

International Conference on Power Electronics Systems and Applications

8th - 10th June 2011



Charging System and Energy Storage

| Abstract No | Topic | Presentation type | Session No. |
|-------------|--|-------------------|-------------|
| 1 | Measurement Evaluation of Electromagnetic Radiation from the Electrical Wiring in Evs | Oral | P |
| 2 | An Improved MPPT Algorithm Based on Traditional Incremental Conductance Method | Oral | A |
| 3 | Detection for Voltage Fluctuation and Flicker Calculation Based On The Instantaneous Reactive Power Theory | Oral | M |
| 4 | Harmonic analysis method based on multiple modulation zoom analysis and interpolating windowed FFT method | Poster | Q |
| 5 | Study on Charge Controlled Modulation of a Current Source Grid-connected Inverter | Oral | K |
| 6 | Research and Development of Photovoltaic Grid-connected Inverter Based on DSP | Oral | A |
| 7 | Research of Photovoltaic Inverter Based on UC3854 | Oral | A |
| 8 | The Design of Photovoltaic Monitoring System | Oral | A |
| 9 | Design of Three-phase Photovoltaic Grid-connected Inverter Based on DSP | Oral | A |
| 10 | Design and Research of Off-grid Wind-Solar Hybrid Power Generation Systems | Oral | F |
| 11 | Optimal Configuration and Analysis of Isolated Renewable Power Systems | Poster | Q |
| 12 | Research on Grid side PWM Converter Based on DSP for Double Fed Wind Power Generation System | Oral | F |
| 13 | Research on Rotor side Converter Based on DSP for Double Fed Wind Power Generation System | Oral | F |
| 14 | Discussion on Monitoring Schemes of Distributed Generation and Micro-grid Systems | Oral | K |
| 15 | PLC control system for Power plant coal conveying link | Poster | Q |
| 16 | Research on 10kWp Photovoltaic Grid-connected System | Oral | K |
| 17 | Auto Testing System for Vehicle Generator | Oral | P |
| 18 | Research on Modeling of BLDCM Control System Based on S-function Builder | Poster | Q |
| 19 | Construction of Various Energy Micro-grid Laboratory | Oral | K |
| 20 | Development of the distributed generation system based on various renewable energy sources | Oral | G |
| 26 | Analytical Research on Unified Power Quality Conditioner based on super capacitors Energy Storage system | Oral | E |
| 27 | Research on Current Feedforward Decoupling Control for Energy Feedback and Grid-connected Device | Oral | K |
| 28 | Research on elevator drive device with super capacitor for energy storage | Oral | E |
| 29 | Research on sliding mode variable structure rotational speed observer used in PMSM-DTC | Oral | J |
| 30 | Research on power feedforward control strategy of PWM rectifier | Oral | H |

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|----|--|--------|---|
| 33 | Research on hysteresis tracking control method with constant switching frequency for UPQC based on Voltage Space Vector | Poster | Q |
| 37 | The Implementation of a Novel Open-winding Permanent Magnetic Starter-generator | Poster | Q |
| 39 | Sensorless control with two types of pulsating high frequency signal injection methods for SPMSM at low speed | Poster | Q |
| 41 | Simulation Research on a Novel Distributed Generation System | Oral | B |
| 43 | A Novel Modulation Strategy for Three-Phase Four-Leg Matrix Converters | Poster | Q |
| 44 | Study and Realization of a Non-Contact Power Supply System with Fast Information Transmission Capability | Oral | N |
| 46 | Design and simulation of a novel planar switched reluctance generator (Oral) | Oral | J |
| 47 | An adaptive control method for the linear switched reluctance motor (Oral) | Oral | J |
| 48 | Design and Optimization for the Linear Switched Reluctance Generator (Oral) | Oral | J |
| 50 | Optimized Active-Clamp Circuit Design for an Isolated Full-Bridge Current-fed DC-DC Converter (Oral) | Poster | Q |
| 51 | A non-linear dynamic model for an ultracapacitor energy buffer (Oral) | Oral | E |
| 54 | Algorithm research of i deadbeat control for photovoltaic grid-connected inverter | Oral | B |
| 55 | Design of the Inverter in a grid-connected Small Scale Wind Power Generation System | Oral | B |
| 57 | Hardware-in-the-Loop system for Battery management system in HEV | Oral | G |
| 58 | Study of Small Wind Power System's Grid-connected Inverter Based on Improved SPWM Current Control Algorithm | Oral | B |
| 61 | Evaluation of Magnetic Field From Varied Permutation Power Transmission Line at High Technology Nano-Fab (Oral / Poster) | Poster | Q |
| 62 | Magnetoresistive Sensor Readout Circuit and Field Canceling System in Next Generation Nano-Fab(Oral / Poster) | Poster | Q |
| 63 | Optimization of Speed Control Algorithm to Achieve Minimum Torque Ripple for a Switched Reluctance Motor Drive via GA | Oral | D |
| 64 | Research on a novel switched reluctance generator for wind power generation | Oral | D |
| 65 | Investigation on Parameters of Automotive Electromagnetic Active Suspensions | Oral | P |
| 66 | C-core Switched Reluctance Generators for Wind Energy | Oral | F |
| 67 | Study of Art of Automotive Active Suspensions | Oral | P |
| 68 | DESIGN OF COIL STRUCTURE ACHIEVING UNIFORM MAGNETIC FIELD DISTRIBUTION FOR WIRELESS CHARGING PLATFORM | Oral | N |
| 72 | Research on Double-close-loop fuzzy controlled SVPWM VSR for EV charger | Oral | C |

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|----|--|-------------|----------|
| 73 | The Study of Distributed EV Charging Station Based on Network | <u>Oral</u> | C |
| 75 | Analysis and Design of a New Cost Effective Converter for Switched Reluctance Motor Drives | <u>Oral</u> | D |
| 76 | Parameters Calculation and Optimized Design for Brushless Doubly-fed Reluctance Machine | <u>Oral</u> | D |
| 77 | Hardware-in-the-loop Simulation on a Hybrid Power System | <u>Oral</u> | M |
| 78 | Study on Energy Management Strategy of Hybrid Electric Vehicle with an Electromagnetic Continuously Variable Transmission | <u>Oral</u> | G |
| 79 | Shifting Process Study on AMT of a Parallel Hybrid Electric Vehicle | <u>Oral</u> | P |
| 80 | Understanding the Conducting States of Active and Passive Switches in an Inverter Circuit Used for Power System Applications | <u>Oral</u> | M |
| 81 | Research on Energy Management Strategy and Real-Simulation in Hybrid Electric Tracked Vehicle | <u>Oral</u> | G |
| 82 | The Effective Improvement of the PMSM System with the Self-control of the Carrier Frequency | <u>Oral</u> | L |
| 83 | The Study of the On-board Charger with the Bridgeless PFE | <u>Oral</u> | N |
| 84 | Study on the Fast Charging Method of Lead-Acid Battery with Negative Pulse Discharge | <u>Oral</u> | N |
| 85 | Study on electromagnetic interference restraining of electrical vehicle charging system | <u>Oral</u> | M |
| 86 | Electromagnetic and Thermal Coupling Analysis and Structure Optimization of Induction Heater | <u>Oral</u> | H |
| 87 | Development of Embroidery Machine Vector Control Speed Regulation System Based on DSP | <u>Oral</u> | L |
| 88 | Integral sliding mode control and its application on Active suspension system | <u>Oral</u> | P |
| 89 | Study and Implementation of a Single- Stage Contactless Power Supply with High Power Factor and Load/Gap Detection Mechanism | <u>Oral</u> | N |
| 91 | Optimization design on salient pole rotor of BDFM using the Taguchi method | <u>Oral</u> | D |
| 92 | A Novel Position Detection Method of Sensorless Brushless DC Motor Based on dsPIC | <u>Oral</u> | J |
| 93 | Simple Modeling and FEM Simulation of a Double-rotor Disc-type PM Synchronous Generator for Wind Power Generating System | <u>Oral</u> | F |
| 94 | A Review of International charging coupler Standards and its availability in Hong Kong | <u>Oral</u> | N |
| 95 | A web site design method in Green energy teaching | <u>Oral</u> | G |
| 96 | Stability Control of a dual-motor vehicle based on coordinated application of motor and hydraulic actuator | <u>Oral</u> | L |

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|-----|--|-------------|----------|
| 97 | Influence of Control Strategies on Motor/Generator Load Characteristics in Parallel Hybrid Electric Power Train | <u>Oral</u> | L |
| 99 | Study on the Dead-time Effect in PWM Inverter Control of Electric Vehicle's Motor | <u>Oral</u> | L |
| 101 | Study on the Dynamical Characteristic for Voltage-feedback Push-Pull DC-DC Converter | <u>Oral</u> | H |
| 102 | Study on control strategy of V2G in power peaking | <u>Oral</u> | B |
| 103 | Comparison of Control strategies for DC/DC Converter | <u>Oral</u> | H |
| 104 | Auto Disturbances Rejection Control of Wind Energy Conversion System Based on DFIG under Unbalanced Grid Voltage | <u>Oral</u> | M |
| 105 | Interaction Analysis of FACTS Controllers Based on Relative Gain Array Principle | <u>Oral</u> | M |
| 107 | Design and Simulation of a Linear Switched Reluctance Generator for Wave Energy Conversion | <u>Oral</u> | G |
| 108 | Charging Network for Electrical Vehicles | <u>Oral</u> | C |
| 109 | Survey of Modeling Methods for Flux Linkage of Switched Reluctance Motor | <u>Oral</u> | J |
| 111 | Energy management system using ultra-capacitor as energy buffer | <u>Oral</u> | E |
| 112 | Feasibility Study on Electric Buses in Hong Kong | <u>Oral</u> | C |
| 113 | A SURVEY OF DISTRIBUTED POWER SYSTEM-AC versus DC distributed power system | <u>Oral</u> | K |
| 114 | SRM Motor Drive | <u>Oral</u> | L |
| 115 | LED driver for medical electronics | <u>Oral</u> | H |

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Session Information

| Session No. | Session Name | Venue | Time |
|-------------|---|-----------------------|---------------------|
| A | PV systems | PolyU, Rm Y302 | 8 Jun., 14:00-15:40 |
| B | Distributed generation & grid-connections I | PolyU, Rm Y303 | 8 Jun., 14:00-15:40 |
| C | Chargers & Charging technologies I | PolyU, Rm Y304 | 8 Jun., 14:00-15:40 |
| D | Motor & drive control I | PolyU, Rm Y305 | 8 Jun., 14:00-15:40 |
| E | Energy storage: Super/Ultra Capacitor | PolyU, Rm Y306 | 8 Jun., 14:00-15:40 |
| F | Wind energy | PolyU, Rm Y302 | 8 Jun., 16:00-18:00 |
| G | Battery management & energy conversion | PolyU, Rm Y303 | 8 Jun., 16:00-18:00 |
| H | Power converters/inverters | PolyU, Rm Y304 | 8 Jun., 16:00-18:00 |
| J | Motor & drive control II | PolyU, Rm Y305 | 8 Jun., 16:00-18:00 |
| K | Distributed generation & grid-connections II | PolyU, Rm Y306 | 8 Jun., 16:00-18:00 |
| L | Motor & drive control III | Science Park, Hall 04 | 9 Jun., 16:00-18:00 |
| M | Distributed generation & grid-connections III | Science Park, Hall 05 | 9 Jun., 16:00-18:00 |
| N | Chargers & Charging technologies II | Science Park, Hall 06 | 9 Jun., 16:00-18:00 |
| P | Systems of electric/hybrid vehicles | Science Park, Hall 07 | 9 Jun., 16:00-18:00 |
| Q | Various topics | PolyU, Core Y, Foyer | 8 Jun., 14:00-15:30 |

Venue Details:

PolyU - Hong Kong Polytechnic University, Core Y, 3rd Floor

Science Park - Hong Kong Science and Technology Parks, Conference Hall Rooms