Diesel Powertrains 3.0

INTERNATIONAL FEV CONFERENCE

JULY 11th -12th, 2017

www.fev.com

Nestor Hotel
Ludwigsburg,
Stuttgart Area

Conference Topics

> Engine Controls and Calibration
> Electrified Diesel Powertrains
> Engine Design, Architecture and Components
> FIE System Reliability and Improvements
> Emission Reduction Solutions

Scientific Committee

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PSA
DEAR COLLEAGUES,

the continuous optimization of the classical ICE towards more efficiency and minimized exhaust emissions remains a key factor of automotive engineering. Despite the currently ongoing discussions the modern Diesel engine represents a favorable platform for a highly-valuable future propulsion unit even under changed regulatory boundary conditions and an altering market environment.

The never-ending optimization of the base engine architecture to accomplish lowered friction and minimized losses represents a major field of multiple engineering undertakings. Furthermore, traditional areas of development, such as the enhancement of the combustion system towards higher efficiency, better comfort and lower engine-out emissions dominate current research activities.

In addition the enlarged utilization of highly sophisticated exhaust aftertreatment systems to meet stricter RDE emission requirements towards a full-system approach characterizes a key aspect. Finally, the interlinkage of all sub-systems with more model-based, physical-oriented control algorithms and the dedicated electrification of sub-systems highlight major influences on the mainstream development trends for the next decade of powertrain production.

FOCUS ON NETWORKING

To elevate your conference experience, the 3rd edition of Diesel Powertrains 3.0 offers multiple opportunities for mutual exchange between engineering experts and industry representatives. In the evening of the first conference day the organizers will take you for a walk to the Ludwigsburg Residential Palace. After a short tour through the historical palace chambers, the delegates are invited to join the reception dinner in an international restaurant near by.

EXCLUSIVE STAGE FOR EXHIBITORS

Diesel Powertrains 3.0 offers excellent opportunities to present your products and solutions to a high level audience. You can become the exclusive dinner sponsor, book your exhibition stand close to the conference area or present your demo vehicle. For more information please contact: Boris Benesch: benesch@fev.com, phone: +49 241 5689 9836.
ENGINE DESIGN, ARCHITECTURE AND COMPONENTS

08:30 Welcome and opening
09:00 Innovative Aluminum Copper Alloys for High-Performance Diesel Engines – Presentation of Current R&D Results, *Nemak Europe, Prof. Franz-Josef Feikus*
09:30 A novel development methodology for crankshaft concept design of Light-Duty diesel engines, *FEV Europe GmbH, Dr. T. Gökmez*
10:00 Coffee Break
10:30 Low-Friction Powertrains: Current Advances in Lubricants and Coatings, *Applied Nano Surfaces, B. Zhmud*
11:00 High thermal conductivity tool steels HTCS® to increase the strength-to-weight ratio and the process productivity of the casted light alloys power train components, *Rovalma S.A., D. Flor*

11:30 Lunch Break

EMISSION REDUCTION SOLUTIONS

13:30 Experience and Future Requirements for DeNOx emission control system under Real World Driving Conditions, *NGK Europe GmbH, C. Vogt*
14:00 The emission control concept of the new E-class with OM654, *Daimler AG, Dr. A. Mackensen*
14:30 Focus on CO₂ and Urban Air Quality: Sustainable Diesel Exhaust Systems for Euro 6d and beyond, *Umicore AG & Co. KG, I. Griebtede*
15:00 Coffee Break
15:30 High performance NOx-reduction – Diesel technology concept for future stringent emission legislation, *FEV China Co. Ltd., St. Niederer*
16:00 Optimal Real Driving Emissions Part II – Aftertreatment System Controls Approach, *Ford Research & Advanced Engineering, F. De Smet*
16:30 FlexValve: Continuously VVA system for the optimisation of diesel engine air-path systems & EATS thermal management, *Pierburg GmbH, T. Lancefield*
17:00 PQD : Assuring AdBlue quality verification and guaranteeing optimal NOx reduction performance, *Plastic Omnium, J. Op de Beeck*
18:00 Guided tour through the Ludwigsburg Residential Palace
19:30 Reception Dinner
ELECTRIFIED DIESEL POWERTRAINS

08:30 Electrification in the automotive industry – trends and related implications for OEMs and suppliers, FEV Consulting GmbH, Dr. A. Wiartalla

09:00 Model-Based EGR Control, Aschaffenburg University, Prof. Dr. K. Borgeest


10:00 Coffee Break

10:30 Innovative Measurement and Calibration Hardware Concept for Diesel ECU’s, Vector Informatik GmbH, A. Kless

11:00 A methodology for integrated optimization of diesel engine and aftertreatment system calibration, Politecnico Torino, F. Millo

11:30 Combustion rate shaping as a contribution to future Diesel strategies, VKA RWTH Aachen, Ch. Jörg

12:00 Lunch Break

FIE SYSTEM RELIABILITY AND IMPROVEMENTS

13:00 Prevention of backwall damage while femtosecond laser drilling, General Atomics, Dr. A. Forsman

13:30 Evaluation of Diesel Injector Nozzle Deposits in Euro 5 Market Vehicles, Shell Global Solutions (Deutschland) GmbH, Dr. S. Rabl

14:00 Combined CFD and experimental evaluation of micro-orifice nozzles and high injection pressure technologies for improving future diesel engines" Universitat Politècnica de València, Prof. Jesus Benajes

14:30 Coffee Break

ELECTRIFIED DIESEL POWERTRAINS

15:00 Electrification in the automotive industry – trends and related implications for OEMs and suppliers, FEV Consulting GmbH, Dr. A. Wiartalla

15:30 Optimized Diesel Hybrid Powertrain and Controls to Minimize CO₂ and NOx Emissions, Continental Automotive GmbH, Dr. G. Avolio

16:00 Next Improvements for future electrified Diesel Powertrains, Denso Automotive Deutschland GmbH, Dr. O. Herrmann

16:30 New Diesel Engine designs as integral part of future highly-efficient Hybrid Powertrains, Coventry University, Dr. H. Busch

17:00 Panel-Discussion
The conference is not subject to value added tax. The fee covers all related documents to the event, lunch, beverages and the evening event.

Event ID: H070-07-026-7

Surname

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Title

Function

Department

Field of Operation

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Location: Diesel Powertrains 3.0

HOTEL
Nestor Hotel Ludwigsburg
Room: Mozart I+II
Stuttgarter Str. 35/2
71638 Ludwigsburg, Germany

HOTEL RESERVATION
www.hdt-essen.de/hotel
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email: hotel@hdt-essen.de

TARGET GROUP
> Experts in Diesel engine development
> Professional Tier1 and Tier2 suppliers
> Research and development specialists
> Decision makers and representatives from OEMs

UPCOMING EVENT:
1st INTERNATIONAL FEV CONFERENCE
ZERO CO₂ MOBILITY
9th-10th November 2017

Hotel Pullman Aachen Quellenhof
Aachen, Germany