeling of self-excited rear axle wheel shimmy vibrations by using the proper orthogonal decomposition**
Sebastian Wagner, PhD Candidate Department of Vehicle Dynamics, Dr. J. Mayet, BMW Group;
Prof. Dr. Dr. D. Schramm, Chair of Mechatronics,
University of Duisburg-Essen
- 17:00 **Quasi-static and dynamic suspension measurements vs. multi-body and real-time simulation results**
Sebastian Lefèvre, Development Engineer,
Dr. Ing. h.c. F. Porsche AG; F. Kracht,
Prof. Dr. Dr. D. Schramm, Chair of Mechatronics,
University of Duisburg-Essen
- 17:30 **Model-based parameter identification of a virtual vehicle model – time-effective step-up for steering performance development**
Alessandro Contini, Engineer Steering & Suspension,
T. Schöning, Hyundai Motor Europe Technical
Center GmbH

>> PARALLEL STRAND II

Palaishalle

Moderator:

Dr. Veit Held, Senior Manager Advanced Engineering
Chassis and Chassis Control Systems,
Opel Automobile GmbH

AI IN THE CHASSIS

- 14:00 **Vehicle side-slip angle estimation using deep recurrent neural network and environmental sensor data**
Yuran Liang, Doctoral Student in Development
Vehicle Dynamics, D. Ganesch, D. Rolle, BMW Group;
Prof. Dr. S. Müller, Department of Motor Vehicles,
TU Berlin
- 14:30 **Potentials of modern active suspension control strategies – from model predictive control to deep learning approaches**
Guru Bhargava Khandavalli, Research Assistant,
D. Wegener, Prof. Dr. L. Eckstein, ika, RWTH Aachen
University; Dr. M. Kalabis, Ford-Werke GmbH
- 15:00 **The role of deep learning for vehicle lateral control**
Johann Haselberger, Research Assistant,
Prof. B. Schick, Research ADAS/AD, Kempten
University of Applied Sciences; Dr. J. Chen,
Porsche Engineering Services GmbH
- 15:30 Refreshment break in the exhibition area

LIGHTWEIGHT DESIGN AND DRIVEABILITY

- 16:00 **Challenges and benefits for lightweight chassis components focusing on rear axle development**
Dr. Thomas Kersten, Manager Rear Axle
Development, Dr. Sierk Fiebig, Head of
Subdepartment Pre-development/Simulation Chassis,
Volkswagen AG
- 16:30 **Innovative use of composites in suspension systems**
Peter Kuhn, Analysis Engineer, Christoph Loy,
Development Engineer, M. Kühnel, Dr. C. Ebel,
SGL Technologies GmbH
- 17:00 **Design of an innovative concept of a front wheel car suspension with a metal-elastic triangular control arm**
Christina Sax, Master Student, Automotive Engineering,
Munich University of Applied Sciences; Dr. R. Stroph,
N. Deixler, BMW Group
- 17:30 **You drive me crazy: enhance the driving ability of professional drivers to improve controllability judgement of hazardous situations**
Dr. Marcus Perner, Technical Consultant for
Functional Safety of Chassis Functions, M. Levers,
M. Gebhardt, S. Heine, IAV GmbH

from **Evening reception in Munich Ratskeller**

18:30 Enjoy interesting conversations with colleagues and speakers in a pleasant atmosphere.

>> CHASSIS.TECH
SECTION

Palaishalle

Moderator:

Prof. Bernhard Schick, Research ADAS/AD,
Kempten University of Applied Sciences

CHARACTERIZATION OF ADAS DRIVING PROPERTIES

- 8:30 **Attribute-based development of driver assistance systems**
Dr. Manuel Höfer, Head of HAD/ADAS Driving Dynamics and Application – Steering Systems, Dr. F. Fuhr, Dr. Ing. h.c. F. Porsche AG; Prof. B. Schick, Research ADAS/AD, Kempten University of Applied Sciences; Prof. Dr. P. Pfeffer, MdynamiX AG
- 9:00 **Assisted/autonomous vs. human driving assessment on the DiM driving simulator using objective/subjective characterization**
Diego Minen, Chief Technical Officer, C. Savorgnan, F. Formaggia, M. Minen, VI-grade s.r.l.; A. Affanni, P. Zontone, DPIA, University of Udine; R. Fenici, D. Brisinda, BACPIC, UCSC Roma; L. Gamberini, P. Pluchino, HIT, M. Bruschetta, DIE, University of Padova, all Italy
- 9:30 **Development of model predictive motion planning and control for autonomous vehicles**
Guido Tosolin, Senior Product Manager Chassis Development, J. Cartró, V. Sharma, Applus IDIADA Group, Spain
- 10:00 Refreshment break in the exhibition area

Moderator:

Prof. Dr. Pim van der Jagt, Technical Director,
AB Dynamics Europe GmbH

DEVELOPMENT METHODS

- 10:30 **Challenges and solutions of converting conventional vehicles to hybrid electric or battery electric vehicles**
Rob Kraaijeveld, Senior Technical Specialist, Matthias Wilmes, Team Leader Chassis and Vehicle Dynamics, K. Wolff, FEV Europe GmbH
- 11:00 **Automatically reconfigurable actuator control for reliable autonomous driving functions (AutoKonf)**
Dr. Sergey Orlov, System Engineer Pre-Development, Hella GmbH & Co. KGaA; Dr. M. Korte, Intedis GmbH & Co. KG; F. Oszwald, BMW Group
- 11:30 **Nonlinear brake control of an F1 vehicle and the small step to nonlinear vehicle dynamic control**
Michele Sigilló, Founder and CEO, SIGICONTROL s.r.o., Czech Republic; M. Zurbuchen, D. Spagnol, Alfa Romeo Sauber F1 Team, Switzerland
- 12:00 Lunch in the exhibition area

>> STEERING.TECH
SECTION

Festsaal

Moderator:

Dr. Christoph Bittner, Director Development
Chassis Systems, Dr. Ing. h.c. F. Porsche AG

DEVELOPMENT METHODOLOGY AND AI

- 8:30 **Learned steering feel by a neural network for a steer-by-wire system**
Patrick Krupka, Doctoral Student Development of Steering Electronics, C. Kreis, Dr. B. Boßdorf-Zimmer, Volkswagen AG; Prof. Dr. P. Lukowicz, German Research Center for Artificial Intelligence
- 9:00 **Robust control for electric power steering with unconsidered modes and parameter uncertainties**
Michael Haßenberg, Development of Mechatronic Systems, H. Brieße, DMecS GmbH & Co. KG; M. Irmer, Prof. Dr. H. Henrichfreise, Laboratory of Mechatronics (CLM), Cologne University of Applied Sciences
- 9:30 **Further understanding of steering feedback and driver behavior through the application of an instrumented steering wheel**
Xabier Carrera Akutain PhD, Technical Manager Vehicle Dynamics and Model Based Development, K. Ono, Toyota Motor Europe, Belgium; F. Comolli, Prof. Dr. G. Mastinu, Prof. M. Gobbi, Mechanical Engineering, Politecnico di Milano, Italy
- 10:00 Refreshment break in the exhibition area

Moderator:

Kristof Polmans, Head of Technology & Innovation,
thyssenkrupp Presta AG, Liechtenstein

NEW STEERING TECHNOLOGIES

- 10:30 **Auxiliary power supply system for electric power steering with heat-resistant lithium-ion capacitor**
Dirk Ferge, Senior Manager Business Development & Innovation, JTEKT Europe; T. Sugiyama, T. Mio, S. Shinoda, JTEKT CORPORATION, Japan
- 11:00 **New steer-by-wire concept to simplify steering system integration**
Bertram Möller, EPS Technology Manager and Managing Director, Nexteer Automotive Germany GmbH; M. Nakielski, Nexteer Automotive Poland Sp. z o.o.
- 11:30 **OmniSteer – multidirectional chassis system using wheel individual steering**
Dominik Nees, Development Engineer Automated Mobility, Schaeffler Technologies AG & Co. KG; Dr. M. Frey, Institute of Vehicle System Technology, Karlsruhe Institute of Technology (KIT)
- 12:00 Lunch in the exhibition area

>> BRAKE.TECH SECTION

Fürstensalon

Moderator:

Karl Friedrich Wörsdörfer, Vice President
Product Development Hydraulic Brake Systems,
Continental Teves AG & Co. oHG

SYSTEM REQUIREMENTS AND BRAKE FEEL

- 8:30 **NCAP, legislation, and real world requirements require high-pressure dynamics in brake systems**
Dr. Alexander Brandt, Director Product Management
Active Safety, Robert Bosch GmbH
- 9:00 **End of oversizing: smart designing of brake systems for BEVs**
Dr. Jens Hoffmann, Manager Advanced
Development, K. F. Wörsdörfer,
Continental Teves AG & Co. oHG
- 9:30 **Virtual brake design and influence of brake pedal feel in a front loading process**
Samuel Lago Places, CAE Development Engineer
Brake Performance, D. Frerichs, K. M. Hahn,
Opel Automobile GmbH
- 10:00 Refreshment break in the exhibition area

Moderator:

Jan Münchhoff, Head of Project Management
Chassis A6/A7/A8, AUDI AG

INNOVATIVE BRAKE COMPONENTS

- 10:30 **Brake-specific investigations of a ceramic-coated aluminum brake disc**
Florian Gulden, Research Assistant,
Dr. H. W. Höppel, Chair of General Materials
Properties, Friedrich-Alexander University
Erlangen-Nürnberg; Dr. S. Gramstat,
Dr. A. Stich, AUDI AG; Prof. Dr. U. Tetzlaff,
Faculty of Mechanical Engineering, TH Ingolstadt
- 11:00 **At source brake dust collection system**
Matthieu Hascoet, Project Manager,
Dr. L. Adamczak, Tallano Technologie, France
- 11:30 **Advanced rayon brake hose reinforcement**
Rudolf Einsiedel, Head of Sales & Procurement
Cordus Sales, Director MRG & New Business
Cordenka, Cordenka GmbH & Co. KG
- 12:00 Lunch in the exhibition area

>> TIRE.WHEEL.TECH SECTION

Königssaal

Moderator:

Stefan Dittmar, Team Leader Wheels, Business Unit
Tires/Wheels, TÜV SÜD Product Service GmbH

WHEEL TECHNOLOGIES AND REQUIREMENTS

- 8:30 **Contribution of tires and wheels to the WLTP**
Dr. Günter Leister, Senior Manager Wheels, Tires,
TPMS, Daimler AG
- 9:00 **Wheel casting technology in the next generation; changing demands require new approaches**
Ralf Bux, CEO and Project Manager TURBU
PRESSURE CASTING, ENTEC-STRACON GMBH
- 9:30 **High load capacity tires: market needs, Michelin development approach, norms, and regulations**
Bruno Guimard, Pre-Development Program
Manager, P. Chandezon, Michelin Technology
Centre France; S. Bertoldi, Michelin Reifenwerke
AG & Co. KGaA
- 10:00 Refreshment break in the exhibition area

Moderator:

Dr. Patrick Gruber, Reader in Advanced Vehicle
Systems Engineering, University of Surrey, UK

TIRE TESTS AND SIMULATION

- 10:30 **Stopping distance variation with tarmac temperature and tire wear**
Stefano Murgia, Specialist Engineer, A. G. Bissoli,
Vehicle Dynamics Performance Competence Center,
FCA Italy S.p.A.; M. Tambellini, Vehicle Engineering,
Università di Pisa, Italy
- 11:00 **Exploring simulator technology for tire development**
Francesco Calabrese, Tire and Vehicle Simulation
Engineer, Dr. M. Bäcker, A. Gallrein, Fraunhofer
Institute for Industrial Mathematics (ITWM)
- 11:30 **Model-based development of iTPMS (indirect Tire Pressure Monitoring System)**
Wenrui Han, Scientific Assistant /
Cooperational PhD Student,
Prof. Dr. G. Prokop, Chair of Automobile
Engineering, TU Dresden; Dr. T. Roscher,
AUDI AG
- 12:00 Lunch in the exhibition area

>> CHASSIS.TECH
SECTION

Palaishalle

Moderator:

Axel Honisch, Head of Vehicle Test and Development Dept., Hyundai Motor Europe Technical Center GmbH

RIDE COMFORT

- 13:30 **Characterization and potential analysis of passive and (semi-)active suspension systems by means of equivalent suspension parameters**
Dr. Florian Klinger, Senior Lecturer,
Prof. Dr. J. Edelmann, Prof. Dr. M. Plöchl, Institute of Mechanics and Mechatronics, TU Vienna, Austria
- 14:00 **Damper HiL tests and damper characterizations with focus on real-time application**
David Benz, Research Assistant and PhD Student,
Prof. Dr. P. E. Pfeffer, Automotive Engineering,
Munich University of Applied Sciences
- 14:30 **Road to virtual tuning: support for damper tuning in Hyundai Motor Europe Technical Center with new lumped model and testing protocol**
Alessandro Salgarello, Engineer Chassis,
D. Hahn, A. Pizzuto, Hyundai Motor Europe Technical Center GmbH
- 15:00 Refreshment break in the exhibition area

>> STEERING.TECH
SECTION

Festsaal

Moderator:

Prof. Dr. Manfred Plöchl, Institute of Mechanics and Mechatronics, TU Vienna, Austria

HUMAN-MACHINE INTERFACE

- 13:30 **Straight running – stability analysis with a driving simulator**
Prof. Dr. Giampiero Mastinu, Professor of Ground Vehicle Engineering, D. Biggio, Dr. F. Della Rossa, Department of Mechanical Engineering, Politecnico di Milano, Italy; M. Fainello, Danisi Engineering, Italy
- 14:00 **Future steering wheels for automated vehicles**
Christian Strümpfer, Team Leader HMI / Human Factors, D. Alt, H. Ruck, Joyson Safety Systems Aschaffenburg GmbH
- 14:30 **The battle of the senses: application of future control devices as a fallback solution for highly automated driving**
Dr. Marcus Perner, Technical Consultant for Functional Safety of Chassis Functions, C. Dreher, R. Lepke, V. Reich, M. Stock, A. Niendorf, M. Lampe, M. Gebhardt, S. Heine, IAV GmbH
- 15:00 Refreshment break in the exhibition area

>> CHASSIS.TECH PLUS SECTION

Festsaal

Moderator:

Prof. Dr. Peter E. Pfeffer,
Automotive Engineering,
Munich University of Applied Sciences

KEYNOTE LECTURES III

- 15:30 **Challenge to front-loading of the vehicle development using virtual prototyping and reformation of the process**
Atsushi Tsubouchi, Chief Engineer, Honda R&D Co., Ltd. Automobile R&D Center, Japan
- 16:00 **An introduction to Porsche's Le Mans winning 919 Hybrid and its chassis development**
Stephen Mitas, Chief Race Engineer of the Porsche LMP1 Team, Dr. Ing. h.c. F. Porsche AG
- 16:30 **Closing remarks**
Prof. Dr. Peter E. Pfeffer, Automotive Engineering, Munich University of Applied Sciences;
Dr. Alexander Heintzel,
Editor-in-Chief ATZ | MTZ Group, Springer Nature

>> BRAKE.TECH SECTION

Fürstensalon

Moderator:

Dr. Falk Hecker, VP Technology – Driver Assistance and Automated Driving, Knorr-Bremse Systeme für Nutzfahrzeuge GmbH

SYSTEMS FOR ELECTRIC / CONNECTED VEHICLES

- 13:30 **Use of a driving simulator to develop a brake-by-wire system designed for electric vehicles and car stability controls**
Claudio Annicchiarico, CEO, Meccanica 42 Srl, Italy;
G. Danisi, M. Fainello, Danisi Engineering S.r.l., Italy
- 14:00 **Modification of an electronic brake system for the use in an electric bus**
Jochen Buck, CAE Engineer Brake Systems,
Dr. U. Rein, Daimler AG
- 14:30 **Connected development of Bosch chassis systems**
Andreas Hoffmann, Project Manager Connected Braking Systems, T. Radke, Bosch Engineering GmbH
- 15:00 Refreshment break in the exhibition area
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>> TIRE.WHEEL.TECH SECTION

Königssaal

Moderator:

Victor Underberg, Head of Application Chassis Characteristics, Wheels, Tires, Tire Pressure Monitoring Systems, AUDI AG

VEHICLE DYNAMICS AND TIRE DEVELOPMENT

- 13:30 **Influence of rolling resistance optimized tires on the rollover stability of battery electric SUVs**
Fan Chang, Doctoral Student Virtual Chassis, Development Concept Properties/Functions,
Dr. S. van Putten, AUDI AG; F. Birnbaum,
J. Kubenz, Prof. Dr. G. Prokop, Chair of Automobile Engineering, TU Dresden
- 14:00 **Methodology for the measurement of tire wear particles**
Felix Wenzel, Research Assistant,
Prof. Dr. K. Augsborg, Director of Automotive Engineering, TU Ilmenau;
Dr. S. Gramstat, AUDI AG
- 14:30 **The Bridgestone innovative lightweight tire: innovative technology that brings sustainable performance to the next level**
Emilio Tiberio, VP R&D Bridgestone EMEA,
Bridgestone Technical Center Europe S.p.A., Italy
- 15:00 Refreshment break in the exhibition area
-



Source of graphical material:
ZF Friedrichshafen AG

10TH INTERNATIONAL MUNICH CHASSIS SYMPOSIUM

One for All – Four Congresses in One Event

The International Munich Chassis Symposium is the key worldwide meeting place for the chassis community in the fields of the chassis, steering, brakes and tires/wheels.

The **1st day** will be taken up by the interdisciplinary section **chassis.tech plus** with two parallel sessions of lectures in the afternoon. The symposium will focus on overriding issues relating to chassis systems and vehicle dynamics, before dividing up

on the **2nd day** into the following four parallel sections concentrating on the chassis, steering, brakes and tires/wheels:

chassis.tech
steering.tech
brake.tech
tire.wheel.tech

In the afternoon, the parallel sections will merge together again for the interdisciplinary section **chassis.tech plus**.

This year, the conference will focus on artificial intelligence in the chassis and the necessary development methodology and validation. Other subjects will, of course, also include new chassis and steering technologies and human-machine interfaces.

Participants can move freely between the four parallel sections at any time. The individual parallel sections scheduled for the second day – **chassis.tech, steering.tech, brake.tech, tire.wheel.tech** – can be booked separately at a reduced registration fee.

For the whole duration of the event, the **accompanying trade exhibition** will allow you to gather information on innovative products and services offered in the field of chassis development.

PARTICIPANTS

- Manufacturers of passenger cars and commercial vehicles and their suppliers
- Development service providers
- Universities and research institutes
- Manufacturers of measuring, testing and simulation systems
- Authorities, associations and testing institutes

EVENING RECEPTION IN MUNICH RATSKELLER

Tuesday 25 June 2019 | from 18:30
in Munich Ratskeller
Marienplatz 8 | 80331 Munich

Experience a cosy evening in the traditional Ratskeller. We are happy to invite you to attend an evening of stimulating conversation with colleagues and to offer you the chance to enjoy Bavarian culinary delicacies.

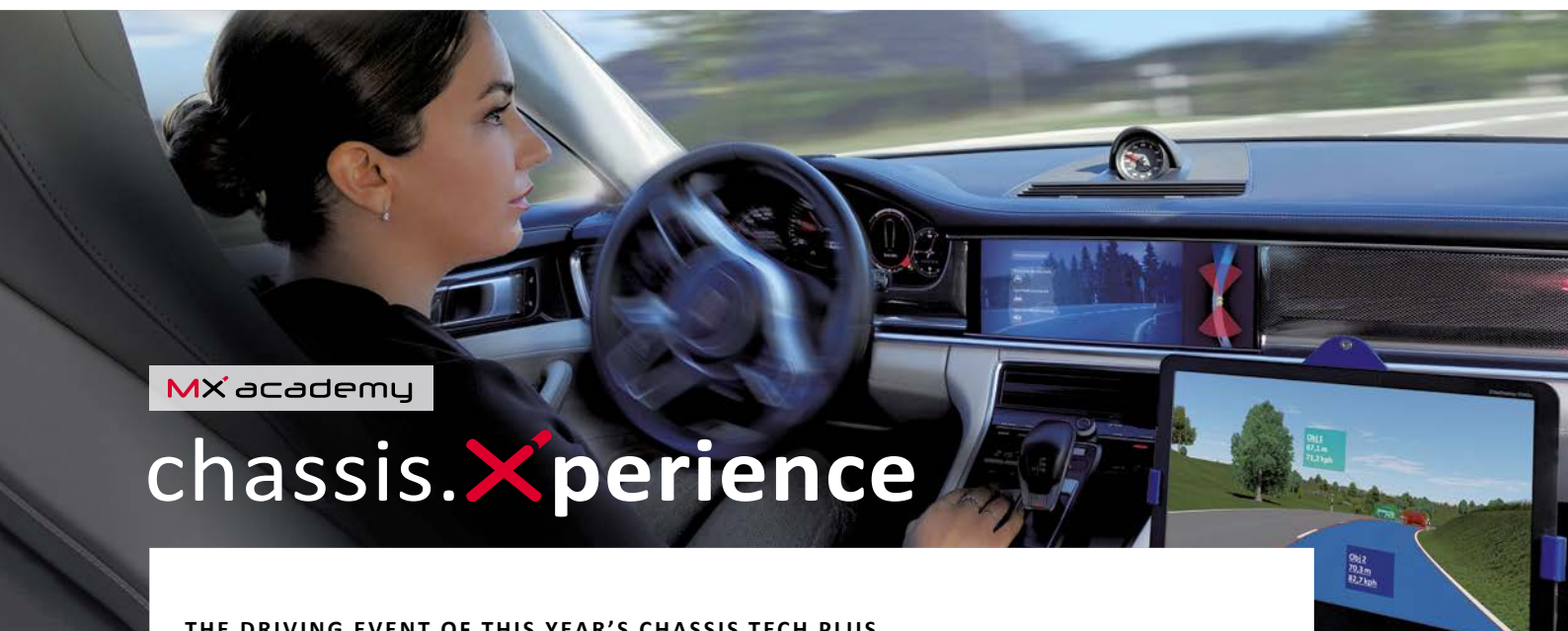
The foundation stone of the Ratskeller was laid on 25 August 1867. However, the first landlord and landlady did not move into the premises of the new town hall until 1 August 1874, the date when the city council started its activities there.

In accordance with the Romantic spirit of the age, Georg von Hauberisser designed the edifice as well as the furnishings of the Ratskeller in the 16th-century Gothic style. Munich painters such as Heinrich Schlitt and Josef Rösl designed the various vaults.

The Ratskeller, established ever since then as a place of civic hospitality, extends a hearty welcome with its typical Bavarian charm.

www.ratskeller.com





chassis.Xperience

THE DRIVING EVENT OF THIS YEAR'S CHASSIS.TECH PLUS

Experience and evaluate chassis systems and ADAS

chassis.Xperience – the driving event to experience advanced driving assistance systems live. Get to know the competitive environment by test-driving and evaluating the latest automobiles and their advanced assistant functions. All evaluation results will be recorded electronically, anonymized and made available.

Experience ADAS in its variety!

A vast selection of current car models equipped with state-of-the-art assistance systems available for you to test-drive a full day.

More information on schedule, registration & GTC:

➔ www.mdynamix.de/en/chassisxperience

➔ praxisseminar@mdynamix.de



Date:
Monday, June 24th, and
Thursday, June 27th, * 2019

Participant's fee:
€ 945,- / p.p. excl. VAT

*06/27/2019: additional date depending on demand. Limited number of participants



chassis.Xperience stations:

- Driving session lateral and longitudinal control
- Driving session parking assistant
- Methods / Driving simulator

SEMINAR LEADERS



Prof. Dr. Peter E. Pfeffer
MdynamiX AG,
University of Applied
Sciences Munich



Prof. Bernhard Schick
MdynamiX AG,
University of Applied
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ATZlive // Spotlight on Powertrain and Vehicle Engineering //

ATZlive organizes its high-caliber conferences for vehicle and engine specialists together with key representatives from research and industry to ensure that they are tailor-made to the needs of the participants and address the very latest issues. 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.

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The International Association for Vehicle System Dynamics founded in 1977 is an open non-commercial community of persons and organizations of different countries engaged in scientific research and development in the field of Vehicle Dynamics and related fields in order to promote the free and informal exchange of ideas and results.

More at www.iavsd.org





EXHIBITION

Tuesday 25 June 2019 and Wednesday 26 June 2019

An accompanying trade exhibition will be taking place again in the foyers of the function rooms on Tuesday 25 June and Wednesday 26 June. In numerous booths, manufacturers and suppliers of the automotive industry will present the latest developments in chassis technology to the specialist audience.

List of exhibitors attending chassis.tech plus 2019

As of 28 February 2019

Angst + Pfister | AVL List GmbH | Bertrandt AG | Dassault Systèmes (Simpack) | Freudenberg Sealing Technologies GmbH & Co. KG | Genesys Elektronik GmbH | IAMT Engineering GmbH & Co. KG | IAV GmbH | IPG Automotive GmbH | Joyson Safety Systems | MdynamiX AG | MOBIS Parts Europe N. V. | SHOWA R&D Europe | Siemens | Springer Professional | TBJ / Anthony Best Dynamics Ltd. (ABD) | TESIS Dynaware GmbH | TÜV SÜD AG | VI-grade GmbH | ZF Friedrichshafen AG

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Take this opportunity to present your latest products and services to the specialist audience: as an exhibitor in our exclusive exhibition and/or as a sponsor with an attractive advertising presentation.

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For information on the various presentation options, please contact:

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

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ATZ WORLDWIDE



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REGISTRATION FEE

Participation in the entire symposium chassis.tech plus

25 and 26 June 2019

€ 1,495.– plus VAT

This includes the conference documents, food and drinks during the breaks and the evening event on 25 June 2019.

Participation on one day only

25 June 2019 | in the section **chassis.tech plus** or

26 June 2019 | in one of the four parallel sections

chassis.tech, steering.tech, brake.tech, tire.wheel.tech

€ 945.– plus VAT

This includes the conference documents, food and drinks during the breaks and the evening event on 25 June 2019.

Participants can change between the parallel sections at any time. The registration fee also includes admission to the accompanying trade exhibition.

University members of the IAVSD receive a 50 % discount on the registration fee.

Mode of payment

By bank transfer after invoice or by credit card (MasterCard, Visa).

LANGUAGES USED IN THE PRESENTATIONS

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

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CONDITIONS

Cancellations are possible until 3 June 2019. If a cancellation is made after this date, the full registration fee will be charged. Cancellations must be made in writing. The date of the postmark will determine whether the deadline has been met. If you are unable to attend, we will be happy to accept a substitute participant.

Should a speaker be unable to attend at short notice by reason of force majeure, illness, accident, or other circumstances for which ATZlive cannot be held responsible, another qualified person will be appointed to the exclusion of any claim for compensation. Should the event be canceled altogether, we will of course refund the registration fee.

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VENUE

Hotel Bayerischer Hof

Promenadeplatz 2–6 | 80333 Munich | Germany

Phone +49 89 2120-0

www.bayerischerhof.de

HOTELS

Hotel rooms can be reserved at the following booking link: <https://www.zimmerkontingente.de/Chassis-tech-plus>

Please note: the room allotments are limited in time. We recommend early booking. If you have any difficulties, please contact Annika Mast.

Other hotels in Munich can be booked at:

www.muenchen-tourist.de

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10th International Munich Chassis Symposium

25 AND 26 JUNE 2019 | MUNICH | GERMANY

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You will receive confirmation of participation upon receipt of your registration and be invoiced three weeks before the symposium. You will receive your conference documents when registering at the venue.

Please register one person per form only.

Registration data

☐ Ms. ☐ Mr.

Family name

First name

Acad. title

Company / Institute

Department

Function

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Postal code / City

Country

Phone, Fax

E-mail

Invoice address (if different from above address)

VAT No.

CS001368

Date, Signature

Registration fee

In accordance with the General Terms and Conditions and the price list, I would like to order the following:**

☐ 25 and 26 June 2019 – entire symposium: € 1,495.–*

☐ 25 June 2019 – chassis.tech plus 1st day: € 945.–*

☐ 26 June 2019 – chassis.tech plus 2nd day: € 945.–*

* plus VAT

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Attendance at evening reception on 25 June 2019

☐ yes ☐ no

University member of IAVSD

☐ yes (50 % discount)

Mode of payment

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