Vienna Motor Symposium 2026

47th International Vienna Motor Symposium 22 – 24 April 2026

- Electrified Drive Systems – Powertrain Transformation
- New Battery Electric Vehicles & Electric Drives
- Electric Drive Components
- High-Performance Hybrid Engines
- Battery Thermal Management – High-Performance Charging
- New Combustion Engines – Innovative Combustion Processes
- Range Extenders – Dedicated Hybrid Transmissions
- Alternative Fuels
- Hydrogen Powertrains and Hydrogen Storage
- Software-Defined Vehicle (SDV) & Transformation
- Sustainable Mobility to Meet Legal Climate Neutrality Requirements

Virtual Hall

- Additional lecture videos

Programme as of December 2025

INNOVATIVE, PRODUCTION-READY SOLUTIONS

AVL Mobility Engineering

We are a leader in the development of innovative mobility systems, including hydrogen engines, hybrid powertrains, battery electric vehicles, and fuel cells.

With expertise in driving functions, subsystems, and components, we are perfectly set to help you integrate systems into vehicles for production. We also focus on Advanced Driver Assistance Systems and fully automated driving, offer technology consulting and stationary energy application development.

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Dear Ladies and Gentlemen,

We are pleased to send you the programme for the 47th International Vienna Motor Symposium.

Look forward to exciting topics from science, engineering, and the automotive and supplier industries, which will once again be presented by more than 80 speakers in three lecture halls in the Vienna Hofburg.

The automotive world is undergoing dynamic global development: sustainable energy supply, optimized drive technology, AI and SDV are shaping the research and development priorities.

The upcoming symposium will showcase the latest all-electric powertrains – both in the high-end segment and in the small car class. A key focus will be the booming new class of hybrids/range extenders, whether in the top performance class of hypercars with a powerful combustion engine plus electric motor, or as a primary electric drive supplemented by a small combustion engine. Hydrogen technology, from energy conversion to storage, will also be a major topic. Efficiency is another focus of the upcoming event, both in the latest combustion engines for mass production, in the application of innovative injection and ignition systems, as well as in the first series production use of wheel hub motors.

The traditional plenary opening and closing lectures frame the event with contributions from leaders of the international mobility industry.

All registered participants will receive access to a web platform on which the recording of the entire lecture programme will be made available online after the event.

In addition, in-depth and further video lectures will already be available in **"virtual sessions"** on the web platform during the event days.

The latest technologies and developments will also be presented by leading automobile and supplier companies at an exhibition covering an area of around 1,000 m² with over 40 exhibitors.

The start of our three-day event will be the **reception with the opening of the exhibition** on the first evening, where we cordially invite you and your accompanying person to explore the exhibition.

The mayor's invitation to the city hall provides the opportunity to end the second day of the congress comfortably.

For accompanying persons, we offer two exclusive half-day tours to visit interesting sights in Vienna.

We look forward to your registration for the symposium and hope to be able to welcome you personally in Vienna.

Best regards,

Univ.-Prof. Dr. Bernhard Geringer
President of the Austrian Society for Automotive Engineers (ÖVK)

Vienna Motor Symposium 2026

47th International Vienna Motor Symposium 22 – 24 April 2026

GENERAL INFORMATION

Dates:

Wednesday,	22 April 2026
	17.00 – 21.00 hrs. Registration
	18.00 – 21.00 hrs. Reception and Opening of the Exhibition
Thursday,	23 April 2026
	8.30 – 18.30 hrs. Symposium and Exhibition
	20.30 hrs. "Mayor's Reception" hosted by the Mayor of Vienna
	20.00 hrs. doors open
Friday,	24 April 2026
	8.00 – 17.30 hrs. Symposium and Exhibition

Congress Venue:
Conference Centre Hofburg Vienna
Heldenplatz, 1010 Vienna, Austria

Chairman:
Univ.-Prof. Dr. B. **Geringer**
President of the Austrian Society of Automotive Engineers (ÖVK)

Organizer of the Symposium:
The International Vienna Motor Symposium is organized by the Austrian Society of Automotive Engineers (ÖVK).

Österreichischer Verein für Kraftfahrzeugtechnik (ÖVK)
Austrian Society of Automotive Engineers (ÖVK)
Elisabethstrasse 26/24, 1010 Vienna, Austria
Phone +43/1/585 27 41-0
https://wiener-motorensymposium.at/en
info@oevk.at

To the Website

ORGANIZATIONAL INFORMATION

Registration:

Registration is only possible online via https://wiener-motorensymposium.at/en

The General Terms and Conditions as well as the Data Protection Statement can also be found at https://wiener-motorensymposium.at/en.

Registration Fee:	€ 2.790,-- incl. 20% VAT
Registration Fee ÖVK Member:	€ 2.688,-- incl. 20% VAT

The registration fee includes the admission to the lectures, the exhibition, the web platform, the symposium documents, reception and exhibition opening, the "Mayor's Reception", lunch on Thursday and Friday, coffee during the breaks as well as bus transfer to the airport at the end of the symposium.

We will confirm receipt of the online registration immediately, but this is not the authorization to participate in the symposium.

A confirmation of registration (incl. invoice) or other information will follow in a few days.

The International Vienna Motor Symposium takes place as a 3-day face-to-face event.

Booking and Cancellation Conditions Symposium Participation:

Changes and cancellations must be made in writing to registration@oevk.at.

For cancellation after **4 March 2026**, we are obliged to request full payment of complete registration fees, as all orders will have been placed.

Lecture Duration:

20 minutes each, followed by 10 minutes' discussion

Language of Lectures:

German and English (simultaneous translation)

Conference Papers:

Lecture texts in electronic form in English
Proceedings (in printed form) for an additional charge

Exhibition:

This top-level lecture programme is accompanied by an exhibition at which leading automotive and supplier companies present latest technologies and developments.

If you are interested in an exhibition space, please contact our partner company Media-Plan, email: mp@media.co.at.

ORGANIZATIONAL INFORMATION

Web Platform:

The web platform of the symposium provides information on the lectures, the speakers and the exhibition. From the symposium onwards, the digital congress documents as well as the recordings of the face-to-face sessions and the video presentations of the virtual sessions will be available there for a limited period.

Participants will receive their login data for the web platform a few days prior to the symposium.

Student Registration:

We offer Austrian and foreign students a limited number of free student places. Certain conditions must be met if you wish to participate in the symposium.

For more detailed information, please visit our website where you will find the application form: https://wiener-motorensymposium.at/en/

The period for submitting applications will end on 28 February 2026.

Bus Service:

Friday, 24 April 2026, 17.30 hrs. (at the end of the symposium),
from entrance Conference Centre Hofburg to Vienna Airport (Schwechat).
Arrival at Vienna Airport approx. 18.15 hrs.

Buses will be marked "Wiener Motorensymposium".

Hotel Booking:

We have pre-reserved hotel allotments for you in hotels of various categories within walking distance of the event location. The booking of hotel rooms is based on the "first come – first serve" principle directly at the hotels. We recommend booking as early as possible. You can find detailed information about the hotels and booking on our website: https://wiener-motorensymposium.at/en/information/hotels

EVENING PROGRAMME

Opening of the Exhibition with Reception:
Wednesday, 22 April 2026, 18.00 – 21.00 hrs.,
registration counter will be open from 17.00 hrs.

Evening Event "Mayor's Reception":
Thursday, 23 April 2026, 20.30 hrs. "Mayor's Reception" hosted by the Mayor of Vienna at the City Hall, from 20.00 hrs. doors are open.

Cultural Tickets:
Tickets for a variety of evening events (concerts, musicals, theatre, etc.) can be found on the following website: https://www.wien.info/en/music-stage-shows

SOCIAL PROGRAMME

While the technical programme is being presented to the participants, we offer the accompanying persons two exclusive half-day tours visiting sights of interest in Vienna for a surcharge.
Both tours start and end at the Conference Centre Hofburg.
Details can be found online at https://wiener-motorensymposium.at/en/.

Half-day Tour: Gustav Klimt and his Contemporaries
Thursday, 23 April 2026, 9.00 hrs – approx. 13.00 hrs

Gustav Klimt is the quintessential Art Nouveau genius, whose works "The Kiss," "Judith," and the "Beethoven Frieze" are known throughout the world. From the Hofburg, we will go by bus to the Upper Belvedere, where Gustav Klimt's most famous painting, "The Kiss", is exhibited. This painting, with its depicted sensuality and predominant gold tones, radiates a glorification of the love between man and woman. There are many interpretations and explanations but let the painting work its magic on you for a few minutes and find your own interpretation. After viewing a few other works in the exhibition at the Upper Belvedere, we will take the bus back to the city centre to the Secession. The Association of Visual Artists Vienna Secession is one of the world's oldest independent exhibition venues expressly dedicated to contemporary art. In 1902, Klimt created here one of his most famous works, the Beethoven Frieze, for an exhibition of the Secession movement. The entire show was a tribute to Ludwig van Beethoven. It was introduced by Klimt's monumental frieze, which greeted visitors right in the entrance hall. Marvel at this lavish, ornamental symphony, 34 meters wide and two meters high, in which Klimt explores Beethoven's Ninth Symphony and its interpretation by Richard Wagner. Afterwards, we will take a walk back to the Hofburg.

Half-day Tour: Sweet Vienna
Friday, 24 April 2026, 9.00 hrs – approx. 13.00 hrs

Vienna is renowned for its diverse coffeehouse culture. Join us on a journey through time to the court confectioners of the imperial and royal monarchy and Vienna's most traditional cafés, where the charm of those times is still present, and discover with us the "sweet" side of Vienna. Our walk begins at the Hofburg and takes us, among other places, to Café Landtmann on the famous Ringstrasse, past Café Central with its breathtaking architecture, and on to Café Demel on Kohlmarkt, a former imperial and royal court confectioner still famous for its exquisite cakes and pralines. From Kohlmarkt, we cross the Graben to reach Stephansplatz, where Josef Manner had a small shop selling chocolate and fig coffee from 1889. In 1890, he and his brothers founded the "Josef Manner Chocolate Factory." Six months later, the company already had 100 employees and subsequently rose to become the leading confectionery producer in Austria-Hungary. Afterwards, we will stroll past Café Frauenhuber, one of Vienna's oldest coffee houses, and continue to Palais Todesco, owned by Gerstner, another former imperial and royal court confectioner, where you can enjoy coffee house culture in a truly special atmosphere. The grand finale of our tour is one of Vienna's most famous hotels and cafés – the Sacher with its renowned Sachertorte, created in 1832 by Franz Sacher for Prince Metternich. You are welcome to spend some more time in the city centre on your own and enjoy a Viennese coffee in one of the coffee houses we have shown you, or you can join us for the return walk to the Hofburg.

WEDNESDAY, 22 April 2026

18:00 **Reception and Opening of the Exhibition**
Registration 17:00 – 21:00

THURSDAY, 23 April 2026 FESTSAAL

07:30 **Registration**

PLENARY OPENING SESSION
Chairman: B. **Geringer**, ÖVK

08:30 **OFFICIAL OPENING**

08:45 Stefan **Pischinger**, Chairman of the Shareholders' Board, FEV, Aachen, Head of Institute, Chair of Thermodynamics of Mobile Energy Conversion Systems, RWTH Aachen University:
Future of Powertrain under Consideration of CO_2 Fleet Targets

09:05 Niklas **Klingenberg**, Member of the Executive Board of TRATON SE, Head of Group R&D, Södertälje:
The Future of TRATON's Powertrain in a Changing Global Environment

09:25 Matthias **Zink**, CEO Powertrain & Chassis, Schaeffler AG & President of CLEPA:
Europe at a Crossroads – Turning Global Challenges into Opportunities

09:45 Ruiping **Wang**, CEO, Aurobay Holding, China:
Hybrids – to Accelerate Electrification!

10:05 **Discussion of the lectures in this session**

10:35 **Coffee Break**

HYBRID POWERTRAINS
Chairman: U. **Grebe**, TU Wien

11:15 **48% BTE on a Lambda=1 SI Engine – a Breakthrough for Range Extenders**
P. **Kapus**, K. **Prevedel**, X. **Yan**, D. **Trawöger**, K. **Stark**, W. **Schnider**, AVL List GmbH, Graz; X. **Gao**, C. **Gu**, Z. **Zhang**, Y. **Liu**, X. **Ju**, Chery Group, Wuhu, China

11:45 **Development of a Next-Generation Hybrid System for PHEVs**
M. **Tomita**, Toyota Motor Corporation, Aichi, Japan

12:15 **The All-New Volkswagen HYBRID**
K. **Bennewitz**, J. **Theobald**, N. **Gerhardt**, M. **Schäfer**, W. **Wendt**, Volkswagen AG, Wolfsburg

12:45 **Lunch at Hofburg Conference Centre**

BATTERY ELECTRIC DRIVES

Chairman: B. **Geringer**, ÖVK

14:30 **Development and Application of a High Efficiency EDU – >94 % Average Cycle Efficiency and Cost-Effective Drive Train**
X. **Gao**, Chery Automobile Ltd., Wuhu, China

15:00 **The New BMW GEN6 BEV Powertrain: Setting New Standards in Efficiency, Integration, and In-House Development**
T. **Engelhardt**, G. **Schmitz**, K. **Löffler**, M. **Kainz**, R. **Lauvergne**, BMW AG, Munich

15:30 **Battery Technology of the New All-Electric Porsche Cayenne**
B. **Passenberg**, Dr. Ing. h.c. F. Porsche AG, Weissach

16:00 **Top Efficiency in the A0 Segment – The All New Powertrain of the ID. Polo**
N. **Gerhardt**, K. **Bennewitz**, J. **Böhl**, R. **Dittrich**, M. **Tuchen**, P. **Kalinowski**, Volkswagen AG, Wolfsburg

16:30 **Coffee Break**

ELECTRIFIED DRIVE SYSTEMS – POWERTRAIN TRANSFORMATION

Chairman: U. **Grebe**, TU Wien

17:00 **Innovative Combustion Engines, Mild Hybridization and Plug-In Hybrids – the Platform Strategy for Combustion Engine Powertrains by AUDI AG**
M. **Honzen**, A. **Zusan**, J. **Kuehlmeyer**,
AUDI AG, Neckarsulm/Ingolstadt

17:30 **The New Mercedes-Benz Powertrain Initiative: Shaping the Future with Electrified Drive Systems**
T. **Eder**, N. **Merdes**, O. **Vollrath**, M. **Werner**, M. **John**, D. **Schönborn**, T. **Stegmaier**, K. **Tacke**, T. **Tschamon**, M. **Weiss**, R. **Weller**, J. **Kaluza**, Mercedes-Benz AG, Stuttgart

18:00 **The Volkswagen GTI Edition 50 – Highlights from 50 Years of Chassis and Powertrain Development**
S. **Willmann**, L. **Frömmig**, L. **Schüler**, W.-C. **Weimar**,
Volkswagen AG, Wolfsburg

18:30 **End of Programme**

20:30 **“Mayor’s Reception” at the City Hall hosted by the Mayor of Vienna. Please bring your invitation.**

NEW INTERNAL COMBUSTION ENGINES

Chairman: S. **Pischinger**, RWTH Aachen University

08:00 **The New 1.5L, Four Cylinder Gasoline Engine Family from Tata Motors**
A.C. **Borde**, M. **Joshi**, H. **Viswanatha**, A. **Panwar**, C. **Kulkarni**,
Tata Motors Passenger Vehicles Limited, Pune, India

08:30 **The New Audi V6-TDI – Modern TDI Engine Technology in Combination with a Powerful Hybrid Drivetrain**
F. **Kremer**, M. **Schmidt**, M. **Assmann**, M. **Schober**, M. **Honzen**, F. **Then**,
AUDI AG, Neckarsulm/Ingolstadt

09:00 **OM 656 Evo: The Evolution of the Mercedes In-Line Six-Cylinder Diesel Engine**
T. **Eder**, O. **Vollrath**, M. **Werner**, K. **Tacke**, S. **Humphrey**, M. **Müller**,
R. **Hasselkuss**, G. **Schneider**, C. **Andres**, et al., Mercedes-Benz AG, Stuttgart

09:30 **Coffee Break**

HIGH-PERFORMANCE HYBRID POWERTRAINS

Chairman: B. **Geringer**, ÖVK

10:00 **The New Mercedes-Benz V8 M 177 Evo: An Evolution of the Top-End-Segment to Meet Future Emission Regulations and Performance Demands**
T. **Eder**, O. **Vollrath**, R. **Weller**, S. **Müller**, F. **Weinert**, S. **Henke**, F. **Kessler**,
T. **Reck**, W. **Holly**, S. **Schmitt**, Mercedes-Benz AG, Stuttgart

10:30 **The Hybridized Bi-Turbo Six-Cylinder Boxer Engine of the New 911 Turbo S**
T. **Wasserbäch**, T. **Fruth**, A. **Weyland**, M. **Wunder**, C. **Pleuß**, M. **Wessels**,
Dr. Ing. h.c. F. Porsche AG, Weissach

11:00 **From Vision to Velocity: Engineering a Bespoke V12 Hybrid Powertrain for Ultimate Performance**
M. **Bassett**, S. **Reader**, J. **Hollingworth**, MAHLE Powertrain Ltd., Northampton;
M. **Warth**, MAHLE International GmbH, Stuttgart

11:30 **Lamborghini Temerario GT3, Pure Racing Soul of a Biturbo V8 Engine**
D. **Bizzarri**, L. **Rizzi**, P. **Scarpato**, L. **Bombace**, A. **Staine**, E. **Ursitti**,
Automobili Lamborghini S.p.a., Italy

12:00 **Lunch at Hofburg Conference Centre**

BATTERY ELECTRIC VEHICLES

Chairman: C. **Beidl**, Darmstadt University of Technology

13:30 **Development of New BEV Powertrain System Aimed at Securing a Competitive Position in the BEV Market**
T. **Nishihara**, N. **Takeuchi**, M. **Nishigaya**,
Toyota Motor Corporation, Aichi, Japan

14:00 **Performance Meets Efficiency – The Next Generation of High-Performance Electric Drives at Porsche**
C. **Hauck**, D. **Schöttle**, B. **Knobloch**, D. **Bauer**, J. **Wende**,
Dr. Ing. h.c. F. Porsche AG, Weissach

14:30 **Next Level Electric Drive – The New Drive Technology of the EQS from Mercedes-Benz**
T. **Eder**, O. **Vollrath**, M. **Weiss**, G. **Paul**, D. **Hopp**, C. **Doerr**, L. **Henle**, N. **Waldbüßer**, Mercedes-Benz AG, Stuttgart

15:00 **Coffee Break**

PLENARY CLOSING SESSION

Chairman: H. **Eichlseder**, Graz University of Technology

15:30 Philippe **Krief**, CEO, Société des Automobiles Alpine SAS, Dieppe:
Alpine Future Line Up: How to Make a True Electric Sports Car

15:50 Donghee **Han**, Executive Vice President Electrified Propulsion Dev. Tech. Unit R&D Division, Hyundai Motor Group, Seoul, Korea:
Reinventing Powertrain of Hyundai: Driven by Legacy, Innovating with Humility

16:10 Geoffrey **Bouquot**, Member of the Board of Management for Technical Development, AUDI AG, Ingolstadt
AI – Engine of Transformation in the Automotive Industry

16:30 **Discussion of the lectures in this session**

17:00 **CLOSING ADDRESS**
B. **Geringer**, ÖVK
H. **Eichlseder**, Graz University of Technology

17:15 **End of Programme**

17:30 **Bus Transfer** from Heldenplatz (Hofburg Conference Centre) to Vienna Airport (Schwechat)

08:30

Plenary Opening Session at FESTSAAL

Live Broadcast at GALERIE

10:35 **Coffee Break**

SUSTAINABLE MOBILITY

Chairman: W. **Böhme**, ÖVK

11:15 **Intelligent Sector Coupling – Honda's Way towards Climate Neutrality in 2050**
M. **Fischer**, S. **Barth**, A. **Johchi**,
Honda R&D Europe (Deutschland) GmbH, Offenbach

11:45 **Electrification AND Renewable Fuels for Low-Carbon Mobility**
A. **Kolbeck**, Shell Deutschland GmbH, Hamburg;
R. **Cracknell**, Shell Global Solutions, London;
K. **Wilbrand**, Shell Global Solutions (Deutschland) GmbH, Hamburg

12:15 **CO_2 Footprint of Hydrogen Vehicles: Influence of Storage Technologies in Comparison to ICE, BEV, FCEV and H_2ICE**
S.C. **Konradt**, J.-C. **Jeske**, M. **Ohlhäuser**, H.S. **Rottengruber**,
IEPS, EMA, Otto-von-Guericke-University, Magdeburg

12:45 **Lunch at Hofburg Conference Centre**

INNOVATIVE COMBUSTION PROCESSES

Chairman: S. **Pischinger**, RWTH Aachen University

14:30 **Comparative Analysis of Passive and Active Pre-Chamber Ignition Systems for Enhanced Efficiency in Spark Ignition Engines**
M. **Korkmaz**, A. **Assabiki**, S. **Juressen**, S. **Pino**, Champion Ignition, Förnitztal

15:00 **Bosch Passive Pre-Chamber Spark Plug Technology for Gasoline Engine Powertrains**
E. **Schünemann**, M. **Blankmeister**, A. **Eichhorn**, M. **Frank**, A. **Schneider**, F. **Lemke**, M. **Biehl**, Robert Bosch GmbH, Stuttgart

15:30 **Future Gaseous Fuels: Latest Developments in Injection, Ignition and Combustion**
G. **Dober**, L. **Doradoux**, M. **DaGraca**, S. **Coster**, J. **Angeby**, PHINIA, Luxembourg/France/UK/Sweden

16:00 **Evaluation of Diesel and Ethanol in a Compression Ignition Engine with Glow Plug Support**
F. **Silva**, C. **Zabeu**, Maua Institute of Technology, Brazil; C. **da Silva**, J. **Fagundez**, M. **Martins**, T. **Lanzanova**, Federal University of Santa Maria, Brazil; A. **Ferrarese**, MWM / Tupy, Brazil

16:30 **Coffee Break**

ELECTRIC DRIVE COMPONENTS

Chairman: G. **Brasseur**, Austria Academy of Sciences

17:00 **Navigating Changes in the EV Market with EESM and REEV Innovation**
D. **Fulton**, BorgWarner Inc., Kokomo, USA; B. **Li**, BorgWarner Inc., Shanghai, China

17:30 **Leveraging High-Speed Electric Motor Technology, for Differentiated Commercial Vehicle Beam Axle**
P. **De Araujo**, S. **Vankayala**, J. **Yang**, V. **Neeli**, X. **Tan**, R. **Yang**, K. **Chen**, Z. **Benguerna**, A. **Bouaita**, Garrett Advancing Motion, France/India/China/Czech Republic/Switzerland

18:00 **Accelerating Innovation: In-Wheel Motor Development for High Performance Application in Compressed Timelines**
S. **Lambert**, A. **Whitehead**, R. **Ford**, R. **Lewin**, Protean Electric Ltd, Surrey

18:30 **End of Programme**

20:30 **"Mayor's Reception" at the City Hall hosted by the Mayor of Vienna. Please bring your invitation.**

HYBRID TRANSMISSIONS – RANGE EXTENDER

Chairman: A. **Kulzer**, Stuttgart University

08:00 **The Multi-Mode Hybrid Transmission – the Flexible Powertrain for HEV, PHEV, and REEV Platforms**
A. **Englisch**, D. **Reitz**, C. **Wild**, C. **Asal**, B. **Stehle**, T. **Eckenfels**, Schaeffler Automotive Buehl GmbH & Co. KG, Bühl;
A. **Mantovan**, Vitesco Technologies Germany GmbH, Regensburg

08:30 **DHT160B Dedicated Hybrid Transmission / DHT290 Dedicated Hybrid Transmission**
T. **Singh**, Aurobay Technologies, a division of Horse Powertrain Ltd., Ningbo, China

09:00 **REEV as a Flexible Addition to the Ramp-Up of Truck Electrification: Use Cases, Drive Concepts, and Future Technologies**
T. **Lüdiger**, M. **Thewes**, J. **Nowack**, T. **Körfer**, M. **Stapelbroek**, M. **Nijs**, M. **Rudolph**, A. **Balazs**, L. **Virnich**, FEV, Aachen

09:30 **Coffee Break**

HYDROGEN INTERNAL COMBUSTION ENGINES

Chairman: H. **Eichlseder**, Graz University of Technology

10:00 **Advancing H_2 HPDI to Zero Emissions and 60% Brake Thermal Efficiency: Insights from Simulation and Experiments**
A. **Arnberger**, AVL List GmbH, Graz; E. **Olofsson**, Scania AB, Södertälje

10:30 **Cummins Heavy Duty Hydrogen Internal Combustion Engine Development Progress**
H. **Xu**, J. **Stetter**, B. **Shakya**, Cummins Inc, Columbus, USA;
K. **Wang**, Y. **Du**, D. **Chen**, Cummins Ltd., Hubei, China

11:00 **Toyota New Hydrogen-Engine with High Reliability for Light Commercial Vehicle**
T. **Sakuma**, S. **Ido**, Y. **Haruna**, H. **Kosaka**, K. **Nakata**, Toyota Motor Corporation, Aichi, Japan

11:30 **China's Way to Meet CO_2 Neutrality for Commercial Vehicles by 2050 – H_2 as Complementary Propulsion Technology Powered by FAW**
J. **Wang**, P. **Guo**, FAW Truck & Bus, China; T. **Schatzberger**, B. **Resch**, G. **Felbauer**, L. **Hongguang**, FAW Austria R&D, Austria;
G. **Raab**, FAW Consultant, Austria

12:00 **Lunch at Hofburg Conference Centre**

RANGE EXTENDER

Chairman: P. **Hofmann**, TU Wien

13:30 **Horse C15 Flat Range Extender**
G. **Tuffier**,
Horse Powertrain, Ltd., Madrid

14:00 **Horse Dedicated Hybrid Engine**
L. **Guoqing**,
Horse Powertrain, Ltd., Ningbo, China

14:30 **REEVing up – Solutions for Minimum Package and Maximum Emotion**
M. **Sens**, C. **Danzer**, A. **Fandakov**, M. **Krause**, P. A. **Marschall**, M. **Riess**,
IAV GmbH, Berlin/Stollberg

15:00 **Coffee Break**

15:30 Plenary Closing Session at FESTSAAL

LIVE BROADCAST AT GALERIE

17:15 **End of Programme**

17:30 **Bus Transfer** from Heldenplatz (Hofburg Conference Centre)
to Vienna Airport (Schwechat)

08:30

Live Broadcast
of the Plenary Opening Session

10:35 **Coffee Break**

LEGISLATION AND SOLUTIONS
Chairman: C. **Beidl**, Technical University of Darmstadt

11:15 **Vehicle Emissions in Real-World Driving – a Positive Development**
K. **Weller**, M. **Dippold**, Forschungsgesellschaft für Verbrennungskraftmaschinen und Thermodynamik mbH, Graz;
S. **Hausberger**, M. **Opetnik**, L. **Landl**, ITnA, Graz University of Technology

11:45 **Emission Stability in Nonroad Engines: Legislative Requirements and Manufacturer Challenge**
T. **Herrmann**, P. **Ochsenkühn**,
MAN Truck & Bus SE, Nuremberg

12:15 **Requirements and Solutions for Exhaust Systems for Range Extenders with Regard to China 7 Legislation**
R. **Brück**, P. **Langenfeld**, L. **Pace**,
Emitec Technologies GmbH, Lohmar

12:45 **Lunch at Hofburg Conference Centre**

HYDROGEN POWERTRAINS & HYDROGEN STORAGE

Chairman: H. **Eichlseder**, Graz University of Technology

14:30 **Next Generation Fuel Cell Stack Technology Enables TCO Breakthrough for Heavy-Duty Truck Applications**
N. **Weidler**, M. **Scolari**, N. **Held**, S. **Hollnaicher**, N. **Loughlan**, J. **Blum**, T. **Braun**, cellcentric GmbH & Co. KG, Kirchheim

15:00 **Hydrogen Engine: Emission and Transient Assessment in a System Approach**
S. **Bareiss**, C. **Zimmermann**, M. **Krüger**, A. **Kufferath**, D. **Naber**, G. **Cornetti**, H. **Kauss**, T. **Schnekenburger**, A. **Celic**, Robert Bosch GmbH, Stuttgart

15:30 **Experimental and Simulation-Based Investigation of Combustion Anomalies in H_2 Combustion Engines and their Effects on Transient Engine Operation**
P. **Christoforetti**, P. **Kappacher**, S. **Plöckinger**, E. **Schutting**, C. **Trapp**, H. **Eichlseder**, ITnA, Graz University of Technology

16:00 **Liquid Hydrogen Storage: from Truck to Track — and Vice Versa**
J. **Hergott**, P. **Tipner**, Forvia, Bavans

16:30 **Coffee Break**

ALTERNATIVE FUELS

Chairman: A. **Kulzer**, Stuttgart University

17:00 **Contributing to the Environment with Internal Combustion Engines towards Carbon Neutrality –The Experimental Confirmation of Negative CO_2 and Exhaust Gas Emissions**
H. **Yamashita**, Mazda Motor Corporation, Hiroshima, Japan

17:30 **e-Methanol Engine for Flexible Fuel Vehicle**
C. **Bae**, KAIST, Daejeon, Korea; S. **Kwon**, KATECH, Cheonan, Korea; S. **Kim**, Korea Petroleum Quality & Distribution Authority, Cheongju, Korea; S. **Park**, Hanyang University, Seoul, Korea; S. **Moon**, Inha University, Incheon, Korea; B. **Min**, Hyundai Motors, Namyang, Korea

18:00 **Highly Efficient Ammonia Combustion System for CO_2-Reduced Propulsion System for Commercial Applications**
Z. **Li**, T. **Tietz**, S. **Pischinger**, TME, RWTH Aachen University; J. **Yadav**, A. **Boberic**, T. **Körfer**, B. **Franzke**, M. **Thewes**, FEV, Aachen

18:30 **End of Programme**

20:30 **"Mayor's Reception" at the City Hall hosted by the Mayor of Vienna. Please bring your invitation.**

BATTERY THERMAL MANAGEMENT

Chairman: P. **Hofmann**, TU Wien

08:00 **Innovative Thermal Management to Improve EV Battery Performance**
V. **Null**, T. **Rockstroh**, Shell Global Solutions (Deutschland) GmbH, Hamburg;
R. **Mainwaring**, Shell Research Limited, Chester;
F. **Zhang**, Shell (Shanghai) Technology Limited, Shanghai, China

08:30 **Challenges in Thermal Management for Autonomous Vehicles Using the Example of the ID.BUZZ AD by Volkswagen Commercial Vehicles**
E. **Friesen**, I. **Meier**, W. **Siebert**, M. **Bigalke**,
Volkswagen Nutzfahrzeuge, Hannover

09:00 **Co-Engineering and Performance Characterisation of a Direct-Cooled Battery Module for Electric Vehicles**
R. **Pearson**, K. **Kulkarni**, R. **Timmis**, Castrol, Pangbourne;
A. **Crome**, Fortescue Zero, Kidlington

09:30 **Coffee Break**

SDV & TRANSFORMATION

Chairman: L. **Eckstein**, RWTH Aachen University

10:00 **How SDV Enables a Multiple Technologies Plattform**
R. **Benthin**, A. **Fandakov**, J. **Mueller**, F. **Schueppel**, M. **Sens**, P. **Stracke**,
IAV GmbH, Berlin

10:30 **Zonal Intelligence in Software-Defined Vehicles: 4SDV Architecture with Edge AI and NPU-Based Validation**
H. **Karacali**, E. **Cebel**, TTTech Auto, Izmir, Türkiye

11:00 **"Copper Car"– Extremely Fast and Meaningful Software-Regression Testing for the High Voltage System of Electrical Vehicles**
H. **Hammerer**, AVL List GmbH, Graz

11:30 **Industrial Transformation in the Automotive Sector: Strategies and Success Factors Using the Example of iwis mobility systems**
K. **Arens**, iwis mobility systems GmbH & Co. KG, Munich

12:00 **Lunch at Hofburg Conference Centre**

CHARGING SYSTEMS

Chairman: G. **Brasseur**, Austria Academy of Sciences

13:30 **Powder Metallurgy in eMobility for High-Speed MW Charging and HV Electronics Cooling**
M. **Pohn**, J. **Bauer**, A. **Müller**,
Miba Sinter Austria GmbH, Vorchdorf

14:00 **Charging like Refueling – Strategies, Technologies, and Limits of High-Performance Charging**
M. **Hackmann**, D. **Reichert**, L. **Schriewer**, N. **Waxmann**, F. **Ferstl**, J. **Farkas**,
P3 automotive GmbH, Stuttgart

14:30 **Automated Charging as a Key Technology for Smart Grids: Opportunities of Vehicle-to-Grid Using the Example of Matrix Charging®**
G. **Eckhard**, L. **Trippolt**, S. **Demuth**, P. **Krenn**,
Easelink GmbH, Graz

15:00 **Coffee Break**

15:30 **Live Broadcast**
of the Plenary Closing Session

17:15 **End of Programme**

17:30 **Bus Transfer** from Heldenplatz (Hofburg Conference Centre) to Vienna Airport (Schwechat)

VIRTUAL HALL

Due to the large number of interesting and high-quality submissions, we are pleased to be able to present further videos in a virtual hall. These videos are only available to the participants online on the web platform during and after the Motor Symposium in addition to the lectures in three lecture halls in the Vienna Hofburg.

ELECTRIC DRIVES AND COMPONENTS

Direct-Drive In-Wheel Motors: Transforming EV Performance with Astemo's Innovation
A. **Takahashi**, Astemo Ltd., Japan; C. **Jörg**, Astemo Europe GmbH, Germany

TSRF Motor Technology: Power Density Driven by 3D SMC Materials
V. **Kislev**, A. **Shwartz**, K. **Ingram**, H. **Veksler**, A. **Stepuk**, EVR Motors, Israel

Variable Speed Drive by Students – How HTL St. Pölten Is Redefining E-Mobility
S. **Maxl**, HTL St. Pölten; D. **Asch-Goiser**, Letto GmbH, St. Pölten

A Study on Improving Energy Efficiency of xEV Vehicles Using Reinforcement Learning
T.W. **Yoon**, M.S. **Song**, H. **Lee**, Hyundai Motor Company, Seoul, Korea

Next Generation of Ultra-High-Strength Fasteners
F. **Heine**, C. **Schnatterer**, U. **Merschrod**, KAMAX Automotive GmbH, Homberg (Ohm)

A Study on a Water-Cooled Battery Thermal Management Module Using a Coolant Mixing Method
K. **Yoshiya**, S. **Ishiguchi**, T. **Kakizoe**, Mikuni Corporation, Japan

From ICE to BEV: Evolving Integrated Thermal Management Modules for Future Vehicle Architectures
A. **Savi**, Saleri TMS Competence Center GmbH, Munich

ELECTRIC ENERGY STORAGES AND CHARGING TECHNOLOGIES

Resource-Efficient Battery Management for Bidirectional Charging Using a Modular Multilevel Converter Topology
J. **Radtke**, L. **Peis**, M. **Shahafve**, S. **Shetty**, A. **Arakkal**, Capgemini, Munich;
N. **Bajcinca**, B.H. **Manesh**, M. **Al Khatib**, RPTU, Kaiserslautern;
J. **Meyer-Schwickerath**, W. **Zaghloul**, STABL Energy, Munich;
N. **Ehrlich**, Akkodis, Munich; N. **Lewkowicz**, BIT, Berlin

Next-Gen Packs: NoTP Cell Integration with High System Energy Density
P. **Hermann**, Farasis Energy Europe, Frickenhausen

Superfast Charging Battery Cells: Optimized Materials and Cell Design
S. **Beschnitt**, J. **Küpper**, H. **Löbberding**, A. **Averberg**, M. **Rudolph**,
M. **Stapelbroek**, FEV, Aachen

COMBUSTION ENGINE DRIVES AND THEIR COMPONENTS/HYBRIDS

Dedicated Lubricants for Hydrogen Engines – Innovation for Zero-Emission Powertrain
D. **Stern**, T. **Maulbetsch**, F. **Nübling**, FUCHS LUBRICANTS GERMANY GmbH, Mannheim;
F. **Finzenhagen**, FUCHS SE, Mannheim

Hierarchical Model Predictive Control with Explainable Neural Network-Based Power Prediction for Enhanced Energy Management in Hybrid Electric Vehicles
H. **Lee**, Hyundai Motor Company, Seoul, Korea

Experimental and Numerical Investigations of the Combined Injection and Ignition System HydroFit for a Hydrogen-Powered Gas Engine
K. **Pöhlmann**, P. **Berlet**, IAVF Antriebstechnik GmbH, Karlsruhe;
S. **Holzberger**, N. **Rischette**, M. **Kettner**, Karlsruhe University of Applied Sciences;
N. **Albrecht**, MAMotec GmbH, Kuppenheim;
T. **Weißgerber**, WEISSGERBER engineering GmbH, Dortmund

Innovative Gas Injection: How the Dual Mode Injector Transforms Truck Engine Performance
J. **Steinmill**, Schaeffler Engineering, Werdohl;
J. **Leberwurst**, S. **Sulzer**, J. **Broz**, O. **Weber**, Schaeffler AG, Herzogenaurach

Analysis of Physical Phenomena and Comprehensive Considerations in the Mixture Formation Process of Hydrogen Direct Injection Engines
S. **Tanno**, K. **Kaneko**, K. **Kimura**, Y. **Miyamoto**, J. **Miyagawa**,
Toyota Motor Corporation, Aichi, Japan

NiCrCo Superalloys for the Next Generation of Turbochargers Operating at High Exhaust Gas Temperatures in Highly Efficient Internal Combustion Engines
D. **Petrell**, B. **Gehrmann**, VDM Metals International GmbH, Altena;
T. **Storch**, G. **Laplanche**, Ruhr University Bochum

RENEWABLE ENERGIES AND STORAGE

Decarbonization: Technical Pathways for Ammonia-Powered Mobility
M. **Frauscher**, C. **Besser**, A. **Agocs**, U. **Cihak-Bayr**, AC2T research GmbH, Wiener Neustadt;
A. **Zunghammer**, S. **Kirchhamer**, G. **Leonardelli**, Miba Gleitlager Austria GmbH, Laakirchen;
S. **Zaderer**, J. **Laubach**, INNIO Jenbacher GmbH, Jenbach

Accelerating Fuel Cell Stack End-of-Line Testing with Machine Learning: Early Failure Detection and Cost Savings in Production
N. **Jia**, S. **Strelnikov**, Acerta Analytics, Kitchener, Canada

Fuel Tank Systems & Energy Storage for Long-Range PHEVs and Range Extenders: Unique Technical Features, AI-Assisted Validation, and System Expertise for Future Powertrains
B. **Lüddecke**, R.W. **Jorach**, C. **Elsasser**, D. **Eulitz**,
KAUTEX TEXTRON GmbH & Co. KG, Bonn

Mobile High-Pressure Hydrogen Refueling and Onboard Pressure Retention – A Game Changer for Hydrogen Vehicles
S. **Schwarcz**, C. **Nagl**, MAT Energy Systems GmbH, Vienna

Hydrogen as a Storage Technology and Competitiveness Factor
L. **Rainer**, C. **Nagl**, MAT Energy Systems GmbH, Vienna

Towards Safe Hydrogen Mobility: Validation and Homologation of Liquid Hydrogen Tanks
C. **Eder**, M. **Eiböck**, A. **Gaugl**, T. **Stepan**, SAG New Technologies GmbH, Lend

LEGAL FRAMEWORK: CO_2, TOXIC EMISSIONS REDUCTION

Comparative Measurement of CO_2 Emissions from Road Transport
H. **Pechová**, P. **Polach**, Faculty of Mechanical Engineering, J. E. Purkyne University, Plzen

Cradle-to-Grave Assessment of European Passenger Car Traffic Based on Actual Vehicle Movements and Derivation of Future Forecasts for Minimising Greenhouse Gas Emissions
G. **Lischka**, W. **Tober**, IFA, TU Wien

NEW VEHICLE AND MOBILITY CONCEPTS/ SOFTWARE DEFINED VEHICLE SDV/ADAS

Can Centralized SDV Architectures Deliver Safer, Smarter ADAS?
N. **Bonnotte**, S. **Mohammed**, T. **Glatzel**, Akkodis Germany;
O. **Hrazdera**, Akkodis Austria

Smart Data for Smart Driving: Accelerating ADAS Safety through Targeted and Adaptive Scenario Generation
L. **Schroven**, N. **Worzyk**, Capgemini Engineering, Düsseldorf/Hamburg

Establishing a Sustainable Data Ecosystem in the Automotive Sector
D. **Deimel**, ÖAMTC, Vienna

INDUSTRIAL TRANSFORMATION/STRUCTURAL CHANGE IN THE AUTOMOTIVE INDUSTRY/PRODUCTION & MARKETS

Production 4.0: The Digital Transformation of Manufacturing – How Digitalization and Advanced Forming Technology Unite Precision, Efficiency, and Sustainability
O. **Ambros**, baier & michels GmbH & Co. KG, Ober-Ramstad

Requirements Engineering & AI-Powered Product Development of Electric Powertrains
M. **Hofstetter**, D. **Lechleitner**, Graz University of Technology

The Dilemma of Traditional Industries with Disruptive Innovations
W. **Tillmetz**, Ulm University; T. **Aigle**, Ulm University of Applied Science

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