Track 3

Electric & Hybrid Vehicle Technology

08:30 **Hybridization: Examining the Latest Technologies and Architectures to Deliver Electric Vehicle Efficiency and Meet Customer Demands**

Moderator Jared Kearby, Principal Analyst, Power Technology Research

Gereon Hellenbroich, Department, Manager, Transmission Design and CAE, FEV Europe GmbH
Outlining the Development of a Powershiftable Two-Speed Electric Drive Unit for High-Performance Applications

Chris Hilton, Chief Technology Officer, Protean Electric
The Role of In-Wheel Motors in Future Transportation

Han-Hein Spit, Vice President, Bosch Transmission Technology B.V.
Evaluating the Potential of CVT Technology in Improving Electrified Powertrains

10:30 Networking Break: Coffee & Refreshments in the Foyer

11:00 **E-Motor Developments: Latest Developments In E-Motors and Powertrain Design Including; Alternatives to Rare Earth Magnets, Axial Flux Motor Technology and Thermal Management**

Moderator Jared Kearby, Principal Analyst, Power Technology Research

Christian Pronovost, Sr. Product Manager, Dana Incorporated
Motor Topology Selection for Electric Vehicles

Quentin Werner, Electric Machine Design Engineer, Daimler
Determining the Optimum Rotor-Topology for Electric Drives

Michael Lampérth, CEO, Phi-Power
Examining the Latest Developments in and the Potential of Axial Flux Motor Technology

Peter van Duijsen, Researcher, TU Delft
Simulating Thermal Management for E-Motors and Power Electronics

12:30 Networking Lunch & Opportunity to Take Advantage of Activities on Show Floor

14:00 **Powertrain Efficiency: Evaluating the Different Techniques for Improving the Energy Efficiency of The Electric Powertrain**

Moderator/Speaker Robert Stanek, Lead Electric Powertrain and Cost Management, P3 Group

Greg Harris, Global Electrification Services Leader, HORIBA MIRA
The Development of Efficient Electric Powertrains

Johan Vanhuyse, Research & Application Engineer, Siemens Industry Software
Generative Engineering: Automatically Creating and Evaluating Hybrid Powertrain Architectures

15:15 Networking Refreshments in Conference Foyer

15:45 **Race Track to The Road: Evaluating the Latest Second Generation Race Technology**

Moderator/Speaker Jana Kirchen, Consultant, P3 Group

Jason King, Business Development Director, Integral Powertrain
Race to the Clouds – From the Record Breaking VW I.D. R Pike Peak Car to the Road

Rosen Daskalov, Founder, Sin Cars
Outlining the L City Is a Multifunctional Electric Vehicle Platform – Charting the Evolution of Sin Cars from Race Track to The Road

Anthony Law, Head of Motorsport Batteries, McLaren Applied Technologies

17:00 Close of Day Two and Evening Drinks Reception in Exhibition Hall

THE BATTERY SHOW CONFERENCE EUROPE 2019

electric & hybrid vehicle technology conference europe 2019

Daily Agenda

Day 2 - Wednesday 8 May

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Track 1

Optimising Automotive Battery Technology Design

08:30 **Welcome Address** Paul Freeland, Principal Engineer, Cosworth

08:45 **Balancing Functionality and Application Design in OEM Platform & Battery Development**

Dr Kai-Christian Moeller, Spokesman, Fraunhofer Batteries
Development Perspectives for Cell Formats of Lithium-Ion Batteries in Electromobility

Karsten Mueller, Senior Vice President High Voltage Systems Management, IAV GmbH
EMBATT – A New Approach To Battery Design

AK Srouji, Director of Battery Cell Technology, Romeo Power

Dustin Grace, VP of Engineering, Energy Storage and Power Systems, Proterra

10:30 Networking Break: Coffee & Refreshments in the Foyer

11:00 **Electrification for the Masses: Optimising 48V Battery Systems for Mild-Hybrids**

Moderator Paul Freeland, Principal Engineer, Cosworth

Michael Bassett, Chief Engineer - Research & Advanced Engineering, MAHLE Powertrain Limited
48 V High-Power Battery for Mild-hybrid Electric Powertrains

Ian Braime, Executive Director, Low Voltage Product Management, A123 Systems
Key Considerations When Selecting Battery Solutions for 48V Applications

Phil Shaw, Product Line Director, Johnson Controls
Why LTO Based Chemistries are The Future of 48V Batteries

12:30 Networking Lunch & Opportunity to Take Advantage of Activities on Show Floor

14:00 **Investigating Advances in Modular Pack Design and Applications**

Paul Freeland, Principal Engineer, Cosworth

Paweł Swoboda, Electric Vehicles Business Development Manager, BMZ POLAND
Current and Future Modularity Approach in Heavy Electrical Vehicle Battery Systems

Martin Klein, Senior Vice President of Engineering, XALT Energy LLC
Extending Vehicle Mission Capabilities with Adaptive Battery Modules and Controls

Tobias Mayer, Technical Manager, LION Smart GmbH
Modular Battery Packs on the Basis of Different Cell Technologies and Geometries – Outlook to Cylindrical System Design

15:15 Networking Break: Coffee & Refreshments in the Foyer

15:45 **Extending Battery Life, Range and Performance through Battery Management Systems**

Moderator Paul Freeland, Principal Engineer, Cosworth

Roland Biberger, System Architect Electronics HV-Battery, Audi
Future Trends in High-Voltage Battery Electronics

Joel Sylvester, Chief Technology Officer, Dukosi Ltd
BAFTA - A Toolkit for Design and Optimised Operation of EV Batteries

Oskar Dondelewski, Advanced Operations Engineer, Aston Martin

Samuel Cregut, Battery Management System Expert, Groupe Renault
A BMS Breakthrough: an OEM Theoretical and Proof Of Concept Approach to Wireless BMS

Alexandre Collet, Chief Technology Officer, ION Energy Inc.
Battery Intelligence: Using Data to Make the BMS Smarter and Improve Battery Life and Performance

17:00 Close of Day Two and Evening Drinks Reception in Exhibition Hall

Day 2 - Wednesday 8 May

Track 2

Battery Chemistries: Increasing Energy Density & Future Battery Cell Design

08:30 **Moving Toward Higher Nickel Chemistries in Lithium-Ion Batteries for Increased Energy Density**

Moderator Andy Leyland, Head of Forecasting, Benchmark Mineral Intelligence

Claudio Brivio, R&D Engineer, CSEM
The High Energy Density Challenge in Solar-Powered Aviation: The Case Of Solarstratos

Dr Dee Strand, CSO, Wildcat Discovery Technologies
Accelerating Development of High Nickel Cathodes

Joanna Clark, Head of Product Development, Battery Materials, Johnson Matthey
Next Generation High-Energy Low-Cobalt Cathode Materials for Greater Stability and Safety

Raymond Oei, CEO, PT STERN
Considering Manganese As the Key to Lower Cost Per kWh

10:30 Networking Break: Coffee & Refreshments in the Foyer

11:00 **Pushing the Limits of Lithium-Ion Cell Development – Developing Higher Capacity Materials**

Moderator Jim Greenberger, Executive Director, NAATBatt International

Kenan Sahin, President and Founder, CAMX Power LLC
Innovation for Lithium-Ion Batteries: Gaps, Opportunities, Obstacles

Dr Wasim Sarwar, Technical Specialist – Battery Systems, Williams Advanced Engineering
Development of Cutting-Edge Battery Packs Using Next-Generation Cell Chemistries

Tobias Placke, Head of Division "Materials", MEET Battery Research Center, University of Münster
Towards High-Energy Lithium-Ion Batteries: Reaching the Limits of Intercalation Chemistry

Andrey Senyut, CEO, OCSiAl Energy
Reaching 300 Wh/kg Energy Density with Graphene Nanotubes in High-Energy Si/C/SiO Anodes

12:30 Networking Lunch & Opportunity to Take Advantage of Activities on Show Floor

14:00 **Future Proofing 12V Technologies: Lead Acid VS Lithium and Alternative Technologies**

Moderator/Speaker Rene Schroeder, Executive Director, EUROBAT

The EU Before the Elections – What's Next for Batteries on the Legislative Horizon?

Christoph Fehrenbacher, Managing Director, A123 Systems

Jörn Albers PhD, Manager Global Requirements Analysis, Johnson Controls Power Solutions EMEA, Johnson Controls Power Solutions EMEA
Are All Battery Technologies Created Equal? Creating a Positive Environment and Regulatory Framework That Enables All Electrification Technologies

Armin Warm, Supervisor Advanced Power Supply & Energy Management, Ford Research & Advanced Engineering Europe

15:15 Networking Break: Coffee & Refreshments in the Foyer

15:45 **Investigating Technology Readiness Level of Innovative Battery Technologies**

Moderator Shmuel De-Leon, CEO, Shmuel De-Leon Energy

Laurent Hubard, CEO, Tiamat

Stephen Voller, CEO & Founder, ZapGo

David Ainsworth, Chief Technical Officer, Oxis Energy

17:00 Close of Day Two and Evening Drinks Reception in Exhibition Hall