

# **2016 IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific 2016)**

**Busan, South Korea  
1 – 4 June 2016**



**IEEE Catalog Number: CFP1617X-POD  
ISBN: 978-1-5090-1273-2**

**Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\*This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP1617X-POD
ISBN (Print-On-Demand):	978-1-5090-1273-2
ISBN (Online):	978-1-5090-1272-5

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

## Oral Presentation

Page	Thursday, June 2	
	Power Electronics and Electric Motor Drivers	Room 201
46	<b>Dual Active Full-bridge Bidirectional Converter for V2G Charger Based on High-frequency AC Buck-boost Control Strategy</b> Jiarong Kan, Yunya Wu, Yu Tang, Binfeng Zhang, Zhao Zhang Yancheng Institute of Technology	08:25~08:40
N/A	<b>A High Efficiency and High Step-Down Conversion LDC Converter in Multifunctional On-Board Charger</b> Hai-Nam Vu Soongsil University	08:40~08:55
N/A	<b>Battery Charger with Small DC-Link Capacitors for G2V Applications</b> Dong-Choon Lee Yeungnam University	08:55~09:10
220	<b>A Novel 10kW Hybrid Converter for the Electric Vehicle Charge Applications</b> Dai-Duong Tran, Hai-Nam Vu, Hyun-Hwa Lee, Van-Long Pham, Woojin Choi Soongsil University	09:10~09:25
596	<b>A High Power Density and Power Factor Cascade Buck-Boost PFC Under Expanded High Line Voltage</b> Byung-Gu Kang, Chong-Eun Kim, Jae-Il Baek, Dong-Kwan Kim, Gun-Woo Moon KAIST	09:25~09:40
	Thursday, June 2	
	Power Electronics and Electric Motor Drivers	Room 201
465	<b>A Compensation Method to reduce sampling delay of Zero Dead-time PWM using 3-Level NPC PWM Inverter</b> Seung-Wook Hyun, Seok-Jin Hong, Chung-Yuen Won Sungkyunkwan University	10:20~10:35
240	<b>A Cost Effective BLDC Drive for the Water Pump Application: Analysis, Design, and Experimentation</b> Ahmed Abdelrahman, Mohamed Hamouda, Mohamed Youssef University of Ontario Institute of Technology	10:35~10:50
N/A	<b>A Novel Nine-Level Inverter System for DTC Induction Motor Drive</b> Chandra Sekhar Obbu K.LUniversity, Vaddeswaram, Guntur	10:50~11:05
N/A	<b>Deadbeat-Direct Torque and Flux Control for highly utilized Synchronous Machines directly incorporating Cross-Saturation Effects</b> Michael Saur Universitaet der Bundeswehr	11:05~11:20
261	<b>Performance Comparison of Direct Power Control for Brushless Doubly-Fed Wind Power Generator with Different Control Winding Structure</b> Shi Jin Shenyang University of Technology	11:20~11:35
40	<b>Optimized Carrier Based Multilevel Generated Modified Dual Three-Phase Open-Winding Inverter For Medium Power Application</b> Sanjeevikumar Padmanaban, Frede Blaabjerg, Patrick Wheeler, Raghav Khanna, Mahajan Sagar Bhaskar, Sanjeet Dwivedi Ohm Technologies/Aalborg University/Nottingham University	11:35~11:50
	Friday, June 3	
	Power Electronics and Electric Motor Drivers	Room 201
740	<b>A Novel Battery Formation Equipment Using Two-Stage Differential Buck Converter</b> Jongwoo Bae, Bang L.H Nguyen, Honnyoung Cha Kyungpook National University	08:25~08:40
N/A	<b>Design and Single-Chip FPGA Implementation of a Digital PWM Controller for POL Converter</b> Subhash Chander Dubey Govt.College of Engineering and Technology,Jammu (J&K)-India	08:40~08:55

712	<b>A High Gain Quadruple Flyboost Converter for High Voltage Applications</b> Rathdharshagorn Suriyakulnaayudhya Kasetsart University	08:55~09:10
N/A	<b>A High Gain Dual Switches DC-DC Converter</b> Yu Tang Nanjing university of aeronautics and astronautics	09:10~09:25
N/A	<b>Friday, June 3</b>	
	<b>Power Electronics and Electric Motor Drivers</b>	<b>Room 201</b>
	<b>Optimization of the Two-Phase Interleaved Boost DC-DC Converter for Electric Mobility Applications</b> Wilmar Martinez Shimane University	10:20~10:35
579	<b>Bidirectional Bridgeless PFC with Reduced Input Current Distortion and Switching Loss Using Gate Skipping Technique</b> Dong-Kwan Kim, Yeonho Jeong, Cheon-Yong Lim, Byeonggu Kang, Gun-Woo Moon KAIST	10:35~10:50
537	<b>A New Method to Analyse Eddy Current Loss in an Integrated Magnetic Structure for Boost Converter</b> Ali Hussein Al-Omari , Stuart MacVeigh, Mohammed Zaki Ahmed, Paul Davey, Matt Blackler, John Welsh university of plymouth	10:50~11:05
573	<b>Half Bridge LLC Resonant Converter with High Voltage Gain for Single-Phase AC/DC Power System</b> Yeonho Jeong, Jae-Il Baek, Jaewon Choi, Gun-Woo Moon Korea Advanced Institute of Science and Technology(KAIST)	11:05~11:20
72	<b>Friday, June 3</b>	
	<b>Power Electronics and Electric Motor Drivers</b>	<b>Room 202</b>
	<b>Simulation Study on a Novel Vector Control Strategy for Asynchronous Motor</b> Rong Chen, Jiasheng Zhang, Zhongwu Shao, Wei Liu China University of Petroleum	08:25~08:40
N/A	<b>Modelling of Automotive Power Network for Analysis of Power Electronics and Losses Calculation and Verification by Measurements on Claw-Pole Alternator</b> Dmytro Bilyi FEAAM	08:40~08:55
432	<b>Over Temperature Protection in Power Module for Hybrid and Electric Vehicle</b> JeHwan Lee, HanGuean Jang, SangChul Shin, KiYoung Jang, JinHwan Jung Hyundai Motors	08:55~09:10
N/A	<b>High Density High Voltage Power for Satellite Ion Propulsion</b> Doron Shmilovitz Tel-Aviv University	09:10~09:25
66	<b>Five-Phase Five-Level Open-Winding/Star-Winding Inverter Drive For Low-Voltage/High-Current Applications</b> Sanjeevikumar Padmanaban, Frede Blaabjerg, Patrick Wheeler, Kyo-Beum Lee, Mahajan Sagar Bhaskar, Sanjeet Dwivedi Ohm Technologies/Aalborg University/Nottingham University	09:25~09:40
N/A	<b>Thursday, June 2</b>	
	<b>Electric Machines and Actuators</b>	<b>Room 202</b>
	<b>Preliminary Design and Performance Comparison of Embedded Axial-Flux PMSM in the More Electric Engine</b> Xiaohe Ma Rolls-Royce@NTU Corporate Lab	08:25~08:40
590	<b>Performance and material advantages of VFPM over IPM in flux weakening region</b> Kamalakannan Durairaju, Krishna Vasudevan, Narayanan V, Ramanathan N S Indian institute of technology	08:40~08:55
485	<b>Design Considerations of Concentrated Winding Synchronous Reluctance Machines</b> Bastian Lehner, Dieter Gerling Universitaet der Bundeswehr Muenchen	08:55~09:10
N/A	<b>Thermal analysis of Double Stator Switched Reluctance Machine with and without a squirrel cage rotor</b> Mohammadali Abbasian Islamic Azad University- Isfahan Branch	09:10~09:25
397	<b>Auto Calibration of Position Sensor while driving ECO Vehicle</b> Joo-young Park, Young-kwan Ko, Do-youn Jang, Mu-shin Kwak, Young-kook Lee Hyundai-Kia motors	09:25~09:40

	Friday, June 3	
	Battery and Battery Management	Room 202
	Multistage Constant-Current Charging Method for Li-ion Batteries Abdul Basit Khan, Van-Long Pham, Thanh-Tung Nguyen, Woojin Choi SOONGSIL UNIVERSITY	10:20~10:35
381		
454	The Impact of Inhomogeneous Particle Size Distribution on Li-ion Cell Performance under Galvanostatic and Transient Loads Kun Lee, Dongsuk Kum Korea Advanced Institute of Science and Technology (KAIST)	10:35~10:50
N/A	Mechanical Packaging and Material Selection for a EV Lithium-Ion Battery Pack Mukund Arvind Kulkarni MAHINDRA REVA ELECTRIC VEHICLES	10:50~11:05
491	Optimal generation scheduling strategy in a microgrid Lucian Toma, Ion Tristiu, Constantin Bulac, Andreea-Georgiana Neagoe-Stefana University POLITEHNICA of Bucharest	11:05~11:20

	Thursday, June 2	
	Electric, Hybrid Electric, and Plug-in Hybrid Electric Vehicle System and Architecture	Room 202
	Investigation of Li-Ion battery state of health detection in electric vehicles – A comparison of simulation results and field measurement Ilka Bremer, Fabian Ruecker, Dirk Uwe Sauer Rwth Aachen University	10:20~10:35
18		
214	SiC Devices Performance Overview in EV DC/DC Converter: A Case Study in a Nissan Leaf Y. Attia, A. Abdelrahman, M. Hamouda, M. Youssef University of Ontario Institute of Technology	10:35~10:50
449	A New Method to Implement the Constant Current- Constant Voltage Charge of the Inductive Power Transfer System for Electric Vehicle Applications Van-Binh Vu, Van-Tuan Doan, Van-Long Pham, Woojin Choi SOONGSIL UNIVERSITY	10:50~11:05
519	Optimal Planning of Public Fast Charging Station on Residential Power Distribution System Nopbhorn Leeprechanon, Prakornchai Phonrattanasak†, Mahesh Kumar Sharma Thammasat University	11:05~11:20
549	Energy Management Strategy Including Battery Life Optimization for a HEV with a CVT Li Tang, Giorgio Rizzoni The Ohio State University	11:20~11:35
	Thursday, June 2	
	Smart Grid, V2G and Electric Railway	Room 206
	Three-Phase Bidirectional Electric Vehicle Charger for Vehicle to Grid Operation and Grid Voltage Regulation Kang Miao Tan, Vigna K. Ramachandaramurthy, Jia Ying Yong Universiti Tenaga Nasional	08:25~08:40
7		
118	Vehicle-Grid System Stability Analysis Considering Impedance Specification Based on Norm Criterion Yicheng Liao, Zhigang Liu, Senior Member, Guinan Zhang, Chuan Xiang Southwest Jiaotong University	08:40~08:55
234	Cost Benefit Analysis of Public Service Electric Vehicles with Vehicle-to-grid(V2G) Capability Daehan Park, Seungwook Yoon, Euseok Hwang Gwangju Institute of Science & Technology	08:55~09:10
134	A Model-Based Predictive Direct Power Control for Traction Line-Side Converter in High-speed Railway Chuan Xiang, Zhigang Liu, Guinan Zhang, Yicheng Liao Southwest Jiaotong University	09:10~09:25
812	A Simulation Platform for Energy-Efficient Dynamic Commuter Transit using Electric Vehicles Bowen Zhang, Wei Li, Tao Chen, Wencong Su University of Michigan-Dearborn	09:25~09:40

	<b>Thursday, June 2</b>	
	<b>Electric Systems and Components for Sea, Undersea, Air and Space Vehicles</b>	<b>Room 206</b>
180	<b>Improvement in Efficiency and Reliability for Diesel– Electric Propulsion Based Marine Vessels Using Genetic Algorithm</b> Merlin Chai, B. Dastagiri Reddy, Lingeshwaren Sobrayen, Sanjib Kumar Panda, Wu Die Chen Xiaoping National University of Singapore/Singapore Technologies Marine Ltd	10:20~10:35
281	<b>Design of an Autonomous Antarctic Exploration Platforms through Manipulations of All–Terrain Vehicles</b> Taekgyu Lee, Seunghyun Cho, Chiwon Roh, Soojun Lee, Yeonsik Kang Kookmin University	10:35~10:50
332	<b>An Exercise to Qualify LVAC and LVDC Power System Architectures for a Platform Supply Vessel</b> Srinivasa Rao K., P. J. Chauhan, Sanjib K. Panda, Gary Wilson, Xiong Liu, Amit K. Gupta National University of Singapore / Rolls–Royce Singapore Pte. Ltd.,	10:50~11:05
402	<b>A New Shipboard Power Supply System Based on a Rectifier Transformer with Integrated Filtering Reactor</b> Yanjian Peng, Yong Li, Fang Liu, Longfu Luo, and Yijia Cao Hunan University / Central South University	11:05~11:20
444	<b>Reconfiguration Optimization of DC Zonal Distribution Network of Shipboard Power System</b> Li Ouyang, Yong Li, Yi Tan, Juanxia Xiao, Yijia Cao Hunan University	11:20~11:35
	<b>Friday, June 3</b>	
	<b>Modeling, Simulation and Control</b>	<b>Room 206</b>
82	<b>System Model and Simulation for Optimal Parameter Design of Dynamic Wireless Charging EVs</b> Seungmin Jeong, Min Seok Lee, Kyoungmin Cho, and Young Jae Jang KAIST	08:25~08:40
503	<b>Three–Level Back–to–Back Converters with ESS Directly Connected to the Lower DC–link</b> Young–Kwang Son, Byeong–Heon Kim, Seung–Ki Sul Seoul National University	08:40~08:55
531	<b>An Optimum Harmonic Control of Induction Heating Power Supply System Using Multilevel Neutral Point Clamped Inverter</b> Bashar Mohammed Flayyih, Mohammed Zaki Ahmed, Marcel Ambroze Plymouth University	08:55~09:10
N/A	<b>Congestion Management Considering Optimal Capacity DGs by Flower Pollination Algorithm</b> V V Rajagopal Peesapati NATIONAL INSTITUTE OF TECHNOLOGY JAMSHEDPUR	09:10~09:25
1	<b>Autonomous Vehicle Velocity and Steering Control through Nonlinear Model Predictive Control Scheme</b> Xinxin Du, Kok Kiong Tan National University of Singapore	09:25~09:40
	<b>Friday, June 3</b>	
	<b>Navigation, communication and control technologies for sea and under-sea vehicles</b>	<b>Room 206</b>
919	<b>A novel fully–decoupled dual–mass silicon micromachined gyroscope</b> Yang Gao, Hongsheng Li, Libin Huang, Xuping Qiu Southeast University	10:20~10:35
225	<b>A Simplified FOG Output Error Model Based on Thermal Diffusion</b> Yonggang Zhang Harbin Engineering University	10:35~10:50
230	<b>Noise Suppression of Fiber Optic Gyroscope Based on Variable Tap–length Adaptive Filter</b> Yonggang Zhang Harbin Engineering University	10:50~11:05
145	<b>Stochastic stability of Gaussian filters for nonlinear integrated navigation system with intermittent measurements</b> HongmeiChen, XianghongCheng,NanboLiu, JianjuanLiu Henan University of Technology	11:05~11:20
N/A	<b>Methods of Selecting Matching Area in Underwater Geomagnetic Navigation Database</b> Lihui Wang Southeast University	11:20~11:35

N/A	Analyze the Structure and Operation of Ship Power System with New Energy Weibo Liu Harbin Engineering University	11:35~11:50
N/A	The Research of Modular Independent PV Generation System Renchangling Yao Herbin Engineering University	11:50~12:05
883	<b>Thursday, June 2</b>	
	<b>Personal Mobility Technologies and Korea Market</b>	<b>Room 207-1</b>
	The development of an energy-efficient heating system for electric vehicles Chong Pyo Cho Korea Institute of Energy Research	08:25~08:40
N/A	Hall Sensor Fault-Tolerant Strategy in In-Wheel Type BLDC Motor Sanghun Lee Daegu Mechatronics & Materials Institute	08:40~08:55
874	The development of Stand-Alone Battery Pack for Micro Mobility EV Gangchul Kim Korea Institute of Energy Research	08:55~09:10
913	<b>Thursday, June 2</b>	
	<b>Wireless power transfer and its applications for electric vehicles</b>	<b>Room 207-1</b>
	Leakage Magnetic Field Reduction Method using High Q Reactive Loop Shielding in Three-phase Resonant WPT Charger for Drone Joungho Kim KAIST	10:20~10:35
N/A	An Optimized Simple Current Sharing Function of SRM with Intrgrated Battery Charger for EV Drive A. Rashidi, M. M. Namazi, H.R Karshenas, S. M. Saghaian-nezhad, D. H. Lee, J. W. Ahn Isfahan University of Technology	10:35~10:50
666	Furtive Charging System for Electric Yard Tractor Seong-Jeub Jeon Pukyong National University	10:50~11:05
684	A 100W wireless charging system with a human protection function from EM field exposure Seong-Min Kim Electronics and Telecommunications Research Institute	11:05~11:20
689	A Study of Wireless Power Transfer Topologies for 3.3 kW and 6.6 kW Electric Vehicle Charging Infrastructure Mingyu Park, Van Thuan Nguyen, Seung-Duck Yu, Seong-Woo Yim, Kijun Park, Byung Duk Min, Seung-Do Kim, Jung Gu Cho Research Institute, Korea Electric Power Corporation/Green Power Co.,	11:35~11:50
680	Design of a compact and effective magnetic-coupled wireless power transfer system Youngjin Park KOREA ELECTROTECHNOLOGY RESEARCH INSTITUTE & UST	11:20~11:35
152	<b>Friday, June 3</b>	
	<b>Smart Grid, V2G and Electric Railway/Smart Grid, V2G and Electric Railway</b>	<b>Room 207-1</b>
	Dual Active Bridge converter for Energy Storage System with Test Bed Implementation Dongkeun Jeong Pusan National University	08:25~08:40
157	High-Voltage Input and Low-Voltage output Power Supply for Modular Multi-Level Converter Yun Hyeok-Jin Pusan National University	08:40~08:55
N/A	Structured Light Scanning of an intricate vehicle BIW for Vehicle Conversion Platform from ICE to EV Mukund Arvind Kulkarni MAHINDRA REVA ELECTRIC VEHICLES	08:55~09:10

N/A	<b>Highly Efficient and Stable Combination of Solar Powered Supercapacitor for Energy Conversion and Storage</b> Chandu V. V. M. Gopi Pusan National University	09:10~09:25
N/A	<b>Design and implementation of a hybrid photovoltaic/grid connected micro grid system for an apple orchard refrigerating chamber</b> Tao Zheng Pusan National University	09:25~09:40
N/A	<b>Facile and sustainable synthesis of PbS/CuS composite thin films: influence of lead and copper content on the electrocatalytic activity via varying particle size, thickness and composition</b> S Srinivasa Rao Pusan National University	09:40~09:55
N/A	<b>Friday, June 3</b>	
	<b>Electric Machines and Actuators</b>	<b>Room 207-1</b>
	<b>Characteristics of Permanent Magnet Motor with Non-uniform Magnetic Poles</b> Shi-Uk Chung Korea Electrotechnology Research Institute	10:20~10:35
N/A	<b>New Design of PMSM with Hybrid Type Permanent Magnet for Reducing Rare Earth Material</b> Chae-Lim Jeong Incheon national university	10:35~10:50
N/A	<b>Concentrated flux type ferrite magnet motor structure to replace rear earth motor in industrial applications</b> Jaesik Jeong HANYANG UNIVERSITY	10:50~11:05
671	<b>Characteristic Analysis of a vernier PM motor with concentrated windings</b> ByungtaekKim Kunsan National Univ	11:05~11:20
N/A	<b>A Design of Axial Flux Permanent-magnet Machine with Double rotors</b> Jungmoo Seo keti	11:20~11:35
203	<b>Thursday, June 2</b>	
	<b>Electric Systems and Components for Sea, Undersea, Air and Space Vehicles</b>	<b>Room 207-2</b>
	<b>A Study on Applicability of Battery Energy Storage System (BESS) for Electric Propulsion Ships</b> Kyunghwa Kim, Kido Park, Jongwoo Ahn, Gillaeta Roh, and Kangwoo Chun Korean Register(KR)	08:25~08:40
808	<b>Optimal Control Method for Electric Propulsion Systems of Green Ships based on HILS Test</b> Chang-Hyun Kim, Tae-O Kim, Gyu-Hong Kang Vision College of Jeonju, Korea Marine Equipment Research Institute	08:40~08:55
858	<b>Heading Control Study for Electrical Drive Motor System of Floating LNG Unit</b> Deok-Ki Kim, Seong-Hwan Kim*, Jong-Su Kim*, Sae-Gin Oh Hyundai Heavy Industries	08:55~09:10
818	<b>The Force Identification of 200kW IPMSM Using Phase Reference spectrum</b> Yanguk Cho, Gyu-Hong Kang Korea Marine Equipment Research Institute	09:10~09:25
929	<b>Analysis on thermal loss reduction on electric power propulsion system on board ship</b> Young-Chan Lee, Yong-Sup Yun, Sung-Hwan Kim, Jong-Su Kim Korea Maritime and Ocean University	09:25~09:40
256	<b>A study on the application of functional safety for PMS of electric propulsion ships</b> Sung-Dong Kim, Tea-O Kim, Gyu-Hong Kang Korea Marine Equipment Research Institute	09:40~09:55
732	<b>An experimental Study on the Development of VDR System for Dynamic Analysis of Small electric propulsion vessels</b> Shin Hyo Kim, Jun Hee Won korea ship safety technology authority	09:55~10:10
<b>Thursday, June 2</b>		



954	<b>Micro-grid and Electric Transportation</b>	<b>Room 207-2</b>
	<b>Cogging Torque Reduction of BLDC Motor for an Electric Wheelchair</b> Young Jun Kim Pusan National University	10:20~10:35
630	<b>A Study on the Magnetic Resonant Wireless Charging System for Electrical Vehicles</b> Ha Jeong Lee, Ho Yeong Lee, Chang Geun Heo, Gwan Soo Park Pusan National University	10:35~10:50
866	<b>A Study on the Design of Induction Motor in Low Speed Urban Electric Vehicle</b> Keon Tae Kim, Hye Eun Song, Gwan Soo Park Pusan National University	10:50~11:05
870	<b>A Study on High Torque Motor Designed for Uni Wheel Personal Mobility Considering Sloping Domestic Geographical Features</b> Jae Ho Ryu, Jeong sik Kim, Gwan soo Park Pusan national university	11:05~11:20
635	<b>A multi-period optimal power flow algorithm for micro-grid in consideration with the state-of-charge of BESS's</b> Tae-Hyun Kim, Han-Sol Shin, Hyoung-Tae Kim, Seong-Woo Lee, Wook Kim Pusan National University	11:20~11:35
950	<b>Investigation on a Doubly Salient Machine for an Electric Vehicle Application</b> Jin Hong Pusan National University	11:35~11:50
900	<b>Friday, June 3</b>	
	<b>Autonomous Vehicle Technologies</b>	<b>Room 207-2</b>
908	<b>Stochastic Predictive Control based Motion Planning for Lane Change Decision Using a Vehicle Traffic Simulator</b> Jongsang Suh, Beomjun Kim, and Kyongsu Yi Member, IEEE, Seoul University	08:25~08:40
	<b>Development of Lateral Control module for Zone(U-turn) Maneuver of Vehicle/Driver Cooperative Autonomous Driving System</b> Myung Wook Park, Sang Woo Lee, Wooyong Han Autonomous Vehicle System Lab. ETRI	08:40~08:55
896	<b>The Research of Multi-Layer-Based on Path Planning for Generating Optimal Path</b> Jiwon Sa, Kyungil Lim, Jungha Kim Kookmin Unmanned Vehicle Research Laboratory Kookmin University	08:55~09:10
938	<b>The Research of Regeneration Path Data After Treatment Method for Lateral Oscillation Attenuation while Autonomous Vehicle Path Data Regeneration</b> Jung-hyun Kim, Jungha Kim Kookmin University Member, IEEE	09:10~09:25
697	<b>The User Interface Based On Electromyography Analysis to Takeover Driving Mode In Autonomous Vehicle</b> Ki Tae Kim, Jin Woo Kim, Wooyong Han University of Science and Technology & ETRI Daejeon, Rep. of Korea Autonomous Vehicle System Lab. ETRI	09:25~09:40
N/A	<b>Friday, June 3</b>	
	<b>Green Energy Application(GEA)</b>	<b>Room 207-2</b>
728	<b>The output voltage ripple cancellation scheme of wave bridge circuit</b> Chun Sung Kim Chunnam National University	10:20~10:35
	<b>A study about gate driver for high speed switching</b> Jung Goo Hwang Chonnam Nation University	10:35~10:50
322	<b>Bi-directional DC-DC Converter for ESS</b> Dong Young Woo, Sung Jun Park, Chun Sung Kim Chonnam National University	10:50~11:05

773	<b>The old photovoltaic module detecting reasearch</b> Da-Woom Jeong(Chonnam National University), Feel-Soon Kang(Hanbat National University), Sung-Jun Park, Sun-Pil Kim(Chonnam National University), Seong-Mi Park(Department of Mechatronics Engineering Korea Lift College)	11:05~11:20
346	<b>A Study of TNPC type Single-phase 5-level Inverter for Energy Storage System</b> Ji-Hoon Yang, Tuan-Vu Le, Anvar Ibadullaev, Sung-Jun Park CHONNAM NATIONAL UNIVERSITY/Technical Research Institute	11:20~11:35
351	<b>Multilevel Single-phase Inverter Based on TNPC-type</b> Tuan-Vu Le, Ji-Hoon Yang, Seong-Mi Park, Sung-Jun Park Chonnam National University/Department of Mechatronics Engineering Korea Lift College	11:35~11:50
661	<b>The development of technology on reduces the SOC error rate using Hybrid Kalman Filter(HKF) and the demonstration its performance using BMS platform</b> Jung-hyo Bae KERI	08:55~09:10
<b>Thursday, June 2</b>		
<b>Switched reluctance motor and drive</b>		<b>Room 208-1</b>
474	<b>Chattering-Free Robust Adaptive Sliding-mode Control for Switched Reluctance Motor Drive</b> Mohammad Masoud Namazi, Amir Rashidi, Sayed Morteza Saghaian-Nejad, Jin-Woo Ahn Isfahan University of Technology/Kyungsung university	08:40~08:55
745	<b>Position Estimation Scheme of Single-phase Hybrid SRM using Back-EMF</b> Ying Tang, Yingjie He, Dong-Hee Lee, Jin-Woo Ahn Kyungsung University	08:55~09:10
755	<b>Suspending Control Method of BLSRM Based on Adaptive Fuzzy PID Controller</b> Yingjie He, Ying Tang, Dong-Hee Lee, Jin-Woo Ahn Kyungsung University	09:10~09:25
767	<b>Design and Control of a High Speed Segmental Stator 4/3 Switched Reluctance Motor</b> Pham Trung Hieu, Dong-Hee Lee, Jin-Woo Ahn Kyungsung University	09:25~09:40
N/A	<b>PFC and Zero Torque Control of SRM Drive for EV Battery Charging</b> A. Rashidi, M. M. Namazi, H.R Karshenas, S. M. Saghaian-nezhad, D. H. Lee, J. W. Ahn Isfahan University of Technology, Kyungsung University	09:10~09:25
<b>Thursday, June 2</b>		
<b>Direct drive technologies for electric vehicles</b>		<b>Room 208-1</b>
N/A	<b>Output Power Improvement of PMSM with Consequent Pole Rotor</b> Shi-Uk Chung Korea Electrotechnology Research Institute	10:20~10:35
N/A	<b>Yaw Stabilization Control of In-Wheel-Motor</b> Kanghyun Yeungnam University	10:35~10:50
N/A	<b>Fast Anti-Slip Traction Control for Electric Vehicles Based on Direct Torque Control with Load Torque Observer of Traction Motor</b> Byounggun Park Korea Electrotechnology Research Institute	10:50~11:05
608	<b>Design of wound field synchronous machine as an in-axis motor for electric vehicle traction system</b> Jiyoung Lee, Jongmoo Kim, and Phuong Thi Luu, Sungwoo Hwang, Juongpyo Hong Korea Electrotechnology Research Institute, Hanyang University	11:05~11:20
441	<b>Optimal Design of In-wheel Motor for an E-bike</b> Jiyoung Lee, Jongmoo Kim, Byungchul Woo Korea Electrotechnology Research Institute	11:20~11:35
N/A	<b>Performance Evaluation of 100kW Integrated Electric Power Train for Electric Truck</b> Jeongwook Lee Korea Electrotechnology Research Institute	11:35~11:50

	Friday, June 3	
	Energy storage systems and their management systems	Room 208-1
	<b>Effects of Fe and Mn co-doping on the Electrochemical Properties of <math>\text{Li}_3\text{V}_2\text{-}2\text{xFe}_\text{x}\text{Mn}_\text{x}(\text{PO}_4)_3</math> /graphene Cathode Material for Lithium Secondary Battery</b> Bong-Soo Jin, Hyun-Soo Kim, Minchan Jeong, Dongsik Bae Korea Electrotechnology Research Institute/Changwon National University	08:25~08:40
892		
641	<b>Enhanced Electrochemical Performance of Surface Treated <math>\text{Li}[\text{Ni}_{0.8}\text{Co}_{0.1}\text{Mn}_{0.1}]\text{O}_2</math> Cathode Material for Lithium-Ion Batteries</b> Hyun-Soo Kim/Bong-Soo Jin, Yoon Seok Jung, Sehee Lee, Minki Jeon/Hyung-Tae Lim Korea Electrotechnology Research Institute/UNIST/University of Colorado/Changwon National University	08:40~08:55
	Friday, June 3	
	Fuel Cells and Application in Transportation	Room 208-1
	<b>Realization of Distributed Formation Flying Using a Group of Autonomous Quadcopters and Application to Visual Performance Show</b> Myoung-Chul Park, Sung-Mo Kang, Jae-Gyeong Lee, Gwi-Han Ko, Koog-Hwan Oh, yo-Sung Ahn, Young-Cheol Choi, Ji-Hwan Son  Gwangju Institute of Science and Technology/Conformity Assessment Division Korean Agency for Technology and Standards, Broadcasting and Media Research Laboratory Electronics and Telecommunications Research Institute	10:20~10:35
877		
N/A	<b>Recent advances and new challenges in Internet of Drones</b> Jaeho Kim KETI	10:35~10:50
N/A	<b>High-energy density fuel cell system based on chemical hydride hydrogen source for high-endurance electrical powered UAVs</b> Taegyu Kim Chosun University	10:50~11:05
	Advanced Motor Design Technology	
		Room 208-1
	<b>A Experimental Study on the Development of VDR system for Dynamic Analysis of Small electric propulsion vessels</b> Shin Hyo Kim, Jun Hee Won Korea Ship Safety Technology Authority/	11:05~11:20
356		
N/A	<b>Comparison between Dual-Permanent-Magnet-Excited Machine And Surface-mounted Permanent Magnet (SPM) Machine in Terms of Force</b> Trung Minh Duong, Dohyun Kang, Do-Kwan Hong, Ji-Young Lee, Byung-Chul Woo Korea Electrotechnology Research Institute, Korea, Republic of	11:20~11:35

## Poster Presentation

	Thursday, June 2	
	Power Electronics and Electric Motor Drivers	Room 203
	<b>A PMSM Rotor Position Estimation with Low-cost Hall-Effect Sensors Using Improved PLL</b> Yong Zhao, Wenxin Huang, Jufeng Yang, Feifei Bu and Saide Liu Nanjing University	16:30 ~18:00
804		
100	<b>New Direct Torque Control of Asynchronous Motor with Low Ripple in Torque and Current ,and Quick Response</b> Xiaoyong Liu, Aihong Zheng Xi'an Jiaotong University	16:30 ~18:00
208	<b>A Three-phase DC-DC Converter for Low and Wide Input-voltage Range Application</b> Zhilei Yao, Jing Xu Yancheng Institute of Technology	16:30 ~18:00
751	<b>Fast Torque Control of Wound Field Synchronous Machines for Start-Stop Systems</b> Jae Suk Lee, Seong Hyuk Kim, Seon-Hwan Hwang Kyungnam University	16:30 ~18:00

290	<b>Design of Soft-Switching Interleaved Buck and Boost Converter for vehicle application</b> Bong-Yeon Choi, Soon-Ryung Lee, Jong-Young Lee, Seung-Ho Baek, Chung-Yuen Won SUNG KYUN KWAN UNIVERSITY	16:30 ~18:00
302	<b>Control Method for Increasing Efficiency of Current-fed Isolated Bi-directional Dual Half-bridge Converter using Resonant Switch</b> Jun-Hyeok Jegal, Yong-Su Noh, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
317	<b>The Method of DPWM Injected Offset Voltage for Control of Neutral Point Voltage Using 3-Level NPC Inverter</b> Seul-A Lee, Seung-Wook Hyun, Seok-Jin Hong, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
778	<b>A Study on the Improvement of Transient Response during Torque Control of IPMSM</b> Seung-Hyun Cho, Jin-Ho Park, Seok-Jin Hong, Seung-Wook Hyun, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
375	<b>A New Compensation Method to Improve the Dynamic Characteristics of DC-link Voltage in Multi-Function Rapid Charger for Electric Vehicle</b> Bum-Jun Kim, Seong-Chon Choi, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
386	<b>Control and Design of the Bi-directional DC/DC Converter for Fuel-cell Stack Diagnostic in FCEV</b> Hyun-Seok Park, Yong-Su Noh, Jun-Hyeok Jegal, Seung-Ho Baek, Bum-Jun Kim, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
422	<b>Control Strategy of Shunt Active Power Filter Module to Utilize Regenerative Energy of Lift Load</b> Seong-Chon Choi, Bum-Jun Kim, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
427	<b>A Noble Phase Shedding Control Algorithm Considering Maximum Efficiency for 3-Phase Interleaved Boost Converter</b> Seung-Ho Baek, Soon-Ryung Lee, Chung-Yuen Won Sungkyunkwan University	16:30 ~18:00
436	<b>Three phase current reconstruction method using predictive current in three shunt sensing PWM inverter</b> Young-Hee Jang, Do-Yun Kim, An-Yeol Ko1, Il-Kuen Won, Young-Real Kim, Chung-Yuen Won Sungkyunkwan university/Anyang University	16:30 ~18:00
470	<b>Research on influences to reduce the commutation failure of different topology structures of STATCOM</b> Xuan WANG, Yuhong WANG, Hui YAN, Danhua LIU Institute of Electrical Engineering/Chinese Academy of Sciences	16:30 ~18:00
561	<b>A study on PCB Layout design for non-isolated three-phase Inverter with PFC</b> Jong-Mu Lee, Seung-Wook Hyun, Prof.Chung-Yuen Won SungKyunKwan University	16:30 ~18:00
567	<b>A simple method for DSP based Buck-Converter design using MS Excel</b> Jong-Mu Lee, Seung-Wook Hyun, Prof.Chung-Yuen Won SungKyunKwan University	16:30 ~18:00
602	<b>Condition Monitoring of IGBT Module for Reliability Improvement of Power Converters</b> Ui-Min Choi, Frede Blaabjerg, Stig Munk-Nielsen, Søren Jørgensen, Bjørn Rannestad Aalborg University/Grundfos Holding A/S/KK Wind Solutions A/S	16:30 ~18:00
611	<b>Modeling and Analysis of Nonlinear Interior Permanent Magnet Synchronous Motors Considering Saturation and Cross-magnetization Effects</b> Jian Zhang, Wen Xuhui, Wang Youlong, Li Wenshan Institute of Electrical Engineering, Chinese Academy of Science	16:30 ~18:00
677	<b>Hybrid DC/DC Converter for EV OBC with Single Transformer</b> Najam Ul Hassan, Yoon-Jae Kim, and Jun-Young Lee MYONGJI UNIVERSITY	16:30 ~18:00
793	<b>Design of Phase Control LLC Resonant Converter for Fast Load Transient</b> Yong-Seok Lee, Seok-Jin Hong, Seong-Wook Hyun, Chung-Yuen Won Sungkyunkwan University/Heesung Electronics LTD.,	16:30 ~18:00
848	<b>Control Method of Propulsion Control Device for AC Railway Vehicle</b> Jin ho Park, Chang Hee Lee, An Yeol Ko, Young Woo Kim, Chung Yuen Won Sungkyunkwan University	16:30 ~18:00

854	<b>Study on the Off-grid Type Wind-solar Photovoltaic Hybrid Generating System</b> Yuqing Zhang, Haiying Li Tianjin university/North China University Science of Technology	16:30 ~18:00
407	<b>Torque Ripple Reduction of BLDC motor using Predicted Current Control</b> Junhwi Park, Yunchang Kwak, Yeongjun Jo, Jongnam Bae, Dong-Hee Lee Kyungsung University	16:30 ~18:00
192	<b>Direct Power Control with Common Mode Voltage Elimination for Open-winding Brushless Doubly-fed Wind Power Generators</b> Liancheng Zhu, Fengge Zhang, Shi Jin, Siyang Yu, Zuoxia Xing Shenyang University of Technology/University of Strathclyde/Aston University	16:30 ~18:00
267	<b>Control of Two-stage Matrix Converter under Unbalanced Source Voltages</b> Gang Li, Shengbao Yu, Jun Lin Jilin University	16:30 ~18:00
364	<b>Variable Time Step Control with Synchronous PWM in Flux Weakening Region of PMSM</b> Sungho Jung, Jaeyong Park, Jung-Ik Ha Seoul National University	16:30 ~18:00
647	<b>Reduction of DC-link Current Ripple in Unbalanced Three-parallel PV Module Condition</b> Se-Jin Lee, June-Hee Lee, Kyo-Beum Lee Ajou University	16:30 ~18:00
651	<b>Improved Switching Selection for Direct Torque Control of a Five-Phase Induction Motor</b> Seong-Yun Kang, Kyo-Beum Lee Ajou University	16:30 ~18:00
656	<b>Simple Rotor Position Estimation for Sensorless Control of IPMSM using PLL based on EEMF</b> Dong Yeob Han, Yongsoo Cho, Kyo-Beum Lee Ajou University	16:30 ~18:00
798	<b>A Fast Response Voltage Control Circuit for Automotive Alternator System</b> K. I. Hwu, CHIA-SUNG Yu National Taipei University of Technology	16:30 ~18:00
751	<b>Fast Torque Control of Wound Field Synchronous Machines for Start-Stop Systems</b> Jae Suk Lee, Seong Hyuk Kim and Seon-Hwan Hwang Kyungnam University	16:30 ~18:00
N/A	<b>d-q Reference Frame Control of Single-Phase Grid- Connected Converter for PLL</b> Chang Seok Park, Tae-Uk Jung Kyungnam University	16:30 ~18:00
246	<b>Modeling of Faults in Permanent Magnet Synchronous Machines</b> Mazharul Huq Chowdhury Halla Mechatronics	16:30 ~18:00

277	<b>Thursday, June 2</b>	
	<b>Electric Machines and Actuators</b>	<b>Room 203</b>
	<b>Open Circuit and Armature Reaction Field Analysis of Permanent Magnet Linear Synchronous Generator</b> Sung-Won Seo, Jang-Young Choi, Min-Mo Koo1 Chungnam National University	16:30 ~18:00
	<b>Investigation on Back EMF Characteristics of a Permanent-Magnet Vernier Machine for Brushless DC Operation</b> Daekyu Jang, Junghwan Chang Donga University	16:30 ~18:00
	<b>Torque Transfer Efficiency Estimation of the Magnetic Gear considering Eddy Current Loss</b> Sung-Jin Kim, Eui-Jong Park, Sang-Yong Jung, Yong-Jae Kim Chosun University/Sungkyunkwan University	16:30 ~18:00
412	<b>Design of 100kW Propulsion Motor for Electric Conversion Vehicle based on Vehicle Driving Performance Simulation</b> Jin Hwan Lee, Dae-Woo Kim, Jun-Young Song, Sang-Yong Jung, Yong-Jae Kim Sungkyunkwan University/Chosun University	16:30 ~18:00

460	<b>Reducing Computational Time Strategy for Estimating Core Loss with Spatial and Temporal Periodicity</b> Gyeong-Jae Park, Byungkwan Son, Sang-Yong Jung, Yong-Jae Kim Sungkyunkwan University/Chosun University	16:30 ~18:00
832	<b>Electromagnetic Design of 5MW Dual-Stator Brushless Doubly-Fed Generator with Hybrid Rotor</b> Fengge Zhang, Xiaowei Ju, Hao Liu Shenyang University of Technology	16:30 ~18:00
843	<b>Design and Analysis of 100kW High Speed Permanent Magnet Synchronous Motor</b> Fengge Zhang, Ye Hao, Guangwei Liu, Fengyi Qiu Shenyang University/Jiangsu Aerospace Power Electric Co., Ltd	16:30 ~18:00
296	<b>Torque Performance Analysis of Three-Phase Flux Reversal Machines for Electric Vehicle Propulsion</b> Yuting Gao, Ronghai Qu, Dawei Li, Jian Li Huazhong University	16:30 ~18:00
822	<b>Constant V/Hz Control Based on DSP for Open Winding Doubly-fed Wind Power Generator</b> Shi Jin, Zhongzheng Wang, Liancheng Zhu, Ming Zong, Fengge Zhang, Wenping Cao Shenyang University/Aston University	16:30 ~18:00
34	<b>Flux Barrier Design Method for Torque Ripple Reduction in Synchronous Reluctance Machines</b> Volodymyr Bilyi, Dieter Gerling, Dmytro Bilyi Universitaet der Bundeswehr Muenchen/FEAAM GmbH	16:30 ~18:00
509	<b>Outer Rotor Mechanical and Dynamic Performance Analysis for High-speed Machine</b> Guangwei Liu, Guohua Qiu, Fengge Zhang, Fengyi Qiu, Wenping Cao Shenyang University, Jiangsu aerospace power electric co. ltd., Aston University	16:30 ~18:00
251	<b>Loss Estimation of IPM Motors to Determine the Performance of High Performance Application</b> Mazharul Huq Chowdhury Halla Mechatronics	16:30 ~18:00
106	<b>Thursday, June 2</b>	
	<b>Electric, Hybrid Electric, and Plug-in Hybrid Electric Vehicle System and Architecture</b>	<b>Room 203</b>
	<b>An Integrated Battery Charger base on Split-winding Switched Reluctance Motor Drive</b> Jianing Liang, Weimin Li, Zhibin Song, Yinzhou Shi 1Shenzhen Institutes of Advanced Technology/The Chinese University of Hong Kong	16:30 ~18:00
139	<b>Design and Research on Hydraulic Control Unit for a Novel Integrated-Electro-Hydraulic Braking System</b> Hongtao Zhang, Wei Han, Lu Xiong, Songyun Xu Tongji University	16:30 ~18:00
370	<b>An Integrated Two-Input Three-Output DC/DC Boost Converter with Fuel-Cell/Battery Energy Resources for HEV and DC-Distribution System</b> Ching-Ming Lai, Kai-JunYen, Dasheng Lee, Yu-Huei Cheng, Chin-Chi Cheng National Taipei University/Toko University	16:30 ~18:00
417	<b>Design and Control of Power Conversion System for ISG</b> Do-Yun Kim, Il-Kuen Won1, Young-Hee Jang, Hyun-Seok Park, Young-Real Kim, Chung-Yuen Won Sungkyunkwan University/Anyang University	16:30 ~18:00
167	<b>Implementation of a System Plug-in a Conventional Hybrid Vehicle and Improve EV Condition With an Extra Set of Batteries and Electronic Control.</b> E. Fernández, F Augerí, M. Coello Universidad del Azuay/Cise Electronics Corp Miami Fl	16:30 ~18:00
173	<b>Eliminating the Torque Hole: Using a Mild Hybrid EV Architecture to Deliver Better Driveability</b> Mohamed Awadallah, Peter Tawadros, Paul Walker, Nong Zhang University of Technology Sydney	16:30 ~18:00
163	<b>Friday, June 3</b>	
	<b>Battery and Battery Management</b>	<b>Room 203</b>
	<b>A Newly-Designed Multiport Bidirectional Power Converter with Battery/Supercapacitor for Hybrid Electric/Fuel-Cell Vehicle System</b> Ching-Ming Lai, Yu-Jen Lin, Ming-Hua Hsieh, Jie-Ting Li National Taipei University	16:30~18:00



326	<b>HILS-Based Analysis of Characteristics and Performance of Internal Combustion Engine Vehicles with Varying Battery Types</b> Tae-Hoon Kim, Byoung-Kuk Lee, Hyun-Sik Song, Seung-Min Shin, Baek-Haeng Lee Sungkyunkwan University/Electronic System R&D Center Korea Automotive Technology Institute	16:30~18:00
497	<b>Dual Battery Pack Charge/Discharge System for ESS Using 3-Level NPC Inverter</b> Young-Sang Ko, Kwang-Su Na, Woo-ho Park, Ho-Jae Seong, Chung-Yuen Won Sungkyunkwan University	16:30~18:00
584	<b>Design and Control of Fuel Cell-Battery Hybrid System for Forklift</b> Min-Ho Shin, Tae-Ho Eom, Young-Hoon Park, Chung-Yuen Won Sungkyunkwan University	16:30~18:00
626	<b>Construction of Frequency Regulation RESS based on Advanced Cell Grouping Combined with the DWT</b> Chun-Gu Lee, Joung-Hu Park, Jonghoon Kim Soongsil University/Chosun University	16:30~18:00
788	<b>Comparative Analysis of the SOH Estimation based on Various Resistance Parameters for LiCoO<sub>2</sub> Cells</b> Hyun-jun Lee, Joung-hu Park, Jonghoon Kim Soongsil University/Chosun University	16:30~18:00
828	<b>Development and Verification of Impedance Measurement Equipment of High-Voltage Battery Pack</b> Jae-Young Choi, Jin-Beom Jeong, Hong-Jong Lee and Dong-Hyun Shin Korea Automotive Technology Institute	16:30~18:00
861	<b>A Low Cost, Small Ripple, and Fast Balancing Circuit for Lithium-Ion Battery Strings</b> Van-Long Pham, Abdul Basit Khan, Thanh-Tung Nguyen, Woojin Choi Soongsil University	16:30~18:00
555	<b>Remaining Useful Life Estimation of Lithium-ion Batteries based on a new Capacity Degradation model</b> Arijit Guha, Vaisakh K V, Amit Patra Indian Institute of Technology	16:30~18:00
61	<b>Loss Analysis &amp; Design of Charge-pumped Voltage Supply for Floating Gate Driver Circuits in Battery Management System</b> Jintae Kim, Gwanbon Koo, Chung Yuen Won Sungkyunkwan University	16:30~18:00
313	<b>An Innovative finite-time passivity-based control strategy for Power management of PV/hybrid storage power system</b> Fan Yang, Lei Tian Shunfu Lin Shanghai university	16:30~18:00
661	<b>The development of technology on reduces the SOC error rate using Hybrid Kalman Filter(HKF) and the demonstration its performance using BMS platform</b> Jung-hyo Bae KERI	08:55~09:10
13	<b>Friday, June 3</b>	
	<b>Smart Grid, V2G and Electric Railway</b>	<b>Room 203</b>
	<b>Control Strategy of AC&amp;DC Hybrid Generating System Based on Dual Stator-Winding Induction Generator for Micro-Grid Application</b> Feifei Bu, Lin Zhu, Wenxin Huang, Haijun Xu, Haozhe Liu, Yu Gao Nanjing University	16:30~18:00
112	<b>Model Predictive Control of 3-Level NPC AC/DC PWM Converter for DC Distribution using LCL Filter</b> Seok-Jin Hong, Seong-Wook Hyun, Jin-Wook Kang, Hak-Sung Kim, Chung-Yuen Won Sungkyunkwan University/Dongyang Mirae University	16:30~18:00
525	<b>Prevention of Overvoltage Induced by Large Penetration of Photovoltaics in Distribution Networks by Electric Vehicles</b> Hamoud Alafnan, Wei Ma University of New Haven/ Chongqing University	16:30~18:00

543	<b>Optimal Routing and Charging of an Uber-like Electric Vehicle Considering Dynamic Electricity Price and Passenger Satisfaction</b> Bowen Zhang, Tao Chen, Student Member, Wencong Su University of Michigan-Dearborn	16:30~18:00
342	<b>DC Micro Grid Energy Management Strategy Based On A Hierarchical Dynamic Adaptive Droop Control</b> Fan Yang, Junjie Duan, Dongdong Li Shanghai University	16:30~18:00
479	<b>Hazard Based Modelling Of Electric Vehicles Charging Patterns</b> Nicolò Daina, John W. Polak Imperial College London	16:30~18:00
514	<b>Impact of Electric Vehicles on Peak Load Reduction</b> Insu Kim Alabama A&M University	16:30~18:00
693	<b>Economic Analysis for Energy Trading System connected with Energy Storage System and Renewable Energy Sources</b> Jeong in Leea, Il woo Leea ,Sang-Ha Kimb Electronics and Telecommunications Research Institute	16:30~18:00
124	<b>Friday, June 3</b>	
	<b>Electrification of Heavy-Duty and Off-Road Vehicles</b>	<b>Room 203</b>
	<b>Power Semiconductors for Mobile Heavy Duty Applications</b> Martin Schulz Infineon Technologies	16:30~18:00
77	<b>Model Based Sizing of Electric Heat Pump Air- Conditioner in Electric Tractors</b> PEI Yeqing, XIE Bin, SONG Zhenghe China Agricultural University	16:30~18:00
837	<b>Efficiency Analysis of an Electrification Concept for a Catering Truck</b> Lamyaa Wdaah, Steffen Müller Department of Automotive Engineering, Technische Universität	16:30~18:00
94	<b>Friday, June 3</b>	
	<b>Fuel Cells and Application in Transportation</b>	<b>Room 203</b>
	<b>Thermal analysis of a boost DC/DC converter in FCV for water content Estimation based on AC impedance</b> Rong Rui, Hong Po, Xu LuLu Infineon Integrated Circuit (Beijing) Co., Ltd., Tsinghua University, Beihang University	16:30~18:00
N/A	<b>A Rapid Warm up Method for PEM Fuel Cell System</b> Siliang Cheng, Liangfei Xu, Jianqiu Li, Chuan Fang, Junming Hu, Minggao Ouyang Tsinghua University/Collaborative Innovation Center of Electric Vehicles in Beijing/Institute of Energy and Climate Research	16:30~18:00
51	<b>Design of a multi-channel gas sampling system for fuel cell with dead-ended anode configuration</b> FANG Chuan, XU Liangfei, LI Jianqiu, OUYANG Minggao, CHENG Siliang, HU Junming Tsinghua University/Collaborative Innovation Center of Electric Vehicles in Beijing/Institute of Energy and Climate Research	16:30~18:00
129	<b>An overview of Fuel Cells Application in Transportation</b> Naseam H Jafri, Dr Sushma Gupta Maulana Azad National Institute of Technology Bhopal	16:30~18:00
55	<b>Design and Validation of an Embedded Signal Analyzer for AC impedance Identification of PEM Fuel Cell</b> Po HONG, Jianqiu Li, Liangfei, XU, Minggao OUYANG Tsinghua University/Collaborative Innovation Center of Electric Vehicles in Beijing	16:30~18:00
886	<b>Friday, June 3</b>	
	<b>Electric Systems and Components for Sea, Undersea, Air and Space Vehicles</b>	<b>Room 203</b>
	<b>Design of Adaptive Matching Circuit for Sonar System</b> Jin-young Kim, Salah Mahdi Thajeel, Seung-soo Choi, In-Dong Kim, Seung Woo Lee, Haksue Lee, Wonkyu Moon Pukyong National University/The 6th R&D Institute-1/Pohang University	16:30~18:00



24	<b>Online Condition Monitoring and Diagnosis techniques for Dry type Transformers –Incipient fault analysis through Finite Element Modelling</b> Aravinth Subramaniam, Saurabh Bhandari, Mehdi Bagheri, Nadarajan Sivakumar, Amit Kumar Gupta, Sanjib Kumar Panda National University of Singapore	16:30~18:00
285	<b>Friday, June 3</b>	
	<b>Modeling, Simulation and Control</b>	<b>Room 203</b>
	<b>Feedforward Compensation Method to reduce Startup Inrush Current of Three-Phase PWM Converter</b> Hyeong-Jun Choi, Seung-Wook Hyun, Seok-Jin Hong, Chung-Yuen Won sungkyunkwan university	16:30~18:00
391	<b>Design of Bipolar Pulse Power Supply Based on LLC Resonant Converter for Reactive Sputtering Process</b> Tae-Ho Eom, Min-Ho Shin, Young-Hoon Park, Dong-Sung Kim, Young-Real Kim, Chung-Yuen Won Sungkyunkwan University/Anyang University	16:30~18:00
924	<b>Improvement of Flux Estimation using Programmable Low Pass Filter with Synchronous Angular Frequency Error Compensator In Sensorless AC Induction Motor</b> JongKwang Kim, YongKeun Lee, JangHyeon Lee, JangWook Lee Seoul National University/Burnaby Mountain Secondary School/Centennial Secondary School	16:30~18:00
272	<b>C++ Based Dynamic Model of AC Induction Motor in Discrete Time Domain</b> JongKwang Kim, EunSeok Cho, YongKeun Lee, JangWook Lee, JangHyeon Lee Seoul National University/Burnaby Mountain Secondary School/Centennial Secondary School	16:30~18:00
621	<b>Improving Vehicle Handling Stability Performance via Integrated Control of Active Front Steering and Suspension Systems</b> XianJian Jin, Guodong Yin, Ning Zhang, Jiansong Chen Southeast University	16:30~18:00
616	<b>Stabilizing Electric Vehicle Lateral Motion with Considerations of State Delay of Active Front Steering System through Robust Control</b> XianJian Jin, Guodong Yin, Ning Zhang, Jiansong Chen Southeast University	16:30~18:00
185	<b>Frequency Response of contactless transformer using T and Pi model</b> João Vítor Piñón Pereira Dias, Masafumi Miyatake Sophia University	16:30~18:00
728	<b>Friday, June 3</b>	
	<b>Green Energy Application(GEA)</b>	<b>Room 203</b>
	<b>A study about gate driver for high speed switching</b> Jeong-Hoon Moon, Jung-Goo Hwang, Ji-Hoon Yang, Sung-Jun Park Chonnam National University/Hyundai Elevator	16:30~18:00
784	<b>The output voltage of systems using the conventional thyristor</b> Seung-Hwan Jung, Dong-Young Woo, Chun-Sung Kim, Sung-Jun Park Chonnam National University	16:30~18:00
947	<b>Estimating Increase of Electric Energy According to Penetration of Electric Vehicles at the Jeju Island in Korea</b> Su-Wan Kim, Gae-Myoung Lee Jeju National University	16:30~18:00
29	<b>Additional Papers</b>	
	<b>Development and Analysis of a Charging Algorithm for Electric Vehicle Fleets Extending Battery Lifetime</b> F. Ruecker(1, 2), I. Bremer(1, 2), D. Sauer(1, 2, 3, 4) (PGS) RWTH Aachen University 1, (ISEA) RWTH Aachen University 2, Juelich Aachen Research Alliance 3, HiMS Institute 4	
	<b>Novel Spoke-Type BLDC Motor for Cost Effective and High Power Density</b> Su Yong Kim (1), Ju Hee Cho (1), Byung Taek Kim (2), Ju Lee (3) Korea Electronics Technology Institute-Energy Conversion Center 1, Kunsan University 2, Hanyang University 3	
198	<b>Optimal Day-Ahead Joint Energy and Reactive Power Scheduling with Voltage Dependent Load Models</b> S. Surender Reddy (1), A. R. Abhyankar (2), P. R. Bijwe (2) Woosong University 1, Indian Institute of Technology Delhi 2	