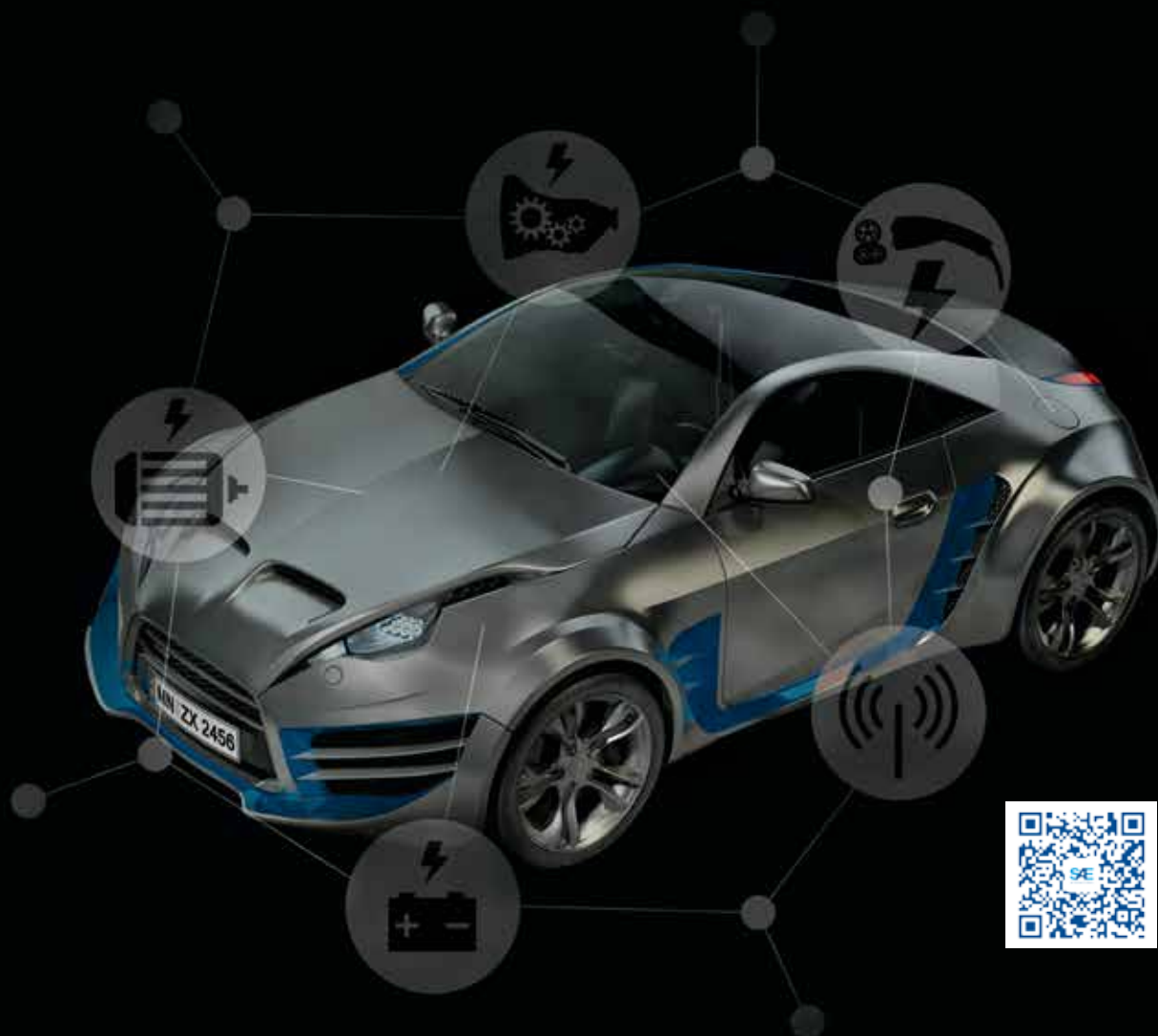




# SAE 2017 VEHICLE ELECTRIFICATION AND AUTONOMOUS VEHICLE TECHNOLOGY FORUM 汽车电气化与智能化技术论坛

2017 11.29-11.30

**Crowne Plaza Shanghai**



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## SAE 2017 VEHICLE ELECTRIFICATION AND AUTONOMOUS VEHICLE TECHNOLOGY FORUM

Hosts Introduction	2
Event Overview	3
Floor Plan	4
Technical Program	5
Speaker Biographies	14
Exhibitor Profiles	25

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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.



### **China Auto Association Electric Motor and Electric Appliance Committee for Vehicle**

China Auto Association Electric Motor and Electric Appliance Committee for Vehicle (CAAMC) is one of the branches of CAAM. It was approved to be a community organization by China's Ministry of Civil Affairs when established in Changsha in 1992. CAAMC serves all automotive enterprises and entrepreneurs in China in electronics, electrical appliances and electrical motors industries.



### **China National Machinery Industry International Co.,Ltd.**

China National Automotive Industry International Corporation (CNAICO) is a wholly-owned subsidiary of China National Machinery Industry Corporation (SINOMACH), a large state-owned group. CNAICO specializes in areas such as international exhibitions, international trade, project contracting, and culture and media, as well as industrial investments related to these areas. CNAICO has held numerous automobile exhibitions that combine internationality and locality in over 30 large and medium-sized Chinese cities. The total exhibition area of exhibitions that CNAICO independently organizes or jointly do with partners each year exceeds 2 million m<sup>2</sup>.



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## EVENT OVERVIEW

### November 29, Wednesday

8:30 - 8:45	<b>Opening Speech</b>
8:45 - 9:15	<b>Keynote - Technology-The Key Drivers of China's New Energy Vehicles Development</b> Industry leaders will share the latest progress of vehicle electrification and intelligence technologies, including current applications, prospective technologies' outlook, opportunities and challenges.
9:15 - 10:15	<b>Panel Discussion - To Discuss The Impact and The Trend of Double Integral Policy</b>
10:15 - 10:45	Tea Break
10:45 - 12:15	<b>Application Prospects and Challenges of 48V Systems</b> Industry leaders from OEMs, Tier one suppliers and technical research institute will share the latest development in 48V system, including its current applications, prospective technologies, opportunities and challenges.
12:15 - 13:30	Lunch
13:30 - 16:00	<b>Technology and Challenge of PHEV / PEV</b>
16:00 - 17:00	<b>Specially Invited Speech - The Road to Highly Automated Driving</b>

### November 30, Thursday

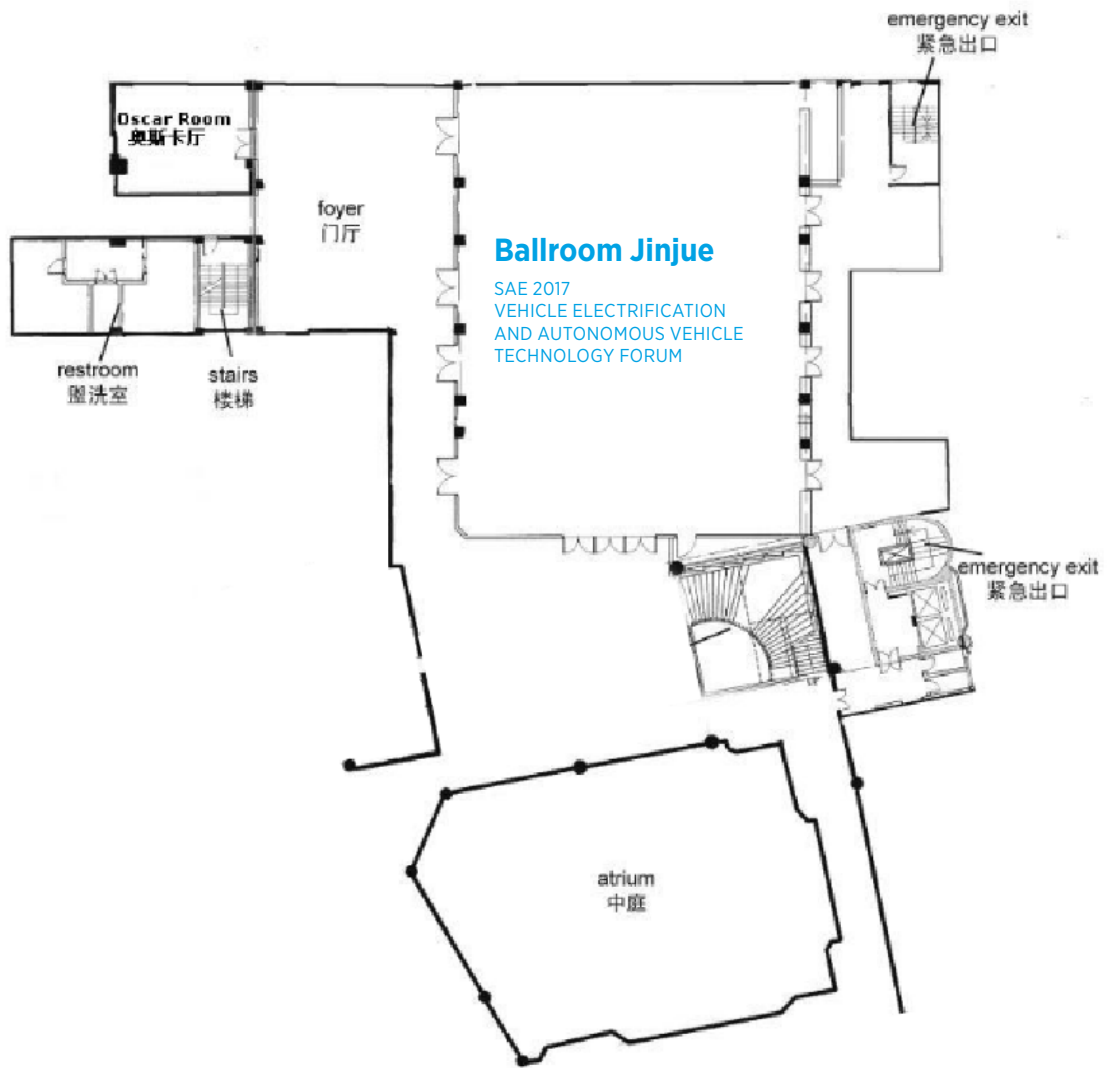
8:30 - 8:40	<b>Opening Speech</b>
8:40 - 9:10	<b>China New Energy Vehicle Industry Award</b>
9:10 - 9:40	<b>Keynote - Driving a Cleaner Future</b>
9:40 - 10:25	<b>Panel Discussion - The Global Resource Platform and Self-innovation Capability Building of Electrification and Intelligentize</b>
10:25 - 10:50	Tea Break
10:50 - 12:20	<b>Electric Motor and Control System</b> This session will focus on the integration of electric motor and control system, the design and application of permanent magnet materials and motors, the technology of E-drive development trend.
12:30 - 13:30	Lunch
13:30 - 15:40	<b>Powertrain Electronics Control and New Technologies and Materials</b> This session will focus on the latest technology and solutions of powertrain electronics components, control systems etc.

The purpose of this session 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 remarks, discussion, or photographs may not be used unless express permission has been granted by the individual and their company.

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# FLOOR PLAN



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Founder & CTO, Jing-jin Electric

### Luming LIU

Regional President, Bosch Engineering GmbH

### Huibin LI

Engineering Director, Delphi Connection Systems

### Chengliang YIN

Professor, Shanghai Jiaotong University

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**November 29, Wednesday**

<b>Opening Speech</b>	
8:30 - 8:45	<p><b>Yimei WEN</b>, Deputy General Manager - China National Machinery Industry International Co., Ltd.</p> <p><b>Mark Chung</b>, Chief Marketing Officer - SAE International</p>
<b>Keynote - Technology-The Key Drivers of China's New Energy Vehicles Development</b>	
8:45 - 9:15	<p><b>Qun LU</b>, Chairman - Beijing CH-Auto Technology Co., Ltd. Chairman - Qiantu Motor (Suzhou) Co., Ltd.</p>
<b>Panel Discussion - To Discuss The Impact and The Trend of Double Integral Policy</b>	
9:15 - 10:15	<p><b>Moderator</b> <b>Chengliang YIN</b>, Professor - Shanghai Jiaotong University</p> <p><b>Panelists</b> <b>Jun ZHU</b>, General Manager - Shanghai E-Propulsion Auto Technology Co., Ltd. <b>Tong ZHANG</b>, Chief Technology Officer - Corun Hybrid Technology Co., Ltd. <b>Yu ZHU</b>, Director of New Energy Vehicles Research Department - Dongfeng Motor Corporation Technical Center</p>
10:15 - 10:45	Tea Break
<b>Application Prospects and Challenges of 48V Systems</b> Chairman: Huibin LI	
10:45 - 11:15	<p><b>Delphi's System Approach to Electrification Driveline</b> <b>Jie GU</b>, Chief Engineer - Delphi Powertrain Electrification &amp; Electronics, Asia Pacific</p> <p><b>ABSTRACT</b></p> <p>48V electrification system architecture is a high value proposition for mild hybrid application to improve powertrain system emission, fuel economy and drive performance. And 48V electrical system with optimized wiring, connections and fusing can make 48V powertrain system more safe and efficient. Delphi corporations is figuring out cost effective 48V electrification system solution via applying 48V mild hybrid key products, new powertrain control technology and electrical system to reach more than 20% PE improvement target.</p>

## TECHNICAL PROGRAM

11:15 - 11:45	<p><b>Gen2 48V System Key Challenges and Solution from UAES</b> <b>Dr. Hai HE</b>, Senior Manager of 48V Business - UAES</p> <p><b>ABSTRACT</b></p> <p>To further decrease FC and improve hybrid features, UAES is doing feasibility study on Gen2 48V system and key products. The target is to provide system solution to customer, which can reduce 20% FC, and provide additional hybrid features, such as pure e-drive etc. Also it should overcome some key challenges, e.g. hybrid control strategy optimization, powertrain integration, low power but high current components integration and cooling, new requirements on vehicle connection, etc.</p>
11:45 - 12:15	<p><b>The Development and Application of BMS used for 48V Micro-Hybrid System</b> <b>Zhimin ZHOU</b>, R&amp;D Head of Business Division, Battery Management System &amp; E-mobility - Preh</p> <p><b>ABSTRACT</b></p> <p>Considering the CO2 emission and technology trends, 48V micro-hybrid system has become the market focus in the recent years. As one key component, 48V BMS(Battery Management System), plays the role to maintain the whole system efficiency running, and maximize the battery performance.</p>
12:15 - 13:30	Lunch
<p style="text-align: center;"><b>Technology and Challenge of PHEV / PEV</b> Chairman: Liangcheng YIN</p>	
13:30 - 14:00	<p><b>Electric Drive System of SAIC New Energy Vehicle</b> <b>Jian WANG</b>, E-driven Unit (EDU) Project Chief Engineer - Shanghai E-Propulsion Auto Technology Co., Ltd.</p> <p><b>ABSTRACT</b></p> <p>SAIC MOTOR is committed to promoting the development of electric drive, battery and electric control technology to improve the performance and reduce the cost. This presentation gives an analysis of the current mainstream technology of electric drive system for new energy vehicles of SAIC MOTOR and provides an introduction of the development trend of electric drive system as well as the planning and prospect of the next generation technology.</p>



## TECHNICAL PROGRAM

14:00 - 14:30	<p><b>The Hybrid Power System Introduction to CHS</b> <b>Tong ZHANG</b>, Chief Technology Officer - Corun Hybrid Technology Co., Ltd.</p> <p><b>ABSTRACT</b></p> <p>Brief Introduction of the speech: As an integrated supplier of hybrid power system, CHS Company has developed the first generation of the hybrid power system of Corun, the HEV and PHEV which were equipped with this system have been put out into market with good fuel consumption performance. On this basis, CHS developed the second generation of hybrid system and established four product platforms which are applicable in A type cars, medium or large SUVs, commercial vehicles and public buses. A complete product line has been built to cover not only the HEV market, but also the PHEV market.</p>
14:30 - 15:00	<p><b>Dongfeng PHEV Technology Introduction</b> <b>Yu ZHU</b>, Director of New Energy Vehicles Research Department - Dongfeng Motor Corporation Technical Center</p> <p><b>ABSTRACT</b></p> <p>Mainly introducing the ideas of Dongfeng New Energy Vehicle Development and carrying out the key technology of PHEV powertrain.</p>
15:00 - 15:30	<p><b>The Challenge and Solution to Power Battery Test</b> <b>Chi CHEN</b>, Marketing Industry Manager of Automotive and Energy Solutions - Keysight</p> <p><b>ABSTRACT</b></p> <p>Along with the rapid growth in NEV industry, China has follow the pace with the world, made a great change in lithium battery and hybrid vehicle. Keysight Technology Company can provide solutions in EV/HEV industry as a good partner. The presentation will demonstrate a series of solutions from aspects of charging pile, BMS, battery performance and so on.</p>

## TECHNICAL PROGRAM

15:30 - 16:00	<p><b>Power and Energy Solutions Enabling Automotive Revolution</b> <b>Dr. Jeff ZHOU</b>, Vice President &amp; General Manager - Maxwell</p> <p><b>ABSTRACT</b></p> <p>With ever-increasing ECUs in the car and related energy and power demand in the complex E/E-architecture, ultra-capacitors are ideal for peak power assist to realize innovative features and suitable to stabilize the board net for more safety and security both in 12V and 48V environments. Just to mention a few examples: Start-Stop, Cranking, Active Suspension, e-PAS and e-Turbo. By applying our proprietary and fundamental dry electrode manufacturing technology to batteries of varying chemistries, we believe we can create significant performance and cost benefits when compared with today's state of the art wet electrode technology.</p>
16:00 - 16:30	<p><b>Testing and Evaluation of Energy Consumption for Hybrid Electric Vehicle</b> <b>Huan XIE</b>, Deputy Director of New Energy Testing Research Laboratory - Shanghai Motor Vehicle Inspection Certification &amp; Tech Innovation Center</p> <p><b>ABSTRACT</b></p> <p>Hybrid electric vehicle uses two types of energy sources, how to test its energy consumption according to its technical principle and working characteristics, and scientifically evaluate its energy consumption is the basic problem to evaluate the energy saving effect of hybrid electric vehicles.</p>
<b>Specially Invited Speech - The Road to Highly Automated Driving</b>	
16:30 - 17:00	<p><b>Andreas Tielmann</b>, Project Leader - Bosch Engineering GmbH</p>

**November 30, Thursday**

<b>Opening Speech</b>	
8:30 - 8:40	<p><b>Jianhua SHI</b>, Vice Secretary-General - China Association of Automobile Manufactures</p> <p><b>Yimei WEN</b>, Deputy General Manager - China National Machinery Industry International Co., Ltd.</p> <p><b>Mark Chung</b>, Chief Marketing Officer - SAE International</p>
8:40 - 9:10	<b>China New Energy Vehicle Industry Award</b>
<b>Keynote - Driving a Cleaner Future</b>	
9:10 - 9:40	<p><b>Dr. Mazen Hammoud</b>, Powertrain Director, Asia Pacific - Ford Motor</p> <p><b>ABSTRACT</b></p> <p>China’s new energy vehicle (NEV) market is poised for explosive growth as people demand cleaner, more fuel efficient cars. The segment is estimated to reach six million units per year by 2025, with more than 60 percent of these set to be all-electric. Young city-dwelling Chinese are driving this trend. Ford’s Powertrain Director for Asia Pacific, Mazen Hammoud, will talk about how the company is addressing this growing demand by developing a broad range of NEVs, starting with the Mondeo plug-in hybrid in early 2018. With an innovative two-motor powertrain system, this NEV is part of Ford’s commitment to bring the best global technology to China.</p>
<b>Panel Discussion - The Global Resource Platform and Self-innovation Capability Building of Electrification and Intelligentize</b>	
9:40 - 10:25	<p><b>Moderator</b></p> <p><b>William CAI</b>, Founder &amp; CTO - Jing-jin Electric</p> <p><b>Panelists</b></p> <p><b>Surong HUANG</b>, Professor - Shanghai University</p> <p><b>Guangming YANG</b>, Factory Director of HEV/EV Electric Control System Factory - BYD</p> <p><b>Xixian YANG</b>, Director of Operations/Product Integration Chief Engineer - Jing-Jin Electric</p> <p><b>Dr. Yilin ZHANG</b>, CEO - Schaeffler Greater China</p> <p><b>Hanbing YANG</b>, President of Automotive - Schaeffler Greater China</p>
10:25 - 10:50	Tea Break

**Electric Motor and Control System**

Chairman: William CAI

10:50 - 11:20

**Multiphysics and Multilevels Integrated Design Method of EV Motor Based on Multiphysics Service Characteristics of Electromagnetic Material**

**Surong HUANG**, Professor - Shanghai University

**ABSTRACT**

The deviation of the service characteristics of electromagnetic materials of high-density EV motor in multi-physics domains relative to the nominal characteristics of electromagnetic materials has a strong nonlinearity, which leads to some problems: the difference between the test data of motor system performance and design indexes becomes unpredictable and motor design indexes depends heavily on reverse validation of product performance test. Efforts should be made on the basis of ferromagnetism theory to further deepen the study of stress field and temperature field change as a result of different service characteristics of electromagnetic materials show in multi-physics domains (electric, magnetic, thermal and mechanical domains) as well as its decline mechanism and quantitative analysis during the process of motor manufacturing and operation, to establish a model of service characteristics of electromagnetic materials in multi-physics domains, to put forward a modern EV motor multiple-physical multiple-level integrated design method based on service characteristics of electromagnetic materials in multi-physics domains in an aim to solve difficulties remains in full operating area multi-physics domain performance parameters of high-speed and high-density EV motor system such as design matching, NVH characteristics planning and reliability fatigue life prediction analysis and to improve the multiple-physical and multiple-level forward design analytical capability of high quality EV motor system.

11:20 - 11:50

**Integration - The Electric Drive System of New Energy Vehicle**

**Xixian YANG**, Director of Operations/Product Integration Chief Engineer - Jing-Jin Electric

**ABSTRACT**

Main Architecture of Electric Drive System

- Main configurations and characteristics for hybrid-electric and pure-electric passenger vehicles and commercial vehicles.

Advantages of Integration

- Integration of Electric Drive Systems: Structure, Advantages, Examples

Application and Innovation of Integration Technology

- Innovative applications of electromagnetic clutches; Introduction on applications of motor and transmission integration

## TECHNICAL PROGRAM

11:50 - 12:20	<p><b>Application of IGBT Module through Independent Innovation in New Energy Vehicles</b></p> <p><b>Guangming YANG</b>, Factory Director of HEV/EV Electric Control System Factory - BYD</p> <p><b>ABSTRACT</b></p> <ul style="list-style-type: none"><li>• The development history of motor inverter for new energy vehicles</li><li>• The topic focus on the introduction to independent development of the main components of inverter</li><li>• BYD IGBT the chip and IGBT Packaging technology for power module and roadmap</li><li>• Assembly application of independent power module for BYD EV/HEV and Electric BUS</li><li>• How to ensure the reliability of power modules and safety of vehicles .</li><li>• The technical development trend for IGBT and power inverter for BYD new energy vehicles</li></ul>
12:20 - 13:30	Lunch



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<b>Powertrain Electronics Control and New Technologies and Materials</b> Chairman: Luming LIU	
13:30 - 14:00	<p><b>Solution of High Performance Motor Drive Control System</b></p> <p><b>Huichao ZHAO</b>, Director - New Energy Development Institute E-motor and E-drive Research Dept, FAW</p>
14:00 - 14:30	<p><b>The Development Trend of Electric Drive System for New Energy Vehicles</b></p> <p><b>Shaoyou SHI</b>, Director of New Energy Development Department - BAIC</p>
14:30 - 14:40	<p><b>The Development and Application of High-speed Bearing for Drive Motor for New Energy Vehicles</b></p> <p><b>Sheng MEI</b>, Chief Engineer - Zhejiang BH Bearing Co., Ltd.</p> <p><b>ABSTRACT</b></p> <p>Main Contents Include:</p> <ul style="list-style-type: none"> <li>• The information of bearing working condition.</li> <li>• Correspondence of design and development (including matching design of each matching parts)</li> <li>• Correspondence of special process</li> <li>• Correspondence of test items (including independent R&amp;D test machines)</li> </ul>
14:40 - 15:10	<p><b>The Technology Trends of NdFeB Permanent Magnet Materials of NEV Electric Motor</b></p> <p><b>Jianzhong LI</b>, Deputy Manager of Technology Department - Ningbo Permanent Magnetic Industry Co., Ltd.</p> <p><b>ABSTRACT</b></p> <ul style="list-style-type: none"> <li>• Part I: The introduction of the production, marketing and applications of rare earth and NdFeB;</li> <li>• Part II: The application of magnets in drive motor for new energy vehicles including demand prospect and performance characteristics;</li> <li>• Part III: Overview and development trend of the mainstream technology of NdFeB permanent magnetic materials.</li> </ul>

## TECHNICAL PROGRAM

15:10 - 15:40

### **Fine Simulation Technology Based on Multiphysics EV Multimotor Electronic Control Integration**

**Qi WANG**, Senior Low-Frequency Electromagnetic Simulation Engineer - Altair

#### **ABSTRACT**

Drive motor is one of the key components of new energy vehicles. The progress in new energy vehicles has advanced the development of new EV drive motor and accelerated the design of the integration of the multi physical domains of EV drive motor. By focusing on the simulation and analysis technology in the design and development of EV drive motor and using a model-based design technique, this presentation introduces the application of simulation technology in the process from the conceptual design of permanent magnet motor to its performance verification optimization in multi physical fields (including electromagnetic performance, thermal design and mechanical vibration noise) and to its electrical control system design and its implementation of embedded control system. This presentation also gives a comprehensive design evaluation of EV drive motor from a OD-to-3D simulation perspective and discusses the problem of how to efficiently achieve a fine design process in multi physical domains for the integration of EV motor and electronic control.



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## **SPEAKER** BIOGRAPHIES - OPENING SPEECH



### **Yimei WEN**

Deputy General Manager  
China National Machinery Industry International Co., Ltd.



### **Jianhua SHI**

Vice Secretary-General  
China Association of Automobile Manufactures



### **Mark Chung**

Chief Marketing Officer  
SAE International

Mark Chung is the Chief Marketing Officer of SAE International. In his role, Mark leads SAE's brand and market strategies to enhance and build on the organization's global profile as the unparalleled

resource in the mobility space. Mark is a thought leader and a seasoned marketing executive. He brings two decades of international marketing experience to SAE International as well as a deep knowledge of the mobility industry through his work at Ford,

Yokohama Tire, Cummins, and Cooper Tire and Rubber Company. Most recently Mark served as Vice President for Corporate Strategy and Business Development at Cooper Tire and prior to that as Director, Global Marketing at Cummins.

Mark holds a B.S. in Business Administration from the University of Southern California and a M.B.A. from Indiana University. He's also a board member for Foundations Preschool in Ann Arbor, Michigan, which provides early childhood education for the working poor and a wish grantor for the Make-A-Wish Foundation.



## **SPEAKER** BIOGRAPHIES - TECHNICAL COMMITTEE



### **Chengliang YIN**

Professor  
Shanghai Jiaotong University

Dr. Chengliang Yin is currently a Full Professor with Shanghai Jiao Tong University, Shanghai, China, where he is also the Vice Dean with the Institute of Automotive Engineering and the Vice Director with

the National Engineering Laboratory for Automotive

Electronic Control Technology. He is also currently an Advanced Technical Adviser with the Shanghai Automobile and Dongfeng Automotive Group. His research interests include automotive electronics, hybrid electric vehicles and intelligent vehicles. Dr. Yin earned Master's and Ph.D. degrees in vehicle engineering from Jilin University and was awarded the General Motors Innovative Talent in Automotive Industry Award in 2009.



### **Huibin LI**

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.

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.

## **SPEAKER** BIOGRAPHIES - TECHNICAL COMMITTEE



### **William CAI**

Founder & CTO  
Jing-Jin Electric

William has presided over and engaged in more than 10 projects under the National 863 Program and the NEV Innovative Program as well as over 20 scientific research and industrialization projects

of provincial and ministerial level. He holds over 10 patents of invention with Dr. Cai Wei being the first inventor and over 10 patents of other types. He co-founded Jing-Jin Electric and filled domestic gaps in such technology areas as electric transmission dual motor system and direct oil cooling electric drive

system, etc.

In 2013, he won the project of the mass production of drive motor of plug-in hybrid electric vehicle, one of the three major vehicles in America. This successful bid is a sign that China's core technology of automotive powertrain with its key components is stepping towards the world. His corporation accounted for one third of the market of the driving motor of new energy commercial vehicle and is a manufacturer of mass production of driving motor for several top ten vehicle enterprises in China.



### **Luming LIU**

Regional President  
Bosch Engineering GmbH

Mr. Liu Luming is now regional president of Bosch Engineering GmbH (BEG) in China, and located in Shanghai. Before taking lead of BEG/China, Mr. Liu had been working in Bosch group for 10 years. Mr. Liu

used to be vice president of Bosch (China) Investment Ltd., and responsible for sales to Original Equipment Manufacturers (OEMs). Mr. Liu was Operation Director of TRW Suzhou Automotive Electronics Ltd., before joining Bosch group.

## SPEAKER BIOGRAPHIES - DAY ONE



### **Qun LU**

Chairman - Beijing CH-Auto Technology Co., Ltd.  
Chairman - Qiantu Motor (Suzhou) Co., Ltd.

As the founder of CH Auto Technology, Mr. Lu has over 25 years of experience working in the design and development of vehicles. 2015 is a milestone year for CH Auto Technology

as it transformed itself from a car design company to an emerging automotive industry group by setting up Qiantu Automobile (Suzhou) Co., Ltd. in February of the same year. Qiantu Automobile (Suzhou) Co., Ltd. is a wholly owned subsidiary of CH Auto Technology that focuses on the research and development, production, sales and service of pure electric vehicles.



### **Jun ZHU**

General Manager  
Shanghai E-Propulsion Auto Technology Co., Ltd.

Over 30 years' experience in both academic and engineering fields. Worked in Tongji University GM(Pan Asia Technical Automotive Center) SAIC Motor Technical Center (SMTC)

Shanghai E-propulsion Auto Technology Co. Ltd. (SEAT).

Successful record in SGM18 BAS hybrid Roewe 750 Mild Hybrid Roewe E50 (BEV) and Roewe 550 Plug-in hybrid ePT development.



### **Tong ZHANG**

Chief Technology Officer  
Corun Hybrid Technology Co., Ltd.

Zhang Tong, Doctor of Engineering. Mainly work on the Hybrid Power Technology Research. Former dean of Geely Automobile Research Institute, and Former General Manager of Geely

Electronic Transmission Technology Co., Ltd. Current Chief Technology Officer in Corun Hybrid Technology Co., Ltd.

## SPEAKER BIOGRAPHIES - DAY ONE



### Yu ZHU

Director of New Energy Vehicles Research Department  
Dongfeng Motor Corporation Technical Center

Zhu Yu, Professor level senior engineer. He is the Director of new energy vehicles research department in Dongfeng Motor Corporation Technology Center. He has more than 30 years

of vehicle development experience. From 2001, he participated in, organized and presided over the design of NEV powertrain design and development. Since 2002, he had been the deputy head of four "863" projects, including "Dongfeng Hybrid City Bus Development", "Dongfeng Hybrid Car Development",

"Dongfeng Hybrid Bus and Passenger Vehicle Research System Technology Platform research and development" and "Dongfeng hybrid bus large-scale industrialization of product technology". Presided over its main research and development work. They won 1 second prize of National Science and Technology Progress Award, 1 first prize of Hubei Science and Technology Progress Award, 1 first prize of Science and Technology Progress Award of Automotive Industry and special government allowance. Currently mainly engaged in Dongfeng NEV, including EV and PHEV powertrain products design and development.



### Jie GU

Chief Engineer  
Delphi Powertrain Electrification & Electronics, Asia Pacific

Mr. Gu Jie, Chief Engineer of Delphi powertrain electronics and electrification division. graduated from Xi'An Jiaotong University in April 2003, and joined Delta at

the same year as power electronics and motor control engineer. From 2008 to 2014, Served Delphi as leader and manager of electrification system and software development. From 2015 to now, takes powertrain chief engineer responsible for Delphi Asia Pacific electrification high voltage and 48V system product development.



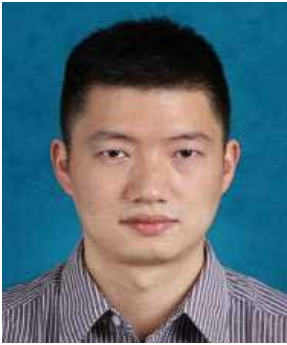
### Hai HE

Senior Manager of 48V Business  
UAES

Dr. He Hai, Senior manager of 48V business at UAES. At Oct 2005, graduated from Huazhong University of Science and Technology, joined UAES at the same year. From 2005 to 2009,

team leader of hybrid EMS system development. From 2010 to 2016, Section manager of e-drive system development at EH business unit. From 2017, responsible for 48V business at UAES.

## SPEAKER BIOGRAPHIES - DAY ONE



### **Zhimin ZHOU**

R&D Head of Business Division, Battery Management System & E-mobility  
Preh

Mr. Zhou Zhimin joined Preh Joyson in 2014 as R&D Head of Business Division "Battery Management System & E-mobility". He has more than 10 years' experience in automotive electronics including

Battery Management System, Body Electronics etc.

Zhimin Zhou got his Bachelor degree from Zhejiang University in Automation. And before joined Preh Joyson, he served for Siemens and Delphi for automotive electronics product development. By the joint effort with Preh Germany and Preh Ningbo, Zhou Zhimin and his department are responsible for Battery Management System development including platform design, system architecture, software and application in China.



### **Jian WANG**

E-driven Unit (EDU) Project Chief Engineer  
Shanghai E-Propulsion Auto Technology Co., Ltd.

Mr. Wang Jian is now as SAIC passenger vehicle tech center E-driven Unit (EDU) project chief engineer. He's responsible for EDU product planning and new

product development. Mr. Wang is one of the main completion of project "the key technology research and industrialization application of SAIC plug-in technology", which rewarded the first prize of China automotive industry science and Technology Award in 2016.



### **Chi CHEN**

Marketing Industry Manager of Automotive and Energy Solutions  
Keysight Technology Shanghai Inc.

Chenchi, worked as Business Development in AES of Keysight. He was responsible for the business development of new solutions in Automotive and Energy for Keysight

in China. He worked on the sales and marketing of cell testers and formation systems in his previous experience. He worked with major battery makers, car company, research department before. ChenChi has master degree in Electronics in Leuven.

## SPEAKER BIOGRAPHIES - DAY ONE



### Jeff ZHOU

Vice President & General Manager  
Maxwell

Dr. Jeff Zhou joined Maxwell in July 2017 as vice president & general manager China Operations & Sales Asia Pacific. He is responsible for operations, quality, supply chain, and implementation of sales

programs within the Asia Pacific territory. Dr. Zhou has over 15 years of automotive industry expertise (e.g. ePowertrain, Infotainment, Automotive SW etc.) and his experiences include:

- 2014 – 2017, Siemens eCar Powertrain Systems, Vice President and General Manager, Region China
- 2008 – 2014, Elektrobit Automotive, Managing Director and General Manager, China & Korea

- 2004 – 2008, Siemens VDO Automotive / Continental Automotive, Business Unit Infotainment Solutions, Director of Strategy, Marketing and M&A
- Since 1995 – 2004, Many automotive projects from strategy consulting and start-up companies

Most recently, he was CEO of JV Valeo Siemens eAutomotive in Shanghai where he successfully transitioned the eCar business from Siemens to JV Valeo Siemens. He holds a doctorate in experimental particle physics from the Physical Institute at RWTH Aachen, Germany and his bachelor's degree in physics from Fudan University, China.



### Huan XIE

Deputy Director of New Energy Testing Research Laboratory  
Shanghai Motor Vehicle Inspection Certification & Tech Innovation Center

Xie Huan, Shanghai Motor Vehicle Inspection Certification & Tech Innovation Center Co., Ltd. / deputy director of new energy testing research laboratory, engaged in testing and certification

of new energy vehicles and their key components, testing methods and standards research. As the fourth person, won the first prize of science and technology inspection award of General Administration of Quality Supervision, Inspection and Quarantine the P.R.C., and won the second prize of Shanghai science and technology award, and got lots patents.



### Andreas Tielmann

Project Leader  
Bosch Engineering GmbH

With a diploma degree of RWTH Aachen university and a M. Sc. of Tsinghua University, Beijing in automotive engineering, Mr. Tielmann enjoyed a professional education in both Germany and China.

He started his professional career at Bosch Engineering GmbH (BEG) in Abstatt, Germany in 2008, where he worked in the field of Chassis Systems in different functions in the development of Active Safety Systems

(ESP).

In 2014, he joined the recently founded Chassis Systems Department at Bosch Engineering (BEG) China where he assumed managerial roles for Active Safety and Driver Assistance Systems.

Leading a team of engineers and project managers for ESP customer projects at BEG China provides him with an excellent insight into the developments and trends of the Chinese as well as the global automotive market.

## SPEAKER BIOGRAPHIES - DAY TWO



### **Mazen Hammoud**

Powertrain Director, Asia Pacific  
Ford Motor

Dr. Mazen Hammoud is Ford's Powertrain Director, Asia Pacific. He is responsible for the engineering and implementation of conventional and electrified Powertrains in Ford and

Lincoln vehicles in China, India, Thailand, Australia and the entire Asia Pacific region. In addition to localizing global Powertrain solutions, Dr. Hammoud also leads the development of high voltage batteries and EV Powertrains for BEV and PHEV working local Chinese suppliers for implementation at Ford's joint ventures.

Prior to this appointment, he was Ford's Electrified Powertrain Systems Chief Engineer in charge of system architecture, component sizing, controls, and calibration for all HEV, PHEV, and BEV programs globally to deliver cost-effective best-in-class fuel economy and a superior driving experience. He oversaw Ford's Electrification market share growing more than threefold to number 2 of the segment in North America, while winning multiple awards.

Since joining Ford in 1998, Dr. Hammoud held several

leadership positions in Powertrain Controls and Calibration. He delivered multiple award winning programs for driveability and fuel economy using EcoBoost technology. In Powertrain electronics, he managed to reduce cost and complexity while improving quality by applying Ford's Commodity Business Plan and Supplier Aligned Business Framework strategies.

Mazen's career, including eight years at GM, is focused on sustainability and the environment by reducing emissions and improving fuel economy of modern Powertrains. He is responsible for numerous innovations published in technical papers and international patents. Mazen frequently participates in panel discussions, represents Ford in media events, and delivers industry speeches.

Dr. Hammoud holds a Bachelor (WSU), Master (U of M) and Ph.D. (U of M) degrees in Mechanical Engineering and an MBA in Organizational Behavior from the University of Michigan. An SAE Fellow, he serves on several professional and academic boards and is currently Chairman of the SAE Foundation Board of Trustees.



### **Surong HUANG**

Professor  
Shanghai University

Prof. Huang, renowned motor design expert, professor and doctoral supervisor at Shanghai University who obtains the State Council Special Allowance Expert. He is also a visiting professor

of the University of Wisconsin, Delta Scholar title winner, head of the postdoctoral program of electrical engineering, Shanghai University. He was the president of the IEEE Industry Applications Society Beijing Branch and Shanghai Branch. He is a five-time winner of provincial and ministerial-level scientific and technological progress award and has won the

title of Excellent University Young Teacher, Shanghai Yucai Award, Wang Kuancheng Yucai Award for several times. He has been engaged in and completed 16 national research projects and is in a long-term technical cooperation with well-known enterprises including Ford, FAW Group R & D Center, Shanghai E-drive Co.,Ltd, Shanghai Dajun Technologies, Inc., Shanghai Electric Group, CSR Zhuzhou Electric Locomotive Co.,Ltd., Broad-Ocean, Wuhan Iron and Steel Corporation and Baosteel. He has published more than 180 papers. He holds 1 American patent and 11 China invention patents.

## SPEAKER BIOGRAPHIES - DAY TWO



### **Guangming YANG**

Factory Director of HEV/EV Electric Control System factory  
BYD

Yang Guangming, the factory director of HEV/EV Electric Control System factory. He has 13 years' experience in the development of power inverter for new energy

vehicles. He is familiar with the reliability test of power module, the application of drive circuit and protective circuit of power module.



### **Xixian YANG**

Director of Operations/Product Integration Chief Engineer  
Jing-Jin Electric

Xixian Yang, Director of Operations/Product Integration Chief Engineer of Jing-Jin Electric Technnologies Co. Ltd.

For many years, he has engaged in the research and development of

motor and drive system for new energy vehicles, and in charge of the design and development work

for various electric drive systems of hybrid-electric commercial vehicles, hybrid-electric passenger vehicles, and pure-electric vehicles.

For the past decade, he held the following positions:

Remy Inc (China) Co., Ltd. as Manufacturing and Quality Manager.

Jing-Jin Electric Technologies Co., Ltd., as Director of Operations and Technology.



### **Yilin ZHANG**

CEO  
Schaeffler Greater China

Dr. Zhang Yilin, Member of Executive Board at Schaeffler Group, CEO of Schaeffler Greater China, has over 20 years of experience in managing transnational company

and automotive parts suppliers.

Dr. Zhang started his automotive management career in 1994, when he led the China business development project for ITT Automotive Europe until 1998. From 1999 to 2004, he was the Chief Representative, and Chief Financial Officer at Continental Teves' branch in China and a Board Director at a joint venture of Teves. In 2004, he joined Schaeffler as President Automotive at Schaeffler Greater China and has been CEO of Schaeffler Greater China since 2014. During

his presidency in the Automotive Department, its business grew by leaps, and now, Schaeffler Greater China, under his leadership, has become one of the four regions directly reporting to German headquarter, making contributions to the Group' s Mobility for Tomorrow strategy.

Dr. Zhang was honored as Top Ten Chinese Automotive Management Talents, Top Ten Leaders in China' s Automotive Parts Industry and Cover Person of China' s Automotive and Parts Industry. He graduated from Hunan University holding a bachelor' s degree in mechanical engineering. He received his doctorate in mechanical engineering from Hannover University in 1994 specializing in automotive dynamics and received an EMBA degree from Arizona State University.





### **Hanbing YANG**

President of Automotive  
Schaeffler Greater China

Mr. Yang Hanbing is the incumbent President of Automotive at Schaeffler Greater China. During his career over the last 20 years, he has accumulated rich

experience in managing transnational automotive system and parts companies.

Mr. Yang graduated from Southeast University and served as the head of multiple departments at Celanese since 1989. He started his management career in automotive parts industry in 1997, when he was appointed as the Deputy General Manager at Raybestos Friction Products (Suzhou) Co., Ltd, and was promoted to General Manager in 2003. Under his leadership, Raybestos Friction Products (Suzhou) became the top

automotive friction material supplier within few years. In 2008, as Raybestos was merged into Schaffler, he became the General Manager of Schaeffler Friction Products (Suzhou) Co., Ltd, a position where Mr. Yang devoted himself to revolutionizing production for better productivity and product quality.

In 2014, Mr. Yang was appointed as the President of Automotive at Schaeffler Greater China. He stays committed to prioritizing quality and innovation, focusing on the development and optimization of new energy products, to provide more efficient, low-power, and innovative automotive products and solutions to domestic market and beyond. He was awarded with Year of Innovation in China's Automotive and Parts Industry.



### **Huichao ZHAO**

Director  
New Energy Development Institute E-motor and E-drive Research Dept, FAW

Huichao Zhao, the director for New Energy Development Institute E-motor and E-drive Research Dept. of FAW,

Huichao Zhao mainly engaged in technical research and product

development of engine, e-motor and inverter. As a major participant, designed engine block and layout, which can be listed as 2 liter diesel engine named CA4DB, 3 liter diesel engine named CA4DC, 1.3 and 1.1 liter gasoline engine named CA4GA, and 6 liter V12

gasoline engine named CA12GV etc. Project manager for Red-flag H7 PHEV hybrid car's module exploitation, hybrid module development used for FAW A&B class cars, and e-drive system platform for FAW's EV vehicles.

The recently typical paper "Analysis and test of torque ripple of electric vehicle permanent magnet synchronous motor" is published in Electric Machines and Control. The number of invention and utility model patents in the field of engine and e-motor driving system is over thirty in total.

## SPEAKER BIOGRAPHIES - DAY TWO



### **Shaoyou SHI**

Director of New Energy Development Department  
BAIC



### **Sheng MEI**

Chief Engineer  
Zhejiang BH Bearing Co., Ltd.

#### Work experience:

From July, 1995 to September, 2005: Market development, Leshan Dayang Bearing Co., Ltd.

From October, 2005 till today: Vice general manager and chief

engineer, Zhejiang BH Bearing Co., Ltd.

#### Social duties:

Member of the Seventh Committee of the Technical Committee of China Bearing Industry Association;  
Expert at the Strategic Alliance of Technology Innovation of Whole Industry Chain of Electric Drive System for Electric Vehicles



### **Jianzhong LI**

Deputy Manager of Technology Department  
Ningbo Permanent Magnetic Industry Co., Ltd.

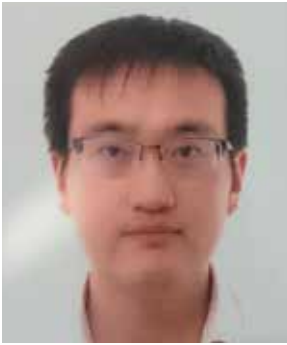
Holds a master degree in engineering from Harbin Institute of Technology.

#### Work experience:

From 2006 to 2011: R & D Engineer in Ningbo Institute of Materials Technology & Engineering, CAS.

From 2011 till today: Deputy Manager of Technology Department of Ningbo Permanent Magnetic Industry Co., Ltd.

## SPEAKER BIOGRAPHIES - DAY TWO



### QI WANG

Senior Low-Frequency Electromagnetic Simulation Engineer  
Altair

Work as technical support for LF electromagnetic and system tools of Altair in China with rich simulation experiences of LF-EM, Multiphysics coupling and power electronics system application for over 10 years.

## EXHIBITORS PROFILES

Exhibitor Directory text is published as submitted by exhibiting companies.



### Ningbo Permanent Magnetics

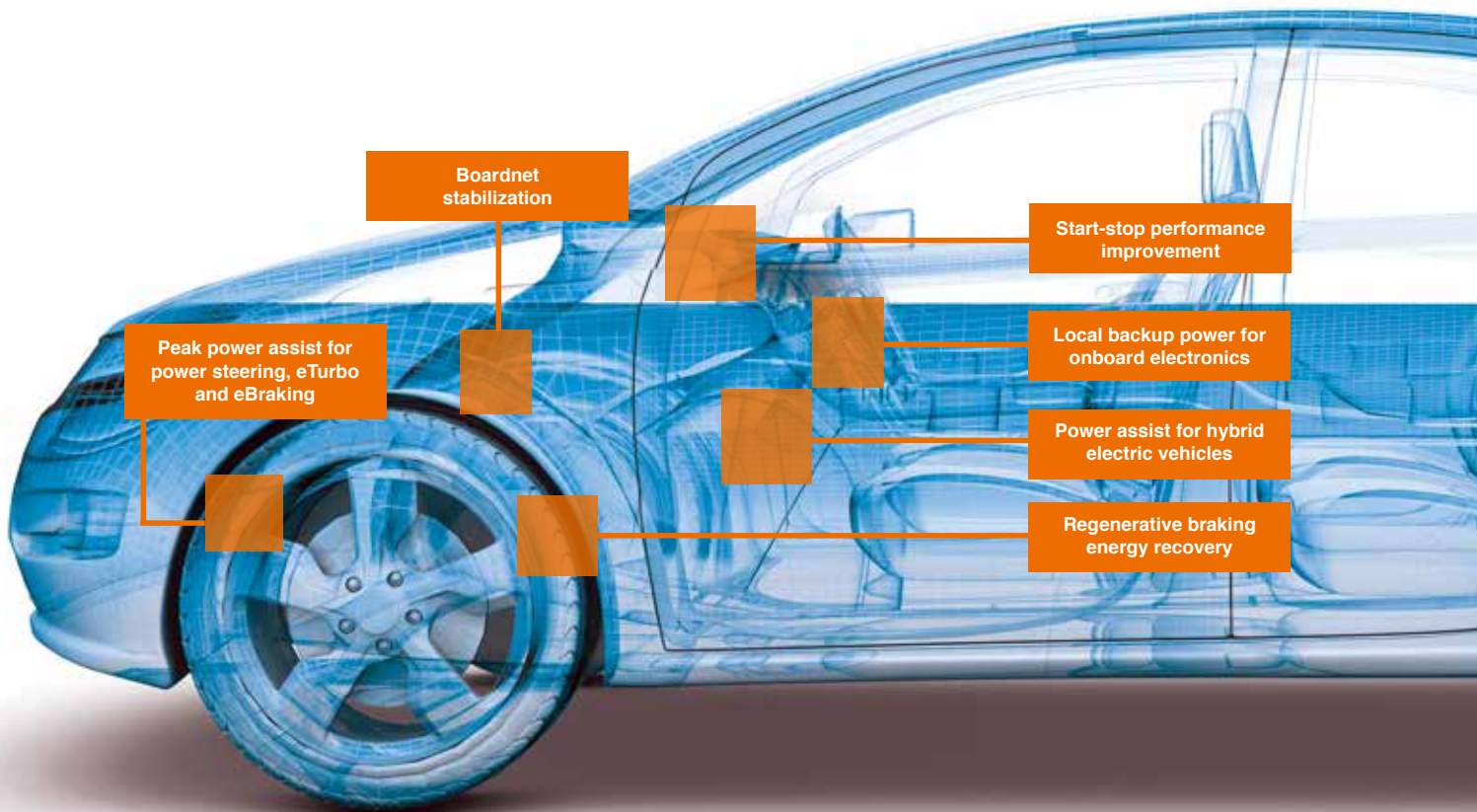
**Address:** No. 518 Kang Zhuang Nan Road, Jiangbei District, Ningbo, Zhejiang, P.R. China

#### **[www.pm-magnets.com](http://www.pm-magnets.com)**

Ningbo permanent Magentics Co.Ltd was established in 1997 and occupies a total area of 60,000m<sup>2</sup>, 500 employees.

the company is equipped with international standard advanced production and testing equipment,the capacity is 5000 tons / year.

At present 80% products exported to oversea, and products are exported to Europe, America, Southeast Asia and other regions, mainly applied in Semi-high-end motor,consumer electronics,medical and clean energy and other fields.



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