41st International Vienna Motor Symposium
22 – 24 April 2020

- New S.I. and C.I. Engines
- E-Drives | Platform / Logistics
- New & Optimized Engines
- Heavy Duty Vehicles
- Zero Impact Emission Concepts
- CO₂ Neutral Mobility
- Automotive Batteries | Hybrid / E-Drives
- Fuel Cell / H2 Engine | E-Fuels
- View to the Future

Additional Parallel Session 2020:
- Cross-Company Cooperations
- Engineering Methods and Processes
- Innovative Testing Systems

With Exhibition, Cultural and Social Programme
INNOVATION IS INFINITE
Congress with Exhibition and Social Programme

Dates:
Wednesday, 22 April 2020, 18.00 – approx. 21.00 hrs.
Reception and Opening of the Exhibition
Thursday, 23 April 2020, 7.30 – 18.30 hrs.
Symposium and Exhibition
23 April 2020, 20.00 hrs.
Reception hosted by the Mayor of Vienna
Friday, 24 April 2020, 8.00 – 17.45 hrs.
Symposium and Exhibition

Congress Venue:
Congress Center Hofburg Vienna
Heldenplatz, 1014 Vienna, Austria

Chairmen:
Univ.-Prof. Dr. B. Geringer
President of the Austrian Society of Automotive Engineers (ÖVK) and director of the Institute for Powertrains and Automotive Technology, Vienna University of Technology, Getreidemarkt 9, 1060 Vienna, Austria

Univ.-Prof. Dr. H. P. Lenz
Honorary President of the Austrian Society of Automotive Engineers (ÖVK)

Organizer:
Austrian Society of Automotive Engineers (ÖVK)
Elisabethstrasse 26, 1010 Vienna, Austria
Phone +43/1/585 27 41-0
Telefax +43/1/585 27 41-99
https://vienna-motorsymposium.com
info@oevk.at

Organization of the Symposium:
The International Vienna Motor Symposium is organized by the Austrian Society of Automotive Engineers (ÖVK) and the Institute for Powertrains and Automotive Technology (IFA), Vienna University of Technology.
Registration:
The registration is possible online at https://vienna-motorsymposium.com. The General Terms and Conditions as well as the Data Protection Statement can also be found at https://vienna-motorsymposium.com.

Registration Fee: € 2.472,-- incl. 20% VAT
Registration Fee ÖVK Membership: € 2.388,-- incl. 20% VAT

The registration fee includes the admission to the lectures, the exhibition, the symposium proceedings, 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.

Austropa Interconvention 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 another information will follow in a few days.

Payment:
In order to guarantee the reservation, the invoice has to be settled within 2 weeks.

Booking and Cancellation Conditions Symposium Participation:
Changes and cancellations must be made in writing to Austropa Interconvention. Email: motoren2020@vb-mice.at. For cancellation after 12 March 2020, 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:
- Electronic versions of lectures on USB stick and printed copies (VDI volumes) on request.
- Lists of participants and exhibitors.
The conference papers will be distributed to participants at the registration counter.

App:
The symposium app provides information on the lectures, the speakers and the exhibition. There is also the possibility to ask questions about the lectures during the symposium. You will find the symposium app at the App Store and at Google Play Store.

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 https://vienna-motorsymposium.com
where you will find the application form. The period for submitting applications will end on 28 February 2020.

Optional Bookings:
- **Reception and Opening of the Exhibition:** Wednesday, 22 April 2020, 18.00 – approx. 21.00 hrs., registration counter will be open.
- **Reception hosted by the Mayor of Vienna in the City Hall:** Thursday, 23 April 2020, 20.00 hrs.
- **Bus Service:** Friday, 24 April 2020, 18.00 hrs. (at the end of the symposium), Congress Center Hofburg to Vienna Airport (Schwechat). Arrival at Vienna Airport approx. 18.40 hrs. Buses will be marked “Wiener Motorensymposium”.

Hotel Booking:
We have pre-reserved allotments in hotels of different categories in walking distance to the symposium venue. The booking can be arranged together with your registration to the symposium.

**Booking and Cancellation Conditions Hotel:**
Changes and cancellations must be made in writing to Austropa Interconvention. Lassallestraße 3, 1020 Vienna, Telefon +43/1/588 00/517, Telefax +43/1/588 00/520, Email: motoren2020@vb-mice.at.
For cancellation of hotel reservation between 1 March 2020 and 14 April 2020 a charge equivalent to the price of the first night at the hotel will be made. For cancellation after 14 April 2020 or non-occupancy of reserved rooms, the whole amount of the invoice will be charged from the credit card.

Evening and Social Programme:
An information for the booking of the evening and social programme you will receive together with your confirmation of registration by email.
The tickets for the evening and the social programme will be distributed at the counter of Austropa Interconvention in the Congress Center Hofburg Vienna during the symposium.

**Booking and Cancellation Conditions Evening and Social Programme:**
Please note that participation in the evening programme is limited. Tickets will be reserved on a first come first serve basis. If the requested price category is not available, we shall – if possible – reserve tickets in the next lower or higher price category. Prices as indicated include an advance booking fee. In case of a cancellation of reserved tickets the total amount of the booking will be charged.

**Exhibition:**
Approx. 60 exhibitors on over 1,400 square meters (indoor and outdoor exhibition) will complete the technical programme.
### WEDNESDAY, 22 April 2020, 18:00 – 21:00 hrs.

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>18:00</td>
<td>Reception and Opening of the Exhibition in all the exhibition areas</td>
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<tr>
<td>18:00</td>
<td>Registration</td>
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<td>19:00</td>
<td>Coffee Break</td>
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### THURSDAY, 23 April 2020, 07:30 – 21:00 hrs.

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>07:30</td>
<td>REGISTRATION</td>
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#### FESTSAAL

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<th>Time</th>
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<tr>
<td>08:45</td>
<td>OFFICIAL OPENING</td>
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<tr>
<td></td>
<td>Univ.-Prof. Dr. B. Geringer, Vienna University of Technology</td>
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<tr>
<td>09:00</td>
<td>PLENARY OPENING SESSION</td>
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<td>Chairman: Univ.-Prof. Dr. B. Geringer, Vienna University of Technology</td>
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<tr>
<td>09:00</td>
<td>Wolf-Henning Scheider, Chief Executive Officer, ZF Friedrichshafen AG, Friedrichshafen:</td>
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<tr>
<td></td>
<td>Quick, Efficient and Pragmatic: ZF’s Solutions for Electric Mobility</td>
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<tr>
<td>09:20</td>
<td>Dipl.-Kfm. Andreas Wolf, CEO, Vitesco Technologies GmbH, Regensburg:</td>
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<td>Vitesco Technologies – Building an Electrification Powerhouse</td>
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<td>09:40</td>
<td>Don Walker, CEO, Magna International Inc., Aurora, Canada:</td>
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<tr>
<td></td>
<td>A Vision for the Global Automotive Industry – Efficient, Clean, Profitable, Relevant</td>
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<tr>
<td>10:00</td>
<td>Discussion of the lectures in this session</td>
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#### ZEREMONIENSAAL

- LIVESTREAM of the Plenary Opening Session from the Festsaal

#### SCHATZKAMMERSAAL

- Coffee Break
**THURSDAY, 23 April 2020, 11:15 – 12:45 hrs.**

### FESTSAAL

**E-DRIVES**
Chairman: Assoc. Prof. Dr. P. Hofmann, Vienna University of Technology

- Dr.-Ing. J. Doerr, Dr.-Ing. N. Ardey, Dr.-Ing. G. Mendl, Dipl.-Ing. G. Fröhlich, Dipl.-Ing. R. Straßer, Dipl.-Ing. T. Laudenbach, Dipl.-Ing. S. Pint, AUDI AG, Ingolstadt; Dipl.-Ing. G. Gulyas, Dipl.-Ing. A. Stroh, Audi Hungaria, Györ: The Electric Drivetrain with 3-Motor-Layout of the Audi e-tron Top Model

- Dipl.-Ing. O. Bitsche, Dipl.-Ing. C. Hauck, Dipl.-Ing. J. Kramer, Dipl.-Ing. H. Mayer, Dr. Ing. h.c. F. Porsche AG, Weissach: Porsche Taycan, 800V Technology for High Performance Charging and Driving

- Dipl.-Ing. C. Helbing, Dr. rer. nat. K. Bennewitz, Dipl.-Ing. P. Lück, Dr.-Ing. J. Tousen, Dr.-Ing. J. Peter, Volkswagen AG, Wolfsburg: The Powertrain of the ID.4 – Volkswagen Expands the Portfolio of the MEB

### ZEREMONIENSAAL

**PLATFORM / LOGISTICS**
Chairman: Univ.-Prof. Dr. L. Eckstein, RWTH Aachen University


### SCHATZKAMMERSAAL

**CROSS-COMPANY COOPERATIONS 1**
Chairman: L. Ciferri, Automotive News Europe

- Dr. Thomas Sedran, CEO, Volkswagen Commercial Vehicles, Hannover: Competitors, Partners – or Both? Why Car Manufacturers Enter into Cooperations Today, and How to Manage Them

- H. Kleene, PwC Legal, Düsseldorf / Hannover: Cooperations and Competition: Do’s and Don’ts under EU Antitrust Law

- Univ.-Prof. Dr. W. H. Hoffmann, Dr. T. Knoll, Vienna University of Economics and Business; Dr. R. Wörner, Contrast Ernst & Young Management Consulting GmbH, Vienna: The Organizational Design of the Alliance Management System: A Holistic Perspective

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**Lunch at Congress Center**
### NEW & OPTIMIZED ENGINES 1
Chairman: Univ.-Prof. Dr. H. Eichlseder, Graz University of Technology

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<thead>
<tr>
<th>Time</th>
<th>Speaker/Author/Company</th>
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<tbody>
<tr>
<td>15:00</td>
<td>H. Kitadani, R. Kaneda, S. Mizoguchi, Y. Shinohara, J. Takeuchi, Toyota Motor Corporation, Toyota, Japan: The New 1.5 Liter Gasoline Engine from the TNGA Series</td>
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<tr>
<td>15:30</td>
<td>Dr. P. Kapus, Dr. R. Ellinger, Dipl.-Ing. E. Bogner, Dipl.-Ing. (FH) G. Teuschl, Dipl.-Ing. C. Sams, Dr. G. Fraidl, AVL List GmbH, Graz: Passenger Car Powertrain 4.x – from Vehicle Level to a Cost Optimized Powertrain System</td>
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<td>16:00</td>
<td>K. Hwang BSc, J. Chun MSc, B. Min PhD, Y. Kim BSc, D. Lee BSc, K. Ha PhD, D. Chae PhD, C. Park MSc, C. Yu MSc, Hyundai-Kia Motor Group, Namyang, South Korea: The New Hyundai-Kia’s Smartstream 1.0L Turbo GDi Engine</td>
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### ZERO IMPACT EMISSION CONCEPTS
Chairman: Univ.-Prof. Dr. M. Bargende, University of Stuttgart

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<th>Time</th>
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<tr>
<td>15:00</td>
<td>Dr. M. Eicker, Dr. M. Scheidt, Schaeffler Technologies AG &amp; Co. KG, Herzogenaurach; Dr. M. Brauer, R. Pohlke, IAV GmbH, Berlin; J. Geddes, J. Kiyanni, Jaguar Land Rover, Coventry: Innovative Concept in Diesel Low Load Emission Compliance for EU7 and Beyond</td>
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<tr>
<td>15:30</td>
<td>Dipl.-Ing. N. Andrisani, Dipl.-Ing. F. Contarin, Dipl.-Ing. A. Lorenzon, Eaton s.r.l., Torino; Dr.-Ing. F. Mallamo, Dipl.-Ing. M. Nencioni, FEV Italia s.r.l., Torino; Dr.-Ing. H. Busch, Dipl.-Ing. T. Körfer, FEV Group GmbH, Aachen: Novel Valve Train Design as Enabler for Compliance with Upcoming Stringent Emission Demands in Urban Operation</td>
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<td>16:00</td>
<td>E. Jean, Dr. C. Herbers, M. Capirchia, E. Barrieu, Faurecia Clean Mobility, Bavans / Augsburg: Electrically Heated Catalyst: Requirements, Controls and Key Parameters</td>
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### CROSS-COMPANY COOPERATIONS 2
Chairman: L. Ciferri, Automotive News Europe

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<th>Time</th>
<th>Speaker/Author/Company</th>
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<tr>
<td>14:30</td>
<td>Dipl.-Ing. R. Lokner MBA, Microsoft Corporation, Redmond, USA: Empowering the Automotive Industry – The New Road ahead for Connected and Autonomous Vehicles</td>
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<td>15:00</td>
<td>M. Siemann, AUDI AG, Ingolstadt: Legislation Needed: What is Missing to Make Level 3 Autonomous Driving Legal?</td>
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<td>16:00</td>
<td>Dr. D. Nobelius, Zenuity, Gothenburg: What’s the Rush? How the Auto Industry Over-Promised on Autonomous Driving and What it Must Do Now to Make Sure it Does not Lose Consumers Trust</td>
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### AUTONOMOUS DRIVING PANEL:

- Discussion of the Panel lectures
- Session in Cooperation with: Automotive News Europe

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Coffee Break
**THURSDAY, 23 April 2020, 14:30 – 16:30 hrs.**

**Chairman:** L. Ciferri, Automotive News Europe

**ZEREMONIENSAAL**

**AUTOMOTIVE BATTERIES**
Chairman: Univ.-Prof. Dr. G. Brasseur, Graz University of Technology

- Dr.-Ing. S. Dehn, Dipl.-Ing. G. Paul, Dipl.-Ing. [BA] F. Cornelius, Mercedes-Benz AG, Kirchheim unter Teck: The High Voltage Battery System of the New Mercedes-Benz EQC
- Dipl.-Ing. M. Lenz, A. Sauer MSc, RWTH Aachen University; Dr.-Ing. F.-W. Speckens, Dipl.-Ing. J. Ogrzewalla, Dr.-Ing. M. Stapelbroek, FEV Europe GmbH, Aachen: High-Performance Battery for Premium Hybrid Vehicles

**SCHATZKAMMERSAAL**

**CROSS-COMPANY COOPERATIONS 3**
Chairman: L. Ciferri, Automotive News Europe

- Dr. M. Hajesch, IONITY GmbH, Munich: IONITY – Customer Satisfaction Facilitated by Industry Collaboration
- Dipl.-Ing. [BA] F. Klein, Magna Steyr Fahrzeugtechnik AG & Co KG, Graz: Cooperation as a Growing Success Factor in the Magna Steyr Business Model
- Dr.-Ing. J. Kolling, BMW Group, Munich: The Role of Cooperations for the BMW Group

### 17:00
**FESTSAAL**

**CO₂ NEUTRAL MOBILITY**
Chairman: Univ.-Prof. Dr. S. Pischinger, RWTH Aachen University


**18:00**


### 17:30

**18:00**


### 18:30

**End of Programme**

**20:00**

**Reception** given by the Mayor of Vienna at the Vienna City Hall
Please bring your invitation (please see Social Programme)
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**FESTSAAL**

**HYBRID / E-DRIVES**
Chairman: Univ.-Prof. Dr. W. Eichlseder, Montanuniversitaet Leoben

- Dr. G. Rösel, P. Mönius, W. Hackmann, N. Daun, B. Schmitt, A. Reich, Vitesco Technologies, Regensburg / Nuremberg / Berlin:
  *Increased System Efficiency by an 800 V Axle Drive Concept*

- T. Hamatani, T. Uehara, T. Hayashi, H. Kitadani, T. Aoki, K. Yamanaka, Y. Nishikawa, T. Okochi, M. Kanehara, Toyota Motor Corporation, Toyota, Japan:
  *New Development of Hybrid System for Compact Car*

- Dr. H. Sandquist, P. Frejinger MSc, Dr. S. Klacar, China Euro Vehicle Technology, Gothenburg;
  I. Scholten, S. Li MSc, GEEYL Powertrain Research Institute, Hangzhou, China:
  *Systems Engineering Methodology Applied for Hybrid Propulsion System Development*

**NEW & OPTIMIZED ENGINES 2**
Chairman: Univ.-Prof. Dr. C. Beidl, Darmstadt University of Technology

  Dr.-Ing. J. Wartha, Dipl.-Ing. D. Kaminski, Opel Automobile GmbH, Rüsselsheim:
  *The New General Motors 1.5 Liter Diesel 3-Cylinder Engine*

- T. Song, Hycet E-Chuang / Great Wall Motor, Hebei, China;
  W. Happenhofer, Great Wall Motor, Hebei, China:
  *1.5T High Thermal Efficiency Modular Engine Platform*

- Dipl.-Ing. B. Burger, Prof. Dr.-Ing. M. Bargende, University of Stuttgart; Dr.-Ing. U. Philipp, Research Institute of Automotive Engineering and Vehicle Engines Stuttgart:
  *Technical Implementation of a Constant Volume Combustion in a Real Engine*

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**SCHATZKAMMERSAAL**

**INNOVATIVE TESTING SYSTEMS**
Chairman: Univ.-Prof. Dr. G. Hohenberg, Darmstadt University of Technology

- Dr. P. Ebner, M. Ivarson, Dr. R. Luz, Dipl.-Ing. (FH) M. Walcher, AVL List GmbH, Graz:
  *High Voltage Integration Testbed – Tailored for BEV Development*

- H. Karacali MSc, Ö. Sentürk MSc, Delphi Technologies, Izmir:
  *Remote Test Automation System*

- Dr. M. Wipfler, Dr. W. Rossegger, Dipl.-Ing. B. Pressl, Dr. T. Haidinger, Dr. R. Bauer, Kristl, Seibt & Co GesmbH, Graz:
  *R2R – Model Based Testing for E-Mobility Applications*
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<th><strong>FESTSAAL</strong></th>
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<th><strong>SCHATZKAMMERSAAL</strong></th>
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<tr>
<td><strong>NEW S.I. AND C.I. ENGINES</strong>&lt;br&gt;Chairman: Univ.-Prof. Dr. B. Geringer, Vienna University of Technology</td>
<td><strong>FUEL CELL / H2 ENGINE</strong>&lt;br&gt;Chairman: Univ.-Prof. Dr. H. Eichlseder, Graz University of Technology</td>
<td><strong>ENGINEERING METHODS AND PROCESSES 1</strong>&lt;br&gt;Chairman: Prof. Dr. L. Mikulic, Vienna University of Technology</td>
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<tr>
<td><strong>12:15</strong>&lt;br&gt;Lunch at Congress Center</td>
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## E-FUELS

Chairman: Univ.-Prof. Dr. S. Pischinger, RWTH Aachen University

- **14:00**
  - Prof. Dr. R. Schlögl, Fritz Haber Institute of the Max Planck Society, Berlin / Max Planck Institute for Chemical Energy Conversion, Mülheim a. d. Ruhr: **Carbon as a Future Energy Carrier**

- **14:30**
  - Dr. W. Warnecke, Dr. J. Adolf, Dr. C. Balzer, M. Blieske, P. Karzel, Dr. A. Kolbeck, Dr. A. van der Made, Dr. J. Powell, Dr. K. Wilbrand, L. Zimmermann, Shell: **On Route to CO₂ Free Fuels: Hydrogen – Latest Developments in its Supply Chain and Applications in Transport**

- **15:00**
  - Dr. E. Jacob, Emissionskonzepte Motoren, Bodman-Ludwigshafen; I. Bogatikh, Dipl.-Ing. P. Seidenspinner, T. Gorall, Dr. T. Wilharm, ASG Analytik-Service GmbH, Neusäß: **Synthetic Fuels against Climate Change and Air Pollution**

## HEAVY DUTY VEHICLES

Chairman: Univ.-Prof. Dr. W. Eichlseder, Montanuniversitaet Leoben

- **14:00**
  - L. Farrell PhD, T. Frazier PhD, Cummins Inc., Columbus, USA; M. Younkins PhD, J. Fuerst, MBA BSME, Tula Technology Inc., San Jose, USA: **Diesel Dynamic Skip Fire (dDSF®): Simultaneous CO₂ and NOₓ Emissions Reduction**

- **14:30**
  - Dipl.-Ing. A. Lozansovski, A. Geß MSc, University of Stuttgart; Dipl.-Ing. O. Dingel, Dipl.-Ing. (FH) T. Semper, IAV GmbH, Chemnitz: **Technical Evaluation and Life Cycle Assessment of Potential Long Haul Heavy Duty Vehicles for the Year 2050**

- **15:00**
  - Prof. Dr.-Ing. S. Pischinger, RWTH Aachen University; Dipl.-Ing. (FH) D. van der Put, Dr.-Ing. P. Heuser, FEV Group GmbH, Aachen; Dipl.-Ing. B. Lindemann, Dr.-Ing. M. Müther, Dr.-Ing. M. Schönen, FEV Europe GmbH, Aachen: **Efficient Commercial Powertrains – How to Achieve a 30% GHG Reduction in 2030**

## SCHATZKAMMERSAAL

### ENGINEERING METHODS AND PROCESSES 2

Chairman: Univ.-Prof. Dr. C. Beidl, Darmstadt University of Technology

- **14:00**
  - Dr. D. Höfler, Dipl.-Ing. S. Maxl, tectos gmbh, Graz: **Frontload in the Development Process: Road to Rig Method through Innovative Measurement Technology**

- **14:30**
  - Dr.-Ing. J. Ewald, Dr.-Ing. P. Orth, FEV Europe GmbH, Aachen; C. Granrath MSc, Prof. Dr.-Ing. J. Andert, RWTH Aachen University: **Model Based Systems Engineering for Standardized Simulation Frameworks: Case Study Development of Electrical Vehicles**

- **15:00**
  - J. A. Tschorn MSc, Dipl.-Ing. C. Wetzel, Bugatti Engineering GmbH, Wolfsburg; Prof. Dr.-Ing. T. Vietor, TU Braunschweig: **Optimization Strategies for Lap Time as Objective Function in Vehicle Development**
### FRIDAY, 24 April 2020, 16:00 – 17:45 hrs.

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<tr>
<th>FESTSAAL</th>
<th>ZEREMONIENSAAL</th>
<th>SCHATZKAMMERSAAL</th>
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<tr>
<td><strong>PLENARY CLOSING SESSION:</strong> VIEW TO THE FUTURE</td>
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<tr>
<td>Chairman: Univ.-Prof. Dr. B. Geringer, Vienna University of Technology</td>
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<tr>
<td>16:00</td>
<td>Toshihiro Hirai, Corporate Vice President, Nissan Motor Co., Ltd., Kanagawa, Japan: Nissan’s Challenge as Carbon Neutral Leader</td>
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<td>16:20</td>
<td>Günter Butschek, CEO &amp; Managing Director, Tata Motors Ltd., Mumbai, India: Mobility in India – Inclusive, Sustainable and Transformational</td>
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<tr>
<td>16:40</td>
<td>Dr. Stefan Hartung, Member of the Board of Management, Chairman Business Sector Mobility Solutions, Robert Bosch GmbH, Stuttgart: Powertrains of the Future – Sustainable, Safe, Exciting</td>
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<tr>
<td>17:00</td>
<td>Discussion of the lectures in this session</td>
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<td>17:30</td>
<td><strong>CLOSING ADDRESS:</strong> Univ.-Prof. Dr. B. Geringer, Vienna University of Technology</td>
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<td>17:45</td>
<td>End of Programme</td>
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<tr>
<td>18:00</td>
<td><strong>Bus Transfer</strong> from Heldenplatz (Congress Center Hofburg) to Vienna Airport (Schwechat)</td>
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In addition to the lecture programme, the International Vienna Motor Symposium also offers a poster session on selected topics. Participants will find the poster presentations in the exhibition area. Printed versions will be included in the lecture books (VDI volumes), and the electronic versions can be found on the USB stick as well as online (participant area, app).

Dr. K. Hatamura, Hiroshima University, Japan:  
Conditions for Reducing WTW CO2 Emissions from Automobiles through the Spread of Electric Vehicles (EVs) – Identification of the Marginal Power Source for EV Charging and Calculating CO2 Emissions from EVs

V. Schallhart MSc, M. Hohensinner MSc, T. Steiner MSc,  
PD Dipl.-Ing. Dr.techn. L. Möltner,  
Management Center Innsbruck;  
Dipl.-Ing. L. Flicker,  
Vienna University of Technology:  
A Comparative Study of Fresh and Aged Catalytic Converters in Diesel Exhaust Gas Systems and the Impact of NO2 on the Overall NOx Conversion

Dr. K. Togai, Osaka Sangyo University, Japan:  
Behavior of Closed Loop Control System Consisting of a Powertrain and a Human Controller and HMI Point of View

Dipl.-Ing. P. Rumplmayr, Dipl.-Ing. Dr.techn. E. Schutting,  
Univ.-Prof. Dipl.-Ing. Dr.techn. H. Eichlseder,  
Graz University of Technology;  
Dipl.-Ing. (FH) H. Mitterecker,  
AVL List GmbH, Graz:  
Experimental Investigation of PEO Coatings to Reduce Wall Heat Losses on a Diesel Engine

Prof. Z. J. Sroka,  
Wroclaw University of Science and Technology;  
Z. Sadlak,  
IngenieurBüro Sadlak, Munich:  
CO2 Emission Standards as a Challenge for the Thermal Activation of Combustion Chambers in Internal Combustion Engines
With complete powertrain systems for all vehicle classes, Bosch combines mobility with energy efficiency. This not only means making continuous improvements to internal combustion engines, but also developing powertrain systems for low- and high-voltage hybrids as well as electric vehicles. Connecting components and systems intelligently makes powertrains more efficient, and thus economical to drive. With this aim in mind, Bosch combines hardware, software, and services to create top-to-bottom powertrain solutions.

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The Augustiner Chorherrenstift in Klosterneuburg (Klosterneuburg Monastery) is the focus of our tour. It is known for its beautiful location, its treasures and eventful history, and is therefore of particular importance.

The bus leads up the Danube to Klosterneuburg to the monastery, whose domes are visible from far away. The tour will start with a visit of the church.

The very famous Verduner altar is to be found in the Leopold chapel. This chapel also houses the tomb of Leopold III (1073 – 1136), founder of the abbey and the most important representative of the Babenberger ruling family. He was canonized in 1485 and is the patron saint of Lower Austria.

The tour ends with a visit to the Treasury, where the “Erzherzogshut” (Archduke’s hat), donated by Maximilian III (1558 – 1618), is kept. The “Erzherzogshut” should not be removed from the Treasury for more than 30 days, except for the “inheritance homage”, the assumption of office of the new Archduke.

On the way back the bus drives along the extensive vineyards of the monastery to Kahlenberg’s panoramic terrace in order to enjoy a wonderful view over Vienna.

For further details, please see enclosed brochure “SOCIAL PROGRAMME – guided tours and evening events” or online on https://vienna-motorsymposium.com.
The Hofburg was the residence of the Habsburgs until the end of the First World War in 1918. When the Habsburgs came to Vienna in 1278 after a victorious battle against Przemysl Ottokar II, the oldest part of the Hofburg already existed – today it is called Schweizerhof. It was a castle on the city wall with four towers that can still be guessed. For centuries more buildings have been added, and today the Hofburg consists of about 2500 rooms.

The Schatzkammer (Treasury) is housed in the oldest part of the Hofburg and displays the Austrian Imperial Crown as well as the Crown and the Imperial Insignia of the Holy Roman Empire.

The walk will be continued passing the stables of the Lipizzaner, the white horses, which are housed in the Stallburg. There are about 50 to 55 stallions here in Vienna, who train in the hall of the Riding School and show their skills during the weekend.

In the Court Silver and Table Room, one of eight museums in the Hofburg, the imperial crockery is shown that the Habsburgs collected for centuries or received as gifts.

For further details, please see enclosed brochure “SOCIAL PROGRAME – guided tours and evening events” or online on https://vienna-motorsymposium.com.
EVENING PROGRAMME

FRIDAY, 24 April 2020

• Performance at the Vienna State Opera “Madama Butterfly” by Giacomo Puccini
• Performance at the Vienna Volksoper “The Bat” by Johann Strauß
• Musical at the Ronacher “Cats” by Andrew Lloyd Webber

SATURDAY, 25 April 2020

• Performance at the Vienna State Opera “Fidelio” by Ludwig van Beethoven
• Performance at the Vienna Volksoper “Vivaldi – The Fifth Season” [Musical by Christian Kolonovits]
• Concert at Vienna Musikverein – Great Hall Vienna Symphony Orchestra: Pyotr Ilyich Tchaikovsky, Modest Mussorgsky
• Musical at the Ronacher “Cats” by Andrew Lloyd Webber

Tentative schedule

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