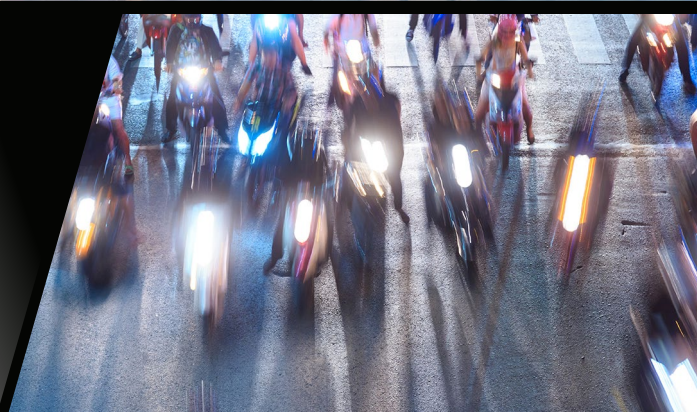
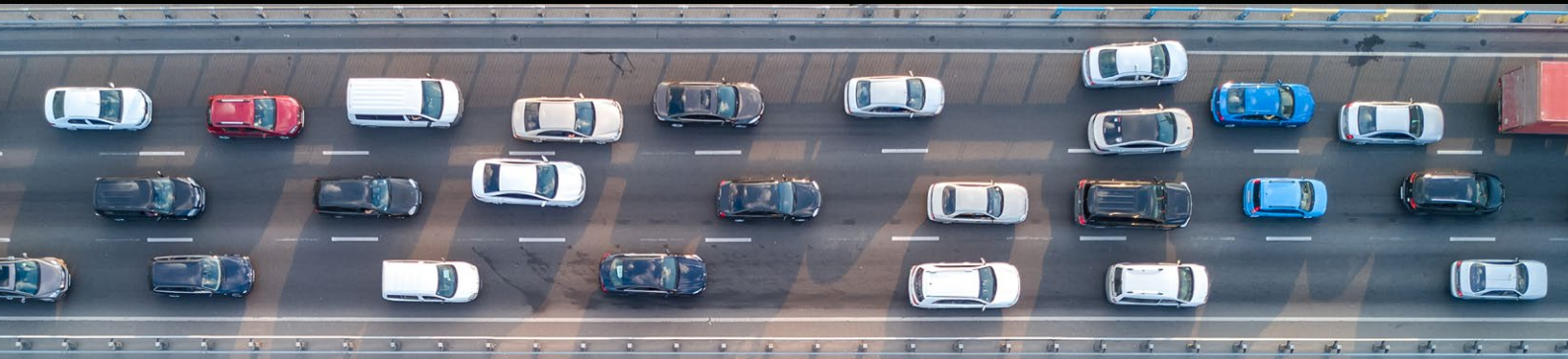


Fuel and Urea Systems - Cars, Trucks and Two-Wheelers

2018

itB
GROUP



Final Program



**Sheraton Grand Pune
Bund Garden Hotel**



March 21 and 22, 2018

Pune, India

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Fuel and Urea Systems - Cars, Trucks and Two-Wheelers

Day 1: March 21, 2018

8:30 a.m. Registration and Exhibits Open

9:30 a.m. Welcome and Opening Remarks
*Dr. Joel Kopinsky, Managing Director
The ITB Group (U.S.A.)*

Material Developments

9:45 a.m. Innovative Solution for Demanding Automotive Fuel and Urea Management
*Global Development Leader for Automotive Fluid Management
DuPont (China)*

The extractables PA 12 fuel lines may clog fuel injectors. PA 612 has lower extractables and higher heat resistance with similar cost and processability to PA12. Innovative fuel line solutions have been developed together with fuel filler and SCR system solutions.

10:15 a.m. EPDM DEF Hoses
*Head of Design and Development
Bony Polymers (India)*

This presentation identifies the technical and testing requirements for EPDM DEF hose. Suction, return and pressure hoses are considered.

10:45 a.m. HDPE Resins for Fuel Tank and Urea Systems
*Technical and Marketing Manager
LyondellBasell Industries (India)*

Due to changes to Euro VI norms, there is interest among the heavy duty OEMs to shift to plastic fuel tanks. The use of rotomoulding will be presented together with new generation high MFI and high ESCR grades for SCR tanks.

11:15 a.m. Networking Break

Evolving Low Emission Fuel Lines

12:00 p.m. Plastic Fuel Lines and SCR Solutions for New Regulations in India
*Development & Technical Service Manager
Arkema (India)*

A range polymer solutions for tubing has been developed to meet the challenges of new fuels and regulations in India. Requirements for diesel, gasoline and SCR plastic lines will be presented.

12:30 p.m. QUICK Connectors for Low Emission Fuel Systems
*Senior Manager, Technical Sales
ARaymond (India)*

International OEM's, especially those present in the US market, are at the forefront in terms of environmental regulations for vehicles

and specifications such as OBD2 systems. The complete system (air intake and engine technology) should be considered (including ORVR systems). Quick connectors can play an important role in limiting hydrocarbon emissions.

1:00 p.m. Question and Answer Panel Session
*ARaymond
Arkema
Evonik*

1:30 p.m. Lunch

Evolving Low Emission Fuel Tanks

3:00 p.m. Live Webinar:
Smart Solutions for PHEVs
*Project Director Tanktronic
Plastic Omnium (Belgium)*

With the rapid expansion of PHEV vehicles it's important to define the best solution for the market. Tanktronic refueling and E-Valve technologies allow a better effort to communize tank shells across markets, and optimize cost for pressurized tank technologies.

3:30 p.m. Plastic Tanks for Hybrid Vehicles - Solutions and Validation
*Senior Manager Core Functions
Kautex Textron (Germany)*

Innovative solutions are used for the substitution of pressurized heavy steel tanks by plastic tanks such as a reinforced solution for the 2012 VW Jetta and full plastic solutions in 2015 for the VW Passat GTE and Volvo XC90. Pressurized plastic tanks that are used for reduced purge capability powertrains such as plug-in hybrids and range extenders are presented.

4:00 p.m. Improving Automotive Fuel System Design Using FLOW-3D Computational Modeling
*Vice President
Kaushiks International (India)*

CFD simulation software is used in the automotive industry for designing fuel tank systems such as refueling systems, comparison of valve configurations, urea filling in diesel engines, sloshing inside the tank, and filter design for the filling of AdBlue. This presentation will highlight the use of CFD for some of these practical applications.

4:30 p.m. Afternoon Refreshments

5:00 p.m. Exhibits Close - End of Day One

Day 2: March 22, 2018

8:30 a.m. Registration and Morning Networking,
Exhibits Open

9:00 a.m. Welcome and Opening Remarks
*Dr. Joel Kopinsky, Managing Director
The ITB Group (U.S.A.)*

Evolving Indian Technologies and Regulations

9:10 a.m. **Bharat Stage VI and Beyond**
*Project Manager, Fuel System and
Senior Manager, Chassis System
Tata Motors (India)*

The presentation will cover challenges encountered by the OEM's in meeting Bharat Stage VI norms, Real life Driving Emissions and, the future of automotive emissions and fuel economy beyond 2023.

9:40 a.m. **Material Solutions for Fuel Systems to Meet Bharat Stage VI Requirements**
*Senior Manager Tubing and Films
Evonik Resource Efficiency (Germany)*

A large portfolio of materials and multilayer system designs have been developed for new requirements such as the Indian Bharat Stage VI. Performance requirements include low permeation, low extractables, chemical resistance, low temperature impact properties, high stress cracking resistance, and high cost-effectiveness.

10:10 a.m. **Test Solutions for Lifecycle Fuel Evaporative Warranty Reduction**
*Senior Account Manager
MAHLE Service Solutions (U.S.A.)*

Patented test solutions are presented for fuel evaporative emissions warranty at both the manufacturing plants and service dealerships. Various leak test approaches will also be described.

10:30 a.m. **Networking Break**

11:00 a.m. **Exhaust Emission Regulations in Indian Auto Industry**
*Additional Director National Automotive Testing and R&D Infrastructure Project - NATRiP (India)
Under Ministry of Heavy Industry & PE,
Government of India*

Diesel Engines: Reduction of Nitrogen Oxide Emissions

11:30 a.m. **Modular SCR Tank Systems for Various Market and Emission Demands**
*Engineering Lead
Kautex Textron (India)*

SCR is the most effective technology to reduce NOx emissions. It is mandatory to pass Euro 6 emission targets. Depending on the sales region there are different requirements on the system. Concepts for both the Indian and European markets are described with a focus on price and robustness under all climate conditions.

12:00 p.m. **New SCR Compact+**
*Program Manager
Plastic Omnium (France)*

The new DINOx Compact+ for mass market applications is a serviceable module suitable for both blow and injection molded tanks. Future regulations are met while the system has best-in-class heating performance. Hardware such as the pump motor, DCU, heater and liquid injectors are easily adaptable to vehicle-specific requirements.

12:30 p.m. **Lunch**

1:30 p.m. **Low NOx Fuel Solutions for Diesel – Water Injection and Advanced Micro Emulsions**
*Independent Consultant and Chairman
Alternative Innovations (India)*

Reducing combustion temperatures reduces NOx. Options such as EGR tend to increase PM while lowering NOx. Water port injection can be an approach to lower NOx without affecting PM levels. Micro emulsions are cost effective as they contribute fuel economy besides reducing both PM and NOx.

2:00 p.m. **KEYNOTE PRESENTATION
Evolution of Commercial Vehicle Engines in India**

*Head, Product Development Center
Ashok Leyland (India)*

Increasing customer expectations and changing regulations are the key factors for commercial vehicle engine development in India. On one side, market movement towards higher power nodes is influencing base engine design. While on the other side, more stringent regulation requirements are propelling development of various In-cylinder and after treatment strategies.

2:45 p.m. **Concluding Remarks**

ITB Consulting Services

Developing / Implementing Strategic Vision

- Creating sustainable value
- Identify appropriate activities - product / customer portfolio optimization
- Globalization strategy
- Technology selection

Technology Feasibility Analysis

- Voice of the customer
- Market trends
- Competitive environment
- Apparent value

Capitalizing on Legislative Trends

- Fuel consumption & GHG developments
- Safety
- Emissions (exhaust and evaporative)

Optimizing Customer Base & Product Portfolios

- Value proposition (what and how products are offered)
- Resource optimization
- Customer portfolio
- Identify threats & opportunities

Leveraging Opportunities in the Competitor and Supply Base Arenas

- Competitor analysis
- Supply base optimization
- Make and buy decisions
- Tier One or Two positioning (tiering strategy)

Creating New Relationships

- M & A - target identification, due diligence & implementation assistance
- Technology licensing
- Product partnering
- Consortia

Conference and Workshop Schedule

Plan now to participate in ITB's upcoming automotive events. Opportunities to present, sponsor and/or exhibit are available.

- **Unlocking the Value of Vehicle Thermal Management Workshop** - April 18, 2018. Novi, Michigan, U.S.A.
- **Advanced Thermal Management 2018** - April 19, 2018. Novi, Michigan, U.S.A.
- **Plastic Powertrain Parts 2018** - June 7, 2018. Novi, Michigan, U.S.A.
- **Smart Automotive Surfaces** - October 10 and 11, 2018. Novi, Michigan, U.S.A.
- **Automotive Fuel Systems China 2018** - October 24 and 25, 2018. Shanghai, China.
- **Energy Storage Systems 2019** - March 6 and 7, 2019. Novi, Michigan, U.S.A.

For more information, please contact Bryan Eldredge, Program Manager at:
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