

**The 2<sup>nd</sup> International Symposium on Power Electronics for Distributed  
Generation Systems**

**IEEE PEDG2010 Program Outline**

**Hilton Hotel Hefei, June 16-18, 2010**

<b>June 15, 2010</b>		
<b>Time</b>	<b>Activities</b>	<b>Place</b>
10:00-22:00	Registration	Lobby
18:00-20:00	Dinner Buffet	Yuan Yi Great Hall East
20:30-21:30	Organizing Committee meeting	Treating Room
<b>June 16, 2010</b>		
08:30-9:15 Chair: Prof. Liuchen Chang	<p style="text-align: center;">Opening Ceremony</p> 1. Welcome Message: General Chair, <b>Prof. Deepak Divan</b> 2. Welcome Message: Chair of School Administration Committee of HFUT, <b>Prof. Lian Li</b> 3. Brief Introduction to the Program of PEDG2010: Prof. <b>Dehong Xu</b>	Good Fortune Room
09:15-9:30	Coffee Break	Foyer of Meeting Room
09:30-12:00 Chairs: Prof. Dehong Xu, and Prof. Meiqin Mao	<p style="text-align: center;">Keynote Speech</p> 1. Distributed Energy Resources in Grid Interactive AC Microgrids. <b>Prof. Frede Blaabjerg</b> 2. Smart Grid: An Enabler for Sustainable Energy. <b>Prof. Deepak Divan</b> 3. Sustainable Building Initiatives - a Living Laboratory at Virginia Tech <b>Prof. Fred C. Lee</b> 4. New Power Semiconductor Devices for Renewable Energy Converters — Start of the Art and Future Development Trends <b>Prof. Leo Lorenz</b> 5. Design and Operation Experience with MW-Scale Photovoltaic Power Plants –BIPV Application and Flat-Mounted System <b>Dr. Robert Luor, Ph.D</b>	Good Fortune Room
12:00-13:30	Lunch Buffet	Yuan Yi Great Hall West

	<b>Activities</b>	<b>Topic</b>	<b>Chair</b>	<b>Place</b>
14:00-16:00	Oral Session1	High efficient power conversion for DG and renewable power systems	<b>Fred Lee</b> Virginia Tech, USA <b>Jinjun Liu</b> Xi'an Jiaotong University, China	Prosperity Room
	Oral Session2	Integration and control of multiple power converters and systems	<b>Frede Blaabjerg</b> Aalborg University, Denmark Chengxiong Mao HuazhongUniversity of Science and Technology , China	Joy Room
	Oral Session3	Power electronic converters and controls, including high voltage and high power converters	<b>Siu Chung Wong</b> The Hong Kong Polytechnic University, HK <b>Ahmed Zobaa</b> University of Exeter, UK	Peace Room
16:00-16:15	Coffee Break			Foyer of Meeting Room
	<b>Activities</b>	<b>Topic</b>	<b>Chair</b>	<b>Place</b>
16:15-18:00	Poster Session1	High efficient power conversion for DG and renewable power systems Power electronic converters and controls, including high voltage and high power converters	<b>Bao Xiaohua</b> Hefei University of Technology, China	Prosperity Room
	Poster Session2	Integration and control of multiple power converters and systems Novel technology for DG	<b>Jia Guixi</b> Tianjin University, China, <b>Du Yan</b> Hefei University of Technology, China	Joy Room
	Poster Session3	Power electronic converters and controls, including high voltage and high power converters	<b>Chia-Han Hung</b> Advanced Energy Industries, Inc, China <b>Wu Hongbin</b> Hefei University of Technology, China	Peace Room
18:00-21:00	Dinner Buffet			Yuan Yi Great Hall West

**June 17, 2010**

	<b>Activities</b>	<b>Topic</b>	<b>Chair</b>	<b>Place</b>
08:30-10:00	Oral Session4	High efficient power conversion for DG and renewable power systems	<b>Li Jun</b> South East University, CN <b>Dong-Choon Lee</b> Yeungnam University, Gyeongsan, KR	Prosperity Room
	Oral Session5	Integration and control of multiple power converters and systems	<b>Liuchen Chang</b> University of New Brunswick, Canada	Joy Room
	Oral Session6	Power electronic converters and controls, including high voltage and high power converters	<b>Alexis Kwasinski</b> University of Texas at Austin, USA	Peace Room
10:00-10:15	Coffee Break			Foyer of Meeting Room
10:15-12:00	Oral Session7	DG and converter interfacing technologies for utility grids and power quality	<b>Mohamed Orabi</b> South Valley University, Egypt <b>Luo An</b> Hunan University, China	Prosperity Room
	Oral Session8	DG and converter interfacing technologies for utility grids and power quality	<b>Xiaoming Zha</b> Wuhan University, China	Joy Room
	Oral Session9	Power electronic converters and controls, including high voltage and high power converters	<b>Hirofumi Matsuo</b> Nagasaki University, <i>Japan</i> <b>Zhengming Zhao</b> Tsinghua University, China	Peace Room
12:00-13:30	Lunch Buffet			Yuan Yi Great Hall West
14:00-16:00	<b>Activities</b>	<b>Topic</b>	<b>Chair</b>	<b>Place</b>
	Oral Session10	DG and converter interfacing technologies for utility grids and power quality. Ground current suppression, dc injection suppression and EMI filter design. Islanding detection, safety protection and standards of DG systems.	<b>Chem Nayar</b> Curtin University of Technology, Australia <b>Li Shenghu</b> Hefei University of Technology, China	Prosperity Room

	Oral Session11	New power semiconductor devices and modules for DG and renewable energy converters. Novel technology for DG.	<b>Bingsen Wang</b> Arizona State University, USA	Joy Room
	Oral Session12	Power electronic converters and controls, including high voltage and high power converters	<b>Tao Cai</b> Huazhong University of Science and Technology, China <b>Yie-Tone Chen</b> National Yunlin University of Science & Technology, TW, China	Peace Room
16:00-16:15	Coffee Break			Foyer of Meeting Room
16:15-18:00	Poster Session2			
	<b>Activities</b>	<b>Topic</b>		<b>Place</b>
	Poster Session4	Applications of wind systems, photovoltaic systems, small hydro units, marine energy systems, fuel cells, microturbines, combined heat and power generators etc. Ground current suppression, dc injection suppression and EMI filter design. New power semiconductor devices and modules for DG and renewable energy converters. Smart grids, demand response control and power system applications.	<b>Jinghua Zhou</b> North China University of Technology, CN	Prosperity Room
	Poster Session5	Energy storage, energy management, microgrids and hybrid energy systems. Control, communication and monitoring of DGs and renewable energy systems.	<b>Wang Haining</b> Hefei University of Technology, China <b>Wu Wenjun</b> Xi'an University of Technology	Joy Room
	Poster Session6	DG and converter interfacing technologies for utility grids and power quality. Islanding detection, safety protection and standards of DG	<b>Yuan Yisheng</b> East China Jiaotong University, CN <b>Guohong Zeng</b> Beijing Jiaotong University	Peace Room

		systems.		
18:00-20:00	Award Banquet			Yuan Yi Great Hall West
<b>June 18, 2010</b>				
08:30-10:00	<b>Activities</b>	<b>Topic</b>	<b>Chair</b>	<b>Place</b>
	Oral Session13	Applications of wind systems, photovoltaic systems, small hydro units, marine energy systems, fuel cells, microturbines, combined heat and power generators etc	<b>Liming Liu</b> Florida State University, USA	Prosperity Room
	Oral Session14	Control, communication and monitoring of DGs and renewable energy systems	<b>Gerry Hurley</b> National University of Ireland, Galway, Ireland <b>Meiqin Mao</b> Hefei University of Technology, China	Joy Room
	Oral Session15	Energy storage, energy management, microgrids and hybrid energy systems	<b>Rabee' H. Alabbasi</b> College of Engineering - University of Basrah, IQ <b>Huijuan Liu</b> Beijing Jiaotong University, China	Peace Room
10:00-10:15	Coffee Break			Foyer of Meeting Room
10:15-12:00	<b>Activities</b>	<b>Topic</b>	<b>Chair</b>	<b>Place</b>
	Oral Session16	Applications of wind systems, photovoltaic systems, small hydro units, marine energy systems, fuel cells, microturbines, combined heat and power generators etc.	<b>Dehong Xu</b> Zhejiang University, China	Prosperity Room
	Oral Session17	Control, communication and monitoring of DGs and renewable energy systems.	<b>Yaosuo Xue</b> Siemens Corporate Research, Princeton, USA	Joy Room
	Oral Session18	Energy storage, energy management, microgrids and hybrid energy systems. Smart grids, demand response	<b>Hua Geng</b> Ryerson University, Canada	Peace Room

		control and power system applications.		
12:00-13:30	Lunch Buffet			Yuan Yi Great Hall West
14:00-15:00	Technical Tour1	Hefei University of Technology, Hefei		
15:00-17:00	Technical Tour2	Lab of TOKAMAK in Institute of Plasma Physics, CAS, Hefei		

## Oral Session 1

Session Title: High efficient power conversion for DG and renewable power systems

Date /Venue: June 16, 2010/ Prosperity Room(元昌厅)

Chair: Fred Lee, *Virginia Tech, USA*

Jinjun Liu, *Xi'an Jiaotong University, China*

Time	Paper Code	Paper title
14:00- 14:20	1569288329	<b>Modeling of Stand-alone Variable Speed Diesel Generator using Doubly-Fed Induction Generator</b> Donghua Wang, Chem Nayar, Cong Wang Curtin University of Technology, <i>Australia</i>
14:20-14:40	1569287813	<b>A Comparison of the P&amp;O Method and the INC Method using Mathematical Ways</b> Xing Zhang, Le Zha, Fang Liu Hefei University of Technology, <i>China</i>
14:40-15:00	1569288677	<b>Medium Voltage Power Conversion Technology for efficient Windpark Power Collection Grids</b> Steimer Peter, O.Apeldoorn ABB Switzerland Ltd., <i>Switzerland</i>
15:00-15:20	1569285031	<b>A High Frequency DC Link Single Phase PWM Rectifier</b> WenJie Zhu, Keliang Zhou, Xiu'e Su Southeast University, <i>China</i>
15:20-15:40	1569284691	<b>Improved Pulse -Width Modulation of Diode-Assisted Buck-Boost Voltage Source Inverter</b> Yan Zhang, Jinjun Liu Xi'an Jiaotong University, <i>China</i>
15:40-16:00	1569288673	<b>A Simplified Analysis of the DC-DC Converters Applied as Maximum Power Point Tracker in Photovoltaic Systems</b> Roberto Coelho, Filipe Concer, Denizar Martins Federal university of Santa Catarina, <i>Brazil</i>

## Oral Session 2

Session Title: Integration and control of multiple power converters and systems

Date /Venue: June 16, 2010/ Joy Room (元禧厅)

Chair: Frede Blaabjerg, *Aalborg University, Denmark*

Chengxiong Mao, *Huazhong University of Science and Technology, China*

Time	Paper Code	Paper title
14:00-14:20	1569284281	<b>Initial Rotor position Control for Permanent Magnet Synchronous Generator Speed Sensorless Drive in Wind Power System</b> Kinglon Woo, Weizheng Yao XJ Flexible transmission system corporation, <i>China</i>
14:20-14:40	1569274549	<b>A Consideration of Bidirectional Superposed Dual Active Bridge DC-DC Converter</b> Toshiro Hirose, Hirofumi Matsuo Nishimu Electronics Industries Co., Ltd, <i>Japan</i>

14:40-15:00	1569275919	<b>Intelligent Protection for Embedded Generation using Active Impedance Estimation</b> Mark Sumner,Liangzhong Yao,Ram Parashar,Masoud Bazargan University of Nottingham, <i>United Kingdom</i>
15:00-15:20	1569284583	<b>A Fast Algorithm for Three-level SVPWM in NPC Inverters Based on Traditional Three-level SPWM</b> LI Ning, WANG Yue, JIANG Yingwei and WANG Zhaoan Xi'an Jiaotong University, <i>China</i>
15:20-15:40	1569275457	<b>Power electronic interfaces for Ultra-Available dc Micro-grids</b> Alexis Kwasinski The University of Texas at Austin, <i>Austin, USA</i>
15:40-16:00	1569275215	<b>An Approach to Improve Efficiency of EV Batteries Charger under Light Load</b> Li Jingxin,Niu Liyong Beijing Jiaotong University, <i>China</i>

### Oral Session 3

**Session Title: Power electronic converters and controls, including high voltage and high power converters**

**Date /Venue: June 16, 2010/ Peace Room (元和厅)**

**Chair: Siu Chung Wong, The Hong Kong Polytechnic University, HK**

**Ahmed Zobaa, University of Exeter, UK**

Time	Paper Code	Paper title
14:00-14:20	1569288715	<b>Implementation of FPGA Control for Multilevel Boost Converter used for PV Applications</b> Hamdy Radwan, Mostafa Mousa, Mahrous Ahmed, Mohamed Orabi APEARC, Aswan Faculty of Engineering, South Valley University, , <i>Egypt</i>
14:20-14:40	1569284029	<b>A Study on Dynamic Power Flow Caused by the Grid-connected PV Systems</b> Yan Li, Panpan Jing, Yulei Luo, etal Huazhong University of Science & Technology, <i>China</i>
14:40-15:00	1569275723	<b>Sensorless Control for PMSG in Direct-Drive Wind Turbine</b> Shuying Yang Hefei University of Technology, <i>China</i>
15:00-15:20	1569275291	<b>A Novel PWM Control Method for Switching DC-DC Converters with Improved Dynamic Response Performance</b> Jinping Wang,Jianping Xu Southwest Jiaotong University, <i>China</i>
15:20-15:40	1569275237	<b>Design of a Transcutaneous Power Regulator for Artificial Hearts</b> Kam-cheung Tang, Siu Chung Wong, Chi Kong Tse Hong Kong Polytechnic University, <i>Hongkong, China</i>
15:40-16:00	1569287967	<b>Control of Cascade Multilevel Inverter Using Fuzzy Logic Technique</b> Rabee' Alabbasi University of Basrah, <i>Iraq</i>

#### Oral Session 4

Session Title: High efficient power conversion for DG and renewable power systems

Date /Venue: June 17, 2010/ Prosperity Room(元昌厅)

Chair: Li Jun, South East University, CN

Dong-Choon Lee, Yeungnam University, Gyeongsan, KR

Time	Paper Code	Paper title
8:30 -8:50	1569286001	<b>High-frequency DC Link Flyback Single Phase Inverter for Grid-connected Photovoltaic System</b> Alian Chen,Shao Daming,DU Chunshui,Chenghui Zhang Shandong University, <i>China</i>
8:50-9:10	1569288723	<b>Development of High-Gain High-Efficiency Grid-Connected Inverter for PV Module</b> Omar Abdel-Rahim,Mahrous Ahmed,Mohamed Orabi APEARC, Aswan Faculty of Engineering, South Valley University, <i>Egypt</i>
9:10-9:30	1569289855	<b>Adaptive Maximum Power Point Tracker in Photovoltaic Grid-connected System</b> Haining Wang,JianHui Su,Chem Nayar,Peng Zhang Hefei University of Technology, <i>China</i>
9:30-9:50	1569284609	<b>Excitation for Establishing Voltage of Switched Reluctance Generator at Low Rotor Speed</b> Hao Chen China University of Mining & Technology, <i>China</i>

#### Oral Session 5

Session Title: Integration and control of multiple power converters and systems

Date /Venue: June 17, 2010/ Joy Room (元禧厅)

Chair: Liuchen Chang, University of New Brunswick, Canada

Time	Paper Code	Paper title
8:30-8:50	1569286261	<b>Evaluation of Current Controller Performance and Stability for Voltage Source Converters Connected to a Weak Grid</b> Tarjei Midtsund,Jon Are Suul,Undeland Tore M. Norwegian University of Science and Technology, <i>Norway</i>
8:50-9:10	1569285095	<b>DC Pre-excitation Application in Three-phase Induction Motor Drive System</b> Hu Sideng,Zhengming Zhao,Ting Lu,Liqiang Yuan Tsinghua University, <i>China</i>
9:10-9:30	1569288717	<b>Design Consideration of Modified SEPIC Converter for LED Lamp driver</b> Mokhtar Ali,Mohamed Orabi,Mahrous Ahmed, Abdelali El-Aroudi APEARC, Aswan Faculty of Engineering, South Valley University, <i>Egypt</i>
9:30-9:50	1569288749	<b>NPC-multilevel-multistring topology for large scale grid connected photovoltaic systems</b> Samir Kouro, Kebede Asfaw, Rhys Goldman, Ryan Snow, Bin Wu, R. odriguez Jose Ryerson University, <i>Canada</i>

## Oral Session 6

Session Title: Power electronic converters and controls, including high voltage and high power converters

Date /Venue: June 17, 2010/ Peace Room (元和厅)

Chair: Alexis Kwasinski, *University of Texas at Austin, USA*

Time	Paper Code	Paper title
8:30-8:50	1569284209	<b>Modeling and Control of Three-Phase Multilevel Inverter-Based STATCOM</b> Tzeng-Shong Yeh,Huang-Fu Jhu,Hsiao-Wei Sung National Kaoshiung University of Applied Sciences, <i>Taiwan,China</i>
8:50-9:10	1569287969	<b>Analysis and Experimental Results of Switched-Resonator-Based Buck-Boost and Inverting-Buck Converters</b> M. Jabbari, H. Farzaneferd Isfahan university of technology, <i>Iran</i>
9:10-9:30	1569284207	<b>Analysis and Implementation of a Novel Space Vector Modulation Strategy for Multilevel Inverter about the Operations in the Overmodulation Region</b> Yie-Tone Chen National Yunlin University of Science & Technology, <i>Taiwan,China</i>
9:30-9:50	1569283897	<b>A Parallel Soft-Switching Push-Pull Converter Applied In Automotive Inverters</b> Yuan Yisheng East China Jiaotong University, <i>China</i>

## Oral Session 7

Session Title: DG interfacing technologies to the grid

Date /Venue: June 17, 2010/ Prosperity Room(元昌厅)

Chair: Mohamed Orabi, *South Valley University, Egypt*

Luo An, *Hunan University, China*

Time	Paper Code	Paper title
10:15-10:35	1569273567	<b>Amplitude limiting for the Grid-Connected Photovoltaic (PV) Inverter with the function of active power filter</b> DU Chunshui,Chenghui Zhang,Alian Chen Shandong University, <i>China</i>
10:35-10:55	1569288679	<b>Robust Control of PMSG Wind Turbine Systems with Back-to-Back PWM Converters</b> Ki-Hong Kim,Dong-Choon Lee Yeungnam University, <i>Korea</i>
10:55-11:15	1569275143	<b>A Series Compensator Based on AC-AC Power Converters with Virtual Quadrature Modulation</b> Bingsen Wang Michigan State University, <i>U.S.A</i>
11:15-11:35	1569280291	<b>Dead-Zone Digital Controllers for Improved Dynamic Response of Tri-state Boost PFC converter over Wide Load Range</b> Fei Zhang,Jianping Xu,Haikun Yu,Ping Yang Southwest Jiaotong University, <i>China</i>

11:35-11:55	1569275461	<b>A Single-Inductor Dual-Output Buck Converter with Pulse-Train Control</b> Xueshan Liu,Jianping Xu,Jinping Wang,Qingbo Mu Southwest Jiaotong University, <i>China</i>
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### Oral Session 8

**Session Title: DG and converter interfacing technologies for utility grids and power quality**

**Date /Venue: June 17, 2010/ Joy Room (元禧厅)**

**Chair: Xiaoming Zha, Wuhan University, China**

Time	Paper Code	Paper title
10:15-10:35	1569284297	<b>An Active and Reactive Power Regulating System Based on a Cascaded-converter</b> Chengkuan Wan,Geng Yang,Weiyang Wu,Wei Zhang, Zhichao He Yanshan university, <i>China</i>
10:35-10:55	1569286653	<b>Design and comparison of active frequency drifting islanding detection methods for DG system with different interface controls</b> Hua Geng,David Xu,Bin Wu,Geng Yang Ryerson University, <i>Canada</i>
10:55-11:15	1569284305	<b>A Novel PLL for Grid Synchronization of Power Electronic Converters in Unbalanced and Variable-Frequency Environments</b> Xiong Fang, Yue Wang,Ming Li,Ke Wang, Wanjun Lei Xi'an Jiaotong University, <i>China</i>
11:15-11:35	1569275289	<b>Distribution Network Reactive Power Optimization Based on Ant Colony Optimization and Differential Evolution Algorithm</b> Yulin Zhao,Qian Yu, Zhao-Chunguang Northeast Agricultural University, <i>China</i>

### Oral Session 9

**Session Title: Power electronic converters and controls, including high voltage and high power converters**

**Date /Venue: June 17, 2010/ Peace Room (元和厅)**

**Chair: Hirofumi Matsuo, Nagasaki University, Japan**

**Zhengming Zhao, Tsinghua University, China**

Time	Paper Code	Paper title
10:15-10:35	1569284229	<b>A Novel Three-Phase Quasi-Soft-Switching DC/AC Inverter</b> Weimin Wu,Pan Geng,Jianming Chen,Yinzhong Ye,Tianhao Tan Shanghai Maritime University, <i>China</i>
10:35-10:55	1569289149	<b>High Frequency and High Power Density Transformers for DC/DC Converter used in Solar PV System</b> J. Lu, S. Stegen, and D. Butler Griffith University, <i>Australia</i>
10:55-11:15	1569285081	<b>A General Internal Model Principle Based Control Scheme for CVCF PWM Converters</b> Wenzhou Lu,Keliang Zhou,YunHu Yang Southeast University, <i>China</i>

11:15-11:35	1569285637	<b>Design of Current-Controller with PR-regulator for LCL-Filter Based Grid-Connected Converter</b> Guohong Zeng, Tonny Rasmussen Beijing Jiaotong University, <i>China</i>
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### Oral Session 10

**Session Title:** DG interfacing technologies to the grid

**Date /Venue:** June 17, 2010/ Prosperity Room(元昌厅)

**Chair:** Chem Nayar, *Curtin University of Technology, Australia*

Li Shenghu, *Hefei University of Technology, China*

Time	Paper Code	Paper title
14:00-14:20	1569282723	<b>A new islanding detection approach using wavelet packet transform for wind-based distributed generation</b> Walid Morsi, Liuchen Chang, Chris Diduch University of New Brunswick, <i>Canada</i>
14:20-14:40	1569274671	<b>Grid-Connected Power Converter with Islanding Detection and Active Power Filter Functions</b> Jia-Min Shen, Hurng-Liahng Jou, Jinn-Chang Wu National Kaohsiung University of Applied Sciences, <i>Taiwan, China</i>
14:40-15:00	1569288245	<b>United System of TSC and SVG for Reactive Power Compensation</b> Weifeng Guo, Dianguo Xu, Jian Wu, Liguang Wang Harbin Institute of Technology, <i>China</i>
15:00-15:20	1569281209	<b>Two-Degree-of-Freedom Nonsinusoidal Current Regulation (NCR) of Grid-connected Converters Based on Virtual Admittance Concept</b> Gu Herong, Wang Deyu, Guo Xiaoqiang, San Guocheng, Zhao Wei, Zhang Ying, and Wu Weiyang Yashan University, <i>China</i>
15:20-15:40	1569284769	<b>Predictive DC Voltage Control for Three-phase Grid-connected PV Inverters Based on Energy Balance Modeling</b> Fanbo He, Zhengming Zhao, Ting Lu, Liqiang Yuan Tsinghua University, <i>China</i>
15:40-16:00	1569281847	<b>A simple design of DC power system with multiple source-side converters to operate stably under constant power load</b> Duong Tran, Haihua Zhou, and A. M. Khambadkone National University of Singapore, <i>Singapore</i>

### Oral Session 11

**Session Title:** Power semiconductor devices and high efficient conversion

**Date /Venue:** June 17, 2010/ Joy Room (元禧厅)

**Chair:** Bingsen Wang, *Arizona State University, USA*

Time	Paper Code	Paper title
14:00-14:20	1569288531	<b>High Voltage Power MOSFET with Reduced JFET Area Design</b> Feng-Tso Chien, Tien-Chun Li, Ping-Hung Lai, Chien-Nan Liao, Yao-Tsung Tsai Feng Chia University, <i>Taiwan, China</i>

14:20-14:40	1569288557	<b>Comparison of Termination Structure Design by Device Simulator</b> Chiennan Liao,Ping-Hung Lai,Tien-Chun Li,Feng-Tso Chien,Yao-Tsung Tsai National Central University, <i>Taiwan,China</i>
14:40-15:00	1569275625	<b>A New UPS Converter Applied with One Set of Batteries</b> Yuan Shiyong,Cao Hui,Yuan Yisheng East China Jiaotong University, <i>China</i>
15:00-15:20	1569284225	<b>Design and Implementation LLC Resonant Converter with High Efficiency at Light Load Condition</b> Ya-Chun Chen,T. J. Liang, Wei-Jing Tseng, Jia-You Lee, Lung-Sheng Yang National Cheng Kung University, <i>Taiwan,China</i>
15:20-15:40	1569275205	<b>Decentralized Operation of Multiple Shunt Active Power Filters for Power Quality Improvement with Capability Limitation Control</b> Siyu Leng, II-Yop Chung, David Cartes Florida State University, <i>Tallahassee, U.S.A</i>
15:40-16:00	1569274611	<b>Research on Soft Starter of Asynchronous Electromotor Based on Magnetically Controllable Reactor</b> Jia Guixi, Yuan Su Tian Jin university, <i>China</i>

## Oral Session 12

**Session Title: Power electronic converters and controls**

**Date /Venue: June 17, 2010/ Peace Room (元和厅)**

**Chair: Tao Cai, Huazhong University of Science and Technology, China**

**Yie-Tone Chen, National Yunlin University of Science & Technology, TW, China**

<b>Time</b>	<b>Paper Code</b>	<b>Paper title</b>
14:00-14:20	1569288751	<b>An n-level Flying Capacitor Based Active Neutral Point Clamped Converter</b> Sridhar Pulikanti,Georgios Konstantinou, Vassilios Agelidis The University of Sydney, <i>Australia</i>
14:20-14:40	1569287035	<b>The dual-loop control strategy of railway static power regulator for V/V electric traction system</b> Ma Fujun, Luo An, Wu Chuanping, etal Hunan university, <i>China</i>
14:40-15:00	1569288767	<b>A New Class of Single-Phase Multilevel Inverter</b> Yaosuo Xue,Madhav Manjrekar Siemens Corporate Research, <i>U.S.A</i>
15:00-15:20	1569285305	<b>FPGA-Based Multi-level Inverter Multi-carrier Pulse Generation Theory and Implementation Method</b> Jinghua Zhou North China University of Technology, <i>China</i>
15:20-15:40	1569288607	<b>The Stability Analysis and Determination of Multi-module Distributed Power Electronic Systems</b> Dan.Hou, Jinjun. Liu, Hao.Wang and Wei Huang Xi'an Jiaotong University, <i>China</i>

15:40-16:00	1569285295	<b>A New Voltage Sag Generator Base on Power Electronic Devices</b> Dongyu Li,Honglin Zhou,Geng Yang,Shuai Xiao Tsinghua University, <i>China</i>
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### Oral Session 13

**Session Title: Applications of new energy systems**

**Date /Venue: June 18, 2010/ Prosperity Room(元昌厅)**

**Chair: Liming Liu, Florida State University, USA**

Time	Paper Code	Paper title
8:30- 8:50	1569275239	<b>Research on the Complex Vector Control Strategy for MW level Permanent Magnet Synchronous Wind-driven Generator</b> WANG Ling-xiang, ZHANG xing,ZHANG Chong-wei, etal Hefei University of Technology, <i>China</i>
8:50-9:10	1569275295	<b>Study on Neutral-Point Potential Balance of Tri-level NPC inverter in 3-Phase 4-Wire System</b> Wenping Zhang,Li Xiao,Chengrui Du, Wu Xiaotian, Dehong Xu Zhejiang University, <i>China</i>
9:10-9:30	1569284669	<b>Characteristics and Experimental Study on a Novel Tangential/Radial Hybrid Excitation Synchronous Machine</b> Shushu Zhu,Chuang Liu,Yihao Xu,Xiang Zhou Nanjing University of Aeronautics and Astronautics, <i>China</i>
9:30-9:50	1569276365	<b>Dynamic Equivalence to Induction Generators and Wind Turbines for Power System Stability Analysis</b> Shenghu Li,Zhengkai Liu,Xinjie Hao,Shusen Jia Hefei University of Technology, <i>China</i>

### Oral Session 14

**Session Title: Control, communication and monitoring of DGs and renewable energy systems**

**Date /Venue: June 18, 2010/ Joy Room (元禧厅)**

**Chair: Gerry Hurley, National University of Ireland, Galway, Ireland**

**Meiqin Mao, Hefei University of Technology, China**

Time	Paper Code	Paper title
8:30-8:50	1569286613	<b>Efficiency of Kinetic Hydropower Systems</b> Yan Du,Xiangzhen Yang Hefei University of Technology, <i>China</i>
8:50-9:10	1569288605	<b>Development of High Gain and Efficiency Photovoltaic System Using Multilevel Boost Converter Topology</b> Mahrous Ahmed,Mostafa Mousa,Mohamed Orabi APEARC, Aswan Faculty of Engineering, South Valley University, <i>Egypt</i>
9:10-9:30	1569286061	<b>Simulation on Control Strategies of Grid-connected Inverters</b> Hongbin Wu, Hui Sun, Liang Cai, Xiaofeng Tao Hefei University of Technology, <i>China</i>

9:30-9:50	1569281581	<b>Constant Power Flow Control of Point of Common Coupling for High Proportion Photovoltaic Microgrid</b> Lingwei Zheng, Shirong Liu, Qinghe Xu, Eisuke Shimoda, Hirotohi Esaki, Shigeyuki Suzuki East China University of Science and Technology, <i>China</i>
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### Oral Session 15

**Session Title: Energy storage, and energy management**

**Date /Venue: June 18, 2010/ Peace Room (元和厅)**

**Chair: Rabee' H. Alabbasi, College of Engineering - University of Basrah, IQ**

**Huijuan Liu, Beijing Jiaotong University, China**

Time	Paper Code	Paper title
8:30-8:50	1569288297	<b>Dynamic Economic Dispatch for Microgrids Including Battery Energy Storage</b> Xiaoping Liu, Ming Ding, Jianghong Han, Pingping Han Hefei University of Technology, <i>China</i>
8:50-9:10	1569283981	<b>Applications of Battery Energy Storage System (BESS) for Energy Conversion Base in Expo 2010</b> Wei Shi, Jiuchun Jiang, Suoyu Li, Siqi Lin, Peifeng Lin, Feng Wen University of Beijing Jiaotong, <i>China</i>
9:10-9:30	1569276167	<b>BoS Cost Savings and LCOE Reduction for a 10 MW PV System with the 500 kW Transformerless Inverter</b> Chia-Han Hung, Jack Gilmore, Ching-Ping Huang, et al Advanced Energy Industries, Inc, <i>China</i>
9:30-9:50	1569284657	<b>A Novel Control Strategy for Hybrid Energy Storage System to relieve battery stress</b> Fangcheng Liu, Jinjun Liu, Linyuan Zhou Xi'an jiaotong university, <i>China</i>

### Oral Session 16

**Session Title: Applications of new energy systems**

**Date /Venue: June 18, 2010/ Prosperity Room(元昌厅)**

**Chair: Dehong Xu, Zhejiang University, China**

Time	Paper Code	Paper title
10:15-10:35	1569288725	<b>Development of Grid Connected Power Conditioner System Compatible with Fuel Cell Applications</b> Hala Rslan, Mahrous Ahmed, Mohamed Orabi APEARC, Aswan Faculty of Engineering, South Valley University, <i>Egypt</i>
10:35-10:55	1569286389	<b>A Study on the Aggregated Wind Power Forecast Error by Spatial Smoothing Effects in the Canadian Maritimes</b> Yu Han, Liuchen Chang <i>Nova Scotia Power, Canada</i>
10:55-11:15	1569288561	<b>A New Approach to Achieve Maximum Power Point Tracking for PV System with a Variable Inductor</b> Longlong Zhang, Gerry Hurley, Werner W.

		Zhejiang University, <i>China</i>
11:15-11:35	1569286321	<b>Research and Design of Calibrating Device of High Voltage Power</b> Zhou Zhentao, Denghui, Sun Lijie Hohai University, <i>China</i>

### Oral Session 17

**Session Title: Control, communication and monitoring of DGs and renewable energy systems**

**Date /Venue: June 18, 2010 / Joy Room (元禧厅)**

**Chair: Yaosuo Xue, Siemens Corporate Research, Princeton, USA**

Time	Paper Code	Paper title
10:15-10:35	1569283341	<b>Reliability Evaluation of Distribution System with Wind Farms Based on Network-Equivalent Method</b> Ming Ding, Fang Cui, Jingjing Wang, Yangbin Zheng Hefei University of Technology, <i>China</i>
10:35-10:55	1569284331	<b>Fossil fuel and biomass fed distributed generation and utility plants: analysis of energy and environmental performance indicators</b> Giovanni Petrecca, Norma Anglani University of Pavia, <i>Italy</i>
10:55-11:15	1569284589	<b>DC Link Voltage Control Strategy of Grid-connected Wind Power Generation System</b> Jianzhong Zhang, Ming Cheng Southeast University, <i>China</i>
11:15-11:35	1569288581	<b>A PAC Based regulating power-factor method for Three-phase PWM Voltage-Type Converter</b> Keqing Qu, Hao Zhou Shanghai University of Electric Power, <i>China</i>

### Oral Session 18

**Session Title: Microgrids; DG interfacing technologies to the grid**

**Date/ Venue: June 18, 2010 / Peace Room (元和厅)**

**Chair: Hua Geng, Ryerson University, Canada**

Time	Paper Code	Paper title
10:15-10:35	1569283407	<b>Digital Real-time DC Injection Measurement Technique for Transformerless PV Systems</b> Xiaoqiang Guo, Weiyang Wu Yanshan University, <i>China</i>
10:35-10:55	1569286497	<b>Operation Optimization for Microgrids under Centralized Control</b> Ming Ding, Yingyuan Zhang, Meiqin Mao Hefei University of Technology, <i>China</i>
10:55-11:15	1569287413	<b>Fast Repetitive Controller Based Dynamic Voltage Restorer System for Voltage-Quality issues in Low-Voltage Distribution System</b> Suxuan Guo Wuhan University, <i>China</i>

11:15-11:35	1569288519	<b>Multi-objective Economic Dispatch Model for A Microgrid Considering Reliability</b> Meiqin Mao, Meihong Ji, Wei Dong, Liuchen Chang Hefei University of Technology, <i>China</i>
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### Poster Session 1

**Date /Time/Venue: June 16, 2010/16:15-18:00/ Prosperity Room**

**Session Title: High efficient power conversion for DG and renewable power systems; Power electronic converters and controls, including high voltage and high power converters**

**Chair: Bao Xiaohua, Hefei University of Technology, China**

<b>Paper Code</b>	<b>Paper title</b>
1569281547	<b>Small Signal Modeling of Digital V2 Control for Buck Converter with Pulse Frequency Modulation</b> Yanyan Jin,Jianping Xu,Guohua Zhou,Changbao Mi Southwest Jiaotong University, <i>China</i>
1569275927	<b>A Novel Envelope Curve Modulation Method for the SPWM Controlled High Frequency Link Matrix Inverter</b> Zhaoyang Yan,Wei Zhang,Qian Zhang,Jianxia Li,Yingnan Zheng,Weiyang Wu Yanshan University, <i>China</i>
1569280299	<b>Study on Control Strategy of Maximum Power Capture For DFIG in Wind Turbine System</b> Zhen Xie HeFei university of technology, <i>China</i>
1569281703	<b>Implementation of a DC Power System with PV Grid-Connection and Active Power Filtering</b> Yu-En Wu National Kaohsiung First University of Science and Technology, Kaohsiung Taiwan, <i>Taiwan,China</i>
1569282679	<b>Neutral Point Voltage Control for Three-level Fuel Cell Power Conversion System</b> Li Xiao,Wenping Zhang,Chengrui Du,Wu Xiaotian,Dehong Xu Zhe Jiang University, <i>China</i>
1569283358	<b>Selecting the Carrier Frequency for Two-Stage Matrix Converter Based on dual space vector and dual carrier modulation</b> Yi Zhang, Xiangzhi Meng,Anming Zhong Hefei University of Technology, <i>China</i>
1569285057	<b>High Frequency Link Single-Phase Grid-Connected PV Inverter</b> ,Keliang Zhou,WenJie Zhu,Xiu'e Su Southeast University, <i>China</i>
1569287283	<b>Analysis and Design of A High Efficiency Current Fed Multi-Resonant Converter for High Step-up Power Conversion in Renewable Energy Harvesting</b> Bo Yuan,Xu Yang,Dong Li Xi'an Jiaotong University, <i>China</i>

1569285365	<b>An Improved MPPT Method for Photovoltaic Power Generation System</b> Pei-chun Qiu, Baoming Ge, Daqiang Bi Beijing Jiaotong University, <i>China</i>
1569274759	<b>PFC Study Based on ZVT-PWM Soft-switching Technology</b> Di LU Xi'an University of Architecture & Technology, <i>China</i>
1569274831	<b>An Improved Phase-shift Control Method for Isolated Asymmetry</b> Hongxia Wu Huangshi Institute of Technology, <i>China</i>
1569274865	<b>Design of Boost-Flyback Single-Stage PFC Converter for LED Power Supply without Electrolytic Capacitor for Energy-Storage</b> Hongxia Wu, Mao YE Huangshi Institute of Technology, <i>China</i>
1569274959	<b>A Novel Topology Family of Single-stage Parallel Mode Uninterruptible AC/DC Converter with PFC</b> Jinhua Liu Hubei Normal University, <i>China</i>
1569275425	<b>Planar Bus bar Optimum Design in High-Power Converters Based on FEM Analysis</b> Hui Zhang China University of Mining and technology, <i>China</i>
1569275529	<b>Research on Hardware-in-the-Loop Simulation of Active Power Filter</b> Xiaopin Yang Wuhan university, <i>China</i>
1569287759	<b>Parallel Operation of Active Power Filters Based on Boost Converter Control</b> Liu Yang, Xiaoming Zha Wuhan University, <i>China</i>
1569275599	<b>A novel soft switch for Buck converter</b> Weiping Zhang, Xiaoqiang Zhang, Shisheng Xiao North China University of Technology, <i>China</i>

## Poster Session 2

**Date /Time/Venue:** June 16, 2010/16:15-18:00/ Joy Room

**Session Title:** Integration and control of multiple power converters and systems; Novel technology for DG

**Chair:** Jia Guixi, *Tianjin University, China*

**Du Yan, Hefei University of Technology, China**

<b>Paper Code</b>	<b>Paper title</b>
1569272981	<b>Application of A Matrix Converter for PMSG Wind Turbine Generation System</b> Guoliang Yang, Yangpin Zhu Yanshan University, <i>China</i>
1569274839	<b>A New Control Strategy for Three-phase Four-wire UPQC When Voltage Fluctuating on Its DC Side</b> Tan Zhili, Zhu Dongjiao School of Mechanical & Electronic Information, China University of Geosciences, <i>China</i>

1569274945	<b>A new method to design the dc voltage controller for UPQC</b> Zhu Dongjiao,Tan Zhili School of Mechanical & Electronic Information, China University of Geosciences, <i>China</i>
1569275695	<b>Bifurcation Behavior of Wind Energy Generation Systems</b> Zhen Li,Siu Chung Wong,Chi Kong Tse,Grace Chu The Hong Kong Polytechnic University , <i>HongKong,China</i>
1569281747	<b>Topology Family and the Simulation of "BOOK" Differential Single Stage Inverter</b> Zhaoyang Yan,Jianxia Li,Wei Zhang,Qian Zhang,Yingnan Zheng,Weiyang Wu Yanshan University, <i>China</i>
1569282379	<b>Decoupling Control Strategy of Single Phase SPWM Parallel Inverter</b> Xu Shungang Southwest Jiaotong University, <i>China</i>
1569282911	<b>Application study of multiphase coupling array integrated magnetics in VRM</b> Li Hongzhu,Chen Zhengyi,Yang Yuyang Liao ning Technical University, <i>China</i>
1569283507	<b>Comparison of the Voltage and Frequency Control Schemes for Voltage Source Converter in Autonomous Microgrid</b> Yang Wang,ZongXiang Lu,Yong Min Tsinghua University, <i>China</i>
1569283563	<b>A research of combined multifunctional three phase grid-connected Inverter/Active power filter for PV system</b> Haoran Bai,Fengmei Li QingDao agriculture university, <i>China</i>
1569275489	<b>A New PFC Converter with Reduced Output Bus Capacitors</b> Yuan Yisheng East China Jiaotong University, <i>China</i>
1569275589	<b>A New Interleaved Three-Level Inverter</b> Yuan Yisheng,Yuan Shiyang East China Jiaotong University, <i>China</i>
1569276067	<b>Synchronous PI Current Control Technique for Three-Phase PFC Rectifiers for PMSG Wind Generation System</b> Yingtao Ma,Xudong Sun,Jianyun Chai Tsinghua University, <i>China</i>
1569287353	<b>High-reliability and High-efficiency Dual Parallel Topology for Active Power Filter in Distribution System</b> Baifeng Chen,Xiaoming Zha Wuhan University, <i>China</i>
1569274105	<b>A Novel Method to Calculate Line Stepped Voltage THD Case II: Multilevel Inverter with Equal DC Sources</b> Naeem Farokhnia,Hadi Vadizadeh,Fariba Anvari asl,Fatemeh Kadkhoda Amirkabir University of Technology, <i>Iran</i>

1569288535	<b>Modular Converter System Reliability &amp; Performance Analysis in Design</b> Tieling Zhang Vestas Singapore, <i>Singapore</i>
1569274879	<b>A Study on MMC Model and its Current Control Strategies</b> Yan Zhao, Xuehao Hu, Guangfu Tang, Zhiyuan He China Electric Power Research Institute, <i>China</i>
1569268779	<b>Control of Photovoltaic generation Assisted by Repetitive controller</b> Xin Tang Changsha university of science and technology, <i>China</i>

### Poster Session 3

**Date /Time/Venue: June 16, 2010/16:15-18:00/ Peace Room**

**Session Title: Power electronic converters and controls, including high voltage and high power converters**

**Chair: Chia-Han Hung, *Advanced Energy Industries, Inc, China***

**Wu Hongbin, *Hefei University of Technology, China***

<b>Paper Code</b>	<b>Paper title</b>
1569275627	<b>Research on Optimal Control of 3-phase Integrating Magnetic VRM based on State Variable Feedback Linearization Control Method</b> Cai Fu, Yugang Yang Liaoning Technical University, <i>China</i>
1569275667	<b>The Dynamic Analysis of Power MOSFET in Buck Converter</b> Weiping Zhang, Xiaoqiang Zhang North China University of Technology, <i>China</i>
1569276003	<b>Design of compensation network for LCC resonant converter</b> Xiaohan Guan North China University of Technology, <i>Beijing, China</i>
1569276031	<b>Digital Control Capacitor Charging Power Supply for High Power RSD Pulse Generator</b> Deyu Wang, Gu Herong, Weiyang Wu Yanshan University, <i>China</i>
1569276079	<b>A novel Indirect Current Control for Single-Phase PWM Rectifier at low frequency</b> Fan Shengfang, He Liqun Huazhong University of Science and Technology, <i>China</i>
1569278177	<b>Analysis of Topology and PWM Strategy for A New Multiple Input and Multilevel Inverter</b> Xuefeng Hu, ChunYing Gong, Jiayan Zhang Nanjing University of Aeronautics and Astronautics, <i>China</i>
1569282095	<b>Digital Control and Simulation of Parallel Current Mode for Buck Converter</b> Liu Xiaodong, Ye Yang, Deng Jiaojiao, Yan-Fei Liu Anhui University of Technology, <i>China</i>
1569284103	<b>Research on Single-Stage Inverter Based on Bi-Directional Buck DC Converter</b> Bin Qiu, Yundong Ma, Qing Cong Nanjing University Of Aeronautics And Astronautics, <i>China</i>
1569284345	<b>Research on the Passivity-Based Control Strategy of Buck-Boost Converters with a Wide Input Power Supply Range</b> Wang Bingyuan

	Aeronautical Automation Collage, Tianjin, <i>China</i>
1569284771	<b>A Neutral-Point Potential Control Method for Three-Level Inverters by Injecting Zero-sequence Voltage</b> Jinghua Zhou North China University of Technology, <i>China</i>
1569285065	<b>The comparative Study of Different Methods about Constructing Switching Table in DPC for Three-level Rectifier</b> Wu Wenjun, Yanru Zhong, Wang Jianjun Xi'an University of Technology, <i>China</i>
1569285283	<b>A control method of three-level PWM rectifier under the imbalanced three-phase grid voltage</b> Jinghua Zhou North China University of Technology, <i>China</i>
1569287099	<b>Research on Transient Behavior of SRM as Its Phase Windings are Broken</b> Yugang Yang Liaoning Technical University, <i>China</i>
1569287279	<b>The novel digital control restraining circulating currents strategy based on tracing the transient average current in parallel inverter system</b> Lvhu Shi, Hongtao Shan, Yong Kang Hubei university of automotive technology, <i>China</i>
1569287409	<b>Rotating Transformation and Resonant Control based Feedback Control Strategy for Dynamic Voltage Restorer System</b> Suxuan Guo, Dichen Liu Wuhan University, <i>China</i>
1569287925	<b>Primary Side Control Circuit of a Flyback Converter for HBLED</b> Feng Zhu Hefei University of Technology, <i>China</i>
1569288345	<b>A novel control strategy of LCL-VSC based on notch concept</b> Chun Liu Hefei University of Technology, <i>China</i>
1569288459	<b>Sliding Mode Control for Stabilizing DC-link of DC-DC Converter</b> Warit Thammasiriroj, Thanis Nuchkrua, Suthida Ruayariyasub King Mongkut's University of Technology North Bangkok, <i>Thailand</i>
1569288524	<b>Harmonic Elimination Control of a Five-Level DC-AC Cascaded H-bridge Hybrid Inverter</b> Georgios Konstantinou, Sridhar Pulikanti, Agelidis Vassilios G. The University of New South Wales, <i>Australia</i>
1569288671	<b>Estimating the Electrical Parameters of Induction Motors at Standstill Using RLS Method</b> Yanhui He, Yupeng Feng, Yue Wang Xi'an Jiaotong University, <i>China</i>

#### Poster Session 4

Date /Time/Venue: June 17, 2010/16:15-18:00/ Prosperity Room

Session Title: Applications of wind systems, photovoltaic systems, small hydro units, marine energy systems, fuel cells, microturbines, combined heat and power generators etc; Ground current suppression, dc injection suppression and EMI filter design; New power semiconductor

devices and modules for DG and renewable energy converters; Smart grids, demand response control and power system applications

Chair: Jinghua Zhou, *North China University of Technology, CN*

Paper Code	Paper title
1569268221	<b>Review of FRT Requirements for Integration of Wind Energy in China and Europe</b> Zhang Yong, Liu Zaiwen Beijing Technology and Business University, <i>Beijing, China</i>
1569275535	<b>Development of 22KW Experimental Platform for Wind Power Generation System Using SCIG</b> Yulin Yang, Yidong Chen, Zhiyun Jia, Wang Liqiao, and Weiyang Wu Yanshan University, <i>China</i>
1569276085	<b>Impacts of Doubly-fed Wind Turbine Generator Operation Mode on System Voltage Stability</b> Ming Ding, Li Bin, Han Ping Hefei University of Technology, <i>China</i>
1569276141	<b>A New Sensorless Control Strategy used in Direct-drive PMSG Wind Power System</b> Shengwen Fan, Peng Wang, Chunxue Wen North China University of Technology
1569280683	<b>An Integrated Control Method for Three-Level NPC Based PWM Rectifier-Inverter with Reduced Dc-bus Capacitors</b> Yingchao Zhang, Zhengming Zhao, Ting Lu, Liping Jin Tsinghua University, <i>China</i>
1569283657	<b>Study on transient stability of grid-connected large scale wind power system</b> Han Ping, Ming Ding, Li Bin Hefei University of Technology, <i>China</i>
1569284953	<b>Winding Structure of Switched Reluctance Motor Based on Three-Phase Bridge Converter and Its Influence on Torque Ripple</b> Dong Zhang, Dong Lei, Ming Qin, Xiaozhong Liao Beijing Institute of Technology, <i>China</i>
1569284233	<b>A Three Order Harmonic Injection Method to Reduce Current Harmonics for High Speed PM Generator</b> Haoran Bai, Fengmei Li QingDao agriculture university, <i>China</i>
1569284413	<b>Single-Phase Hybrid Clamped Three-Level Inverter Based Photovoltaic Generation System</b> Alian Chen, Weiyu Wang, DU Chunshui, Chenghui Zhang Shandong University, <i>China</i>
1569275287	<b>Research on Three-Level Static Synchronous Compensator</b> Yulin Zhao, Qiuyan Liang Northeast Agricultural University, <i>China</i>
1569287121	<b>A Novel Sector Partition Method for Phase to Phase Voltage Synthesis Control Strategy of Matrix Converter</b> Shimingming, Zhoubo, Maoyiran Nanjing University of Aeronautics and Astronautics, <i>China</i>

1569288337	<b>Development of Single-phase Photovoltaic Grid-connected Inverter Based on DSP Control</b> Hao Zhou University of Science and Technology Beijing, <i>China</i>
1569293096	<b>Development of a 450A-600V 6-in-1-package Intelligent Power Module (IPM)</b> Yulin Zhong Institute of Electrical Engineering, China Academy of Sciences, <i>China</i>
1569275177	<b>A real time digital test bed for a smart grid using RTDS</b> Passinam Tatcho,Hui Li Florida State University, <i>U.S.A</i>
1569285147	<b>Operational Reliability Evaluation of Generating System Considering Ageing Failure</b> Xianjun QI,Ming Ding,Wang Xingqiang Hefei University of Technology, <i>China</i>
1569285542	<b>Smart Grid: Challenges, Research Directions and Possible Solutions</b> Walid Morsi,Liuchen Chang,Chris Diduch,Fatouma Bagnan Beidou University of New Brunswick, Fredericton, <i>Canada</i>
1569276015	<b>Cogeneration System Utilizing Waste Heat from Sintering-Cooling Process</b> Jie LI Northeastern University, <i>China</i>
1569284651	<b>Study on Loss Allocation of Power Distribution Network with Distributed Generation</b> Wei Li ming, Lin Jun Jilin Institute of Architecture and Civil Engineering, <i>China</i>

## Poster Session 5

**Date /Time/Venue:** June 17, 2010/16:15-18:00/ Joy Room

**Session Title:** Energy storage, energy management, microgrids and hybrid energy systems; Control, communication and monitoring of DGs and renewable energy systems

**Chair:** Wang Haining, *Hefei University of Technology, China*

Wu Wenjun, *Xi'an University of Technology, China*

Paper Code	Paper title
1569290383	<b>Control of Inverter-interfaced Distributed Generation Systems in Different Operation Modes</b> Davood Khani,Ahmad Sadeghi Yazdankhah Sahand University of Technology, <i>Iran</i>
1569272879	<b>Research on combination of series and parallel with Supercapacitor Module</b> Enhui Zhang,Zhiping Qi,Tongzhen Wei Institute of Electronic Engineering, Chinese Academy of Sciences, <i>China</i>
1569279207	<b>Verification of the Equivalent Model of the Inverter in Microgrid</b> Shanshan Shi, ZongXiang Lu, Yong Min Tsinghua University, <i>China</i>
1569282809	<b>Fuel Cell UPS System without Bulky DC Electrolytic Capacitors</b> Chengrui Du,Li Xiao,Wu Xiaotian,Wenping Zhang,Dehong Xu Zhe Jiang University, <i>China</i>

1569283651	<p><b>A combined protection and control strategy to enhance the LVRT capability of a wind turbine driven by DFIG</b></p> <p>Dongdong Li ,Huajie Zhang Shanghai University of Electric Power, <i>China</i></p>
1569284121	<p><b>Research of Real-Time Database System for Microgrid</b></p> <p>Ming Ding, Xie Tian,Lei Wang Hefei University of Technology, <i>China</i></p>
1569284819	<p><b>Energy Management of Hybrid DC and AC Bus Linked Microgrid</b></p> <p>Dong Bo,Yongdong Li Tsinghua University,<i>China</i></p>
1569287259	<p><b>A Novel Three-port Bi-directional DC-DC Converter</b></p> <p>Jun Xie,Xing Zhang,Chongwei Zhang,Shengyong Liu HeFei University of Technology, <i>China</i></p>
1569287393	<p><b>Proportional-Resonant Based High-Performance Feedback Proportional-Resonant Based High-Performance Feedback Control Strategy for Voltage-Quality Improvement in Dynamic Voltage Restorer System</b></p> <p>Suxuan Guo,Dichen Liu Wuhan University, <i>China</i></p>
1569288283	<p><b>Multiple-Port DC/DC Converter for Power flows Management in Electric Vehicles</b></p> <p>Xing Zhang, Shengyong Liu, Jun Xie HeFei University of Technology, <i>China</i></p>
1569269213	<p><b>Adaptive Passivity-Based Control Strategies of Doubly Fed Induction Wind Power Generator Systems</b></p> <p>Hua Xue,Yufei Wang Shanghai University of Electric Power, <i>China</i></p>
1569275249	<p><b>Design of Common Communication Platform of Microgrid</b></p> <p>Rui Bi Hefei university of technology,<i>China</i></p>
1569275459	<p><b>Adaptive Optimal Fuzzy Control of Asymmetric Nonlinear Chua 欵機 Circuit Wind Power Chaos Systems</b></p> <p>Yufei Wang, Xiu Yang, Hua Xue Shanghai University of Electric Power,<i>China</i></p>
1569282263	<p><b>Research on No-load Grid-connection Control Strategy For Doubly-fed Wind Power System</b></p> <p>Wang Yong,Zhang Chun-Jiang,Chai Xiu-Hui,Kan Zhi-Zhong Yanshan University,<i>China</i></p>
1569282635	<p><b>Research on Control Strategies for Distributed Inverters in Low Voltage Micro-grid</b></p> <p>Hongbing Chen Hefei Univerty of Technology,<i>China</i></p>
1569282649	<p><b>Dynamic Modeling of Large Scale Power System with FACTS and DFIG type Wind Turbine</b></p> <p>Xiaoyan Bian Shanghai University of Electric Power, Shanghai,<i>China</i></p>

1569283625	<b>MPPT Control Strategy for Off-grid Wind Power System</b> Dong Liu,Zhensheng Wu,Hui Wang,Tianjian Wang Beijing Jiaotong University, <i>China</i>
1569283857	<b>Optimization of Design and Application of Micro-grid Energy Management System Data Acquisition System</b> Liang Zhou,Ming Ding,Rui Bi Hefei university of technology, <i>China</i>
1569284185	<b>A fuzzy control for a fuel cell generation system based on Field Programmable Gate Array</b> Fan Yang Shanghai university of electric power, <i>China</i>
1569288619	<b>Forecasting Power Output for Grid-connected Photovoltaic Power System without using Solar Radiation Measurement</b> Tao Cai, Shanxu Duan ,Changsong Chen Huazhong University of Science & Technology, <i>China</i>
1569283859	<b>Electric-Thermal Coupling Finite Element Analysis and Optimization Design of Current Lead in SMES</b> Jing Ma,Ruifang Liu Beijing Jiaotong University, <i>China</i>

## Poster Session 6

**Date /Time/Venue:** June 17, 2010/16:15-18:00/ Peace Room

**Session Title:** DG and converter interfacing technologies for utility grids and power quality; Islanding detection, safety protection and standards of DG systems

**Chair:** Yuan Yisheng, *East China Jiaotong University, China*

**Guohong Zeng, Beijing Jiaotong University, China**

<b>Paper Code</b>	<b>Paper title</b>
1569283711	<b>Real Time Digital Simulation (RTDS) of a novel Battery-integrated PV System for High Penetration Application</b> Yan Zhou,Hui Li,Liming Liu Florida State University, <i>U.S.A</i>
1569275219	<b>Structure design and its parameter optimization of output filter in Current balance compensation inverter for electrified railway</b> Wang Guo,Tian Mingxing,Ren Enen Lanzhou Jiaotong University, <i>China</i>
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