

ち亭・上 海 国 际 汽 车 城 Anting・Shanghai International Automobile City **EVENT GUIDE**

Includes Final Program and Exhibit Directory

SAE 2016 NEW ENERGY VEHICLE FORUM 新能源汽车国际论坛

September 21-22, 2016 Shanghai International Automobile City

www.sae.org/events/nev



NEV Application Test Solution



EVSE Test Solution

It is a customized system based on ATS 8001 specializing in verification of EVSE(Electric Vehicle Supply Equipment) and complying in with GB/T20234.2 in programming the test items for operation. The EVSE ATS can simulate various power grid and electric vehicle conditions for EVSE testing.

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SAE 2016 NEW ENERGY VEHICLE FORUM

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HOTEL VENUE

Grand Metro Park Hotel Kun Shan Ballroom, 2nd Floor

2 Zhao Feng Road, Huaqiao CBD Kunshan City, Jiangsu, PRC

HOST INTRODUCTION



SAE International is a global technical association of more than 145,000 engineers and related technical experts in the aerospace, automotive and commercial-vehicle industries. It was founded in 1905 with 30 engineers in New York and now spans more than 100 countries. SAE International is perhaps best known for its technical standards. More than 8,000 technical experts from around the world participate on 600 standards committees

to develop a large base of standards and recommended practices that are used to support product design and development. Many government regulations and documents reference SAE International standards.



In June 2001, the Shanghai Municipal Government took the decision to create the Shanghai International Automobile City (referred to as SIAC) in Anting town, Jiading district. The planned area covers 100 square kilometers and the

investment is expected to reach 80 billion RMB. SIAC has functional areas such as automobile R&D, manufacturing, trade, cultural expo and education. The focus is on pillar automobile industries such as whole car manufacturing and vehicle parts and components. The emerging industries in SIAC include new energy vehicles R&D and manufacturing, automobile finance, and healthcare. Its vision is to create the future of mobility, build a livable city with a powerful innovative industry and automobile cultural and become the commanding heights of China auto industry. SIAC will have its place in the world.

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EVENT OVERVIEW

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WEDNESDAY, SEPTEMBER 21			THURSDAY, SEPTEMBER 22	
9:00	WELCOME SPEECH			
9:30-11:00	MARKET ANALYSIS AND OUTLOOK This session will provide the audience with market related information brought by leading representatives from industry and government. The information imparted will focus on legislative, end- user, economic and technical aspects of the new energy vehicle market.	9:	00-11:00	New energy vehicle energy storage products are in the spotlight of development as they represent the core technology in advancing cost-effective and efficient propulsion system solutions. Developments and status reports on the current work, products and standards to produce more efficient, lighter and more powerful energy storage systems will be subjects addressed in this session.
11:30-12:30	OEM NEV'S OEM's in China's offer a diverse portfolio of NEV vehicles. Presentations will address issues such as technology deployment, features, technical requirements, product development challenges and solutions.	11::	30-13:00	SAFETY AND STANDARDS New energy vehicle energy storage products are in the spotlight of development as they represent the core technology in advancing cost-effective and efficient propulsion system solutions. Developments and status
	Lunch		reports on the current work, pre-	
13:30-15:30	OEM NEV'S			efficient, lighter and more powerful energy storage systems will be subjects
16:00-17:30 ELECTRIC DRIVE SYSTEMS AND COMPONENTS New energy vehicles present new and unique challenges for system design and reliability/durability engineers. In vehicle development, the functional testing of electric drive powertrains are extremely important and being different from the their purely mechanical counterparts, require new methodologies and tools to successfully carry out those tests and analysis. In this session, experts will explore these issues, discuss their impact from a systems engineering perspective, and expose potential solutions to support verification and validation.		addressed in this session.		
	unique challenges for system design and reliability/durability engineers. In vehicle development, the functional testing of electric drive powertrains are extremely important and being different from the their purely mechanical counterparts, require new methodologies and tools to successfully carry out those tests and analysis. In this session, experts will explore these issues, discuss their impact from a systems engineering perspective, and expose potential solutions to support verification and validation.	14:	00-16:30	INFRASTRUCTURE, CHARGING Electric drive vehicles are here to stay. By design their systems present different and new aspects of safety and design standardization not encountered in convectional vehicles. In addition to the design itself, it affects first responders repair and maintenance procedures. This session will include presentations that explain issues and guidelines that are aimed at avoiding risks.
The purpose of this event is to provide an open exchange of ideas. Remarks made by participants or members of the audience cannot be quoted or attributed to the individual or their company unless express permission has been granted by the individual and their company. Any record of		F c c t t	Consent to Use of Images Please note that photographs and video taken by or on behalf of SAE International of event activities and attendees shall be the property of SAE International. By registering for an SAE International event, you consent to the use by SAE International of any photograph or	

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WEDNESDAY, SEPTEMBER 21

WELCOME SPEECH				
09:00	Billy XU, General Manager, SAE International China Shanghai International Automobile City			
MARKET ANALYSIS AND OUTLOOK				
09:30	The Global Prospects for NEVs: How Fast Will the Market Grow and What Are the Drivers and Barriers? Lisa Jerram, Principal Research Analyst - Navigant Research (See Speaker's Bio on Page 14)			
	ABSTRACT			
	Automakers are pressing ahead with NEV introductions, creating a more robust, varied market of NEVs. Longer range vehicles, premium vehicles, vehicles with autonomous features and higher charging capabilities – all of these are coming to market and will shift the demand for NEVs. This presentation will talk about the prospects for NEVs globally over the next ten years, focusing especially on key markets like the United States, Europe and Japan but also on whether NEVs will spread beyond these major early markets. The presentation will discuss the primary challenges and drivers in these regions, including regulations, infrastructure, utility involvement and incentives or subsidies. The presentation will include high level forecasts by Navigant Research of the NEV market over the next ten years in key regions.			
10:00	China New Energy Vehicles Outlook Jiajia WANG, Analyst, Greater China - IHS (See Speaker's Bio on Page 14)			
	ABSTRACT			
	The Chinese NEV market is the product of subsidies and CAFC(corporate average fuel consumption) regulations. Subsidies are just short-term drivers, while CAFC is the main driver for middle and long term. In this presentation we will try to answer 3 questions: Why go for NEV? Why do Joint ventures lag behind domestic players in NEV market? and Which NEV solutions might be popular in China?			
10:30	Quantifying the EV and PHEV Drivetrains of the Future: Battery Trends, Supplier Positioning, and OEM Strategies Cosmin Laslau, Senior Analyst - Lux Research (See Speaker's Bio on Page 14)			
	ABSTRACT			
	As the future of transportation evolves beyond the initial wave of first-generation plug-ins, a new battleground is emerging around the affordable 200-mile-range EV, along with continuous improvement in PHEV drivetrains. However, many questions remain around topics like which specific battery types, suppliers, and OEMs will best succeed in this new market. This presentation will focus on quantifying the battery chemistries that will underpin this transportation revolution, looking at NMC and NCA in particular as well as next-generation batteries. The talk will also detail which suppliers and OEMs are best-positioned towards 2020 and beyond from a technology, partnership, and strategy perspective, and what others can do to keep pace and succeed.			

OEM NEV'S

11:30 Electrification – A Glance into the Future

Kevin Layden, Director of Electrified Powertrain Engineering - Ford Motor Company (See Speaker's Bio on Page 15)

ABSTRACT

Emissions regulations in response to the U.S industrial pollution of the 1940-1950's were followed by more stringent regulations due to the exponential increase in miles driven by automobiles. While changes were being made in the U.S, similar changes are currently taking place in other areas of the world including the EU and China. As a result of fuel economy improvements and stricter emissions regulations vehicle performance was affected. However, electrification offers significant fuel economy improvements while minimizing CO2 emission and delivering important vehicle attributes, such as performance. With continued growth in customer' demand for electrified products amongst environmental concerns, electrification for personal mobility is inevitable. Transforming conventional internal combustion engine vehicles to electrified vehicles for personal mobility requires consumers, policymakers, and the automotive industry to work together.

Ford Motor Company launched its first hybrid vehicle in 2004 with the Escape, the world's first and most fuel efficient hybrid SUV, with a power-split architecture. Since then, Ford has offered its customers nearly half a million electrified vehicles with their choice of Hybrid, Plug-In Hybrid or Battery Electric vehicles. With an ever-tightening global regulatory landscape and our Electrification for Millions initiative, Ford continues its commitment to offering its customers various electrified vehicles – the power of choice. The electrification of many more platforms/ upper bodies and meeting customers' diverse preferences will drive the need to develop different electrified architectures, including parallel configuration.

This presentation discusses the development of emissions regulations and its impact on fuel economy, performance, and other vehicle attributes. As we further examine the challenges facing the automotive industry and the solutions we need to meet those regulations, first we must address energy consumption and environmental concerns. Ford strives to satisfy the varied customers' needs of today and tomorrow.

12:00 NEV Strategy and Technical Development of Changan Automobile

Wei LIANG, Chief Engineer - Changan New Energy Automobile (See Speaker's Bio on Page 15)

ABSTRACT

NEV is a new trend for automobile technology. The development of new energy vehicle in a scientific and efficient way helps to reduce greatly the automobile exhaust gas emission in cities with heavy traffic. As the lithium battery technology becomes more mature and vehicle electric drive system makes progress, new energy vehicle has now equipped with market access conditions. 2015 was the year of NEV, as the sales of new energy vehicles doubled. However, challenges for this new dynamic system also emerge as pure electric vehicle achieves vigorous development. Though the energy density of batteries improves rapidly, it increases the complete vehicle curb mass, which limits the space for improvement of energy consumption of the vehicle and the mileage of new energy vehicle, causing anxiety of new energy vehicle users. As a result of the use of resistance heating as the heating method, running mileage is reduced by a great margin since a large amount of energy of the battery is used for the accessories in winter, making the vehicle not ideal for taxi use. Moreover, there appears the contradiction between the battery service life and quick charge with high current as users demanded, and it becomes more prominent in the very cold winter in the north. Those are the challenges face the whole industry and the keys which are needed to develop new energy vehicle technology. How will the designers of new energy system respond to these challenges and come up with competitive products are questions needed to be treated seriously by Chinese automobile industry. This report summarizes these problems and discusses the trend of technology development in the near future.

TECHNICAL PROGRAM

13:30 GM Electrified Vehicles and Innovative Technology

Charon Morgan, Director of Engineering - General Motors China (See Speaker's Bio on Page 16)

ABSTRACT

The presentation will focus on electrification and the future of efficient propulsion at General Motors. The technologies and features of GM vehicles, including the first extended-range electric vehicle will be featured, as well as the road path for the roll out of more than 10 new energy vehicles to be introduced by GM and its joint ventures in China. They include full hybrids, plug-in hybrids and extended-range electric vehicles.

14:00 Improved Electric Drive Efficiency Study

Shipin HE, Sr. Lead Engineer of Electric Propulsion System - Volvo R&D China (See Speaker's Bio on Page 16)

ABSTRACT

Optimum efficiency of electric drive system is a key system parameter. For motor control the current control strategy is one key factor to affect the efficiency of current utilization. By optimizing the motor core losses and copper losses of the motor losses, the dedicated method of MEPT (Maximum Efficiency Per Torque) is proven to be a better method than the current ordinary MTPA (Maximum Torque Per Ampere) method. The proposed technology can reduce the motor power losses up to 4.5% at low speed high torque, which is a very important improvement of the performance of the vehicle.

14:30 Connected and Intelligent Electrification – An Outlook

Ming Kuang, Technical Leader in Vehicle Controls at Research and Innovation Center - Ford Motor Company (See Speaker's Bio on Page 16)

ABSTRACT

Since its introduction into mass production early 2000, Electrification of personal transportation has helped address dependence on fossil fuels, global climate change and environmental concerns, and is penetrating into the mainstream auto market. With increasingly stringent regulations on vehicle fuel economy and emissions, Electrification is becoming an inevitable means of sustainable personal mobility. Electrification entails either augmenting conventional powertrains by adding one or more electric motors, or outright replacement of the engine with an electric motor. This reduces fossil fuel consumption, hence emissions, through improved energy efficiency and increased use of renewable energy in vehicles.

The improvement in energy efficiency is attained by increasing engine operating efficiency through downsized engine and minimized low-load engine operation, and by recuperating kinetic energy that would otherwise be dissipated as heat during braking through the motor to charge the battery. With pure electric drive propulsion, Electrification completely displaces fossil fuels with electricity and hydrogen for personal transportation. With rapid advancements in communication technologies, the internet of things and artificial intelligence, vehicle connectivity and intelligent controls open another dimension for Electrification to further improve energy efficiency in vehicles and enhance driving experience and safety. This presentation reviews the key enablers for maximum utilization of Electrification for vehicle energy efficiency, performance and driving experience. It recounts the evolution of vehicle connectivity and discusses its technology today.

Finally, the presentation explores the potentials of Electrification offered by vehicle connectivity and intelligent controls to create connected and intelligent vehicles customers want and value today and tomorrow.

15:00 Subject TBA

Wenzhang ZHAN, Head of New Energy Vehicle Management Department - Beijing Automotive Industry Group Co., Ltd. (See Speaker's Bio on Page 17)

ELECTRIC DRIVE SYSTEMS AND COMPONENTS

16:00 Noise Optimization of Electric Traction Drives - Challenges, Methodologies and Test Cases

Helmut Milan, Senior Solution Engineer Electrification Systems - AVL (See Speaker's Bio on Page 17)

ABSTRACT

Everyone has the challenge to reduce the audible noise from the electrified components so those are not recognized by the passengers. The initial target must be to reduce the audible noise of each component and at the later the entire traction system needs research. Finally, as at every development, the setup of the traction system is a compromise between performance, efficiency and comfort. To achieve this goal at minimum cost, it is key to choose the right methodologies, test cases and test systems.

16:30 The Trend of Electric Vehicle Driving System

Xiaojun LEI, head and chief engineer of Dajun R&D dept - Dajun (See Speaker's Bio on Page 17)

ABSTRACT

Over the past 25 years, automotive power and electronics have achieved sustainable progress. The future intelligent transportation system and vehicle electrification will provide more development opportunities for automotive power and electronics industry.

Meanwhile, on the basis of the requirements of automotive industry on high-quality, largebatch and low-cost manufacturing, the development of automotive power and electronics will substantially promote the advancement of power electronics.

17:00 A Differentiating Portfolio in NEV Powertrain Design

Zhaoxi CHEN, Leader of Application Engineering - Punch Powertrain Nanjing (See Speaker's Bio on Page 18)

ABSTRACT

In the accelerated transformation from traditional fossil fuel based powertrains to new energy vehicle powertrains, EV and PHEV achieved remarkable progress and market share due to multiple favorable features determined by the actual usage situations and regulations. These facts naturally result in the diversification of innovative NEV powertrains.

Within this future context, in this presentation we show technical spectrum from PHEV to EV powertrain solutions dedicated to different applications. The HS2 PHEV powertrain integrates a CVT transmission and a traction motor with P3 configuration. By intelligently switching between four working modes, 70% fuel saving can be achieved with charge depletion mode in a NEDC cycle.

On the zero emission side, clearly different market segments request specific requirements directly influence the designs of powertrains. For example, A0 class EVs dedicated to daily commuting are in favor of low cost and compact single speed powertrain design; E-delivery vans have more inclination in higher efficient multiple speed powertrain design; performance oriented high end EVs can benefit from multiple speed or integrated multiple motor powertrain design with torque vectoring capability. Specific requirements can be satisfied by specific configurations with fundamental building blocks of SR traction motor, motor controller, and integrated transmission solutions. The design choice and consequential features are elaborated in the presentation.

THURSDAY, SEPTEMBER 22

O9:00 The Application and Future Development for Power Battery System on New Energy Bus
Zhengwei HAO, Director of Electronic Development - Yutong Bus (See Speaker's Bio on Page 18) ABSTRACT Power battery system is a core component of new energy bus with its developments impose
a direct impact on the performance of new energy bus. Being a leader in bus industry, Yutong
is one of the earliest companies which involved themselves in the research and application of
power battery system. In this speech, the application of power battery system on the buses will be
explained. O0:70 Selection and Application of DC-LUNK Capacitors for MEVs

09:30 Selection and Application of DC-LINK Capacitors for NEVs

Yanfeng SHI, Vice President -Shanghai Eagtop Electronic Technology Co., Ltd (See Speaker's Bio on Page 18)

ABSTRACT

Electric vehicles are witnessing an increasing popularity among global public transportation for their huge potential in energy saving and environmental protection. This presentation will focus on DC-Link capacitors applied in electric vehicles from perspectives such as design, model selection, application, temperature rise and testing.

10:00 Electrification Strategies: Finding a Mass Market Solution

Liang CHENG, Engineering Manager - Johnson Controls New Energy Battery R&D Center (See Speaker's Bio on Page 18)

ABSTRACT

Global mega trends surrounding climate change and energy consumption are increasingly impacting the automotive industry. Governments in all regions are introducing stringent regulations, such as CAFÉ standards, which are specifically designed to reduce emissions from vehicles. In response, Automakers are assessing a range of technology options to increase the efficiency of their vehicles.

With Start-Stop, HEV, PHEV, and EV technologies already established in many parts of the world, opportunity now exists to extend electrified applications through the addition of low-voltage lithium-ion. These 'Advanced Start-Stop', Micro, and Mild Hybrid systems can generate up to 15% fuel efficiency over standard internal combustion engines helping automakers meet increasing regulatory pressure and consumer demand for improved fuel efficiency and emissions. Notably, they require minimal changes to the existing vehicle architecture thereby enabling a low cost solution that can be deployed across high volume.

In this session, we'll explore key factors enabling market adoption of low voltage and high voltage lithium-ion systems including market opportunities, growth drivers of successful adoption, application needs, product attributes, and economics.

10:30 Smart Battery Management System to Fulfill Functional Safety Requirement

Daniel Voll, Head of Project Management - Preh Battery Management & E- Mobility (See Speaker's Bio on Page 19)

ABSTRACT

ISO26262 is an international standard has become a major issue in automotive industry, especially the new energy vehicle. In this paper, the smart implementation of Functional Safety Requirement inside the high voltage Batery Management System (BMS) will be explained. Based on the Preh GmbH development experiences, and in conformity with the design process specified in ISO 26262, the Automotive Saftey Integrity Level (ASIL) of an BMS system is evaluated and the development process is implemented. Finally, a software and hardware structure for a safety critical system is presented.

SAFETY AND STANDARDS

11:30 Battery Standards Steering Committee Update

Bob Galyen, CTO - CATL / Chairman - SAE International Battery Steering Committee (See Speaker's Bio on Page 19)

ABSTRACT

The Chairman of the Battery Standards Steering Committee will provide and update on all 22 committee activities with a specific interest on safety topics. There will also be a segment which addresses the cooperative efforts between the Aerospace and Surface Vehicle Battery teams leveraging each groups activities to improve standards.

12:00 EVSE Interoperability: SAEJ2953 and Related GB/T Standards

Rich Byczek, Global Director Business Development, Transportation Technologies - Intertek (See Speaker's Bio on Page 19)

ABSTRACT

As Electric Vehicles, specifically Plug-in Hybrid vehicles, proliferate across global regions, it is more important than ever to ensure interoperability between the new vehicle types and the charging infrastructure. Global vehicle manufacturers are producing vehicles to support multiple regional markets, with varying couplers and charging protocols. Recently, the US Dept of Energy funded an EVSE interoperability study to assess the development of the SAE J2953 standard, which complements the SAE J1772 charging protocol. This discussion compares and contrasts the core protocols, certification schemes and interoperability requirements for various global regions. Lessons learned from the US DOE effort will aid in similar efforts to evaluate interoperability in European/global regions (per iEC-based protocols), as well as the recently revised GB/T protocols and related interoperability requirements for the China market. Beyond the in-lab tests and evaluation, additional concerns of actual deployment, installation and local grid configurations/ power quality may be addressed via in-field measurement and analysis of actual EVSE's as installed in the field.

TECHNICAL PROGRAM

12:30 Solving Soiling and Water Management Issues for Highly Optimized Electric Vehicles *Heinz Friz, Managing Director of Asia Technical Services - Exa GmbH (See Speaker's Bio on Page 19)*

ABSTRACT

Designing Electric Vehicles is a relatively new task for most automotive companies and a number of new challenges are associated with this task. Most importantly the battery thermal management plays a key role for the performance and quality of and Electric Vehicle. At the same time the low energy storage capacity of the batteries is demanding for highly optimized aerodynamics of the vehicle. Electric vehicles do for example allow for a completely flat underbody with minimal aerodynamic losses. The significantly improved underbody flow does on the other hand cause serious problems with side panel and rear face soiling from wheel sprays and this is affecting quality and safety.

With the absence of noise from a combustion engine, cowl, a-pillar and side mirror have to be designed for low noise in addition to good aerodynamic performance. These areas do also have a strong influence on water management. Highly optimized aerodynamics and greenhouse wind noise can lead to problems with a-pillar overflow and thus reduced visibility through the side window in rainy weather.

In order to address the issues related to soiling and water management, digital simulation can be used early in the design process at the same time when optimization for aerodynamics and greenhouse wind noise takes place. The presentation will give a brief overview of the soiling and water management solutions which have been developed by Exa. A detailed case study for underbody soiling will show the interdependencies between improved aerodynamics and the soiling performance. It will demonstrate how simulation can be used to improve the soiling performance with a minimal drag penalty.

INFRASTRUCTURE, CHARGING

14:00 PHEV/HEV Charging Technology – Challenge and Future Trend

Huibin LI, Engineering Director - Delphi Connection Systems (See Speaker's Bio on Page 20)

ABSTRACT

This will show the technological challenge we are facing now and the solutions as well as the trend we see.

14:30 Benefits of Conformance and Interoperability Tests for EV Charging Interfaces

Klaus Kersting, Product Manager EV/HEV - Applus IDIADA (See Speaker's Bio on Page 20)

ABSTRACT

With an empty EV battery and the need to charge it is imperative that the charging procedure works properly as specified. However, due to numerous EVSE manufacturers with different backgrounds, a lot of failures can be observed.

Rigorous conformance tests against the ruling standards for charging stations and vehicle charging interfaces during the development and permanent interoperability tests with any new EVSE hitting the market is the only way to avoid disappointments of the EV users. IDIADA has developed specific test tools and methods and is applying successfully in long-term test programs with several EV OEMs.

Technical details and project showcases will be presented.

TECHNICAL PROGRAM

15:00 Challenges of Stationary Wireless Power Transfer

Steffen Kuemmell, Project Manager of Hight Voltage and Fuel Cell System - IAV (See Speaker's Bio on Page 20)

ABSTRACT

State of the art for recharging plug-in-vehicles is conductive charging. For this charging technology - either AC or DC-charging - current focus of development is higher charging powers for shorter charging times as well as cost-improvement. Also the build-up of public charging infrastructure is still ongoing for greater acceptance of electrified vehicles by the customers. Another way to recharge is Wireless Power Transfer (WPT). WPT eliminates the need of the user to interact during the charging process neither with the Electric Vehicle Supply Equipment (EVSE) nor the vehicle. This is a significant improvement in convenience for day-to-day operation of an electric vehicle as recharging is in general more frequent than refueling stops for conventional vehicles. The most common approach for WPT is by inductive charging through an alternating electromagnetic field. This technology has a lot of potential regarding the adoption of electric vehicles as well as further improvement e.g. in combination with autonomous driving. To get there the technology and standardization has to overcome some challenges discussed in this presentation.

15:30 High Power Charging as a Major Key for Success of Premium Long Range Battery Electric Vehicles

Gin Choonwei Ong, Senior Consultant - P3 (See Speaker's Bio on Page 21)

ABSTRACT

- Development of first Tesla Fighter models has already started

- Overview about upcoming long range BEVs and their announced technical specification
 - electrical range
 - battery capacity
 - DC charging power
- Tesla Supercharger infrastructure is worldwide benchmark and the major key for success
- Comparison between worldwide DC charging standards (CCS, CHAdeMO, GB/T) and their standardized maximum charging power
- Overview about European DC infrastructure programs



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Lisa Jerram

Principal Research Analyst Navigant Research

Lisa Jerram is a principal research analyst at Navigant Research. She analyzes emerging markets for new technologies, including electric, hybrid and fuel cell cars, trucks and buses;

infrastructure, such as EV charging and hydrogen fueling; and innovative vehicle and mobility solutions in



Jiajia WANG

Analyst

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Jiajia Wang is an analyst at IHS Automotive, and specializes in alternative propulsion research in China. Prior joining IHS, she has more than 7 years work experience in automotive industry.

Cosmin Laslau

Senior Analyst Lux research

Cosmin Laslau is a Senior Analyst at Lux Research, leading the Energy Storage Intelligence, the Distributed Generation Intelligence, and the Solar Intelligence practices. He evaluates the

development and application of innovative energy generation and storage technologies, through extensive primary and secondary research. Some representative topics include batteries, supercapacitors, hybrid and electric vehicles, fuel cells, solar, and wind. Additionally, Cosmin helps address client questions regarding the future of mobility and the grid, on topics ranging from key players, emerging technologies and market strategies. He has spoken at various technology and scientific conferences, on topics such as advanced materials, chemistry, and device applications. the smart city ecosystem.

Ms. Jerram has over 20 years of experience analyzing new technologies and markets, with a particular focus on electrified transportation. She is a frequent speaker at industry conferences and has been quoted in media outlets such as Scientific American and Automotive News.

Prior to joining Lux Research, Cosmin worked as a sales engineer for a nanomaterials startup, where he consulted with industrial and academic clients, advising on material selection and project needs. Cosmin earned his Ph.D. in polymer chemistry from the University of Auckland, specializing in conducting polymers and scanned probe microscopy, and has authored 20 scientific publications and reviews. These include articles in leading journals on subjects such as electrochemistry, nanomaterials and biosensors. He also holds a M.Sc. in polymer chemistry from the University of Auckland, and a B.A.Sc. in nanoengineering from the University of Toronto. During the course of these studies. Cosmin also completed internships in Sweden and Germany, and received awards for academic excellence.



Kevin Layden

Director of Electrified Powertrain Engineering Ford Motor Company

Kevin Layden is the Director of Electrified Powertrain Engineering. He is responsible for the development and implementation of electrified powertrains and

associated advanced technologies. This includes hybrid vehicles, plug-in hybrids, electric vehicles, mild hybrids and start stop technology. As a Chief Engineer of Powertrain Calibration and NVH - North America, Kevin was responsible for the emissions, OBD, drivability and NVH development diesel and gas engines in North America from 2006 through 2009. During this period, his team delivered best in class TGW performance while introducing the revolutionary technology of the Ecoboost 3.5L engine and the 6.7L Powerstroke Diesel. In 2009, Kevin was the Chief Engineer of Calibration and NVH – Ford of Europe. Based in the UK for 3 years, he ensured global alignment of powertrain calibration and NVH processes while delivering highly fuel efficient diesel and gas engines for European and Global markets. Key deliveries in this time included the Fox I3 gasoline engine and the 88g/km DV6 diesel engine. Kevin joined Ford Motor Company in 1986 as an engine test engineer. In 1988 he moved into Powertrain Systems Engineering and was responsible for the calibration and certification of the 7.5L gasoline engines on the F250 and F350 trucks. He also had assignments in powertrain project management for the Transit Van based in the UK, powertrain planning analyst, vehicle project management and powertrain design and release. Prior to joining Ford Motor Company, Kevin graduated from The Ohio State University with a BSME. He also received an MBA from the University of Michigan.



Wei LIANG

Chief Engineer Changan New Energy Vehicle

Liang Wei holds a BA and a MA in automobile engineering from Tsinghua University and a PhD from University of Illinois at Urbana-Champaign. Dr. Liang works as a

chief engineer for Chongqing Changan New Energy Automobile Co., Ltd., where he leads the system design of new energy automobile and the development of control system. Dr. Liang has more than 14 years of experience of automobile technology R&D in America, with the research areas covering new energy automobile, vehicle dynamics, modeling and control of dynamical systems. He has published 11 representative papers and holds over 20 American and Chinese patents of invention and over 60 items for patent application. In 2015, Dr. Liang is selected as a member of "the Recruitment Program of Global Experts" and the distinguished expert of CSGC.



Charon Morgan

Director of Engineering General Motors China

Charon Morgan was appointed director of Engineering at GM China, effective August 1, 2015. Based in Shanghai, she is leading GM's vehicle engineering, supplier quality

and technology operations in China, as well as serving as the executive lead for safety.

Morgan joined GM in 1997. She previously served as manager of GM China Engineering Operations and Systems Development at one of GM's joint ventures in Shanghai. Prior to that, she was manager of Vehicle Engineering Operations in the U.S. at the Warren Technical Center.

Morgan has a Bachelor of Science degree in

Shipin HE



Sr. Lead Engineer of Electric Propulsion System Volvo R&D China

Shipin He, Sr. lead engineer at Volvo Cars China of Electric Propulsion Systems. He graduated from Shanghai Jiaotong University with the Master's degree. He has more than 6 years working experience in the electric drive system for New Energy Vehicle area at UAES, Magna Stayr and Volvo Cars. Shipin has done extensive work within electric drive system engineering and advanced Electric Motor Control methods and algorithms.

mechanical engineering from Oakland University and

a Master of Science degree in mechanical engineering,

vehicle dynamics and chassis integration from Purdue

Morgan serves on several boards and committees for

SAE International, including the Technical Standards

Nominating Committee. Morgan also recently served

on the SAE Board of Directors and was the 2011 SAE

Detroit Section chair, receiving multiple awards for her

2010 and SAE Distinguished Younger Member in 2008.

volunteer work, including SAE Member of the Year in

She has also been a member of the Detroit Section

Governing Boards and Operations Board since 2007.

Effective August 1, 2016, she also serves as chair of the Automotive Committee at the American Chamber of

Board, Scholarship Advisory Committee and Executive



Ming Kuang

Technical Leader in Vehicle Controls at Research and Innovation Center Ford Motor Company

Commerce in Shanghai.

University.

Ming Kuang is a Technical Leader in vehicle controls at Research and Innovation Center of Ford Motor Company, leading the development of global vehicle control architecture

and advanced hybrid vehicle controls. He started his career at Ford as a control engineer in electric vehicle programs in 1991. He has worked in both research and production organizations in the area of vehicle dynamics and controls, electric and hybrid, and fuel cell electric vehicles technologies, and vehicle controls. In his prior and current positions, Mr. Kuang played an instrumental role in the development of hybrid vehicle controls for both the first Escape Hybrid and the Fusion Start-Stop vehicles. He was recognized by the company with Henry Ford Technology Awards in 2005 and 2012 for his contributions to both developments respectively. His current responsibilities and interests range from developing and implementing global vehicle controls architecture, establishing vehicle control system development and implementation methodologies, to advancing vehicle control algorithms for Electrification.

Mr. Kuang has authored and co-authored over 41 technical papers published on IEEE journal, ASME, ACC, CDC, DSCC, SAE and other engineering conferences. He holds 59 U.S. patents and 14 oversea patents. He has received major awards from both internal and external of Ford, Technical Achievement Award in 2008 and 2011, SAE International Henry Ford II Distinguished Award for Excellence in Automotive Engineering in 2007, and Henry Ford Technology Awards in 2005 and 2012, to name a few.

Mr. Kuang is a member of SAE International. He holds a Master of Science degree in mechanical engineering from University of California, Davis, and a Bachelor of Science degree in mechanical engineering from South China University of Technology in the People's Republic of China.



Wenzhang ZHAN

Head of New Energy Vehicle Management Department Beijing Automotive Industry Group Co., Ltd.

Dr. Zhan Wenzhang, senior engineer, the head of New Energy Vehicle Management Department, Beijing Automotive Industry Group Co., Ltd. He achieved bachelor degree

of automotive application engineering from PLA Transportation Engineering Academy in 1991, master degree of automotive design and manufacturing from Jilin University of Technology in 1997, PhD of vehicle engineering from Jilin University in 2000, and postdoctoral degree of transportation engineering from China Academy of Railway Sciences in 2003.

Zhan Wenzhang was selected as a member of the "10,000 Plan". He is the first class prize winner of 2015 China Automotive Industry Scientific Technology Award (the first executor of the awarded project "Integration, development and application of key technologies of C30 platform pure electric passenger cars"), young scientific innovation leading talent of Ministry of Science and Technology, winner of Beijing Labor Day Award, selected member of the cultivation project of 100 scientific leading talents, excellent innovation talent of BAIC Group, advanced individual of BAIC Group. He is also doctoral tutor of Beijing Institute of Technology, Beijing EV Innovation Center PI, vice director of the Suspension Sub-academy of SAE-China, review and acceptance expert of 863 energysaving and NEV major projects of Ministry of Science and Technology, expert of MIIT-UN WP29 EV safety global technology regulation (EVS-GTR), technical expert of Vehicle Electronics and Control System Engineering Center of Ministry of Education, expert of power battery manufacturers and product review of MIIT, committee member of China Automotive Industry Award Foundation, invited expert of Beijing Municipal Commission of Economy and Information Technology, member of SAE-Australia. member of Technology Committee of National Key Battery and Materials Lab, University of Wollongong, Australia, as well as member of Career Development Consulting Committee, SAE International in China.



Helmut Milan

Senior Solution Engineer Electrification Systems AVL

Helmut Milan, born 2.12.1953, married to Siegrun

Helmut currently holds the position of a Senior Solution Engineer Electrification Systems in the business unit Electrification & Racing

Test Systems at AVL List GmbH, located in Graz/ Austria. In his position Helmut reports to the team leader of the Sales Support Electrification. His global business includes the sales support for electrification systems, the worldwide assistance of the AVL Sales and Solution Engineers for working out proposals and the assistance in the improvement of internal tools for the sales process. The offered test systems cover the requirements of the transportation vehicle industry for component- and system integration testing of electrified power trains.

Helmut joined AVL in October 1981.

He worked in the development and sales support for testing bed solutions for engine and powertrain test beds including NVH applications and started with the development and sales support for electrification systems in 2008.

Before joining AVL List GmbH Volker worked for 2 years as development engineer for the Andritz AG/ Austria on the design of rolling mills.

Helmut received his Degree from the Technical University in Graz in 1979.



Daniel LEI

Head and Chief Engineer of Dajun R&D Dept Dajun

Mr. Lei Xiaojun joined Dajun in Y2005, and responsible for electric vehicle motor and driving system development and technical management



Zhaoxi CHEN

Leader of Application Engineering Punch Powertrain Nanjing

Since 2015 Application Engineer Team Leader of Application Engineering @ Punch Powertrain Nanjing 2011-2014 Application Project Engineer @ Punch Powertrain Nanjing

2014-2015 Application Project Leader @ Punch Powertrain Nanjing

Zhengwei HAO

Director of Electronic Development Yutong Bus

Graduated in control theory and control engineering from Henan Polytechnic University in 2008; 8-year experience in the development and management of vehicle electronics; be in charge of the development of Yutong's first generation CAN bus digital meter successively; participated in the planning, design and implementation of CAN bus system for Yutong; be responsible for the planning and realization of BMS products for Jingyida.



Yanfeng SHI

Vice President Shanghai Eagtop Electronic Technology Co., Ltd

Dr. Yanfeng Shi is VP of Shanghai Eagtop Electronic Technology Co., Ltd. His current research interests include power electronics and thermal management.



Liang CHENG

Engineering Manager Johnson Controls New Energy Battery R&D Center

Liang Cheng is Engineering Manager of Johnson Controls (Power Solutions, JCI) New Energy Battery R&D Center Shanghai, leading engineering functions of Mechanical,

Thermal Simulation, Cell and Validation. He started his career at Honeywell as an electrochemistry engineer in the area of supercap electrolyte and Li-ion cell cathode materials in 2008, working both in materials R&D and application. In 2010, Dr. Cheng joined Johnson Controls as senior system engineer, working as the cell expert facing both internal engineering functions and external OE customers. In his current position, Mr. Cheng plays a key role in engineering of JCI Advanced Power Solutions China, managing NEV battery Mechanical Design, Thermal Simulation, Cell and Production Validation. His interest ranges from performance validating of HV & LV batteries, translating cell character to a system one, optimizing battery design and simulation, to investigating of NEV battery standards & regulations.

Dr. Cheng has authored and co-authored over 13 technical papers published on academic journals, e.g. ECS, JMC, JPS, AM, CM and other academic conferences, and holds 5 CN patents. He holds a Ph.D of Science degree in Physical-Chemistry from Fudan University China, and a Bachelor of Science degree in Chemistry from the same university.





Daniel Voll

Head of Project Management Preh Battery Management & E- Mobility

Mr.Daniel Voll now is the head of project management, Preh Battery Management & E-Mobility.

Before join Preh GmbH, Daniel Voll started his carrer in Daimler AG, Sindelfingen.

Starting at Preh GmbH in year 2005, he was in charge

of software development and software project management in Preh HMI branch.

From year 2010, Daniel Voll takes the responsibility of the head of project management, Battery Management and E-mobility.

Dainel Voll hold the electrical engineering (Dipl.-Ing.) from the university of applied science, FH Würzburg-Schweinfurt.



Bob Gaylen

CTO, Contemporary Amperex Technology Limited Chairman, SAE International Battery Steering Committee

Bob Galyen currently holds the position Chief Technical Officer of Contemporary Amperex Technology Limited. Bob is the Chairman of SAE International Battery

Standards Steering Committee with 22 Committees reporting to him. He is also the President of NAATBatt International. He has a Master's degree in Chemistry and recipient of numerous awards including; Automotive News "Electrifying 100," two SAE International Technical Standards Board "Outstanding Contribution Awards," Ball State University "Circle of Excellence Award," NFPA Fire Protection Research Foundation's "Foundation Medal," General Motors "Best of the Best" award, the Chinese "1000 Talent Plan Award," and most recently the Chinese Government Friendship Award.



Rich Byczek

Global Director Business Development, Transportation Technologies Interek

Rich Byczek is the global technical lead for electric vehicle and energy storage at Intertek. He has 20 years of experience in product development and validation testing, ten of which have been spent at Intertek. Rich is also an expert in the areas of energy storage, audio equipment and EMC. Rich sits on several SAE, IEC, UL and ANSI standards panels. He holds a Bachelor of Science in Electrical Engineering from Lawrence Technological University in Southfield, Michigan, and is based at the Intertek facility located in Plymouth, Michigan.



Managing Director of Asia Technical Services Exa GmbH

Mr. Heinz Friz is the Managing Director Asia Services at Exa. He is a graduate of the University of Stuttgart in Aerospace and Aeronautics and has 30 years of experience in

numerical simulation in the areas of fluid dynamics and thermodynamics. He has worked for more than

20 years with the auto industry providing consulting and services to leading automotive companies and suppliers like Mercedes Benz, Porsche, BMW, Nissan, HMC, Toyota, Mahle, Behr, and Denso in a wide range of CFD related applications. He had a leading role in building Exa's business in Japan and Korea since 2003 and has been involved in establishing and growing the business in China since 2009.



Huibin Ll

Engineering Director Delphi Connection Systems

Huibin Li is Engineering Director for Delphi Connection Systems (DCS) in AP.

1991 he started his career as a SW engineer in Siemens R&D center in Vienna.

1999 he moved to Shanghai to support Siemens' telecommunication project execution in China.

2004 he joined a core team to establish a SW development center in Nanjing to support Siemens' growth in China. From 2004 to 2008 he led a team to develop SW for enterprise communication systems and automotive electronics.

2008 he moved to Siemens VDO (which became Continental later) to lead the R&D for its Business Unit Instrumentation and Driver HMI.



Klaus Kersting

Product Manager EV/HEV Applus IDIADA

Klaus Kersting is the product manager for electric and hybrid vehicles of Applus IDIADA. He is managing a team of engineers working on industry and funded

projects related to electric powertrain systems and components and charging interfaces. Norms and

After a short period working as Engineering Director for Johnson Control Electronics China he joined Delphi Connection Systems as Engineering Director AP in 2014.

He is leading the DCS product and process innovation for the product segments Housing, Terminal, High Power Connection, Mepa and Pin Header, Electric Centers and Data Connectivity.

He is based in Shanghai, has a bachelor's degree in Electrical Engineering from Jiangxi University China, a master degree in Electrical Engineering from University of Science and Technology of

China and a doctor degree in Electrical Engineering from Graz Technical University Austria. He also completed the Executive MBA program from Guanghua Management School of Beijing University China.

standards are an essential part of many test and development projects performed by IDIADA. Klaus is board observer for the research organizations and universities of the EGVIA – the European Green Vehicles Initiative Organization. He works for IDIADA since 2009 and before he worked for Daimler during 11 years.

He holds a degree in Mathematics from the University of Paderborn



Steffen Kuemmell

Project Manager of Hight Voltage and Fuel Cell System IAV

Education:

Diplomingenieur

industrial engineering and management (TU Berlin)

Years of experience:

• 04/2009 – 12/2012 Project engineer for Inductive

Charging in Technology Monitoring (IAV) • since 01/2013 Project Manager for HV and Fuel

Cell Systems (IAV)

Field of specialization:

• Stationary and Dynamic Wireless Charging for electric vehicles

Current activities:

• Wireless Charging concept and system development, vehicle integration and testing

Publications:

- CERV 2013; Park City, Utah USA: Challenges for integration of inductive charging systems in passenger vehicles
- ETEV 2012, Nuremberg, Germany: Wireless Charging for EV - Challenges for integration and interoperation



Gin Choonwei Ong

Senior Consultant P3

Project consultant truck fuel filtration system R&D (Auto. OEM)

 Supplier management: Cost down strategy planning & supplier audit via KPI evaluation

• QM: Setup of standardization process for worldwide development quality Failure management: Setup of failure tracking process & CM

Technical consultant contactless power transfer solution project (Paper machine industry)

- Supplier management: qualification and sourcing of supplier for system development
- Conception of contactless power transfer for paper rollers sensors

Project consultant relocation of engine development activities for a major German OEM to China (Auto. OEM)

- Strategic planning of R&D relocation activities Logistic management: Full scale global logistic process setup for CN
- Failure management: error solving process adaptation & setup

Project consultant NEV Charging infrastructure SP network setup and audit (Auto. OEM)

Project manager NEV aftersales project setup and management (Auto. OEM)

• Project setup, China wide charging wall box installation service provider management and coaching, inspection and quality management of services

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Company

Gwinstek Preh GmbH

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WebAddress

www.gwinstek.com.cn www.preh.com



A special thank you to the following companies who have graciously agreed to sponsor special programs and activities at the SAE 2016 New Energy Vehicle Forum.



FRIENDS OF INDUSTRY

A special thank you to the following friends of industry.



EXHIBITOR PROFILES

Exhibitor Directory text is published as submitted by exhibiting companies.

В

Brightking (SHH.) Co.,Ltd.

Address: 23th Floor, 465 East Beijing Road, Huangpu District, Shanghai, PRC

http://cn.brightking.com/docc

BrightKing offers a full range of circuit protection components and solutions.

We have invested heavily in research, development, manufacturing facilities and engineering expertise to provide you with leading-edge circuit protection components, design and testing capabilities.

BrightKing's well established global sales distribution helps it provide you with efficient technical support, solution consulting, fast and reliable sample delivery, prototype testing of our products and timely shipments. BrightKing sales distribution covers all over the world.

From circuit design to product testing and testing reports, BrightKing is dedicated to electronic circuit protection research and development of state-of-the-art components. We look forward to being your trusted and reliable partner.

С

Booth 3

君耀电子

D BrightKing

Shenzhen Chogori Technology Company Limited

Address: Bldg E, Zhonggangxing Industrial Zone, Zhangge Village, Guanlan, Longhua New District, Shenzhen, PRC

http://www.chogori.com.cn/

Founded in 2007, Chogori Technology Co., Ltd designs and manufactures a wide range of environmentally sealed and rugged connectors designed to provide secure and safe connections in harsh and hostile conditions. We are a team of 300 people including R&D, Sales, a 7000m² factory, an International Industry Standard Laboratory, and a Lean Management Production Line.

Chogori is one of the earliest manufacturers of waterproof connectors in the domestic market with more than 15 products series and over 3,000 standard products. With UL, CCC, CE, TUV and other certifications, Chogori's connectors became the National Standard Interface in China for LED Street Lighting in January 2014. We are the designated display and lighting connector supplier of the major projects of Olympic Games, World Expo, the Asian Games, Shenzhen Universiade, and many more.

Booth 11

赤合里

HOG

EXHIBITOR PROFILES

D

Hilger u. Kern / Dopag Group

Address: 4th floor, Bldg A, 3089 Hechuan Road, Minhang District, Shanghai, PRC

http://www.dopag.com/

Hilger u. Kern / Dopag Group, is one of the leading manufacturers of metering and mixing systems in the world for plural component polymers and single component media such as greases, oils and pastes.

For more than 35 years the group, with subsidiaries and distributors in over 30 countries, has developed systems and components to suit your individual needs. There are advanced R&D and manufacturing center in Germany, Swiss and Asean area.

Dow Corning (China) Holding Co., Ltd. Booth 5

Address: 1077 Zhangheng Road, Zhangjiang Hi-Tech Park, Shanghai, PRC

http://www.dowcorning.com.cn



Booth 9

Dow Corning (www.dowcorning.com) provides performance-enhancing

solutions to serve the diverse needs of more than 25,000 customers worldwide. A global leader in silicones, siliconbased technology and innovation, Dow Corning offers more than 7,000 products and services via the company's Dow Corning® and XIAMETER® brands. Dow Corning is a joint venture equally owned by The Dow Chemical Company and Corning, Incorporated. Headquartered in Midland, Michigan in the US, Dow Corning has around 11,000 employees around the globe. In 2014, the company's sales revenue reached US\$6.22 billion, over half of which came from regions outside the US. Innovation is at the core of what Dow Corning does. Dow Corning has invested about 4-5% of its sales revenue annually in research and development, and currently possesses 5,066 active patents.

Ε

Shanghai Eagtop Electronic Technology Co.,Ltd.

Address: 258 Tangming Road, Shihudang, Songjiang District, Shanghai, PRC



Booth 12

http://www.eagtop.com

EAGTOP is specialized in researching, developing and manufacturing Passive Power Electronics Devices. The main products include Film Capacitor, Reactor, Laminated BusBar, Liquid Cooling Plate, Phase Change Heat Sink, Resistor and so on. EAGTOP was authenticated by ISO9001:2008 and ISO/ TS16949-2009.

EAGTOP, constantly committed to pioneering and innovating products in its industry, provides highly competitive and comprehensive solutions to the electronic passive device application for worldwide customers in various fields involving, Wind & Solar power, Railway Transportation, Industrial Drive etc. In persistent pursuit of fully understanding customers' demands and putting effort into conducting collaborative R&D together with our customers, we strive to improve the user experience and create value for our customers to the largest extent.

Exa (Shanghai) Simulation Software Technology Co.,Ltd.

Address: Room 837, Yueda 889 Center, 1111 Changshou Road, Jingan District, Shanghai, PRC



Exa (NASDAQ:EXA) (www.exa.com) Corporation's visualization and simulation software helps designers and engineers produce better vehicles and equipment. As a design evolves, Exa accurately predicts the performance of that design while providing actionable insight to optimize the performance of the product. With Exa, the need for costly physical prototypes and expensive late-stage changes is reduced. Now, designers and engineers are freed from the risk of producing compromised products that do not meet market and regulatory requirements. Some of the most successful product companies in the world use Exa, including BMW, Delphi, Denso, Fiat Chrysler, Ford, Hino, Honda, Hyundai, Jaguar Land Rover, Kenworth, Komatsu, MAN, Nissan, Peterbilt, Peugeot, Renault, Scania, Toyota, Volkswagen and Volvo Trucks.

R

Rogers Technologies (Suzhou) Co.,Ltd. Booth 2



http://www.rogerscorp.com

Address: Room 607, Tian'an Center,

338 West Nanjing Road, Huangpu

District, Shanghai, PRC

Rogers Corporation (NYSE:ROG) is a global leader in engineered materials to power, protect, and connect our world. With more than 180 years of materials science experience, Rogers delivers high-performance solutions that enable clean energy, internet connectivity, and safety and protection applications, as well as other technologies where reliability is critical. Rogers delivers Power Electronics Solutions for energy-efficient motor drives, vehicle electrification and alternative energy; Elastomeric Material Solutions for sealing, vibration management and impact protection in mobile devices, transportation interiors, industrial equipment and performance apparel; and Advanced Connectivity Solutions for wireless infrastructure, automotive safety and radar systems. For more information, visit www.rogerscorp.com.



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EXHIBITOR PROFILES

S

Siemens PLM Software

Address: 7 Central South Road Chaovang District, Beijing, PRC

http://www.siemens.com/plm

Siemens PLM Software, a business

unit of the Siemens Digital Factory Division, is a leading global provider of product lifecycle management (PLM) and manufacturing operations management (MOM) software. systems and services with over 15 million licensed seats and more than 140,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with its customers to provide industry software solutions that help companies everywhere achieve a sustainable competitive advantage by making real the innovations that matter. For more information on Siemens PLM Software products and services.

Т

Tristone Flowtech Group

Address: 2 Lansheng Road, Suzhou Industrial Park, Suzhou, PRC

http://www.tristone.com

Tristone Flowtech Group is highly specialized in the development and production of battery & engine cooling, air charge and air intake system applications.

Our many years of experience with EPDM, polyamide tubing and reinforced plastic parts also places us in a good position to reduce space and fuel consumption with these low weight materials, helping to improve vehicle performance. This product expertise, and our extensive design capabilities. enable us to be flexible in creating new battery and engine fluid cooling systems for hybrid and electric cars.

Tristone Flowtech's roots originate from the former Fluid Automotive Business Unit of Trelleborg AB in July 2010. We currently develop and supply to all major automotive customers such as Renault, Nissan, PSA, Fiat Chrysler, Ford, Volvo, General Motors, VW Group, Suzuki, BMW, Daimler, Suzuki, Bosch, Samsung as well as further Tier One suppliers.

W

Wacker Chemicals (China) Co., Ltd

Address: Bldg 3, Caohejing Hi-Tech Park, 1535 Hongmei Road, Shanghai, PRC



Booth 16

http://www.wacker.com

WACKER is one of the world's leading and most researchintensive chemical companies. Products range from silicones, binders and polymer additives for diverse industrial sectors to bio-engineered pharmaceutical actives and hyperpure silicon for semiconductor and solar applications. Meanwhile, WACKER'S silicone products are wildly used in new energy vehicle industry. WACKER promotes products and ideas that offer a high value-added potential to ensure that current and future generations enjoy a better quality of life based on energy efficiency and protection of the climate and environment.



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sae.org/arvr

Booth 1

SIEMENS

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SAE INTERNATIONAL EVENTS

2016

SAE 2016 On-Board Diagnostics Symposium September 13-15, 2016 Indianapolis, Indiana, USA

SAE 2016 Convergence September 19-21, 2016 Novi, Michigan, USA

SAE 2016 Heavy-Duty Diesel Emissions Control Symposium September 20-21, 2016 Gothenburg, Sweden

Aerospace Standards Summit 2016 September 20-21, 2016 Arlington, Virginia, USA

SAE 2016 North American International Powertrain Conference September 21-23, 2016 Chicago, Illinois, USA

SAE 2016 New Energy Vehicle Forum September 21-22, 2016 Shanghai, China

SAE-TONGJI 2016 Driving Technology of Intelligent Vehicle Symposium September 22, 2016 Shanghai, China

SAE 2016 Brake Colloquium & Exhibition -34th Annual September 25-28, 2016 Scottsdale, Arizona, USA SAE 2016 Aerospace Systems and Technology Conference September 27-29, 2016 Hartford, Connecticut, USA

SAE 2016 Commercial Vehicle Engineering Congress October 4-6, 2016 Rosemont, Illinois, USA

SAE 2016 Aerospace Manufacturing and Automated Fastening Conference & Exhibition October 4-6, 2016 Bremen, Germany

SAE 2016 Transmission and Driveline Technologies Symposium October 17-19, 2016 Ypsilanti, Michigan, USA

SAE 2016 All-Wheel Drive Symposium October 17-19, 2016 Ypsilanti, Michigan, USA

SAE 2016 Thermal Management Systems Symposium October 18-20, 2016 Mesa, Arizona, USA

SAE 2016 International Powertrain, Fuels & Lubricants Meeting October 24-26, 2016 Baltimore, Maryland, USA SAE 2016 Range Extenders for Electric Vehicles Symposium November 2-3, 2016 Knoxville, Tennessee, USA

SAE 2016 Augmented and Virtual Reality (AR/VR) Technologies Symposium November 14-16, 2016 Philadelphia, Pennsylvania, USA

SAE/JSAE 2016 Small Engine Technology Conference & Exhibition November 15-17, 2016 Charleston, South Carolina, USA

SAE 2016 From ADAS to Automated Driving November 29-December 1, 2016 Munich, Germany

SAE 2016 Vehicle Electrification and Connected Vehicle Technology Forum November 30-December 1, 2016 Shanghai, China

2016 Defense Maintenance and Logistics Exhibition December 5-8, 2016 Albuquerque, New Mexico, USA

2016 DOD Maintenance Symposium December 5-8, 2016 Albuquerque, New Mexico, USA

2017

SAE 2017 SAE Connect2Car at CES January 5, 2017 Las Vegas, NV

Symposium on International Automotive Technology 2017 January 18-21, 2017 Pune, India

SAE 2017 Light Duty Emissions Control Symposium January 23-24, 2017 Washington, District of Columbia, USA

SAE 2017 Government/Industry Meeting January 25-27, 2017 Washington, District of Columbia, USA

SAE 2017 Hybrid and Electric Vehicle Technologies Symposium February 7-9, 2017

San Diego-Mission Valley, California, USA

SAE 2017 On-Board Diagnostics Symposium -Europe February 27-March 1, 2017 Torino, Italy SAE 2017 Additive Manufacturing Symposium March 14-15, 2017 Knoxville, Tennessee, USA

SAE 2017 High Efficiency IC Engine Symposium April 2-3, 2017 Detroit, Michigan, USA

WCX17: SAE World Congress Experience April 4-6, 2017 Detroit, Michigan, USA

SAE Convergence [®] June 4-7, 2017 San Jose, California, USA

SAE 2017 Noise and Vibration Conference and Exhibition June 12-15, 2017 Grand Rapids, Michigan, USA

SAE 2017 North American International

Powertrain Conference September 13-15, 2017 Chicago, Illinois, USA SAE 2017 Commercial Vehicle Engineering Congress September 18-20, 2017 Rosemont, Illinois, USA

SAE Brake Colloquium & Exhibition - 35th Annual September 24-27, 2017 Orlando, Florida, USA

SAE 2017 On-Board Diagnostics Symposium September 26-28, 2017 Garden Grove (Anaheim), California, USA

SAE 2017 AeroTech Conference & Exhibition September 26-28, 2017 Fort Worth, Texas, USA

SAE 2017 Thermal Management Systems Symposium October 10-12, 2017 Plymouth, Michigan, USA

SAE 2017 International Powertrains, Fuels & Lubricants Meeting October 15-19, 2017 Beijing, China

For an updated listing of events, dates and locations, please refer to http://www.sae.org/events/





电动和混合动力汽车电池管理系统的质量 需要经得起考验。无论是行驶中持续性的 放电,还是采用制动能量回收,甚至是生 产过程中的公差和电池寿命都会对电池组 造成损耗。

Battery systems in electric and hybrid vehicles must be very durable. Permanent discharging during driving, energy recovery upon breaking, production tolerances and also age place heavy demands on the individual battery cells.

普瑞开发的电池管理系统可以有效的控制 电池的充电与放电,并提高车辆的行驶里 程和延长电池寿命。现该产品已被运用在 多种车型中,如宝马的i3,i8,多种高效 混合动力(Active-Hybrid)车型,以及 国内客户。



Our control devices for battery management ensure that the cells charge and discharge in equal measure. This increases both range and duration and has long since become a reality in various vehicles, including the BMW i3, i8 and Active-Hybrid models, and China OEMs.

宁波普瑞均胜汽车电子有限公司

Ningbo Preh Joyson Automotive Electronics Co.,Ltd.

地址:浙江省宁波市高新区聚贤路1266号5A栋 Building 5A, Juxian Road 1266# Hi-Tech Park, Ningbo, Zhejiang, 315040 Tel: +86 (0)574 8749 3059 Mail: automotive@preh.cn www.preh.cn



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