

Program at a Glance

Date	Time	Room A	Room B	Room C	Room D	Room E	Room F
		(Grand Ballroom)		(Lotus)	(VIP)	(Hua gang)	(Long jing)
Oct.17 (Mon.)	10:00-14:00	<i>Registration (Lobby of Zhejiang Hotel)</i>					
	14:00-17:30						Tutorial 1
	18:00-20:00	Welcome Reception					
Oct.18 (Tue.)	8:30-10:00	Open Ceremony, Keynote Speech -1					
	10:00-10:30	<i>Coffee Break (Grand Ballroom Foyer)</i>					
	10:30-12:00	Keynote Speeches -2, 3					
	12:00-14:00	<i>Lunch (Lilac Cafe)</i>					
	14:00-15:30	RT1-1	RT2-1	RT5	SS2		
	15:30-16:00	<i>Coffee Break (Grand Ballroom Foyer)</i>					
	16:00-17:30	RT1-2	RT2-2	RT6	SS3		
Oct.19 (Wed.)	8:30-10:00	RT3	RT2-3	RT2-5	SS4		Exhibition (Grand Ballroom Foyer)
	10:00-10:30	<i>Coffee Break (Grand Ballroom Foyer)</i>					
	10:30-12:00	RT4	RT2-4	RT2-6	SS5		
	12:00-14:00	<i>Lunch (Lilac Cafe)</i>					
	14:00-15:30	PS1 to PS5		ITS	SS6		
	15:30-16:00			<i>Coffee Break (Grand Ballroom Foyer)</i>			
	16:00-17:30			SS7			
18:00-20:00	Banquet						
Oct.20 (Thu.)	8:30-10:00	Keynote Speeches -4, 5					
	10:00-10:30	<i>Coffee Break (Grand Ballroom Foyer)</i>					
	10:30-12:00	Keynote Speech -6, Closing Ceremony					

* A free industry technical tour will be provided by Wolong Electric Group Co., Ltd at 13:00 - 20:00, Oct.20. Departing from Zhejiang Hotel at 13:00, and returning from the company after the dinner.

Lecture Sessions (Oral)		Dialogue Sessions (Poster)	
RT1-1	<i>Energy Storage and Generation - Components and Systems 1</i>	PS1	<i>Electrical Drives</i>
RT2-1	<i>Power Electronics, Motor Drives and Electric Power Systems 1</i>	PS2	<i>Electrical Machines</i>
RT5	<i>Modeling, Analysis and Simulation of Transportation Systems</i>	PS3	<i>Energy Storage, Charging and Management</i>
SS2	<i>Contactless Charging for Electric Vehicles</i>	PS4	<i>Power Electronics</i>
RT1-2	<i>Energy Storage and Generation - Components and Systems 2</i>	PS5	<i>Modeling, Analysis and Control of Transportation System</i>
RT2-2	<i>Power Electronics, Motor Drives and Electric Power Systems 2</i>	Poster Notice	<i>Set-up time</i> 13:45-14:00, Oct.19 (Wed.)
RT6	<i>Charging Systems and Infrastructures</i>		<i>Presentation time</i> 14:00-16:00, Oct.19 (Wed.)
SS3	<i>EMC Issues in Electric Vehicles</i>		<i>Removal time</i> 16:00-16:15, Oct.19 (Wed.)
RT3	<i>Vehicular Electronics and Intelligent Transportation Systems</i>	Tutorials	
RT2-3	<i>Power Electronics, Motor Drives and Electric Power Systems 3</i>	Tutorial 1	<i>Energy Management of Hybrid Electric Vehicles</i>
RT2-5	<i>Power Electronics, Motor Drives and Electric Power Systems 5</i>	Tutorial 2	<i>Modern Electrical Machine Technologies for Electric Vehicle Applications</i>
SS4	<i>Reliability and Durability Improvement of the Fuel Cell Systems in FCEV</i>	Tutorial 3	<i>Will Hydrogen Fuel Cells Power Next Vehicle Generation?</i>
RT4	<i>Control and Energy Management of Transportation Systems</i>	Industrial Technical Sessions	
RT2-4	<i>Power Electronics, Motor Drives and Electric Power Systems 4</i>	ITS1	<i>The Future of Urban Mobility Is Autonomous, Connected, Wireless and Electric</i>
RT2-6	<i>Power Electronics, Motor Drives and Electric Power Systems 6</i>	ITS2	<i>EV Motor and Its Key Technology</i>
SS5	<i>Energy Management of Electrical Hybrid Energy Sources for Zero Emission Vehicles</i>		
SS6	<i>EMR and Other Graphical Descriptions</i>		
SS7	<i>Higher Education for Electric Vehicles and its Power and Propulsion</i>		

VPPC2016 Oral Presentation Schedule

Oct. 18, 2016 (Tue.)

14:00-15:30

RT1-1 Energy Storage and Generation - Components and Systems 1

Time: 14:00-15:30, October 18, Tuesday

Chairs: Prof. David Stone, *University of Sheffield, UK*

Dr. Shifei Yuan, *Shanghai Jiao Tong University, China*

Venue: Room A

RT1-1-1	A state-of-charge estimation method based on an adaptive proportional-integral observer
14:00-14:15	Pengcheng Li, Nan Chen , Jiansong Chen and Ning Zhang <i>Southeast University, China</i>
RT1-1-2	Degradation mechanisms detection for HP and HE NMC cells based on Incremental Capacity curves
14:15-14:30	M. Bercibar ^{1,3} , M. Dubarry ² , I. Villarreal ¹ , N. Omar ³ and Joeri Van Mierlo ³ ¹ <i>Technology Park of Alava, Spain</i> ² <i>University of Hawaii at Manoa, USA</i> ³ <i>Vrije Universiteit Brussel, Belgium</i>
RT1-1-3	Global sensitivity analysis of battery equivalent circuit model parameters
14:30-14:45	Shi Zhao and David A. Howey <i>University of Oxford, United Kingdom</i>
RT1-1-4	Parameter Estimation of Simplified Electrochemical Model under Multiple Temperatures
14:45-15:00	Shifei Yuan ^{1,2} , Lei Jiang ² and Chengliang Yin ¹ ¹ <i>Shanghai Jiao Tong University, China</i> ² <i>Shanghai University of Engineering Science, China</i>
RT1-1-5	Predictive Power Estimation of Dual Battery Systems in Mild-Hybrid Vehicles
15:00-15:15	Daniel Renner ¹ , Marcel Dietz ¹ , Patrick Jansen ¹ , David Vergossen ¹ , Werner John ² and Stephan Frei ³

	¹ <i>Audi Electronics Venture GmbH Ingolstadt, Germany</i> ² <i>SIL GmbH Paderborn, Germany</i> ³ <i>TU Dortmund University Dortmund, Germany</i>
RT1-1-6	Three Dimensional Thermal Modeling of Li-Ion Battery Pack based on Multiphysics and Calorimetric Measurement
15:15-15:30	Mohammad Rezwon Khan and Søren Knudsen Kær <i>Aalborg University, Denmark.</i>

RT2-1 Power Electronics, Motor Drives and Electric Power Systems 1

Time: 14:00-15:30, October 18, Tuesday

Chairs: Prof. Xu Liu, *Hebei University of Technology, China*

Dr. Pierre-Daniel Pfister, *Zhejiang University, China*

Venue: Room B

RT2-1-1	A Simplified Method to Analyze Synchronous Reluctance Machine
14:00-14:15	Shun Cai, He Hao, Mengjia Jin and Jianxin Shen <i>Zhejiang University, China</i>
RT2-1-2	Design and Investigation of Flux Weakening Capability in Variable Flux Reluctance Machine
14:15-14:30	X. Liu ¹ and Z. Q. Zhu ² ¹ <i>Hebei University of Technology, China</i> ² <i>University of Sheffield, UK</i>
RT2-1-3	Design and Optimization of Switched Reluctance Motor for Propulsion System of Small Electric Vehicle
14:30-14:45	M. Sun, H. Chen, W. Yan, H. Cheng and Z. Liu <i>China University of Mining and Technology, China</i>
RT2-1-4	Iron Loss Analysis of Permanent Magnet Synchronous Motor with an Amorphous Stator Core
14:45-15:00	Wenming Tong, Shengnan Wu, Jingyang Sun and Longfei Zhu <i>Shenyang University of Technology, China</i>
RT2-1-5	Iron Loss in Surface-Mounted PM Machines Considering Tooth-tip Local Magnetic Saturation
15:00-15:15	D. Wu, Z.Q. Zhu and W.Q. Chu <i>University of Sheffield, U.K</i>
RT2-1-6	On-load Performance in IPM Machines Having Different Slot/Pole Number Combinations Considering Local Magnetic Saturation

15:15-15:30	Z.Q. Zhu, D. Wu and W.Q. Chu <i>University of Sheffield, U.K</i>
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RT5 Modeling, Analysis and Simulation of Transportation Systems

Time: 14:00-15:15, October 18, Tuesday

Chairs: Prof. Elena Lomonova, *Eindhoven University of Technology, The Netherlands*

Dr. Mikaela Ranta, *Vehicles and Electric Powertrains, Finland*

Venue: Room C

RT5-1	Assessment of the interaction of charging system and battery technology for the use in urban battery electric bus systems
14:00-14:15	T. Ly, D. Goehlich and L. Heide <i>Technical University Berlin, Germany</i>
RT5-2	Comparison and sizing of different hybrid powertrain architectures for river ship application
14:15-14:30	Romain Derollepot and Emmanuel Vinot <i>IFSTAR, France</i>
RT5-3	Developing Power Semiconductor Device Model for Virtual Prototyping of Power Electronics Systems
14:30-14:45	Ke Li, Paul Evans and Mark Johnson <i>University of Nottingham, UK</i>
RT5-4	EMR-based Simulation Tool of a Multi-train Subway System
14:45-15:00	C. Mayet ¹ , P. Delarue ¹ , A. Bouscayrol ¹ and E. Chattot ² ¹ <i>Université Lille1, France</i> ² <i>Siemens, France</i>
RT5-5	Method including Power Grid Model and Route Simulation to Aid Planning and Operation of an Electric Bus Fleet
15:00-15:15	M. Ranta, V. Karvonen, J. J. Potter, R. Pasonen, E. Pursiheimo, T. Halmeaho, P. Ponomarev and M. Pihlatie <i>VTT Technical Research Centre of Finland, Finland</i>

SS2 Contactless Charging for Electric Vehicles

Time: 14:00-15:30, October 18, Tuesday

Chairs: Dr. Yixiao Luo, *City University of Hong Kong, Hong Kong*

Dr. Zhen Zhang, *Tianjing University, China*

Venue: Room D

SS2-1	Contactless Power Transfer System for Lead Acid Battery Charging
14:00-14:15	Gautam Rituraj, Brijesh Kumar Kushwaha and Praveen Kumar <i>IIT Guwahati, India</i>
SS2-2	Design of Constant Voltage Compensation Topology Applied to WPT System for Electrical Vehicles
14:15-14:30	Bin Li ¹ , Yuyu Geng ¹ , Fei Lin ¹ , Zhongping Yang ¹ and Seiki Igarashi ² ¹ <i>Beijing Jiaotong University, China</i> ² <i>Fuji Electric Corporate Ltd., Japan</i>
SS2-3	Mutual Inductance Analysis of Planar Coils with Misalignment for Wireless Power Transfer Systems in Electric Vehicle
14:30-14:45	Zhichao Luo and Xuezhe Wei <i>Tongji University, China</i>
SS2-4	Optimization of Compensation Capacitor for Wireless Power Transfer System Based on Inverter Loss
14:45-15:00	Yuyu Geng ¹ , Zhongping Yang ¹ , Fei Lin ¹ and Seiki Igarashi ² ¹ <i>Beijing Jiaotong University, China</i> ² <i>Fuji Electric Corporate Ltd., Japan</i>
SS2-5	Research on the Control Strategy of Constant Current Output of Wireless Power Transfer Systems Applied to Electric Vehicles
15:00-15:15	Na Yu ¹ , Rui Jin ¹ , Yuyu Geng ¹ , Fei Lin ¹ , Zhongping Yang ¹ and Seiki Igarashi ² ¹ <i>Beijing Jiaotong University, China</i> ² <i>Fuji Electric Corporate Ltd., Japan</i>

Oct. 18, 2016 (Tue.)

16:00-17:30

RT1-2 Energy Storage and Generation - Components and Systems 2

Time: 16:00-17:30, October 18, Tuesday

Chairs: Prof. Sari Ali, *Université Lyon 1, France*

Dr. Joris Jaguemont, *University of Versailles, Belgium*

Venue: Room A

RT1-2-1	Interpretation of the Particularities of Lithium-Ion Capacitors and
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	Development of a Simple Circuit Model
16:00-16:15	N. El Ghossein, A. Sari and P. Venet <i>Université Lyon 1, France</i>
RT1-2-2	Investigation of Battery Heat Generation and Key Performance Indicator Efficiency using Isothermal Calorimeter
16:15-16:30	Mohammad Rezwan Khan and Søren Knudsen Kær <i>Aalborg University, Denmark</i>
RT1-2-3	Lithium battery aging model based on chemical rate approach
16:30-16:45	I. Baghdadi ^{1,2} , O. Briat ¹ , P. Gyan ² and J.M. Vinassa ¹ ¹ <i>Univ. Bordeaux, France</i> ² <i>Renault, Technocentre de Guyancourt, France</i>
RT1-2-4	Lithium-ion capacitor – optimization of thermal management from cell to module level
16:45-17:00	Gert Berckmans ¹ , Joris Jaguemont ¹ , Mahdi Soltani ¹ and Jan Ronsmans ² ¹ <i>Vrije Universiteit Brussel, Belgium</i> ² <i>JSR Micro NV, Belgium</i>
RT1-2-5	Measuring Reversible and Irreversible Capacity Losses on Lithium-ion Batteries
17:00-17:15	Eduardo Redondo-Iglesias, Pascal Venet and Serge Pelissier <i>Univ Lyon, France</i>
RT1-2-6	Supercapacitor characterization using fluctuating DC current - Impacts of state of charge, number of cycle and frequency on cell resistance and capacitance
17:15-17:30	K. Bellache, M.B. Camara and B. Dakyo <i>Université du Havre, France</i>

RT2-2 Power Electronics, Motor Drives and Electric Power Systems 2

Time: 16:00-17:45, October 18, Tuesday

Chairs: Prof. Heyun Lin, *Southeast University, China*

Prof. Ronghai Qu, *Huazhong University of Science and Technology, China*

Venue: Room B

RT2-2-1	A Method to Improve Torque Density and Reduce Magnetization Current in A Variable-Flux Flux-Intensifying Interior Permanent Magnet Machine
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16:00-16:15	Yang Lu, Jian Li, Ronghai Qu, Afang Sun and Haiyang Fang <i>Huazhong University of Science and Technology, China</i>
RT2-2-2	Comparative Study of High Performance Double-Stator Switched Flux Permanent Magnet Machines
16:15-16:30	C. C. Awah and Z. Q. Zhu <i>University of Sheffield, UK</i>
RT2-2-3	Electromagnetic Performance Analysis of a Partitioned Rotor Hybrid-Excited Flux-Switching Permanent Magnet Machine
16:30-16:45	Deyang Fan, Li Quan, Xiaoyong Zhu, Zixuan Xiang and Wenye Wu <i>Jiangsu University, China</i>
RT2-2-4	Influence of Rotor Pole Number on Electromagnetic Performance of Double-Stator Switched Flux PM Machines
16:45-17:00	C. C. Awah and Z. Q. Zhu <i>University of Sheffield, UK</i>
RT2-2-5	Novel Partitioned Stator Hybrid Magnet Memory Machines For EV/HEV Applications
17:00-17:15	Hui Yang ¹ , Heyun Lin ¹ , Shuhua Fang ¹ , Yunkai Huang ¹ and Z. Q. Zhu ² ¹ <i>Southeast University, China</i> ² <i>University of Sheffield, UK</i>
RT2-2-6	Influence of Magnet Height on Unbalanced Magnetic Force of Surface-Mounted Permanent Magnet Machines
17:15-17:30	L. J. Wu ¹ , Z. Q. Zhu ² , Youtong Fang ¹ and Xiaoyan Huang ¹ ¹ <i>Zhejiang University, China</i> ² <i>University of Sheffield, UK</i>
RT2-2-7	Transient Behavior of Field Modulated Magnetic Gears with Damper Windings
17:30-17:45	B. H. MA ¹ , C. C. HOU ² and G. Q. BAO ² ¹ <i>Tianshui electric drive research institute co., Ltd, China;</i> ² <i>Lanzhou University of Technology, China</i>

RT6 Charging Systems and Infrastructures

Time: 16:00-17:15, October 18, Tuesday

Chairs: Mr. Kimimori Hamada, *Toyota Motor Corporation, Japan*

Dr. Shuai Shao, *Zhejiang University, China*

Venue: Room C

RT6-1	A novel magnetic coupling mechanism for dynamic wireless charging system for electric vehicles
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16:00-16:15	Shumei Cui, Zhiyuan Wang and Liwei Song <i>Harbin Institute of Technology, China</i>
RT6-2	Automatic Frequency Tuning with Power-level Tracking System for Wireless Charging of Electric Vehicles
16:15-16:30	Yuqing Gao, Chenxi Zhou, Jing Zhou, Xiaoyan Huang and Donghao Yu <i>Zhejiang University, China</i>
RT6-3	Four-Degree-of-Freedom Control for Dual Active Flexbattery H-Bridge Converter
16:30-16:45	Ya Zhang, Marcel A. M. Hendrix, Jorge L. Duarte, Maurice G.L. Roes and Elena A. Lomonova <i>Eindhoven University of Technology, The Netherlands</i>
RT6-4	Improvements in the transmission efficiency in an electric vehicles wireless power transfer system using litz magnetoplated wire
16:45-17:00	Yinggang Bu, Wenhua Wang, Takahiro Kasai and Tsutomu Mizuno <i>Faculty Engineering of Shinshu University, Japan</i>
RT6-5	A High Efficiency LLC Resonant Converter with Wide Ranged Output Voltage using Adaptive Turn Ratio Scheme for a Li-ion Battery Charger
17:00-17:15	Hyeong-Gu Han, Yeong-Jun Choi, See-Yong Choi and Rae-Yong Kim <i>Hanyang University, Korea</i>

SS3 EMC Issues in Electric Vehicles

Time: 16:00-17:45, October 18, Tuesday

Chairs: Dr. Henglin Chen, *Zhejiang University, China*

Dr. Flavia Grassi, *Politecnico di Milano, Italy*

Prof. Osama A. Mohammed, *Florida International University, USA*

Venue: Room D

SS3-1	A multi-level model for analysis of conducted emission of electro-mechanical transmission system
16:00-16:15	Xiaojian Li, Xiaolin Du, Xiuli Nie and Xiaofan Zhao <i>China North Vehicle Research Institute, China</i>
SS3-2	An Iterative Design Approach for Shielding of WPT Systems in Electric Vehicle Charging Applications
16:15-16:30	Abla Hariri, Mohamad El Hariri, Ahmed El Sayyed and O.A. Mohammed <i>Florida International University, USA</i>

SS3-3	Conducted EMI Analysis for Switch-on Transient of Dynamic Wireless EV Charging System
16:30-16:45	Yanjie Guo ^{1,2} , Lifang Wang ^{1,3} , Chenglin Liao ^{1,3} , Junzhi Zhang ² , Yuwang Zhang ¹ and Yun Zhang ¹ <i>¹Chinese Academy of Sciences, China</i> <i>²Tsinghua University, China</i> <i>³Collaborative Innovation Center for Electric Vehicles in Beijing, China</i>
SS3-4	Effect of Common-mode Interference on Communication performance of a Motor Drive System
16:45-17:00	Kaikai Chen , Zhufeng Jin and Henglin Chen <i>Zhejiang University, China</i>
SS3-5	Generation and Propagation of Radio Frequency Noise Currents in the Powertrain of Electric Vehicles
17:00-17:15	G. Spadacini, F. Grassi and S. A. Pignari <i>Politecnico di Milano, Italy</i>
SS3-6	Physics-based Co-simulation Platform for EMC Analysis of Two-way Inductive WPT System in EV Applications
17:15-17:30	A. A. S. Mohamed, A. Berzoy and O. A. Mohammed <i>Florida International University, USA</i>
SS3-7	Suppression of a certain vehicle Electrical Field and Magnetic Field radiation resonance point
17:30-17:45	Xinjie Gao and Donglin Su <i>Beihang University, China</i>

Oct. 19, 2016 (Wed.)

08:30-10:00

RT3 Vehicular Electronics and Intelligent Transportation Systems

Time: 08:30-09:30, October 19, Wednesday

Chairs: Prof. Christophe Espanet, *University of Franche-Comté, France*
Prof. Guodong Yin, *Southeast University, China*

Venue: Room A

RT3-1	Comparative estimation of electric vehicle rolling resistance coefficient in winter conditions
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08:30-08:45	O. Trigui, Y.Dubé, S.Kelouwani and K.Agbossou <i>University du Québec a Trois-Rivières, Canada</i>
RT3-2	Research on Control Strategies of Modern Streetcar at Intersection under Semi-independent Way Condition
08:45-09:00	Meizhu Luo ^{1,2} , Wei He ¹ , Yang Chen ¹ and Feng Gu ¹ ¹ Zhuzhou CRCC Times Electric Co. Ltd., China ² Central South University, China
RT3-3	The Optimized Flocking-Based Vehicle Fleet Control Considering Vehicular Dynamic Process
09:00-09:15	Liwei Xu, Guodong Yin, Tian Liu, Ning Zhang, Jiansong Chen and Nan Chen <i>Southeast University, China</i>
RT3-4	The Path Tracking of Four-Wheel Steering Autonomous Vehicles via Sliding Mode Control
09:15-09:30	Ruijie Wang, Guodong Yin, Jiayu Zhuang, Ning Zhang and Jiansong Chen <i>Southeast University, China</i>

RT2-3 Power Electronics, Motor Drives and Electric Power Systems 3

Time: 08:30-10:00, October 19, Wednesday

Chairs: Prof. Xiaofeng Ding, *Beihang University, China*

Dr. Grzegorz Ombach, *QUALCOMM CDMA Technologies GmbH, Germany*

Venue: Room B

RT2-3-1	An Improved Saliency-based Sensorless Drive with Single Current Sensor using Current Prediction Method for Permanent-magnet Synchronous Motors
08:30-08:45	Jun-Hyuk Im, Sang-Il Kim and Rae-Young Kim <i>Hanyang University, Korea</i>
RT2-3-2	High Torque-Density In-Wheel Electrical Machine for an Electric Bus
08:45-09:00	D. Gerada, Z. Xu, H. Zhang, M. Galea, C. Gerada and S. Pickering <i>The University of Nottingham, United Kingdom</i> <i>The University of Nottingham Ningbo, China</i>
RT2-3-3	Improved Rotor Position Estimator with a New Inductance Estimation Method for IPMSM Sensorless Drive

09:00-09:15	Bu-Kyong Kang, Sang-Il Kim, Shin-Won Kang and Rae-Young Kim <i>Hanyang University, Korea</i>
RT2-3-4	Comparative Study of Vernier and Interior PM Machines for Automotive Application
09:15-09:30	Y. Oner ¹ , Z. Q. Zhu ² and W. Chu ² ¹ <i>Yildiz Technical University, Turkey</i> ² <i>University of Sheffield, UK</i>
RT2-3-5	Sensorless Control of PMSM based on Modified Sliding Mode Observer
09:30-09:45	Chuanchuan Lin, Hong Guo, Shuping Meng and Xiaofeng Ding <i>Beihang University, China</i>
RT2-3-6	Principle and Implementation of the Shoot-through Current Reconstruction Using Combined Current Sensing in the Quasi-Z-Source Inverter
09:45-10:00	Dongqi Fan ¹ , Zipeng Liang ¹ , Sideng Hu ¹ , Huan Yang ¹ , Xiaowei Gu ² and Xiangning He ¹ ¹ <i>Zhejiang University, China</i> ² <i>Zhejiang Sci-Tech University, China</i>

RT2-5 Power Electronics, Motor Drives and Electric Power Systems 5

Time: 08:30-09:45, October 19, Wednesday

Chairs: Dr. Ke Li, *University of Nottingham, UK*

Prof. João Pedro Trovão, *Université de Sherbrooke, Canada*

Venue: Room C

RT2-5-1	Advanced Material Selection for Semiconductor Switching Devices in Electric Vehicles using PROMETHEE Method
08:30-08:45	Shimin V V ¹ , Varsha A Shah ¹ and Makarand M. Lokhande ² ¹ <i>SV National Institute of Technology Gujarat, India</i> ² <i>Visvesvaraya National Institute of Technology, India</i>
RT2-5-2	Analytical Modeling of Plate Fin Heat Sinks for Natural Convection Cooling in Power Electronics
08:45-09:00	Silvia Zulk, Thies Köneke and Axel Mertens <i>Leibniz Universität Hannover, Germany</i>
RT2-5-3	Design and comparative study of dual magnet array for linear load simulation system
09:00-09:15	Tianyi Wang, Zongxia Jiao and Liang Yan <i>Beihang University, China;</i>

RT2-5-4	Reduction of the EV Inverter Chip Size at Constant Reliability by Active Thermal Control
09:15-09:30	Dennis Kaczorowski and Axel Mertens <i>Leibniz University of Hannover, Germany</i>
RT2-5-5	SiC/GaN Power Semiconductor Devices Theoretical Comparison and Experimental Evaluation
09:30-09:45	Ke Li, Paul Evans and Mark Johnson <i>University of Nottingham, UK</i>

SS4 Reliability and Durability Improvement of the Fuel Cell Systems in FCEV

Time: 08:30-10:00, October 19, Wednesday

Chairs: Dr. Zhongliang Li, *FEMTO-ST/FCLAB, France*

Dr Dongdong Zhao, *Northwestern Polytechnical University, China*

Venue: Room D

SS4-1	6-phase soft-switching Interleaved Boost Converter based on SiC semiconductor for Fuel Cell Vehicles
08:30-08:45	Hanqing Wang ^{1,3,4} , Arnaud Gaillard ^{1,3,4} and Daniel Hissel ^{2,3,4} ¹ <i>Univ. Bourgogne Franche-Comte, UTBM, France</i> ² <i>Univ. Bourgogne Franche-Comte, University of Franche-Comte, France</i> ³ <i>UMR CNRS/UFC/UTBM/ENSMM, France</i> ⁴ <i>FCLAB Research Federation, France</i>
SS4-2	A Review on Prognostics of Proton Exchange Membrane Fuel Cells
08:45-09:00	Hao Liu, Jian Chen, Ouyang Quan and Hongye Su <i>Zhejiang University, China</i>
SS4-3	Finite Control Set-Model Predictive Flux Control of PMSM for Air Compressor of Fuel Cell Systems
09:00-09:15	Liming Yan, Manfeng Dou, Dongdong Zhao and Zhiguang Hua <i>Northwestern Polytechnical University, China</i>
SS4-4	Fuel Cells fault diagnosis under dynamic load profile using Reservoir Computing
09:15-09:30	S. Morando ^{1,2,3} , M.C. Pera ^{1,2,3} , N. Yousfi Steiner ^{1,2,3} , S. Jemei ^{1,2,3} , D. Hissel ^{1,2,3} and L. Llarger ^{1,3} ¹ <i>FEMTO-ST, France</i> ² <i>FC-LAB, France</i>

	³ <i>Univ. of Bourgogne Franche-Comte, France</i>
SS4-5	Relative Wavelet Energy as a diagnosis tool for PEM Fuel Cells
09:30-09:45	E. Pahon, D. Hissel, S. Jemei and N. Youssi-Steiner <i>Univ. Bourgogne Franche-Comte/Univ. Franche-Comte/FEMTO-ST/ FCLAB Research Federation, France</i>
SS4-6	Remaining useful life estimation for PEMFC in dynamic operating conditions
09:45-10:00	Zhongliang Li, Samir Jemeï, Rafael Gouriveau, Daniel Hissel and Nouredine Zerhouni <i>FCLAB Research Federation/FEMTO-ST/UFC/UTBM/ENSMM, France</i>

Oct. 19, 2016 (Wed.)

10:30-12:00

RT4 Control and Energy Management of Transportation Systems

Time: 10:30-11:45, October 19, Wednesday

Chairs: Prof. Marshall Molen, *Mississippi State University, USA*

Prof. Wenxiang Zhao, *Jiangsu University, China*

Venue: Room A

RT4-1	Active battery thermal management integrated to cold weather optimal PHEV autonomy extension
10:30-10:45	François Martel, Yves Dubé, Souso Kelouwani and Kodjo Agbossou <i>Université du Québec à Trois-Rivières, Canada</i>
RT4-2	Decoupling Control of a Dual-Rotor Machine for Electric Variable Transmission System
10:45-11:00	Jinhua Du and Yuntian Xue <i>Xi'an Jiaotong University, China</i>
RT4-3	Intelligent blended hydrogen-gasoline generator emission/efficiency characterization in context of EV range extension
11:00-11:15	Mohamed Rebai ^{1,2} , Souso Kelouwani ^{1,2} , Yves Dubé ^{1,2} and Kodjo Agbossou ^{1,2} ¹ <i>Institut de Recherche sur l'Hydrogène, Canada</i> ² <i>Université du Québec à Trois-Rivières, Canada</i>
RT4-4	Multi-objective Optimization of Energy Management and Sizing for a Hybrid Bus with dual Energy Storage System

11:15-11:30	Victor Isaac Herrera ^{1,2} , Aitor Milo ¹ , Haizea Gaztañaga ¹ and Haritza Camblong ^{2,3} <i>¹IK4-IKERLAN Technology Research Centre, Spain</i> <i>²University of the Basque Country, Spain</i> <i>³Ecole Supérieure des Technologies Industrielles Avancées, France</i>
RT4-5	Vehicle-to-Infrastructure Communication based Eco-Driving Operation at Multiple Signalized Intersections
11:30-11:45	Qingfeng Lin ¹ , Xuejin Du ¹ , Shengbo Eben Li ² and Zhennan Ye ³ <i>¹Beihang University, China</i> <i>²Tsinghua University, China</i> <i>³University of Science and Technology Beijing, China</i>

RT2-4 Power Electronics, Motor Drives and Electric Power Systems 4

Time: 10:30-12:00, October 19, Wednesday

Chairs: Prof. Daniel Hissel, *University of Bourgogne Franche-Comté, France*

Prof. Dongsheng Yu, *University of Mining and Technology, China*

Venue: Room B

RT2-4-1	An Improved Single-Phase Zero-Voltage Transition Soft-Switching Inverter with a Subtractive Coupled Inductor Auxiliary Circuit
10:30-10:45	Jong-Yeop Lim, Jae-hwan Soh and Rae-Young Kim <i>Hanyang University, Korea</i>
RT2-4-2	A Series-Parallel Compensated IPT System with Load-independent Voltage Gain and Efficiency
10:45-11:00	Chang Gao, Laipeng Zhang, Bo Li, Lianghui Ding, Feng Yang and Liang Qian <i>Shanghai Jiao Tong University, China</i>
RT2-4-3	A Three-Level Three-Phase Dual Active Bridge DC-DC Converter with a Star-Delta Connected Transformer
11:00-11:15	N.H. Baars, C.G.E. Wijnands and J. Everts <i>Eindhoven University of Technology, The Netherlands</i>
RT2-4-4	Bidirectional DC-DC Converter Using Variable Inductor Concept for Electric Vehicle Applications
11:15-11:30	Mebrahtom Beraki ¹ , João P. Trovão ^{1,2,4} , Marina Perdigão ^{2,3} and Felipe Machado ⁴ <i>¹University of Sherbrooke Sherbrooke, Canada</i> <i>²Polytechnic Institute of Coimbra, Portugal</i> <i>³Instituto de Telecomunicações Coimbra, Portugal</i>

	⁴ <i>R&D Institute INESC Coimbra Coimbra, Portugal</i>
RT2-4-5	Comparative Evaluation of Bidirectional Dual Active Bridge DC-DC Converter Variants
11:30-11:45	Georgios E. Sfakianakis, Jordi Everts, Henk Huisman and Elena A. Lomonova <i>Eindhoven University of Technology, The Netherlands</i>
RT2-4-6	DC-Link Voltage Regulation of Bidirectional Quasi-Z-Source Inverter for Electric Vehicle Applications
11:45-12:00	Hong Zhu, Dongsheng Yu, Wang Zhu and Zhi Zhou <i>University of Mining and Technology, China</i>

RT2-6 Power Electronics, Motor Drives and Electric Power Systems 6

Time: 10:30-12:00, October 19, Wednesday

Chairs: Prof. Ahmed Masmoudi, *University of Sfax, Tunisia*

Prof. Kai Wang, *Nanjing University of Aeronautics and Astronautics, China*

Venue: Room C

RT2-6-1	Design of MVDC power transmission for a grid connected agricultural machine
10:30-10:45	Tim Nagel, Jawad Ismail, Yun Wan and Steven Liu <i>University of Kaiserslautern, Germany</i>
RT2-6-2	Fault Tolerant Operation of T-NPC Three-Level Asymmetric Six-Phase PMSM Drives Based on Direct Torque Control
10:45-11:00	Xueqing Wang ¹ , Zheng Wang ¹ , Jiawei Cao ¹ , Ming Cheng ¹ and Liang Xu ² ¹ <i>Southeast University, China</i> ² <i>Aviation Key Laboratory of Science and Technology on Aero Electromechanical System Integration, China</i>
RT2-6-3	DTC of B4 Inverter Fed Two-Phase IM Drives
11:00-11:15	Ameni Ouarda, Bassem El Badsı and Ahmed Masmoudi <i>University of Sfax, Tunisia</i>
RT2-6-4	Open Winding PMSM System for Electric Vehicles Collaboratively Supplied by the Z-source and Voltage Source Converters
11:15-11:30	Yusong He, Yijie Zhou and Heng Nian <i>Zhejiang University, China</i>

RT2-6-5	Torque and Flux Weakening Control with MTPV for Interior Permanent Magnet Synchronous Motor
11:30-11:45	Y. Z. Chen, Y. T. Fang, X. Y. Huang and J. Zhang <i>Zhejiang University, China</i>
RT2-6-6	Torque Improvement Utilizing Third Harmonic Current in Five-Phase PM Machines with Unequal Tooth
11:45-12:00	Z. Y. Gu ¹ , K. Wang ¹ , Z. Q. Zhu ² and C. Liu ¹ ¹ <i>Nanjing University of Aeronautics and Astronautics, China</i> ² <i>University of Sheffield, UK</i>

SS5 Energy Management of Electrical Hybrid Energy Sources for Zero

Emission Vehicles

Time: 10:30-11:30, October 19, Wednesday

Chairs: Dr. Ronan German, *University of Lille/MEGEVH Network, France*

Prof. João Pedro Trovão, *Université de Sherbrooke, Canada*

Venue: Room D

SS5-1	An Improved Fuzzy Energy Management Strategy Based-on Particle Swarm Optimal Algorithm for Electric Vehicle
10:30-10:45	Yadong Wei, Hongwei Ma, Xiaozhong Liao and Tao Huang <i>Beijing Institute of Technology, China</i>
SS5-2	Backstepping Control of a Fuel Cell/Supercapacitor System for Electric Vehicle
10:45-11:00	Clément Dépature ^{1,2,3} , Walter Lhomme ^{2,3} , Pierre Sicard ¹ , Alain Bouscayrol ^{2,3} and Loïc Boulon ¹ ¹ <i>Université du Québec à Trois-Rivières, Canada</i> ² <i>University of Lille 1, France</i> ³ <i>French network on HEVs, MEGEVH, France</i>
SS5-3	Decomposed Energy Management of a Multi-Source Fuel Cell Vehicle using Energetic Macroscopic Representation
11:00-11:15	A.Castaings ^{1,2,3} , W.Lhomme ^{1,3} , R.Trigui ^{2,3} and A. Bouscayrol ^{1,3} ¹ <i>University of Lille1, France</i> ² <i>IFSTAR, France</i> ³ <i>French network on HEVs, MEGEVH, France</i>
SS5-4	Improved Voltage Limitation Method of Supercapacitors in Electric Vehicle Applications

11:15-11:30	Bao-Huy Nguyen ^{1,2,3} , Ronan German ^{1,3} , João P. Trovão ² and Alain Bouscayrol ^{1,3} ¹ Univ. Lille, France ² Université de Sherbrooke, Canada ³ French network on HEVs, MEGEVH, France
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Oct. 19, 2016 (Wed.)

14:00-15:30

SS6 EMR and other Graphical Descriptions

Time: 14:00-15:30, October 19, Wednesday

Chairs: Dr. Clément Mayet, *University of Lille/MEGEVH Network, France*

Prof. Minh C. Ta, *Hanoi University of Science and Technology, Vietnam*

Venue: Room D

SS6-1	Adaptive energy management strategy for a hybrid vehicle using Energetic Macroscopic Representation
14:00-14:15	C. Mansour, N. Salloum, S. Francis and W. Baroud <i>Lebanese American University, Lebanon</i>
SS6-2	Energetic Macroscopic Representation in reverse engineering process: railcar hybridization
14:15-14:30	Kréhi Serge Agbli ¹ , Nathalie Devillers ¹ , Daniel Hissel ¹ , Frédéric Chauvet ² and Marco Sorrentino ³ ¹ Université de Bourgogne Franche-Comté, France ² SNCF, France ³ University of Salerno, Italy
SS6-3	Energy Management of a Segway PT i2 using Energetic Macroscopic Representation
14:30-14:45	Gianluca Dorian Petrucci ¹ , Walter Lhomme ² , Ilyes Dekik ² and Fabio Giulii Capponi ¹ ¹ Sapienza University of Rome, Italy ² Université of Lille 1, France
SS6-4	Modeling an Electric Vehicle Lithium-Ion Battery Pack Considering Low Temperature Behavior
14:45-15:00	L. I. Silva ¹ , J. Jaguemont ² , C. H. De Angelo ¹ and L. Boulon ³ ¹ Universidad Nacional de Río Cuarto, Argentina ² Vrije Universiteit Brussel, Belgium ³ Université du Québecà Trois-Rivières, Canada

SS6-5	Modelling and simulation of an electric bicycles charging station based on renewable energy
15:00-15:15	Javier Solano ¹ , Andrés Jácome ¹ and Loïc Boulon ² ¹ <i>Universidad Industrial de Santander, Colombia</i> ² <i>Université du Québec à Trois-Rivières, Canada</i>
SS6-6	Energetic Macroscopic Representation and Inversion-Based Control of an Electrical Vehicle using Modular Cascade Machines
15:15-15:30	Kaibo Li ^{1,2} , Alain Bouscayrol ² , Shumei Cui ¹ and Shouliang Han ¹ ¹ <i>Harbin Institute of Technology, China</i> ² <i>University Lille1, France</i>

Oct. 19, 2016 (Wed.)

16:00-17:30

SS7 Higher Education for Electric Vehicles and its Power and Propulsion

Time: 16:00-17:30, October 19, Wednesday

Chairs: Prof. Paulo Pereirinha, *Polytechnic of Coimbra and INESC Coimbra, Portugal*

Venue: Room C

SS7-1	IEEE VTS Motor Vehicles Challenge 2017 – Energy Management of a Fuel Cell/Battery Vehicle
16:00-16:15	Clément Dépature ^{1,2,4} , Samir Jemeï ^{3,4} , Loïc Boulon ¹ , Alain Bouscayrol ^{2,4} , Neigel Marx ^{3,4} , Simon Morando ³ and Ali Castaings ^{2,4} ¹ <i>Université du Québec à Trois-Rivières, Canada</i> ² <i>University of Lille 1, France</i> ³ <i>University of Bourgogne Franche-Comté, France</i> ⁴ <i>French network on HEVs, France</i>
SS7-2	Learning Electric Vehicles and Traction at the Polytechnic of Coimbra
16:15-16:30	Paulo G. Pereirinha ^{1,2} ¹ <i>Polytechnic of Coimbra (ISEC - IPC), Portugal</i> ² <i>INESC Coimbra, Portugal</i>
SS7-3	Learning Energy Storage in Hybrid/Electric Vehicles
16:30-16:45	J. Díaz ¹ , A. M. Pernía ¹ , J.M. Guerrero ¹ , Paulo G. Pereirinha ² and Arthur Williams ³ ¹ <i>University of Oviedo, España</i> ² <i>Polytechnic Institute of Coimbra and INESC-Coimbra, Portugal</i> ³ <i>University of Nottingham, United Kingdom</i>

SS7-4	Multi-source EV Reduced-scale Demonstratorfor Awareness of E-mobility
16:45-17:00	R. German, A. Bouscayrol, O. Ferla and T. Niang <i>Univ. Lille, France.</i>
SS7-5	Problem- and Project-based Learning in Engineering: A Focus on Electrical Vehicles
17:00-17:15	Ruben Gonzalez-Rubio, Ahmed Khoumsi, Maxime Dubois and João Pedro Trovão <i>Université de Sherbrooke, Canada</i>
SS7-6	Project-based Master on Intelligent Electric Vehicles
17:15-17:30	A. Bouscayrol and P. Delarue <i>Univ. Lille, France</i>

VPPC 2016 Poster Presentation Schedule

Session PS1-5

Oct. 19, 2016 (Wed.), 14:00-15:30

PS1 Electrical Drives

Time: 14:00-15:30, October 19, Wednesday

Chairs: Kewang Qu, *Beijing Jiaotong University, China*

Dan Sun, *Zhejiang University, China*

Kai Wang, *Nanjing University of Aeronautics and Astronautics, China*

Venue: Rooms A&B

PS1-1	A Comparative Study of PMSM Sensorless Control Algorithms: Model Based vs Luenberger Observer Xinlong Zhang, Guangyu Tian, Yong Huang and Ziwang Lu <i>Tsinghua University, China</i>
PS1-2	Active Disturbance Rejection Controller for PMSM Current Loop Based on Improvement of Time Delay Xingye Gan, Chuang Liu, Kai Wang, Ye Hu and Yuefei Zuo <i>Nanjing University of Aeronautics and Astronautics, China</i>
PS1-3	A Method of Speed Measurement for Servo Motor Drive with Sinusoidal Quadrature Encoder Kehui Ji, Wenqi Lu and Jing Yang <i>Zhejiang Sci-Tech University, China</i>
PS1-4	Analysis and Solution of PMSM Starting Under Different Rotor Initial Positions Yaoqiang Wang, Xiaoyong Ma, Jinzhu Peng and Meiling Zhang <i>Zhengzhou University, China</i>
PS1-5	A Novel Control Strategy of Single Phase Brushless DC motor for Automotive Air Conditioning Haibo Hou, Wei Yao and Wei Zhang <i>Zhejiang University, China</i>
PS1-6	A Novel Grid Connection Method for DFIG based on Direct Power Control

	Tao Huang ¹ , Hongwei Ma ¹ , Yadong Wei ¹ , Yongdong Li ² and Lie Xu ² <i>¹Beijing Institute of Technology, China</i> <i>²Tsinghua University, China</i>
PS1-7	A novel low-cost and high-performance converter topology for six-phase SRM Minjun Guan, Chuang Liu and Kai Wang <i>Nanjing University of Aeronautics and Astronautics, China</i>
PS1-8	A PID Neural Network Control for Position Servo System with Gear Box at Variable Load Zhaoyang Tian, Hong Guo, Xiaofeng Ding and Xu He <i>Beihang University, China</i>
PS1-9	Bus Peak Current Control Strategy to Minimize DC-Link Capacitor of Switched Reluctance Machine Drive Cong Zhou, Chuang Liu, Kai Wang, Yannan Zhao and Minjun Guan <i>Nanjing University of Aeronautics and Astronautics, China</i>
PS1-10	Control of Dual Three-Phase Permanent Magnet Synchronous Motor Under Open Phase Fault Conditions Wei Zhang ¹ , Yuan Xu ¹ and Bojian Chen ² <i>¹Zhejiang University, China</i> <i>²Fujian Electric Power Co. Ltd, China</i>
PS1-11	Coupled Electronic and Magnetic Fast Simulation for High-Speed Permanent-Magnet Drive Design Mathieu Gerber ¹ , Adrien Gilson ¹ , Christophe Espanet ¹ , Gaël Andrieux ¹ , Daniel Depernet ² and Frédéric Dubas ² <i>¹Moving Magnet Technologies, France</i> <i>²University of Bourgogne Franche-Comté, France</i>
PS1-12	Current Compensation Based Sliding Mode Observer for Sensorless Control and Online Parameter Estimation of PMSM Xinlong Zhang, Guangyu Tian, Yong Huang and Ziwang Lu <i>Tsinghua University, China</i>
PS1-13	Current gradient sensorless method with phase-lag calibration for switched reluctance motors Hui Zeng ¹ , Xiangyu Yang ¹ , Dongyang Rui ² and Xinyu Jiang ² <i>¹South China University of Technology, China</i> <i>²Guangzhou Zhiguang Electric Co. Ltd., China</i>
PS1-14	Improved Overmodulation Technique with Limited Switching Frequency of Integrated Starter-Generator for Hybrid Electric Bus Hanxiao Lu, Jian Li, Ronghai Qu, Donglin Ye and Linyuan Xiao <i>Huazhong University of Science and Technology, China</i>
PS1-15	Determination of Electrical Parameters of PMSM Drive System at

	Standstill
	Kan Liu and Z.Q. Zhu <i>University of Sheffield, U.K</i>
PS1-16	Efficiency Optimization Control of Permanent-Magnet Synchronous Machines for Electric Vehicle Traction Systems
	Qingbo Guo, Chengming Zhang, Liyi Li, Jiangpeng Zhang, Jiayi Liu and Tiecheng Wang <i>Harbin Institute of Technology, China</i>
PS1-17	Fault Tolerant Control Design for All Wheels Independent Drive and Steering Electric Vehicle with Singular Effective Drive Wheel
	Chentong Bian, Guodong Yin, Mengran Hu, Ning Zhang and Nan Chen <i>Southeast University, China</i>
PS1-18	Flux-Weakening Control of Permanent Magnet Synchronous Motor Considering Magnetic Saturation and Dynamic Coupling
	Junyang Geng, Jianqi Qiu and Cenwei Shi <i>Zhejiang University, China</i>
PS1-19	Hardware Design of a permanent magnet synchronous motor control circuit
	Shaokun Zhang ¹ , Tao Fan ^{1,2} and Xuhui Wen ¹ ¹ <i>Chinese Academy of Sciences, China</i> ² <i>Collaborative Innovation Center of Electric Vehicles, China</i>
PS1-20	High-Order Sliding Mode Speed Control of Five-Phase Tubular Fault-Tolerant Linear Permanent Magnet Motor
	Huawei Zhou ¹ , Xiaodong Yu ¹ , Guohai Liu ¹ , Long Chen ¹ and Pingyuan Liu ² ¹ <i>Jiangsu University, China</i> ² <i>UL-CCIC Company Limited, China</i>
PS1-21	Influence of DC-link Voltage Fluctuation on the Performance of Railway Traction Drive with Different Low Switching Frequency Modulation Techniques
	Shuofeng Zhao, Xiaoyan Huang, Youtong Fang and Jian Zhang <i>Zhejiang University, China</i>
PS1-22	Modal Decoupling Control for Magnetic Suspended Flywheel Rotor
	Chunmin Yu, Huimin Ouyang, Guangming Zhang and Deming Wang <i>Nanjing Tech University, China</i>
PS1-23	Narrow band disturbance attenuation method for AC drives: a complex pole-zero placement approach
	Meng Wang and Changsheng Zhu <i>Zhejiang University, China</i>
PS1-24	Online Inductance Identifications of Interior Permanent Magnet

	Synchronous machine Based on Adaline Neural Network
	Yufei Ren, Guohai Liu, Qian Chen and Huawei Zhou <i>Jiangsu University, China</i>
PS1-25	Phase Current Reconstruction for Dual Three-Phase Permanent Magnet Synchronous Motor Drive in Electric Vehicles Using Two DC Link Current Sensors
	Hao Yan, Yongxiang Xu, Jibin Zou, Depeng Zeng and Fangui Zeng <i>Harbin Institute of Technology, China</i>
PS1-26	PMSM Low Speed Position Detection on Carrier Phase-Shifted PWM Technology
	Kewang Qu ¹ , Junci Cao ¹ , Weili Li ¹ , Yihuang Zhang ¹ and Guoqing Xu ² ¹ <i>Beijing Jiaotong University, China</i> ² <i>Shanghai University, China</i>
PS1-27	Research on Closed-loop Drive System of Two-phase Hybrid Step Motor Based on SVPWM
	Wenqi Lu ^{1,2} , Quanwu Wang ¹ , Kehui Ji ¹ , Hanqing Dong ¹ , Jian Lin ¹ and Jie Qian ¹ ¹ <i>Zhejiang Sci-Tech University, China</i> ² <i>Zhejiang University, China</i>
PS1-28	Research on Coordinated Control Method of PMSMs Traction System in EMU Train
	Xinxing Huang, Yihua Yao, Yi Chen, Qinfen Lu, Xiaoyan Huang and Youtong Fang <i>Zhejiang University, China</i>
PS1-29	Research on PID tuning method of magnetically suspended rotor system based on IMC
	Pengfei Li and Changsheng Zhu <i>Zhejiang University, China</i>
PS1-30	Robust Sliding Mode Speed Control with Adaptive Torque Observer for High Performance PMSM
	Yajie Jiang ¹ , Wei Xu ¹ and Chaoxu Mu ² ¹ <i>Huazhong University of Science and Technology, China</i> ² <i>Tianjin University, China</i>
PS1-31	Sensorless Control of Primary Segmented Permanent Magnet Linear Motor
	Chengming Zhang, Jiwei Cao, Zhongyou Xin, Liyi Li, Mingyi Wang and Jiayi Liu <i>Harbin Institute of Technology, China</i>
PS1-32	Sixth-Harmonic Back-EMF Based Sensorless Control for Switched-Flux Permanent Magnet Machines
	T.C. Lin, J.M. Liu and Z. Q. Zhu

	<i>University of Sheffield, UK</i>
PS1-33	Sliding Mode Control Design in Traction Motor Direct Torque Control
	Yonggao Zhang, Xiong Jian, Li Cai and Liu Ni <i>East China Jiaotong University, China</i>
PS1-34	Space Vector Modulation Based on Lookup Table for a Dual-Inverter-Fed Open-End Winding PMSM Drive
	Jing Wang and Jianhua Wu <i>Zhejiang University, China</i>
PS1-35	Study of a New Rotor Flux Estimator for Induction Machine Based on Sliding Mode Control
	Xu Huihui ^{1,2} , Zhao Feng ^{1,2} , Cong Wei ^{1,2} and Peng Wei ^{1,2} ¹ <i>Chinese Academy of Science, China</i> ² <i>Collaborative Innovation Center of Electric Vehicle, China</i>
PS1-36	The Control Strategy of Open-winding Permanent Magnet Synchronous Motor Drive System Based on Five-leg inverter
	Shengnan Dai, Jiadan Wei, Bo Zhou and Jiachen Xue <i>Nanjing University of Aeronautics and Astronautics, China</i>
PS1-37	Torque ripple suppression of open-winding PMSMs by current injection considering magnetic saturation
	Zhihao Zheng ¹ , Dan Sun ¹ and Jianguo Zhu ² ¹ <i>Zhejiang University, China</i> ² <i>University of Technology Sydney, Australia</i>
PS1-38	Combined Signal-Injection and Flux-Linkage Approach for Sensorless Control of Switched Reluctance Machines
	Diogo Pinto, Julien Pelletier, Wei Peng and Johan Gyselinck <i>Université Libre de Bruxelles, Belgium</i>
PS1-39	Investigation of Decoupled PWM Strategy for a Three-Phase Open-End Winding Permanent Magnet Synchronous Motor Using a Five-Leg Inverter
	Feiran Sun, Mengjia Jin, He Hao and Jianxin Shen <i>Zhejiang University, China</i>
PS1-40	Dual-Steering Control Strategy for 8-Wheel Vehicle Driven by Hub Motor
	Chunguang Liu, Guibing Yang and Jiaqi Li <i>Academy of Armored Force Engineering, China</i>
PS1-41	DC Voltage Control of a Wide-Speed-Range Permanent-Magnet Synchronous Generator System for More Electric Aircraft Applications
	Dongmin Miao ^{1,2} , Yves Mollet ¹ , Johan Gyselinck ¹ and Jianxin Shen ²

	¹ <i>Université Libre de Bruxelles, Belgium</i> ² <i>Zhejiang University, China</i>
PS1-42	Torque Ripple Reduction of SRM Using Optimized Voltage Vector in DTC
	Aide Xu, Kunlun He and Yuzhao Cao ¹ <i>Dalian Maritime University, China</i>
PS1-43	A Cost-effective Regenerative Braking System for Electric Vehicles driven by Induction Machine
	Ye Li, Xiaojun Zhang and Jiaqiang Yang <i>Zhejiang University, China</i>
PS1-44	The Study of the Rail Pressure Control Strategies for Common Rail Diesel Engine
	Hongrong Wang ¹ , Heng Zhang ¹ and Pengyi Deng ² ¹ <i>China Automotive Engineering Research Institute Co. Ltd., China</i> ² <i>Xihua University, China</i>
PS1-45	The Full digital drive on the Voice Coil Motor Based on the Wafer Stage
	Jiayi Liu, Le Pei, Liyi Li, Qiming Chen and Donghua Pan <i>Harbin Institute of Technology, China</i>
PS1-46	Active Control of Active Magnetic Bearings for Maglev Flywheel Rotor System Based on Sliding Mode Control
	Zhongbo Wang and Changsheng Zhu <i>Zhejiang University, China</i>
PS1-47	A Finite-Control-Set-based Model-Predictive-Flux-Control Strategy with Iterative Learning Control for Torque Ripple Minimization of Flux-Switching Permanent Magnet Machines
	Wentao Huang and Wei Hua <i>Southeast University, China</i>
PS1-48	Electric vehicle driving range extension using photovoltaic panels
	Stefano De Pinto ¹ , Qian Lu ¹ , Pablo Camocard ¹ , Christoforos Chatzikomis ¹ , Aldo Sormiotti ¹ , Constantina Lekakou ¹ , Domenico Ragonese ² , Gregorio Iuzzolino ³ and Pietro Perlo ³ ¹ <i>University of Surrey, United Kingdom</i> ² <i>STMicroelectronics, Italy</i> ³ <i>Interactive Fully Electric Vehicles (IFEVS), Italy</i>
PS1-49	Vibration control for active magnetic bearing rotor system of high-speed flywheel energy storage system in a wide range of speed
	Chuan Mao and Changsheng Zhu <i>Zhejiang University, China</i>
PS1-50	Space Vector PWM Techniques for B3-VSI Fed Three-Phase IM

	Drives
	Imen Nouira El Badsı, Bassem El Badsı and Ahmed Masmoudi <i>University of Sfax, Tunisia</i>

PS2 Electrical Machines

Time: 14:00-15:30, October 19, Wednesday

Chairs: Wenqiang Chu, *CRRC Zhuzhou Institute Co., Ltd, China*

Jian Zhang, *Zhejiang University, China*

Wei Zhang, *Zhejiang University, China*

Venue: Rooms A&B

PS2-1	A High Torque Density Vernier PM Machines for Hybrid Electric Vehicle Applications
	Shaofeng Jia, Ronghai Qu, Dawei Li and Jian Li <i>Huazhong University of Science and Technology, China</i>
PS2-2	Analysis of Iron Loss for Permanent Magnet Synchronous Motor Driven by PWM
	Shuye Ding and Hailing Li <i>Harbin University of Science and Technology, China</i>
PS2-3	Analytical Calculation of Magnetic Field Distribution in Magnetic Gears with Consequent-Pole Rotors by Subdomain Method
	Huayang Li, He Hao, Mengjia Jin and Jianxin Shen <i>Zhejiang University, China</i>
PS2-4	Analytical Prediction of Armature Reaction Field Distribution in PMAC Machines With Different Winding Configuration
	Jikun Yu, Liyi Li, Jiangpeng Zhang and Pengcheng Du <i>Harbin Institute of Technology, China</i>
PS2-5	A New Partitioned Stator Machine With Halbach Permanent Magnet Array
	Fangfang Bian, Wenxiang Zhao and Jinghua Ji <i>Jiangsu University, China</i>
PS2-6	An Indirect Testing Method for the Temperature-Rise of Multi-unit Permanent Magnet Synchronous Machines
	Jibin Zou, Depeng Zeng, Yongxiang Xu and Hao Yan <i>Harbin Institute of Technology, China</i>

PS2-7	An Indirect Testing Strategy For the Losses of Multi-unit PMSM without Any Load Equipment
	Jibin Zou, Depeng Zeng and Yongxiang Xu <i>Harbin Institute of Technology, China</i>
PS2-8	A Novel Axial Flux Magnetic-Field-Modulated Dual- Mechanical-Port Dual-Electrical-Port Machinefor Hybrid Electric Vehicle
	Junquan Lai, Jian Li, Ronghai Qu, Rui Zhang and Dawei Li <i>Huazhong University of Science and Technology, China</i>
PS2-9	A Novel Bearingless Flux-Switching Permanent Magnet Motor
	Chenyin Zhao, Huangqiu Zhu, Yi Du, Jintao Ju and Yuemei Qin <i>Jiangsu University, China.</i>
PS2-10	A Novel Hybrid-Excited Flux Bidirectional Modulated Machine for Electric Vehicle Propulsion
	Qingsong Wang and Shuangxia Niu <i>The Hong Kong Polytechnic University, Hong Kong</i>
PS2-11	A Linear-Rotary Permanent Magnet Actuator With Partitioned Stator
	Haimiao Ni, Shuhua Fang, Hui Yang and Heyun Lin <i>Southeast University, China</i>
PS2-12	A Parallel Dual-redundancy Flux-switching Permanent Magnet Machine and Its Control Strategy
	Guangkun Lian ^{1,2} , Fuchuan Song ¹ , Biao Chen ¹ , Fengfei Luan ^{1,2} and Guobiao Gu ¹ ¹ <i>Chinese Academy of Sciences, China</i> ² <i>University of Chinese Academy of Sciences, China</i>
PS2-13	Optimization Design and Analysis of a Linear-Rotary Permanent Magnet Actuator With Interlaced Poles
	Kaikai Guo ¹ , Shuhua Fang ² , Heyun Lin ¹ , Hui Yang ¹ , Yujing Guo ² and Ping Jin ² ¹ <i>Southeast University, China</i> ² <i>Hohai university, China</i>
PS2-14	Design and Analysis of a Trilateral Permanent Magnet Linear Synchronous Motor with Slotless Ring Windings for Transport Systems
	Zijiao Zhang ¹ , Meizhu Luo ¹ , Baoquan Kou ² and Chaoqun Luo ³ ¹ <i>Central South University, China</i> ² <i>Harbin Institute of Technology, China</i> ³ <i>PetroChina Qinghai Oilfield Company, China</i>
PS2-15	Design and Analysis of Five-phase Double-Stator Bearingless Brushless DC Motor
	Yuemei Qin, Huangqiu Zhu and Chenyin Zhao <i>Jiangsu University, China</i>

PS2-16	Design and Comparison of Direct-Drive Stator-PM Machines for Electric Power Generation Zhiqiang Shan, Chunhua Liu, Christopher H.T. Lee, Weitong Chen, Feng Yu and Yixiao Luo <i>City University of Hong Kong, Hong Kong</i>
PS2-17	Design and Operation Simulation of a Direct-drive In-Wheel Motor for EV Xiaochun Xing, Cenwei Shi and Jianqi Qiu <i>Zhejiang University, China</i>
PS2-18	Design and Performance Comparison of a Bilateral Yokeless Linear Switched Reluctance Machine for Urban Rail Transit System Daohan Wang ¹ , Chunlei Shao ¹ , Xiuhe Wang ¹ and Xiejie Chen ² ¹ <i>Shandong University, China</i> ² <i>State Grid Wenzhou Electric Power Bureau, China</i>
PS2-19	Design Studies of a Special Hybrid Excitation Flux-Switching Motor Drive for HEV Qingsong Chen, Wen Ding and Jinhua Du <i>Xi'an Jiaotong University, China</i>
PS2-20	Development of a high-speed permanent magnet machine using amorphous alloy cores Chao Zhang ¹ , Wenming Tong ¹ , Xin Ma ¹ , Renyuan Tang ¹ and Jianguo Zhu ² ¹ <i>Shenyang University of Technology, China</i> ² <i>University of Technology Sydney, Australia</i>
PS2-21	Development of High Torque Low speed Fractional-Slot Concentrated Windings PMSM for Traction Application Yunkai Huang, Zichong.Zhu, Heyun Lin and Baocheng Guo <i>Southeast University, China</i>
PS2-22	Double-stator Air-core Tubular Permanent Magnet Linear Motor for Vehicle Active Suspension Systems Yiming Shen, Qinfen Lu and Yunyue Ye <i>Zhejiang University, China</i>
PS2-23	Electromagnetic Performance Analysis of Less Rare-earth Double-Stator Permanent Magnet Machine Ting Lu ¹ , Li Quan ¹ , Xiaoyong Zhu ¹ , Deyang Fan ¹ and Yunyun Chen ² ¹ <i>Jiangsu University, China</i> ² <i>Yangzhou University, China</i>
PS2-24	Geometry Optimize of Printed Circuit Board Stator Winding in Coreless Axial Field Permanent Magnet Motor Xiaoyuan Wang, Chunpeng Li and Fei Lou

	<i>Tianjin University, China</i>
PS2-25	Investigation of the Features of a T-LSM with Quasi-Halbach PM Excitation under Manufacturing Constraints
	Mohamed Wael Zouaghi ¹ , Imen Abdennadher ¹ , Ahmed Masmoudi ¹ and Jianxin Shen ² ¹ <i>University of Sfax, Tunisia</i> ² <i>Zhejiang University, China</i>
PS2-26	Minimization of Vibration and Acoustic Noise in Flux-Switching Permanent-Magnet Motors Based on Double Fault-Tolerant Teeth
	Zheng Wang ¹ , Guohai Liu ² , Yanxin Mao ¹ and Liang Xu ¹ ¹ <i>Jiangsu University, China</i> ² <i>Jiangsu Key Laboratory of Drive and Intelligent Control for Electric Vehicle, China</i>
PS2-27	Modeling of Magnetic-Geared Permanent Magnet Machines with Sandwiched Armature Stator
	Zhengxing Deng, Linni Jian, Guobin Peng, Yujun Shi and Jin Wei <i>Southern University of Science and Technology, China</i>
PS2-28	Performance Evaluation of a U-shaped Less-rare-earth Hybrid Permanent Magnet Assisted Synchronous Reluctance Motor
	Wenye Wu, Xiaoyong Zhu, Li Quan, Zixuan Xiang, Deyang Fan and Shen Yang <i>Jiangsu University, China</i>
PS2-29	Preliminary Investigation of a Novel Hybrid Radial and Axial Magnetic Circuit PMSM with Flux Weakening Capability
	Daohan Wang <i>Shandong University, China</i>
PS2-30	Research of the Cogging Force in TPMLSM with Unequal Pole-Pitch
	Ningning Ren, Huaishu Li and Zhiqiang Xue <i>Naval University of Engineering, China</i>
PS2-31	Comparison of 48V Rare-earth-free Reluctance Traction Motor Drives for Mild Hybrid Powertrain
	J. Bao, K. Boynov, J.J.H. Paulides, K. Wijnands and E.A. Lomonova <i>Eindhoven University of Technology, the Netherlands</i>
PS2-32	Static Torque Characteristics of a Doubly Salient Electro-magnetic Motor with Widened Rotor Pole
	Rui Liang, Zhuoran Zhang, Yin Wang and Wanxin Yuan <i>Nanjing University of Aeronautics and Astronautics, China</i>
PS2-33	Study of two kinds of double-sided yokeless Linear Flux-Switching Permanent Magnet Machines
	Wenjuan Hao, Yu Wang, Zhiquan Deng and Wenjuan Hao

	<i>Nanjing University of Aeronautics and Astronautics, China</i>
PS2-34	Study on Cogging Force of TPMLSM with Multi-Segment Primary Ningning Ren, Huaishu Li and Zhiqiang Xue <i>Naval University of Engineering, China</i>
PS2-35	Study on the electromagnetic characteristics of the consequent pole in-wheel motor Meng Wang, Xin Qiu, Jianfei Yang, Xueli Chen and Yiping Dou <i>Nanjing Normal University, China</i>
PS2-36	Vibration Analysis of Amorphous Alloy Permanent Magnet Synchronous Motors Shengnan Wu, Renyuan Tang, Xueyan Han and Wenming Tong <i>Shenyang University of Technology, China</i>
PS2-37	Radial Force-Current Characteristic Analysis of Three-Pole Radial-Axial HMB Jintao Ju, Huangqiu Zhu and Chenyin Zhao <i>Jiangsu University, China.</i>
PS2-38	A Novel Dual Rotor Flux-Bidirectional-Modulation Machine for Hybrid Electrical Vehicles Yunchong Wang, Shuangxia Niu, W. N. Fu and S. L. Ho <i>The Hong Kong Polytechnic University, Hong Kong</i>
PS2-39	Design and analysis of an integrated magnetic-g geared hybrid excitation machine for electric vehicles Ying Xie, Yan Zhang, Haidong Liu, Xin Wu and Ze Wang <i>Harbin University of Science and Technology, China</i>
PS2-40	Electromagnetic Force Calculation and Structural Static Analysis of the Rotor in Squirrel-Cage Induction Motor with Broken Bars during Startup Yubo Duan ¹ , Zhongxue Yang ¹ , Ying Xie ² , Haidong Liu ² and Ze Wang ² ¹ <i>Northeast Petroleum University, China</i> ² <i>Harbin University of Science and Technology, China</i>
PS2-41	Optimum Design of 4/3 SRM for Fuel Pump in HEV Considering Output Torque and Vibration Shuchun Yao and Wei Zhang <i>Zhejiang University, China</i>
PS2-42	Electric Motors Evaluation Algorithm based on their Effect on Electric Vehicle Mass Reduction Ahmad Shah Mohammadi and João P. Trovão <i>Université de Sherbrooke, Canada</i>
PS2-43	A Novel Hybrid Excitation Flux Reversal Machine for Electric

	Vehicle Propulsion
	Yuting Gao, Ronghai Qu, Dawei Li and Jian Li <i>Huazhong University of Science and Technology, China</i>
PS2-44	Magnetic Stress and Vibration Analysis of the Flux-Switching Permanent-Magnet Machines
	Haiyang Fang, Ronghai Qu, Dawei Li and Jian Li <i>Huazhong University of Science and Technology, China</i>
PS2-45	Design and Analysis of Cycling Oil Cooling in Driving Motors for Electric Vehicle Application
	Cen Yang, Huizhen Wang, Xianzhi Niu, Jian Zhang and Yangguang Yan <i>Nanjing University of Aeronautics and Astronautics, China</i>

PS3 Energy Storage, Charging and Management

Time: 14:00-15:30, October 19, Wednesday

Chairs: Xu Liu, *Hebei University of Technology, China*

Mengjia Jin, *Zhejiang University, China*

Lijian Wu, *Zhejiang University, China*

Venue: Rooms A&B

PS3-1	A Digital Boost Converter for Fuel Cell Current Regulation in Hybrid Power Systems
	Lan-Rong Dung, Hung-Ming Yu and Hsiang-Fu Yuan <i>National Chiao Tung University, Taiwan</i>
PS3-2	Electro-thermal modeling and cooling optimization for 18650 battery pack
	Hongjie Wu ¹ , Shifei Yuan ² , Lei Jiang ³ , Chengliang Yin ² and Wenquan Miao ⁴ <i>¹Shanghai Selectric Cooperation, China</i> <i>²Shanghai Jiao Tong University, China</i> <i>³Shanghai University of Engineering Science, China</i> <i>⁴Shanghai Motor Vehicle Inspection Center, China</i>
PS3-3	Electro-thermal modeling and experimental verification for 18650 lithium cell
	Lei Jiang ¹ , Shifei Yuan ² , Hongjie Wu ³ , Chengliang Yin ² and Wenquan Miao ⁴ <i>¹Shanghai University of Engineering Science, China</i> <i>²Shanghai Jiao Tong University, China</i> <i>³Shanghai Selectric Cooperation, China</i>

	⁴ <i>Shanghai Motor Vehicle Inspection Center, China</i>
PS3-4	Numerical study of thermal behavior of phase change material for thermal management of cylindrical power batteries
	X. Xia and H. Y. Zhang <i>Shanghai University of Engineering Science, China</i>
PS3-5	Online Weld Breakage Diagnosis for the Battery of Electric Vehicle: A Data-Driven Approach
	Yixin Cai, Languang Lu, Ping Shen, Xuning Feng, Hewu Wang and Minggao Ouyang <i>Tsinghua University, China</i>
PS3-6	Performance and reliability assessment of NMC lithium ion batteries for stationary application
	Yi Li ^{1,2} , Noshin Omar ¹ , Elise Nanini-Maury ² , Peter Van den Bossche ¹ and Joeri Van Mierlo ¹ ¹ <i>Vrije Universiteit Brussel, Belgium</i> ² <i>ENGIE LAB Laborelec, Belgium</i>
PS3-7	State of Charge Estimation for Li-ion Battery Based on An Improved Peukert's equation with Temperature Correction Factor
	Guoliang Wu ¹ , Chunliang Li ² , Dongsheng Jiao ³ , Yuhang Liu ⁴ , Chunxiao Hao ¹ , Yue Zhang ¹ , Haiyang Yu ¹ and Mingjiang Zhang ¹ ¹ <i>Heilongjiang Electric Power Research Institute, China</i> ² <i>Ji Lin Electric Power Research Institute, China</i> ³ <i>Beijing Electric Power Research Institute, China</i> ⁴ <i>NARI Group Corporation, China</i>
PS3-8	State of Charge Estimation for Lithium-ion Batteries Based on Stress Measurement
	Chenchen Yu and Haifeng Dai <i>Tongji University, China</i>
PS3-9	State of Charge, State of Health and State of Function Co-estimation of Lithium-ion Batteries for Electric Vehicles
	Ping Shen, Minggao Ouyang, Languang Lu and Jianqiu Li <i>Tsinghua University, China</i>
PS3-10	Temperature Performance Comparative Analysis of Different Power Batteries
	Xiaogang Wu ¹ , Zunyu Mei ¹ , Chen Hu ¹ , Chunbo Zhu ² and Jinlei Sun ² ¹ <i>Harbin University of Science and Technology, China</i> ² <i>Harbin Institute of Technology, China</i>
PS3-11	A Practical Step-variation MPPT Scheme for Photovoltaic Power Generation Systems
	Yaoqiang Wang, Meiling Zhang, Ming Qin and Xiaoyan Ma <i>Zhengzhou University, China</i>

PS3-12	Emulation of the wiring harness in automotive applications Michael Winter, Stefan Schoenewolf and Hans-Georg Herzog <i>Technical University of Munich (TUM), Germany</i>
PS3-13	Independent Control of Reactive Power in Single-Phase V2G Charger Meng Zhang ¹ , Liang Guo ² , Fucun Li ¹ and Zhe Li ² ¹ <i>State Grid Shandong Electric Power Research Institute, China</i> ² <i>State Grid Shandong Electric Power Company, China</i>
PS3-14	Study and Analysis of a Battery-Powered High Step-Up Front-End Converter for Automotive Audio Amplifier Ching-Ming Lai ¹ , Yun-Hsiu Lee ¹ , Yuan-Chih Lin ² and Chao-Wei Ku ¹ ¹ <i>National Taipei University of Technology, Taiwan</i> ² <i>Darfon Electronics Corp., Taiwan</i>
PS3-15	Study on Radiated Emission Factors and Their Effects in a Boost Switched Mode Power Supply Yi Liu, Junping He, Mizhao Zhao and Bo Zheng <i>Harbin Institute of Technology, China</i>
PS3-16	The Soft-Start Analysis of a Full-bridge LLC Converter with Hybrid Control Strategy Yuesheng Ling, Zongshu Guo and X. Liu <i>Hebei University of Technology, China</i>
PS3-17	A sensor-fault tolerant control method of active magnetic bearing in flywheel energy storage system Jie Yu and Changsheng Zhu <i>Zhejiang University, China</i>
PS3-18	Coordination Control for a PEMFC-Battery-Supercapacitor Hybrid Tramway Hanqing Yang, Guorui Zhang, Tianhong Wang, Qi Li and Weirong Chen <i>Southwest Jiaotong University, China</i>
PS3-19	Design of Energy Management System for Fuel Cell/Supercapacitor Hybrid Locomotive Zhihu Hong, Ying Han, Qi Li and Weirong Chen <i>Southwest Jiaotong University, China</i>
PS3-20	Energy Management of an Electric City Bus with battery/ultra-capacitor HESS Yu Zhang ^{1,2} , Dawei Meng ¹ , Meilan Zhou ¹ and Song Li ¹ ¹ <i>Harbin University of Science and Technology, China</i> ² <i>Harbin Vocational and Technology College, China</i>
PS3-21	Experimental Study on Energy Management Strategy for Fuel Cell

	Hybrid Tramway
	Ying Han, Nan Cao, Zhihu Hong, Qi Li and Weirong Chen <i>Southwest Jiaotong University, China</i>
PS3-22	Application of Predictive Current Control Based Multi-Pulse Flexible-Topology Thyristor Rectifier in Off-Board Battery Charger for Electric Vehicle
	Damin Zhang ¹ , Shaobo Kang ¹ , Huipin Lin ² and Zhengyu Lu ² ¹ <i>Xiamen University of Technology, China</i> ² <i>Zhejiang University, China</i>
PS3-23	A Study of Magnetic Resonance Wireless Power Transfer System Based on Half Bridge Inverter
	Liwei Shao, Qiang Li, Chang Tan, Kai Yao and Junchao Song <i>Nanjing University of Science and Technology, China</i>
PS3-24	Battery Charger for Electric Vehicle based on a Wireless Power Transmission
	Paolo Germano and Yves Perriard <i>École Polytechnique Fédérale de Lausanne, Switzerland</i>
PS3-25	Fast Frequency Regulation of Power System Based on EV Swap-Charging Station
	Fucun Li ¹ , Hao Li ² and Decai Liu ³ ¹ <i>State Grid Shandong Electric Power Research Institute, China</i> ² <i>State Grid Jinan Power Supply Company, China</i> ³ <i>State Grid Liaocheng Power Supply Company, China</i>
PS3-26	Hybrid Impedance Matching Strategy for Wireless Charging System
	Ting-En Lee and Tzyy-Haw Huang <i>Automotive Research and Testing Center, Taiwan</i>
PS3-27	Planning of electric vehicle charging station based on real time traffic flow
	Xiaoman Yin and Xiangyang Zhao <i>Beihang University, China</i>
PS3-28	On the energy efficiency of electric vehicles with multiple motors
	Giovanni De Filippis ¹ , Basilio Lenzo ¹ , Aldo Sornioti ¹ , Patrick Gruber ¹ , Koen Sannen ² and Jasper De Smet ² ¹ <i>University of Surrey, United Kingdom</i> ² <i>Flanders MAKE, Belgium</i>
PS3-29	Input- parallel Output-series DC/AC Converter for On-board EV Charger
	Yue Zhang ¹ , Zheng Wang ¹ , Ming Cheng ¹ and Liang Xu ² ¹ <i>Southeast University, China</i> ² <i>Aviation Key Laboratory of Science and Technology on Aero Electromechanical System Integration, China</i>

PS3-30	The Power Flow Control Strategy Of Electric Armored Vehicle Multi Power System
	Yu Xiang ¹ , Xiaojun Ma ¹ , Hailiang Xu ¹ , Chunguang Liu ¹ and Binbin Pang ² ¹ Academy of Armored Force Engineering, China ² PLA 66410 Unit, China

PS4 Power Electronics

Time: 14:00-15:30, October 19, Wednesday

Chairs: Jianqi Qiu, Zhejiang University, China

Huan Yang, Zhejiang University, China

Jiaqiang Yang, Zhejiang University, China

Venue: Rooms A&B

PS4-1	Active Harmonic Elimination in Double-Star Uncontrolled Rectifier Using Active Inter-Phase Reactor
	Meng Fangang ¹ , Xu Xiaona ¹ , Gao Lei ¹ and Shiyan Yang ² ¹ Harbin Institute of Technology at Weihai, China ² Harbin Institute of Technology, China
PS4-2	A Multi-Pulse Rectifier Based on Star-Connected Autotransformer and Harmonic Suppression Technology at DC Link
	Fangang Meng, Jirong Luo and Lei Gao Harbin Institute of Technology at Weihai, China
PS4-3	A New Virtual Impedance Method for Parallel Inverters with Droop Control
	Liping Jin ¹ , Zhong He ² , Yingchao Zhang ¹ , Jintong Nie ¹ and Minglong Zhang ¹ ¹ Chongqing Communication Institute, China ² Tobacco Chongqing Industrial Corporation, China
PS4-4	A PT Controlled Buck Converter with Coupled Inductors
	Long Wang, Dongsheng Yu, Yisen Geng and Yujin Wei China University of Mining and Technology, China
PS4-5	A PWM Coordination Strategy to Reduce DC-link Capacitor Dependence in Converter-Inverter Systems
	Zhuoyi Chen, Jianqi Qiu and Mengjia Jin Zhejiang University, China

PS4-6	A Step-Variable Soft Start Control Method Applied to Boost Type PFC Rectifier
	Jintong Nie ¹ , Zhengming Zhao ¹ , Yingchao Zhang ² , Liping Jin ² and Tianwen Zhan ² <i>¹Tsinghua University, China</i> <i>²Chongqing Communication Institute, China</i>
PS4-7	Research on Low-scale Bifurcation of PFC Operating with a Cascade Buck Converter
	Ruidong Xu, Yong Zhang, Long Wang and Tao Li <i>China University of Mining and Technology, China</i>
PS4-8	Single-Stage Resonant AC-DC Dual Active Bridge Converter with Flexible Active and Reactive Power Control
	Y. P. Chan, K. H. Loo and Y. M. Lai <i>The Hong Kong Polytechnic University, Hong Kong</i>

PS5 Modeling, Analysis and Control of Transportation System

Time: 14:00-15:30, October 19, Wednesday

Chairs: Xiaoyan Huang, Zhejiang University, China

Taiying Zheng, Zhejiang University, China

Venue: Rooms A&B

PS5-1	The Method of Detecting Nearest Distance Between Obstacles and Vehicle Tail based on Binocular Vision System
	Gaowei Li, Guoxia Li and Peiji Chen <i>Linyi University, China</i>
PS5-2	A Novel Driving and Regenerative Braking Regulation Design Based on Distributed Drive Electric Vehicles
	Xudong Zhang and Dietmar Göhlich <i>Technical University of Berlin, Germany</i>
PS5-3	Dynamic Integrated Shifting Schedule Optimization Based on Driver Intentions
	Linhuan Cai, Guangqiang Wu, Min Cheng and Sheng Zhu <i>Tongji University, China</i>
PS5-4	Combined Fault-Tolerant Control with Optimal Control Allocation for Four-Wheel Independently Driven Electric Vehicles
	Yang Wang, Guohai Liu, Duo Zhang, Huawei Zhou, Hao Ye and

	Xufang Chen <i>Jiangsu University, China</i>
PS5-5	Reliability Analysis approach to Fault Tolerant Permanent Magnet Synchronous Motor System
	Jinquan Xu, Hong Guo, Xiaolin Kuang and Tong Zhou <i>Beihang University, China</i>
PS5-6	Schemes research and application of close-to-wheel drive system based on slider-crank mechanism
	Yan Li, Jianfei Zhu , Cheng Gu, Xinbo Chen, Wei Wang and Yefeng Wang <i>Tongji University, China</i>
PS5-7	Study on Dynamic Performance of Pure Electric Vehicle with Hybrid Power Supply
	Meilan Zhou, Lingling Hu, Yu Zhang, Jifeng Feng and Pengcheng Wang <i>Harbin University of Science and Technology, China</i>
PS5-8	The Analysis of Rotary Forging Processing on Automobile Wheel Hub Units
	Qinghua Meng and Sichen Guo <i>Hangzhou Dianzi University, China</i>
PS5-9	Modeling, Control and Simulation of Subway Applications Using Energetic Macroscopic Representation
	Wei Wang, Jinghao Zhang and Ming Cheng <i>Southeast University, China</i>
PS5-10	Comparison of Continuous and Discrete Variable Transmissions for parallel HEVs
	A. Desrevaux ¹ , C. Mayet ¹ , A. Bouscayrol ¹ and T. Hofman ² , ¹ <i>Univ. Lille, France</i> ² <i>TU Eindhoven, The Netherland</i>