

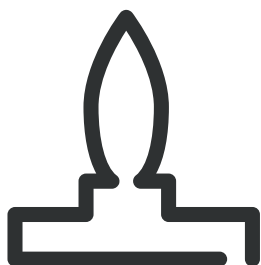


2011 IEEE Industry Applications Society Annual Meeting

October 9-13, 2011
Swan Hotel
Orlando, Florida



Our Market Segments



Oil, Gas and Petrochemicals



Power Generation



Nuclear Power Plant

GUTOR is a world-leading, top-ranked UPS (uninterruptible Power Supply) engineering company with headquarters in Wettingen (Switzerland). Since 2066, **GUTOR** has been part of Schneider Electric SA. Together with our worldwide partners, we offer a global business and service network.

The focus of our attention is to secure the continuous and conditioned electric power supply for critical industrial and commercial applications. Hence we specialize in designing complete UPS system solutions, which are mainly used in the global oil & gas, petrochemical, chemical and nuclear, conventional power generation industries.



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GUTOR
by Schneider Electric

The IEEE Industry Applications Society welcomes you to our 46th Annual Meeting!

The IEEE-IAS 2011 Annual Meeting is a gathering of experts who work and conduct research in the industrial application of electrical systems. The 2011 Annual Meeting will have a full program of tutorials, technical papers, and working group meetings during the five days of the conference. This program is based on the Annual Meeting's long tradition of providing an international forum for experts to present and discuss the latest developments in the application of electrical technology to industry. At the same time, many activities are specifically designed for the practicing engineer interested in this field. The IAS Annual Meeting therefore emphasizes professional development, learning from experts, sharing of experiences, and networking with peers.

On Monday through Wednesday, approximately 180 technical papers will be presented in 32 sessions by a wide variety of internationally-based professionals. The format is designed to encourage group-level and one-on-one interactions between the conference attendees, discussion leaders, and presenters. Starting Sunday, there are also seven tutorials on relevant electrical technologies. Continuing Education Credits (CEU) will be available from these seminars. The conference is also co-located with a Power and Energy Society Plain Talk tutorial series on Electric Power Systems.

The technical sessions and tutorials are two of the most important portions of the meeting - but there are also many other events. On Monday there will be a luncheon for all students attending the conference. Representatives from IAS Chapters will be attending an all-day workshop on Tuesday. The winners of the IAS Outstanding Achievement Award and the Distinguished Service Award will be honored at the President's Award Banquet on Tuesday evening. In addition, the IAS Executive Board and IAS Council will gather to conduct the administrative business of the Society.

The organizing committee of the 2011 IAS Annual meeting has worked hard to make your stay in Orlando pleasant and productive. I wish you all a very enjoyable week.

Sincerely,



Bruno Lequesne
IAS President

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Registration Hours

The IEEE-IAS Conference Registration Desk will be located at the Satellite Registration and Check-in Counter in the Swan Tower

Sunday, October 9, 2011
1:00 PM - 7:00 PM

Monday, October 10, 2011
7:00 AM - 7:00 PM

Tuesday, October 11, 2011
7:00 AM - 6:00 PM

Wednesday, October 12, 2011
7:00 AM - 6:00 PM

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Schedule At-A-Glance

Sunday, October 9, 2011

Meeting Time	Event Name	Location
1:00 pm - 6:00 pm	Registration	Satellite Registration and Check-in Counter
8:00 am - 6:00 pm	IAS Board Meeting	Pelican 2
8:00 am - 6:00 pm	Tutorial: Maintenance Considerations and Planning for Electric Power Equipment	Pelican 1
1:00 pm - 6:00 pm	Committee Meetings	See Committee Meeting Schedule for details
5:00 pm - 6:00 pm	Guide to the IAS Annual Meeting for First Time Attendees	Pelican 1
6:30 pm - 9:00 pm	Welcome Reception	Osprey Ballroom

Monday, October 10, 2011

7:00 am - 6:00 pm	Registration	Satellite Registration and Check-in Counter
7:00 am - 8:00 am	Authors' Breakfast	Osprey Ballroom
8:00 am - 6:00 pm	Companion Room	Ibis
8:00 am - 11:30 am	Plenary Session	Swan 6
11:30 am - 1:30 pm	Zucker Student Luncheon	Osprey Ballroom
2:00 pm - 6:00 pm	IAS Board Meeting	Pelican 2
2:00 pm - 8:00 pm	Technical Sessions	See Technical Program for details
11:00 am - 7:00 pm	Committee Meetings	See Committee Meeting Schedule for details

Tuesday, October 11, 2011

7:00 am - 6:00 pm	Registration	Satellite Registration and Check-in Counter
7:00 am - 8:00 am	Authors' Breakfast	Pelican 1
8:00 am - 6:00 pm	Companion Room	Ibis
8:00 am - 8:00 pm	Technical Sessions	See Technical Program for details
8:00 am - 7:00 pm	Committee Meetings	See Committee Meeting Schedule for details
8:00 am - 5:00 pm	Chapter's Workshop (by invitation only)	Mockingbird 1
12:00 pm - 2:00 pm	Council Meeting	Pelican 1
6:30 pm - 7:30 pm	President's Reception (by invitation only)	Pelican 1
7:30 pm - 10:00 pm	Awards Dinner and President's Banquet	Swan 5&6

Wednesday, October 12, 2011

7:00 am - 6:00 pm	Registration	Satellite Registration and Check-in Counter
7:00 am - 8:00 am	Authors' Breakfast	Swan 6
8:00 am - 6:00 pm	Companion Room	Ibis
8:00 am - 6:00 pm	Technical Sessions	See Technical Program for details
8:00 am - 6:00 pm	Tutorials	See Tutorial Schedule for details

Thursday, October 13, 2011

8:00 am - 6:00 pm	Tutorials	See Tutorial Schedule for details
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Authors Breakfast

An Authors Breakfast will be held Monday, Tuesday and Wednesday mornings for the session chairs and authors presenting that particular day. This breakfast is meant to provide that day's presenting authors with a chance to meet their moderators and colleagues.

7:00 AM - 8:00 AM
Monday: Osprey Ballroom
Tuesday: Pelican 1
Wednesday: Swan 6

Companions Room

There will be a hospitality suite available for all registered guests for refreshments and networking during these hours:

8:00 AM - 6:00 PM
Monday - Wednesday

Daily Conference Breaks

Morning Breaks 10:00 AM - 10:30 AM
Afternoon Breaks 3:00 PM - 3:30 PM

Special Events

Guide to the IAS Annual Meeting for First Time Attendees
Please come learn how to take advantage of all the IAS Annual Meeting has to offer if this is your first time in attendance!

Sunday, October 9
5:00 - 6:00 PM Pelican 1

PES Plain Talk Seminars - onsite registrations will be accepted in Mockingbird 2 in the Swan Hotel

Sunday, October 9, 2011

Welcome Reception, Osprey Ballroom
6:30 PM - 9:00 PM

Monday, October 10, 2011

Myron Zucker Student Luncheon
Osprey Ballroom,
11:30 AM - 1:30 PM
(open to all students) Hospitality Suite
Sponsored by ETAP
Ambassador Suite,
Swan Tower, 12th floor
5:00 - 11:00 PM

Tuesday, October 11, 2011

IEEE IAS President's Reception
6:30 - 7:30 PM
(by invitation only)

IEEE IAS Awards & President's Banquet
Swan 5&6
7:30 - 10:00 PM

The IAS Annual Meeting sincerely thanks the following sponsors for their support:



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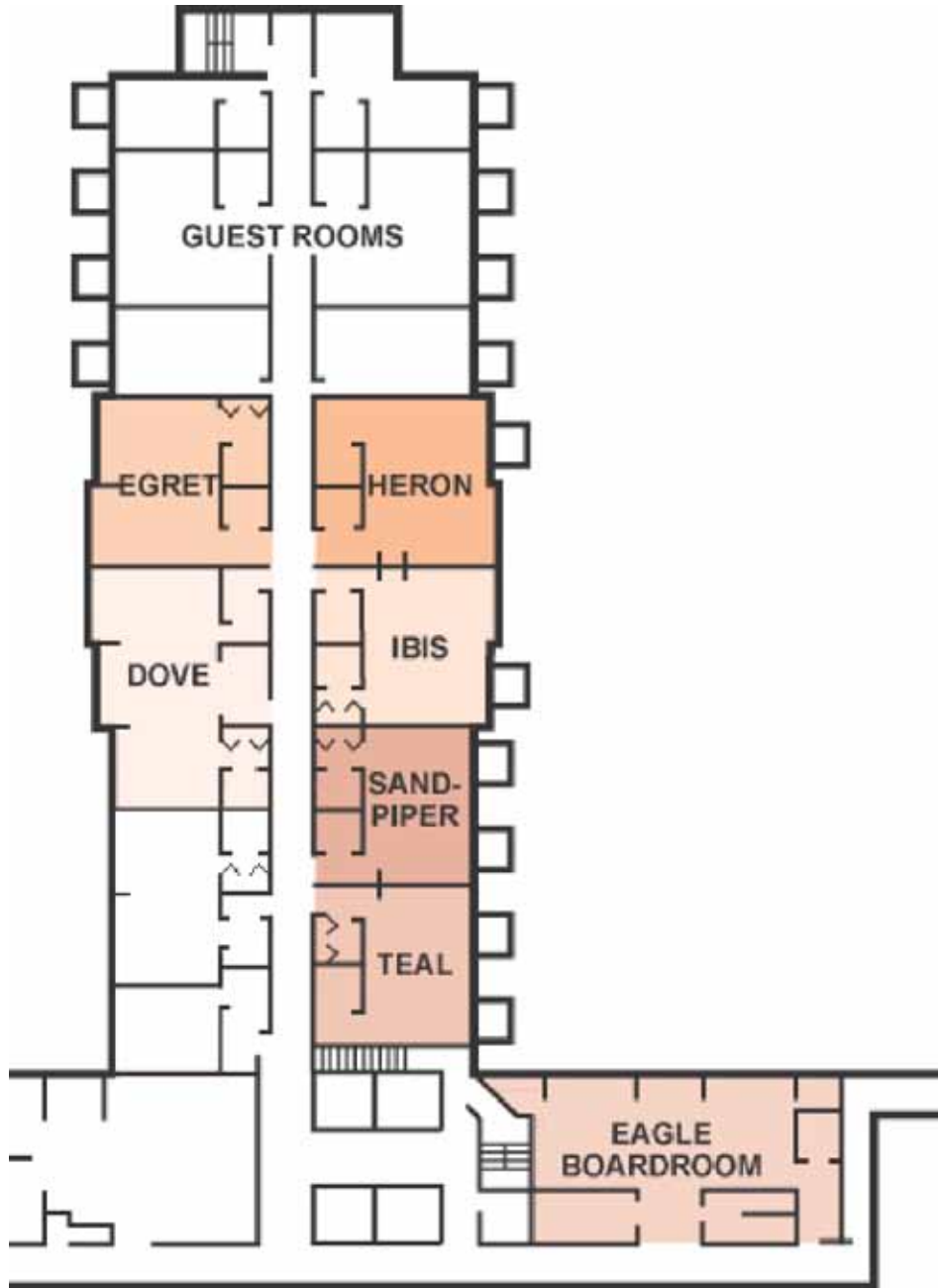
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SIEMENS



IAS would like to thank the city of Orlando's Convention Bureau for allowing us to use photos of the city and attractions





Committee Meetings

Sunday, October 9, 2011			
PSP Generator Grounding Working Group Meeting	Peacock 2	1:00 PM	3:00 PM
ES Executive Committee	Peacock 1	2:00 PM	3:00 PM
PSE Main Committee Meeting	Peacock 1	3:00 PM	4:00 PM
Power System Protection Surge Protection Subcommittee	Peacock 2	3:00 PM	3:30 PM
Power System Protection Medium Voltage Protection Subcommittee	Peacock 2	3:30 PM	4:00 PM
PSP Low Voltage Protection Subcommittee Meeting	Peacock 2	4:00 PM	5:00 PM
TBCC - Technical Standards Coordinating Committee Main Meeting	Peacock 1	4:00 PM	5:00 PM
TBCC - First Principles (Base Book) Working Group, Part I	Peacock 1	5:00 PM	6:00 PM
PSP Main Committee Meeting	Peacock 2	5:00 PM	6:00 PM
Monday, October 10, 2011			
PSE Program Planning Subcommittee Meeting	Peacock 2	12:00 PM	1:30 PM
TBCC - Power Systems Design Working Group	Peacock 2	2:00 PM	3:00 PM
TBCC - Protection and Coordination Working Group	Peacock 1	2:00 PM	3:00 PM
TBCC - Grounding Working Group	Dove	2:00 PM	3:00 PM
TBCC - Power Systems Analysis Working Group	Peacock 2	3:00 PM	4:00 PM
TBCC - First Principles (Base Book) Working Group, Part II	Peacock 1	3:00 PM	4:00 PM
TBCC - MOS Working Group	Dove	4:00 PM	5:00 PM
TBCC - Emergency/Standby Power Systems Working Group	Peacock 2	4:00 PM	5:00 PM
TBCC - Reliability Working Group	Peacock 1	4:00 PM	5:00 PM
PSE Reliability Subcommittee Meeting	Dove	5:00 PM	6:00 PM
TBCC - Technical Standards Committee Meeting - Part II	Peacock 2	5:00 PM	6:00 PM
PSE Power System Design Subcommittee Meeting	Peacock 1	5:00 PM	6:00 PM
PSE Power System Analysis Subcommittee Meeting	Peacock 1	5:30 PM	6:00 PM
PSE Safety, Operations, & Maintenance Subcommittee Meeting	Dove	6:00 PM	6:30 PM
I&CPS Meetings Committee Meeting	Pelican 1	6:00 PM	7:00 PM
MSDAD Department Meeting	Mockingbird 1	6:00 PM	7:00 PM
PSE Emergency & Standby Systems Subcommittee Meeting	Peacock 1	6:00 PM	6:30 PM
PSE Power Quality Subcommittee Meeting	Swan 9	6:00 PM	6:30 PM
PSE Forensics Working Group Meeting	Swan 10	6:00 PM	7:00 PM
Process Industries - Metal Industry Committee Meeting	Swan 7	6:00 PM	7:30 PM
MSDAD - ILDC Committee Meeting	Swan 8	6:00 PM	7:30 PM
PSE Grounding Subcommittee Meeting	Peacock 1	6:30 PM	7:00 PM
MSDAD - Industrial Automation and Control Committee	Mockingbird 1	7:00 PM	8:00 PM
Tuesday, October 11, 2011			
Pubs- Transactions Committee	Pelican 2	8:00 AM	9:00 AM
Pubs - Magazine Committee	Pelican 2	9:00 AM	10:00 AM
Pubs - ScholarOne Manuscripts User Group	Pelican 2	10:30 AM	12:00 PM
C&S Committee Meeting	Peacock	11:00 AM	12:00 PM
I&CPS Operating Committee Meeting	Peacock	2:00 PM	4:00 PM
Meeting of Committee Chairs for 2012 conference	Peacock	4:00 PM	6:00 PM
MSDAD - Electrostatic Processes Committee	Swan 8	6:00 PM	7:00 PM
Process Industries - Mining Industry Committee Meeting	Swan 6	6:00 PM	7:00 PM

Sunday, October 9, 2011

8:00 AM - 6:00 PM

Maintenance Considerations and Planning for Electric Power Equipment

Dan Bumblauskas

University of Missouri, RFC Services Ince. and ABB Inc.

An introduction on various types of transformers and circuit breakers will be provided along with a discussion on the evolution of maintenance practices. This includes time based maintenance, condition-based maintenance, reliability-based maintenance and predictive maintenance. Computerized maintenance information systems have been applied to track maintenance information and history. An overview of the various systems will be provided. Such information systems have not traditionally been used to predict or simulate maintenance decisions and actions. This tutorial will detail two predictive maintenance models, a population data analysis, and a information system architecture which can be utilized to aid operations and maintenance managers with the difficult resource allocation decisions they face in the field. The first model is formulated to address the consideration of component dependency for series network connections using a Markov Decision Process (MDP) model and solution algorithm. The second model is formulated to address the prioritization of maintenance activities for a fleet of equipment using an Analytical Hierarchy Process (AHP) and solution algorithm. A population data set is reviewed and a recurrent data analysis is conducted. The final element is the information system architecture linking these two models to a marketing information system (MkIS) in order to provide quotations for maintenance services. The specific industry of interest is the electrical power equipment industry with a focus on circuit breaker maintenance decision actions and priorities and the development of quotations for such services. This tutorial is of particular interest to operations and maintenance managers working in electric utility industry and those working in the renewable, sustainable, and green energy industries

Tuesday, October 11, 2011

8:00 AM - 12:00 PM

Power Systems Harmonics

Dr. Babak Badrzadeh

Vestas Wind Systems A/S

This tutorial discusses various aspects of power system harmonics including theory, modeling, studies, compliance, and filtering. It first presents primary sources of harmonic generation and their typical harmonic signature. The inter-harmonics generated by the current source and voltage source converters are then discussed. Various international standards for the assessment of harmonics are overviewed and their differences are highlighted. Modeling methodology for different system components including power electronics converters, cables, overhead lines, transformers, and external grid is presented, and the commonly used tools for power system harmonic analysis including time domain and frequency domain approaches are elaborated on. Harmonic susceptibility issues including harmonic resonance, harmonic instability and control interaction are then presented. Common practices for mitigation of system harmonics including multi-pulse conversion, multi-level conversion, modified modulation strategy for voltage source converters, and the use of passive and active filters are highlighted. Lastly, a step-by-step procedure for designing passive harmonic filters is elaborated on. The tutorial includes several practical examples taken from studies conducted on industrial power systems and wind power plants.

Wednesday, October 12, 2011

8:00 AM - 12:00 PM

Maintenance as a Safety Issue

James R. White
Shermco Industries

Facility and maintenance supervisors and managers often think of electrical power system maintenance as an overhead expenditure. While there are costs involved, maintenance should be viewed as a safety-related issue. The 2009 edition of NFPA 70E states that a safe electrical system is one that is properly engineered, properly installed and properly maintained. It is maintenance that is often neglected or deferred, especially when budgets tighten. This four-hour program discusses why maintenance is a safety issue, provides examples of the consequences of improper maintenance, reviews NFPA 70E requirements contained in Articles 130 and 205, reviews NFPA 70B and ANSI/NETA MTS-07 standards. This practical program will provide guidance on what is required, when it is required and considerations for outsourcing maintenance or performing it with in-house staff.

Wednesday, October 12, 2011

2:00 PM - 6:00 PM

Design and Operation of Motor Bus Transfer Schemes at Medium Voltage Industrial Facilities

Chuck Mozina

This tutorial discusses the design and operation of automatic schemes to transfer loads from an interrupted bus section to the alternate bus within industrial facilities without damaging the motors being transferred. It is extremely important to maintain continuity of electric service to these facilities when the normal source has sustained an outage. Many industrial facilities have at least two independent supply sources. Each source supplies a bus section (typically at 4.16 or 13.8 KV) with a normally open bus tie between the bus sections. Upon loss of supply, the bus section must be quickly transferred to the alternate supply to avoid a major outage. The transfer must be done without damaging the motors supplied from the bus section that has sustained the outage. The tutorial discusses various schemes to provide this transfer, operating experience with each scheme, plus new designs made possible through the use of digital technology.

Thursday, October 13, 2011

8:00 AM - 6:00 PM

Fundamentals of Power Distribution Systems Design: Review Simplified and Shortcut Calculations and Guidelines

P. K. Sen

Colorado School of Mines & NEI Electric Power Engineering

This one-day short course has been designed for practicing engineers (young or experienced), managers and technical personnel interested in different aspects of Power Distribution Systems Engineering and Design as applied to Industrial & Commercial Power Systems Design, Rural Electric Power, Petroleum and Chemical Industry, Cement Industry, and Investor Owned Utility. The main objective of the course is to introduce the basic tools required for all power systems calculations and used in a number of design problems. The primary focus of this course is on the medium voltage (MV) power systems (115kV-4.16kV) and 480 V (LV). It is assumed that participants will have some basic and broad knowledge of fundamentals of electric power systems. Practical experience is preferable and would be very useful, but not required. Emphasis is given on hand calculations & estimations rather than computer programs. Numerous real world design problems will be solved. The short course will be divided in two, four-hour Stand-alone module. The first half will discuss the big picture and is designed for all engineering, managerial and operation and maintenance personnel. The second half will build on the concepts from the first half and will include more design problems and calculations. Extensive handouts will be provided at the workshop. This introductory class is absolutely essential for all practicing power systems engineers and also designed to facilitate to take the "Professional Engineers" examination.

Thursday, October 13, 2011

8:00 AM - 12:00 PM

EMT Simulation of Rotating Machine Drives

Tara Stokotelný

Manitoba HVDC Research Centre

This tutorial will present an electromagnetic transient (EMT)-type simulation-based approach to designing drives and their controls. Many industrial applications require precise control of their respective mechanical drive systems. For this, rotating machines with power electronic based converters are becoming increasingly more prevalent. In the design stage of a power-electronic-based machine drive simulation can help to size components, evaluate the performance and tuning of control strategies and apply necessary optimizations. Simulation can also uncover problematic areas such as susceptibility to electrical or mechanical disturbances, overall power quality effects (e.g. harmonic injection), etc. Induction and dc machines have been the key types of electric drive systems. In recent years, permanent-magnet machines are also becoming more commonplace. Theory will be discussed and using an EMT simulation tool, illustrative examples will be presented to demonstrate some methods to address aspects such as the following: schemes for speed and/or torque control; regenerative braking; controller tuning and optimization; impacts of drives on cables; full harmonic spectrum analysis to investigate effects on the supply network and machine sizing; etc.

Thursday, October 13, 2011

2:00 PM - 6:00 PM

Reliability of IGBT Modules in Industrial Applications

John F. Donlon

Powerex, Inc.

This tutorial addresses the reliability of the IGBT power module which is the heart of modern industrial drives. It has proven to be a highly reliable and rugged component. However, it must be applied within its ratings and capabilities. This tutorial will discuss the proper selection of the IGBT, its limitations and failure modes, the precautions that must be taken to ensure long life and the design and application considerations that affect reliability. Attendees will gain an understanding of the need to protect the IGBT from internal and external disturbances and practical solutions to over current, over voltage, and over temperature conditions. The workshop is intended to be of interest to those who use, apply, procure, or specify power electronic products based on the IGBT as the power switch.

Technical Program: Monday, October 10 - Morning Plenary

Monday, October 10, Morning Plenary	
Room	Swan 6
Committee:	IACC
8:00 AM	2011-IACC-174 <i>Design of Advanced Voltage Management System Including Manual Operation Mode via Real-time Simulation</i>
	Seung-Mook Baek, Taekyun Kim, Jaegul Lee, Suchul Nam, Jeonghoon Shin, Jiyoung Song, KEPCO Research Institute
Committee:	PSP
8:30 AM	IEEE/NFPA <i>Arc Flash Phenomena Collaborative Research Project</i>
	Wei-jen Lee
9:00 AM	Recent Advances in Electro-Hydro-dynamics (EHD)
	Gérard Touchard, Distinguished Professor of Electrical Engineering, University of Poitiers
Committee:	IAS I&CPS Department
9:30 AM	IEEE COLOR BOOKS: Their Value in The Classroom Teaching Environment and Future Plans for The Series
	P.K. Sen, Colorado School of Mines; K. Malm Dahl, Nelson Electrical Engineering; T. David Mills, Savannah River Nuclear Solutions
10:00 AM	BREAK
Committee:	PSE
10:30 AM	2011-PSEC-255 <i>An Analytical Evaluation of the Factor k2 for Protective Conductors</i>
	Massimo Mitolo, Chu&Gassman, USA; Michele Tartaglia, Politecnico di Torino, Italy
Committee:	Metals Industry
11:00 AM	2011-METC-283 <i>Medium Frequency Induction Melting Furnace as a Load on the Power System</i>
	Isik Cadirci, Ilker Yilmaz, Tubitak Uzay; Muammer Ermis, METU; Turkey

Technical Program: Monday October 10 - Afternoon Sessions

Room	Swan 6	Swan 7
Committee	Industrial Automation and Control	Electrostatic Processes
	Session #2: Intelligent Control	Session 3: Electro-hydro-dynamic and Tribo-aero-electrostatic Processes
	Session Chair: Dr. M. D. Kankam, NASA - John Glen Research Center, USA	Session Chair: Kaz Adamiak, University of Western Ontario, Canada
	Session Organizer: Dr. M. Ooshima, Tokyo University of Science, Japan	Session Organizer: Jamal Yagoobi, Illinois Institute of Technology, USA
2:00 PM	<p>2011-IACC-183 <i>Model Predictive and Genetic Algorithm Based Optimization of Residential Temperature Control in the Presence of Time-Varying Electricity Prices</i></p> <p>Ronald Harley, Coby Lu, Diogenes Molina, Vicktoriya Sherman, Georgia Institute of Technology, USA</p>	<p>2011-EPC-223 <i>EHD Conduction-Driven Enhancement of Critical Heat Flux in Pool Boiling</i></p> <p>Jamal Seyed-Yagoobi, Illinois Institute of Technology; Matthew Pearson, United Technologies Research Center, USA</p>
2:30 PM	<p>2011-IACC-184 <i>Hybrid Fuzzy Bang-Bang Mode Controller for Electric Motor Drives Applications</i></p> <p>Jan Jerry, Ahmed Rubaai, Howard University, USA</p>	<p>2011-EPC-225 <i>Effect of Electrode Arrangements on EHD Conduction Pumping</i></p> <p>Ichiro Kano, Yamagata University, Japan</p>
3:00 PM	<p>2011-IACC-190 <i>Hardware/Software Implementation of PI/PD-Like Fuzzy Controller for High Performance Motor Drives</i></p> <p>Ahmed Rubaai, Paul Young, Howard University, USA</p>	<p>2011-EPC-226 <i>Thrust Origin in EHD Lifters</i> Teck-Meng Liaw, Lin Zhao, Gannon University, USA</p>
3:30 PM	BREAK	
4:00 PM	<p>2011-IACC-200 <i>Self-Tuned NFC and Adaptive Torque Hysteresis based DTC Scheme for IM Drive</i></p> <p>Muhammad Hafeez, Mohammad Uddin, Muhammad Hafeez, Lakehead University; Nasruddin Rahim, University of Malaya</p>	<p>2011-EPC-227 <i>Experimental Modeling of the Tribo-aero-electrostatic Separation of Mixed Granular Plastics</i></p> <p>Mihai Bilici, Lucian Dascalescu, Vasile Barna, Tamas György, Fatima Rahou, Adrian Samuila, University of Poitiers, France</p>
4:30 PM	<p>2011-IACC-194 <i>Development and Implementation of a Simplified Self-Tuned Neuro-Fuzzy Based IM Drive Zhirui Huang, APC-MGE by Schneider Electric;</i></p> <p>A. Hossain, American International University of Bangladesh; Mohammad Uddin, Lakehead University</p>	<p>2011-EPC-230 <i>Experimental study of the effect of ambient air humidity on the efficiency of tribo-aero-electrostatic separation of mixed granular solids</i></p> <p>Ciprian Dragan; Mohamed Miloudi; Mokdad Remadnia; Karim Medles, University Sidi Bel Abbes; Lucian Dascalescu, University of Poitiers; Amar Tilmatine, University of Sidi bel Abbes, France</p>
5:00 PM	<p>2011-IACC-205 <i>An Intelligent Wide Area System-Centric Controller and Observer for Power System Stabilization using Optimal Dual Heuristic Programming (DHP) Architecture</i></p> <p>Sukumar Kamalasan, University of North Carolina at Charlotte; Aranganikannan Manickam, University of West Florida, USA</p>	<p>2011-EPC-232 <i>Experimental study of charge neutralization at the surface of granular layers of insulating materials</i></p> <p>Mohamed Miloudi, Lazar Herous, University of Guelma; Algeria; Lucian Dascalescu, Miloud Kachi, University of Poitiers, France</p>
5:30 PM	<p>2011-IACC-197 <i>A Neuro-Fuzzy System for Robust Control of Induction Motors</i></p> <p>Wilson Wang, Lakehead University; Hewen Lee, eMech Systems Inc., Canada</p>	

Technical Sessions: Monday, October 10 - Afternoon Sessions

Room	Swan 8	Swan 9
Committee	Industrial Lighting and Displays	Industrial Automation and Control
	Session 4: Displays	Session #5: Energy Systems Control
	Session Chair: Hiroaki Ikeda, Ikeda Technologies, Japan	Session Chair: Dr. Qiao, University of Nebraska-Lincoln, USA
	Session Organizer: Kayo Suzuki Ikeda Technologies, Japan; Ana V. Stankovic, Cleveland State University, USA	Session Organizer: Dr. Ahmed Rubaai, Howard University
2:00 PM	2011-ILDC-330 <i>Transfer Technology for Fabrication of Flexible OTFT Backplane</i> T. Yamamoto, T. Takei, Y. Nakajima, Y. Fujisaki, H. Fujikake, Japan Broadcasting Corporation; T. Furukawa, M. Hosoi, A. Kinoshita, Kyodo Printing Co., Ltd., Japan	2011-IACC-182 <i>Optimized Fuel Cell Array Energy Management Using Multi-Agent Systems</i> Lhassane Idoumghar, Université de Haute Alsace; Benjamin Blunier, Abdellatif Miraoui, Robin Roche, Université de Technologie de Belfort-Montbéliard, France
2:30 PM	2011-ILDC-331 <i>Video Conference 3-D Display that Fuses Images to Replicate Gaze Direction</i> Munekazu Date, Yasuko Andoh, Kazuyuki ISO, Norihiko Matsuura, Shiro Ozawa, Hideaki Takada, NTT Corporation, Japan	2011-IACC-187 <i>Connectivity of DC Microgrids Involving Sustainable Energy Sources</i> Ahmed Mohamed, Osama Mohammed, Florida International University, USA
3:00 PM	2011-ILDC-382 <i>Multiple Directional Viewing Projection Display Based on the Incident-Angle-Independent, Diffusion-Angle-Quantizing Technology</i> Takahiro Ishinabe, Baku Katagiri, Tohru Kawakami, Tatsuo Uchida, Tohoku University, Japan	2011-IACC-193 <i>Comparison of current control methods for a Near Unity Power Factor Converter in a Wind Generator System feeding Stand-Alone Loads</i> Ali Maswood, Nirnaya Sarangan, Aditya Venkataraman, Nanyang Technological University, Singapore
3:30 PM	BREAK	
4:00 PM	2011-ILDC-333 <i>Secure Display by Use of Multiple Decoding Masks Based on Visual Cryptography</i> Shiro Ozawa, Hirotsugu Yamamoto, University of Tokushima, Japan	2011-IACC-213 <i>Multi-Agents Based Control Design for Energy Management in Buildings</i> Saurav Bhattacharai, Marcelo Simoes, Colorado School of Mines, USA
4:30 PM	2011-ILDC-334 <i>Robust Optical Watermarking Technique by Optimizing the Size of Pixel Blocks of Orthogonal Transform</i> Yasunori ISHIKAWA, Kazutake UEHIRA, Kazuhisa Yanaka, Kanagawa Institute of Technology, Japan	2011-IACC-208 <i>"SRF Theory Revisited" to Control Self Supported Dynamic Voltage Restorer (DVR) for Unbalanced and Nonlinear loads</i> Parag Kanjiya, Bhim Singh, Indian Institute of Technology India; Kamal Al Haddad, Amrbrish Chandra, ÉTS, Canada
5:00 PM	2011-ILDC-335 <i>New Display Technology for Unconscious Information</i> Kazutake Uehira, Kanagawa Institute of Technology, Japan Hirotsugu Yamamoto, University of Tokushima, Japan	2011-IACC-212 <i>A Novel Control Strategy for Stand-alone Operation of a Wind Dominated RAPS System</i> Mohammad Uddin, Lakehead University, Canada; Nishad Mendis, Kashem, Sarath Perera, University of Wollongong, Australia
5:30 PM		2011-IACC-163 <i>Stability Analysis on Maximum Power Points Tracking(MPPT) Method in Wind Power System</i> Malik Elbuluk, Yilmaz Sozer, Yu Zou, The University of Akron, USA

Technical Sessions: Monday, October 10 - Afternoon Sessions

Room	Swan 10	Pelican 1	Mockingbird 1
Committee	Power Systems Energy	Power Systems Energy	IACC
	Session 6: Power Systems Energy I	Session 7: Power Systems Energy II	Session 8: Power Converter Control
	Session Chair: Massimo Mitolo, Chu&Gassman, USA	Session Chair: Peter Sutherland, General Electric, USA	Session Chair: Kouki Matsuse, Meiji University, Japan
	Session Organizer: Massimo Mitolo, Chu and Gassman, USA	Session Organizer: Massimo Mitolo, Chu and Gassman, USA	Session Organizer: Malik Elbuluk, The University of Akron, USA
2:00 PM	2011-PSEC-264 <i>Dead Circuits Are Not Always Dead</i> Erling Hesla, Hesla & Associates, USA; Giuseppe Parise, Sapienza University of Rome, Italy	2011-PSEC-269 <i>Study of Subsynchronous Torsional Interaction with Voltage Source Inverter Drive for LNG Plant</i> Toshiyuki Fujii, Mitsubishi Electric Corp.; Hiroyuki Masuda, Yoshihiro Ogashi, Masahiko Tsukakoshi, Makoto Yoshimura, Toshiba Mitsubishi-Electric Industrial Systems Corporation, Japan	2011-IACC-175 <i>New Hybrid High-Power Rectifier with Reduced THDI and Voltage Sag Ride-Through Capability</i> Luiz C. G. Freitas, Ernane Coelho, Admarco Costa, Valdeir Farias, Danillo Rodrigues, Joao Vieira Jr, Universidade Federal de Uberlandia, Faculdade de Engenharia Eletrica
2:30 PM	2011-PSEC-267 <i>Combined Electric Light and Daylight Systems Ecodesign</i> Luigi Martirano, Giuseppe Parise, Sapienza University of Rome, Italy	2011-PSEC-168 <i>Comparative Evaluation of the HVDC and HVAC Links Integrated in a Large Offshore Wind Farm - an Actual Case Study in Taiwan</i> Yuan-Kang Wu, National Penghu University; Chih-Ju Chou, Gia Yo Han, National Taipei University of Technology; Ching-Yin Lee, Tungnan University, Taiwan	2011-IACC-177 <i>A Simple Space Vector PWM Scheme with Neutral Point Balancing for Three-Level NPC Inverter</i> Dong-Seok Hyun, Rae-Young Kim, Yoon-Hyuk Ko, Byoung-Gun Park, Hanyang University; Ha-Jin Jung, Waton, Korea
3:00 PM	2011-PSEC-257 <i>Analysis of Interconnection of Photovoltaic Distributed Generation</i> Sercan Teleke, Coda Automotive; Farbod Jahanbakhsh, Farid Katiraei, Julio Romero Aguero, Quanta Technology, USA	2011-PSEC-231 <i>Transients in Wind Power Plants – Part I: Modeling Methodology and Validation</i> Martin Høgdahl Zamastil, Energinet.dk, Denmark; Emir Isabegovic, Gothia Power; Babak Badrzadeh, Vestas Technology R&D, Sweden	2011-IACC-188 <i>A General Active Stabilizer for a Multi-Loads DC Power Network</i> Babak Nahid-Mobarakeh, Pierre Magne, Serge Pierfederici, Nancy University, France
3:30 PM	BREAK		
4:00 PM	2011-PSEC-252 <i>Getting Ready for Electric Vehicle Charging Stations</i> Gary Fox, General Electric, USA	2011-PSEC-234 <i>Transients in Wind Power Plants – Part II: Case Studies</i> Henrik Breder, Muhamad Reza, Kailash Srivastava, ABB Corporate Research, Sweden; Martin Høgdahl Zamastil, Nand Singh, Vestas Technology R&D, Denmark	2011-IACC-196 <i>Controller Design of Multilevel Voltage Source Converter Based HVDC System</i> Subhasis Jhampati, Bhim Singh, Indian Institute of Technology, India; Kamal Al Haddad, Amrith Chandra, ÉTS, Canada
4:30 PM	2011-PSEC-219 <i>Load Model Development for Next Generation Appliances</i> Robert Szabados, David Yanshi Wang, Consolidated Edison Company of New York; Heng Huang, Wei-Jen Lee, Franklin L. Quilumba, University of Texas at Arlington, USA	2011-PSEC-239 <i>Voltage Sag Performance of a Distribution Systems and its Improvement</i> Sreeramulu Naidu, Gilvan Andrade, Edson da Costa, Universidade Federal de Campina Grande, Brazil	2011-IACC-198 <i>A third-order sliding-mode controller for DC/DC converters with Constant Power Loads</i> Wei Qiao, Yue Zhao, University of Nebraska-Lincoln, USA
5:00 PM	2011-PSEC-266 <i>Localized Fire Ignition Hazard In Branch Circuits, Cords And Connected Equipment</i> Giuseppe Parise, Luigi Parise, Sapienza University of Rome; Paolo Nicoluci, Italian National Fire Dept, Italy		2011-IACC-199 <i>Applying Reduced General Direct Space Vector Modulation Approach of AC-AC Matrix Converter Theory to Achieve Unity Power Factor Controlled Three-Phase AC-DC Matrix Rectifier</i> Mohammad Uddin, Lakehead University, Canada; Keping You, Toshiba International Pty Ltd, Australia; M. Rahman, Dan Xiao, University of New South Wales, Australia
5:30 PM	2011-PSEC-216 <i>Parameter Identification for an Industrial Plant with In-House Generators</i> Shun-Hsien Huang, John Adams, Electric Reliability Council of Texas; Wei-Jen Lee, Chin-Chu Tsai, University of Texas at Arlington; USA		2011-IACC-207 <i>High Current Rectifier topology applied to a 4kW bidirectional DC-DC converter</i> Luis Fontán, Federico Ibañez, José Martín-Echeverría, Javier Vadillo, CEIT, Spain

Technical Sessions: Tuesday, October 11 - Morning Sessions

Room	Swan 5	Swan 6	Swan 7
Committee	Mining Industry	IACC	EPC
	Session #9: Mine Safety	Session #10: Induction Motor Drives	Session #11: Nano- and Micro-electrostatic Processes
	Session Chair: Thomas Novak, University of Kentucky, USA	Session Chair: Dr. M. H. Rashid, University of West Florida, USA	Session Chair: Rajesh Sharma, Arkansas State University, Jonesboro, USA
	Session Organizer: Thomas Novak, University of Kentucky, USA	Session Organizer: Dr. S. Kamalasadnan, University of North Carolina, USA	Session Organizer: Shesha Jayaram, University of Waterloo, Canada
8:00 AM	2011-MIC-318 <i>Advanced Mine Monitoring System with Ventilation on Demand for Underground Mines and Tunnels</i> Mohamed Daoud, Wisam Farjow, X. Fernando, Ryerson University, Canada	2011-IACC-157 <i>Performance Analysis of Induction Motors for Driving Coke Transfer Cars of a Coke Oven Plant in a Practical Iron-Making Factory</i> Kuan-Hsi Chen, Li Wang, National Cheng Kung University, Taiwan	2011-EPC-214 <i>Characterization of Electrodynamic Screen Performance for Dust Removal from Solar Panels and Solar Hydrogen Generators</i> Rajesh Sharma, Arkansas State University; Peter Girouard, Brooks Henderson, Mark Horenstein, Malay Mazumder, Omar Sadder, Jeremy Stark, Robert Sumner, Boston University; Alexandru Biris, Hidetaka Ishihara, University of Arkansas at Little Rock, USA
8:30 AM	2011-MIC-319 <i>NIOSH-Sponsored Research in Through-the-Earth Communications for Mines - A Status Report</i> Nicholas Damiano, Gerald Homce, Justin Srednicki, Michael Yenchek, NIOSH, USA	2011-IACC-160 <i>Performance of Independent Two Induction Motor Drives Fed by a Four-Leg Inverter with vector control method</i> Nobutaka Kezuka, Kouki Matsuse, Haruki Tanaka, Yoshinori Katagiri, Meiji University, Japan	2011-EPC-215 <i>Modeling of Trajectories in an Electrodynamic Screen for Obtaining Maximum Particle Removal Efficiency</i> Tareq Abuhamed, Arava Institute for Environmental Studies, Israel; Mark Horenstein, Malay Mazumder, Jeremy Stark, Robert Sumner, Boston University, USA; Raymond Boxman, Tel Aviv University, Israel
9:00 AM	2011-MIC-320 <i>Understanding Circuit Breaker Design and Operation To Improve Safety And Reliability In Underground Mining</i> Stephan Becker, Becker Mining Systems, Australia; David Durocher, Len Walls, Eaton Corporation, USA	2011-IACC-164 <i>A Sensorless Induction Motor Drive using a Least Mean Square Speed Estimator and A Matrix Converter</i> Elhussein Mahmoud, Hussien Soliman, Ain Shams University; Egypt; Malik Elbuluk, The University of Akron, USA	2011-EPC-217 <i>Development of an Electrostatic Precipitator to Remove Martian Atmospheric Dust from ISRU Gas Intakes during Planetary Exploration Missions</i> Sid Clements, Nathan Cox, Sam Thompson, Appalachian State University; Carlos Calle, Michael Hogue, Michael Johansen, Blakeley Williams, NASA KSC, USA
9:30 AM	2011-MIC-321 <i>Comparative Evaluation of Light Emitting Diode Cap Lamps with an Emphasis on Visual Performance in Mesopic Light Conditions</i> Sean Gallagher, Miguel Reyes, John Sammarco, Justin Srednicki, NIOSH, USA	2011-IACC-166 <i>Independent Vector Control of Two Induction Motors Fed by a Five-leg Inverter with Space Vector Modulation</i> Hiroyuki Enokijima, Atsushi Hara, Kouki Matsuse, Meiji University, Japan	2011-EPC-218 <i>Plasma surface modification of TiO₂ nanoparticles for Dye-Sensitized Solar Cell (DSSC) application</i> Rajesh Sharma, Alexandru Biris, Arkansas State University; Malay Mazumder, Boston University, USA
10:00 AM	BREAK		
10:30 AM	2011-MIC-322 <i>Arc Flash Hazard Assessment in the Mining Industry</i> Matthew Hopper, Christopher Ivany, Eaton; Nathan Wright, Nyrstar Tennessee Mines, USA	2011-IACC-167 <i>Dynamic Performance of Sensorless Vector Controlled Multiple Induction Motor Drive Connected in Parallel Fed by Single Inverter</i> Kazuya Azegami, Toru Inoue, Kouki Matsuse, Meiji University; Shigeru Ito, Yoichiro Nakajima, SANKEN ELECTRIC CO.,LTD, Japan	2011-EPC-220 <i>A Novel Gene Transformation Technique using Water-in-oil Droplet in an Electrostatic Field</i> Hironori Aoki, Atsushi Asada, Hirofumi Kurita, Akira Mizuno, Kazunori Takashima, Hachiro Yasuda, Toyohashi University of Technology, Japan
11:00 AM		2011-IACC-169 <i>Vector Control Method of Parallel-Connected Induction Motor Drives Fed by a Matrix Converter</i> Akira Osawa, Kouki Matsuse, Akira Osawa, Masataka Yamazaki, Meiji University	2011-EPC-221 <i>Effect of Pulse Width on Pulse Electric Field Food Treatment</i> Shesha Jayaram, Mohammad Saleh Moonesan, University of Waterloo, Canada
11:30 AM		2011-IACC-179 <i>Improved Dynamic and Steady State Performance of a Hybrid Speed Controller Based IPMSM Drive</i> Ronald Rebeiro, Mohammad Uddin, Lakehead University, Canada	2011-EPC-222 <i>Basic Study of Remote Disinfection and Sterilization Effect by Using Atmospheric Microplasma</i> Marius Blajan, Kazuo Shimizu, Shigeki Tatematsu, Shizuoka University, Japan

Technical Sessions: Tuesday, October 11 - Morning Sessions

Room	Swan 8	Swan 9	Swan 10
Committee	ILDC	PSE	Metals Industry
	Session #12: Discharge Lamps, Ballasts and Novel Applications (1)	Session #13: Power Systems Energy III	Session #14: Metals Industry Papers
	Session Chair: Ray-Lee Lin, Cheng Kung University, Taiwan	Session Chair: Tanya Djokic, Bechtel, USA	Session Chair: Thomas Novak, University of Kentucky
	Session Organizer: J. Marcos Alonso, Universidad de Oviedo, Spain; Francis Dawson, University of Toronto, Canada	Session Organizer: Massimo Mitolo, Chu and Gassman, USA	Session Organizer: Thomas Novak, University of Kentucky
8:00 AM	2011-ILDC-336 Modeling and Design of L-Complementary Self-Oscillating Class D Inverter with Output Voltage Clamping Wei Xiong, Universal Lighting Technologies, Ana V. Stankovic, Cleveland State University, Louis R. Nerone, GE Appliances & Lighting, USA	2011-PSEC-265 A Syntax And Semantics Of A Language For Operational Procedures Erling Hesla, Hesla & Associates, USA; Giuseppe Parise, Luigi Parise, Sapienza University of Rome, Italy	2011-METC-289 A Module-based Iron Loss Evaluation Scheme for Electric Machinery Products Sheng-Yang Lin, China Steel Corporation; Yu-Wei Hsu, Hsiu-Ying Lin, Cheng-Tsung Liu, National Sun Yat-Sen University, Taiwan
8:30 AM	2011-ILDC-338 An Alternative Optical Method for Acoustic Resonance Detection in HID Lamps Ricardo Marques, Alexander Correa, Walter Kaiser, University of Sao Paulo, Brazil	2011-PSEC-268 Daylight Impact on Energy Performance Of Internal Lighting Luigi Martirano, Giuseppe Parise, Sapienza University of Rome, Italy	2011-METC-288 Predicting Mechanical Properties of Cold-Rolled Low Carbon Steel Based on Magnetic Parameter Measurement using ANFIS Model Maryam Eftekhari, mohammad adib Ghadamyari, Abbas Kamranian Marnani, mehdi Moallem, Isfahan university of technology; davood Asefi, hosein Monajati, Islamic Azad University Najafabad Branch, Iran
9:00 AM	2011-ILDC-339 Estimation of the light output power and efficiency of a XeCl dielectric barrier discharge exciplex lamp using one dimensional drift-diffusion model for various voltage waveforms Sounil Bhosle, Thanh Doanh, Oliscie; Georges Zissis, Hubert Piquet, University of Toulouse, France	2011-PSEC-273 A Systematic Approach for Medium Voltage Power Factor Correction Design Carolyn Cooper, Thomas Dionise, Ritchie Pragale, Eaton Corporation, USA	2011-METC-287 Vision-based technique for periodical defect detection in hot steel strips Jose Rendueles, ArcelorMittal; Francisco Bulnes, García Daniel, Julio Molleda, Ruben Usamentiaga, University of Oviedo, Spain
9:30 AM	2011-ILDC-340 Acoustic Resonance Characterization and Numerical Model Including Acoustic Streaming in an HPS Lamp John Hirsch, Philips Lighting BV; Sounil Bhosle, Labo Chun, Pascal Maussion, Georges Zissis, Arezki Toumi, Université de Toulouse, France	2011-PSEC-238 Thermal Analysis of Cables in Tunnel Using SUPG Finite Element Method Yongchun Liang, Hebei University of Science and Technology, China	2011-METC-286 Multi phase induction system for metal disc heating: modeling and RMS-current control Olivier Pateau, University of Pittsburgh; Olivier Pateau, Majid Souley, EDF R&D; Stéphane Caux, Julie Egalon, INP Toulouse LAPLACE; Pascal Maussion, Université de Toulouse, France
10:00 AM	Break		
10:30 AM	2011-ILDC-345 Materials to improve performances of discharge lamps Alessio Corazza, Stefano Giorgi, Stefano Giorgi, Vincenzo Massaro, SAES Getters, Italy	2011-PSEC-172 ZigBee Wireless Network for Transformer Load Monitoring and Temperature Sensitivity Analysis Mei-Sung Kang, Kao Yuan Unniversity; Yu-Lung Ke, National Chin-Yi University of Technology; Yu-Lung Ke, National Penghu University, Taiwan	2011-METC-285 Modern Controller for Improving Product Quality During Threading of the Tandem Hot Strip Rolling Mill Marwan Simaan, University of Central Florida; John Pittner, University of Pittsburgh, USA
11:00 AM		2011-PSEC-275 Fast Evaluation Methods for Voltage Sags in Ship Electrical Power Systems Ching-Cheng Lee, Ching-Jin Chen, CSBC Corporation; Chun-Lien Su, National Kaohsiung Marine University, Taiwan	2011-METC-284 Harmonic Analysis and Filter Bank Design of a New Rectifier for a Cold Roll Mill Michael Allenbaugh, Duferco Farrell Corporation; Thomas Dionise, Eaton Corporation, USA
11:30 AM		2011-PSEC-270 Supercapacitors Modeling and Integration in Transport Applications Hamid Gualous, IUT- Cherbourg; Dakyo Brayima, M.B. Camara, University of Havre, France	2011-METC-282 Field Data Based Model of Medium Frequency Induction Melting Furnaces for Power Quality Studies Muammer Ermis, METU; Ilker Yilmaz, Isik CADIRCI, TUBITAK Uzay; Ozgul Salor, TUBITAK-UZAY METU CAMPUS, Turkey

Technical Sessions: Tuesday, October 11 - Afternoon Sessions

Room	Swan 5	Swan 6	Swan 7
Committee	Energy Systems Committee	Mining	IACC
	Session 15: Energy Systems	Session #16: New Technology	Session #17: Sensors, Measurement and control
	Session Chair: Wei-Jen Lee, University of Texas at Arlington, USA	Session Chair: Joseph Sottile, University of Kentucky	Session Chair: Dr. Ahmed Rubaai, Howard University
	Session Organizer: Joe Weber, ASCO Power Switching and Controls, USA	Session Organizer: Thomas Novak, University of Kentucky	Session Organizer: Dr. S. Kamalasan, University of North Carolina at Charlotte, USA
2:00 PM	2011-ESC-302 <i>Capacity Credit on wind generation based on minimum resources adequacy procurement</i> Ali Chowdhury, 8minutenergy Renewables; Songzhe Zhu, Yi Zhang, California ISO, USA	2011-MIC-323 <i>Comparison of Magnetic Field Distribution Models for a Magnetic Proximity Detection System</i> Jacob Carr, Christopher Jobes, Jingcheng Li, NIOSH, USA	2011-IACC-158 <i>Bioelectronics: Biosensors</i> D. Addy, T. Gehman, Muhammad Rashid, University of West Florida, USA
2:30 PM	2011-ESC-303 <i>Forecasting Power Output for Photovoltaic System Based on Weather Classification and Support Vector Machine</i> Yongqian Liu, Jie Shi, Peng Wang, Yongping Yang, North China Electric Power University, Wei-Jen Lee, University of Texas at Arlington, USA	2011-MIC-324 <i>Determining Proximity Warning and Actions Zones for a Magnetic Proximity Detection System</i> Jacob Carr, Joseph DuCarme, Christopher Jobes, Justin Patts, NIOSH, USA	2011-IACC-189 <i>Model-Based Virtual Sensors and Core Temperature Observers in Thermoforming Applications</i> Benoit Boulet, Rahi Modirnia, McGill University, Canada
3:00 PM	2011-ESC-304 <i>A Novel Loaded-Resonant Converter for the Application of DC-to-DC Energy Conversions</i> Hung-Shiang Chuang, Jung-Tai Chen, Ying-Chun Chuang, Yu-Lung Ke, Kao Yuan University, USA	2011-MIC-325 <i>Short Circuit Simulation of Mining Haul Trucks Operating on Trolley Systems</i> Joy Mazumdar, Siemens Industry Inc, USA	2011-IACC-191 <i>Estimation and control of temperature profile over a sheet in thermoforming process using non-equidistant temperature sensor</i> Benoit Boulet, Md Chy, McGill University, Canada
3:00 PM	2011-ESC-305 <i>Resolution-Level Controlled Wind Energy Conversion System for PM Generators</i> Razzequl Ahshan, Saleh Saleh, Memorial University of Newfoundland, Canada	2011-MIC-326 <i>Enabling Energy Storage Integration in High Power Multi-Motor Applications with Active Filter Solutions</i> Richard Beddingfield, Subhashish Bhattacharya, Hesam Mirzaee, Babak Parkhideh, North Carolina State University, USA	2011-IACC-192 <i>Development of an Improved Mathematical Model of the Heating Phase of Thermoforming Process</i> Benoit Boulet, Md Chy, McGill University
3:30 PM	Break		
4:00 PM	2011-ESC-307 <i>Using Coreless Hall Effect Sensor for Accurate Current Measurement in ZigBee based Wireless Sensor Network</i> Kun-Long Chen, Nanming Chen, Yuan-Pin Tsai, National Taiwan University of Science and Technology, Taiwan; Suratsavadee Korkua, Wei-Jen Lee, University of Texas at Arlington, USA	2011-MIC-327 <i>Increasing Long Belt-Conveyors Availability by Using Fault-Resilient Medium Voltage AC Drives</i> Anderson Rocha, CEFET-MG - Coordenação de Eletrotécnica e Automacao; Manoel Santos, Gerdau; Hélder De Paula, Braz Filho, Gleisson França, UFMG, Brazil	2011-IACC-210 <i>Optimal Control of a High Voltage Power Supply based on the PRC-LCC Topology with a Capacitor as Output Filter</i> Juan Martínez, Juan Antonio Martín-Ramos, Juan Díaz, Alberto Martín-Pernía, Pedro Villegas, Universidad de Oviedo, Spain
4:30 PM	2011-ESC-308 <i>Power Estimation of Induction Generators fed from Wind Turbines</i> Lopes Luiz, O. Dzune Mipoung, Pragasen Pillay, Concordia University, Canada	2011-MIC-328 <i>Introducing Surecontact®: A Design Concept to Improve Energy Efficiency in Copper Electrowinning Processes</i> Pablo Aqueveque, Jorge Henriquez, Eduardo Wiechmann, University of Concepcion; Guillermo Vidal, Zigbar, Chile	2011-IACC-202 <i>Adaptive Force Control of in Web Handling Systems</i> Wilson Wang, Jerry Dou, Lakehead University, Canada

Technical Sessions: Tuesday, October 11 - Afternoon Sessions

Room	Swan 8	Swan 9	Swan 10
Committee	EPC	ILDC	Power Systems Energy
	Session #18: Charging and Discharging Processes	Session #19: Discharge Lamps, Ballasts and Novel Applications (2)	Session #20: Power Systems Energy IV
	Session Chair: Maciej Noras, University of North Carolina at Charlotte, USA	Session Chair: Ray-Lee Lin, National Cheng Kung University, Taiwan	Session Chair: Kent Saylor, P2S Engineering, USA
	Session Organizer: William D. Greason, University of Western Ontario, Canada	Session Organizer: Walter Kaiser, Escola Politécnica da Universidade de São Paulo, Brazil; Ray-Lee Lin, National Cheng Kung University, Taiwan	Session Organizer: Massimo Mitolo, Chu and Gassman, USA
2:00 PM	2011-EPC-233 <i>Triboelectrification of Wood</i> William Greason, University Western Ontario, Canada	2011-ILDC-341 <i>Development of a Universal Electronic Ballast for TL5 Lamps Using a Magnetic Regulator</i> Heitor Marques; Eduardo Saraiva, Instituto Superior de Engenharia de Coimbra; Marina Perdigo, Instituto de Telecomunicações, Portugal; Alysson Seidel, Universidade Federal de Santa Maria, Brazil; J. Marcos Alonso, University of Oviedo, Spain	2011-PSEC-176 <i>Modeling and Design of an Improved Current-fed Converter with New Voltage Multiplier Circuit Combination</i> Ching-Ming Lai, LITE-ON Technology Corp.; Yi-Hung Liao, Yu-Lung Ke, National Penghu University of Science and Technology, Taiwan
2:30 PM	2011-EPC-236 <i>Characterization of Contact Discharge between small Capacitance Devices</i> Yutaka Soda, Tetsuji Oda, The University of Tokyo, Japan	2011-ILDC-344 <i>A Novel Flyback-Based Input PFC Stage for Electronic Ballasts in Lighting Applications</i> Marco Dalla-Costa, André Kirsten, UFSM; David Gacio, Antonio Calleja, Jorge Garcia, University of Oviedo, Brazil	2011-PSEC-276 <i>Virtual models for the upgrading electric system in Mexican refineries, application in the tender process by 2011 and integration by 2013</i> Fatima Chavez Almanza, Ivan Ruiz, Instituto de Investigaciones Electricas; Gerardo Rojas Perez, Enrique Sosa, Petroleos Mexicanos, Mexico
3:00 PM	2011-EPC-237 <i>Non-contact Surface Resistivity Measurement Using Cylindrical Surface Potential Detector with a Corona Charger</i> Makoto Abe, Yoshio Higashiyama, Toshiyuki Sugimoto, Yamagata University, Japan	2011-ILDC-346 <i>Interleaved Buck Converter Applied to High Power HID Lamps Supplying: Design, Modeling and Control</i> Alexandre Campos, Marco Dalla-Costa, Douglas Pappis, Andressa Schittler, Universidade Federal de Santa Maria, Brazil; J. Marcos Alonso, University of Oviedo, Spain	2011-PSEC-356 <i>Rectifier-to-Inverter Connection Through Long DC Cable – Part II: The Complete Copper Economy Characterization</i> Anderson Rocha, CEFET-MG - Coordenação de Eletrotécnica; João Castro Junior, Hélder De Paula, Braz Filho, UFMG, Brazil
3:00 PM	2011-EPC-240 <i>Distribution of electric potential at the surface of corona-charged non-woven fabrics</i> Angela Antoniu, Marius Ploeanu, Lucian Dascalescu, Mircea Hulea, Petru Notinger, Belkacem Yahiaoui, University of Poitiers, France	2011-ILDC-347 <i>Modified Flyback for HID Supply: Design, Modeling and Control</i> Marco Dalla-Costa, Alexandre Campos, Douglas Pappis, Jonas Pause, Andressa Schittler, Universidade Federal de Santa Maria, Brazil; J. Marcos Alonso, Universidad de Oviedo, Spain	2011-PSEC-242 <i>Modeling and Applications of Three Winding Transformers in Industrial and Commercial Facilities Part 2: Unbalanced and Transient Analysis</i> Rasheek Rifaat, Jacobs Engineering, Canada
3:30 PM	Break		
4:00 PM	2011-EPC-241 <i>Sinusoidal and triangular high voltage neutralizers for accelerated discharge of non-woven fibrous dielectrics</i> Atallah Smali; Marius Blajan, "Politehnica" University of Bucharest, Romania; Angela Antoniu, CNRS-University of Poitiers-ENSMA; Lucian Dascalescu, Ionut Vacar, University of Poitiers, France	2011-ILDC-348 <i>Power-Dependent Small-Signal Model for Fluorescent Lamps Based on a Double-Pole Double-Zero Transfer Function</i> Antonio Calleja, Ramon Diaz, David Gacio, Jorge Garcia, Javier Ribas, Manuel Rico-Secades, University of Oviedo, Spain	

Technical Sessions: Wednesday, October 12- Morning Sessions

Room	Swan 7	Swan 8	Swan 9
Committee	Codes and Standards	IACC	EPC
	Session #21	Session #22: PM Motor Control	Session #23: Numerical Modelling and Experimental Techniques
	Session Chair: Jim White, Shermco; Dennis Neitzel, AVO Training, USA	Session chair: Dr. Donald Zinger, Northern Illinois University, USA	Session chair: Lucian Dascalescu, University of Poitiers, France
	Session Organizer: Daleep Mohla	Session Organizer: Dr. Benjamin Blunier, Université de Technologie de Belfort-Montbéliard, France	Session organizer: Akira Mizuno, Toyohashi University of Technology, Japan
8:00 AM	2011-CSC-353 <i>A Closer Look at Bonding Grounding Electrodes (NEC 2011, Article 250 Requirements)</i> Dev Paul	2011-IACC-165 <i>A Novel Wavelet Neural Network Based Robust Control of the Interior Permanent Magnet Motor Drives</i> Abdesh Khan, Mohammad Uddin, Lakehead University; Aziz Rahman, Memorial University of Newfoundland	2011-EPC-244 <i>3D numerical study of wire-cylinder precipitator for collecting ultrafine particles from Diesel exhaust</i> Kazimierz Adamiak, G.S. Peter Castle, Niloofer Farnoosh, Univ. of Western Ontario, Canada
8:30 AM	Panel Session	2011-IACC-171 <i>The Implementation of Open-winding Permanent Magnetic Starter-generator for the Vehicle Applications</i> Jiadan Wei, Bo Zhou, Qingtang Deng, Nanjing University of Aeronautics and Astronautics, China	2011-EPC-245 <i>Two-dimensional simulation of streamer discharge with consideration of vibrationally excited molecules</i> Atsushi Komuro, Tetsuji Oda, Ryo Ono, The University of Tokyo, Japan
9:00 AM	Panel Session (Continued)	2011-IACC-173 <i>The Study of Improved PI Method for PMSM Vector Control System Based On SVPWM</i> Zhao Kaiqi, Harbin Engineering University, China	2011-EPC-246 <i>Numerical Simulation of the Effect of EHD Flow on Corona Discharge in Compressed Air</i> Lin Zhao, Gannon University; Kazimierz Adamiak, The University of Western Ontario, Canada
9:30 AM	Panel Session (Continued)	2011-IACC-201 <i>Experimental Performance of a Model Reference Adaptive Flux Observer Based NFC for IM Drive</i> Ronald Rebeiro, Mohammad Uddin, Hao Wen, Muhammad Hafeez, Lakehead University, Canada	2011-EPC-248 <i>Mathematical modeling of traveling wave micropumps: Analysis of energy transformation</i> Petr Cervenka, Jiri Hrdlicka, Michal Pribyl, Dalimil Snita, Institute of Chemical Technology Prague, Czech Republic
10:00 AM	BREAK		
10:30 AM	Panel Session (Continued)	2011-IACC-186 <i>A New Loss Minimization Control of the Interior Permanent Magnet Motor Drives Operating with a Wavelet Based Speed Controller</i> Abdesh Khan, Mohammad Uddin, Lakehead University; Aziz Rahman, Memorial University of Newfoundland, Canada	2011-EPC-250 <i>Numerical simulation of tribo-aero-electrostatic separation of mixed granular solids</i> Mihai Bilici, Technical University of Cluj; Lucian Dascalescu, Fatima Rahou, University of Poitiers; Amar Tilmatine, University of Sidi-Bel-Abbes, France
11:00 AM	Panel Session (Continued)	2011-IACC-209 <i>Untrained Artificial Neuron Based Speed Control of Interior Permanent Magnet Motor Drives over Full Operating Speed Range</i> Casey Butt, Aziz Rahman, Memorial University of Newfoundland, Canada	2011-EPC-383 <i>Mathematical modeling of electrochemical cell involving novel kinetics description</i> Petr Cervenka, Jiri Hrdlicka, Michal Pribyl, Dalimil Snita, Institute of Chemical Technology, Czech Republic

Technical Sessions: Wednesday, October 12- Morning Sessions

Room	Swan 10	Pelican 1	Pelican 2
committee	ILDC	Power Systems Energy	PSP
	Session #24: LEDs and Drivers	Session #25: Power Systems Energy V	Session #26: Power System Protection
	Session Chair: Sounil Bhosle, Oliscie, France	Session Chair: Kent Saylor, P2S Engineering, USA	Session Chair: Rob Hoerauf, Hoerauf Consulting Incorporated
	Session Organizer: Francis Dawson, Univeristy of Toronto, Canada; Jo Olson, Osram Sylvania, USA	session Organizer: Massimo Mitolo, Chu&Gassman	session Organizer: Rasheek Rifaat, Jacobs Engineering, Canada
8:00 AM	2011-ILDC-337 <i>A Study on LED Retrofit Solutions for Low-Voltage Halogen Cycle Lamps</i> Emilio Corominas; Marcos Alonso, J., Antonio Calleja, David Gacio, Javier Ribas, University of Oviedo, Spain	2011-PSEC-249 <i>Transient Stability Assessment of Industrial Power Systems with Detailed Models Implementation</i> Hiroyuki Iki, Fuji Electric; Yasuhiro Urano, Idemitsu Engineering; Yasunori Mitani, Masayuki Watanabe, Kyushu Institute of Technology; Yoshihisa Uriu, Seikei University, Japan	2011-PSPC-293 <i>IEC61850 Protocol - Practical Applications in Industrial Facilities</i> Mark Adamiak, Jakov Vico, Craig Wester, GE Digital Energy, USA
8:30 AM	2011-ILDC-342 <i>Taylor Series Expression Based Equivalent Circuit Models of LEDs for Analysis of LED Driver System</i> Chia-Chun Lee, Shun-Yao Liu, Ray-Lee Lin, National Cheng Kung University, Taiwan	2011-PSEC-271 <i>Investigation of Factors Affecting the Sustainability of Arc Below 250V</i> Mike Lang, Mersen; Ken Jones, Project Integration Inc., USA	2011-PSPC-290 <i>Implementing and Testing d - q WPT -Based Digital Protection for Micro-Grid Systems</i> Muhammad Abu-Khaizaran, Bir Ziet University; Razzequl Ahshan, Aziz Rahman, Saleh Saleh, Memorial University of Newfoundland; Basim Alsaid, PTU, Canada
9:00 AM	2011-ILDC-343 <i>Optimal Design of LED Array for Single-loop CCM Buck-Boost LED Driver</i> Yi-Chun Chang, Chia-Chun Lee, Ray-Lee Lin, National Cheng Kung University, Taiwan	2011-PSEC-224 <i>High Performance Arcing Fault Localization in Distribution Networks</i> Bulent Ayhan, Chiman Kwan, Jin Zhou, Signal Processing, Inc.; Wei-Jen Lee, Shun Liang, U. Texas at Arlington, USA	2011-PSPC-294 <i>Extending Motor Life with Updated Thermal Model Overload Protection</i> Randy Hamilton, Daniel Ransom, Basler Electric Company, USA
9:30 AM	2011-ILDC-349 <i>Useful Life and Reliability of NUP-Based LEDs Street Lights over 100W</i> Jeffrey Chen, William Chen, Chin-Ching Huang, Ramesh Uppala, Neopac Optoelectronics, Inc., Taiwan	2011-PSEC-274 <i>Compact Metal-Clad 15 kV Arc-Resistant Switchgear: Simulation and Test Results</i> Ashok Kulkarni, Predrag Milovac, Industrial Electric Mfg., USA	2011-PSPC-295 <i>Transient Responses of Switching Mode Power Supplies under a Lightning Surge</i> Xiang Luo, Shanghai Jiao Tong University, China; Y. Du, X.H. Wang, The Hong Kong Polytechnic University, Hong Kong
10:00 AM	BREAK		
10:30 AM	2011-ILDC-350 <i>Reliability Study of LEDs Standard Light Source</i> Jeffrey Chen; Ramesh Uppala; Chin-Ching Huang, William Chen, Neopac Optoelectronics, Inc., Taiwan	2011-PSEC-228 <i>Locating Short-Circuit Faults in Underground Networks</i> Bulent Ayhan, Chiman Kwan, Jin Zhou, Signal Processing, Inc.; Wei-Jen Lee, Omkar Limaye, Mingyu Lu, U. Texas at Arlington, USA	2011-PSPC-298 <i>Selection of Low Voltage switching and Protection Deviced in Wind Power</i> Paolo Baroncelli, Marco Carminati, Antonio Fidigatti, Enrico Ragaini, ABB, Italy
11:00 AM			2011-PSPC-292 <i>Protective Relaying Methods for Reducing Arc Flash Energy</i> Gerald Johnson, Johnny Simms, Basler Electric, USA
11:30 AM			2011-PSPC-291 <i>Development of a Virtual Protection Environment for Control and Self-healing of Power Systems</i> Osama Mohammed, Vahid Salehi Pour, Florida International University, USA

Technical Sessions: Wednesday, October 12- Afternoon Sessions

Room	Swan 7	Swan 8	Swan 9
Committee	Energy Systems	IACC	EPC
	Session #27: Energy Systems	Session #28: Advanced Controls	Session #29: Electrical Discharges
	Session Chair: Wei-Jen Lee, The University of Texas at Arlington, USA	Session Chair: Dr. Joy Mazumder, Siemens Corporation, USA	Session Chair: Masaaki Okubo, Osaka Prefecture University, Japan
	Session Organizer: Joe Weber, ASCO Power Switching and Controls, USA	Session Organizer: Dr. Bhim Singh, Indian Institute of Technology, India	Session Organizer: Toshiaki Yamamoto, Tokyo City University, Japan
2:00 PM	2011-ESC-309 Optimal Load Shedding Planning with Genetic Algorithm Chao-Rong Chen, Chun-Ju Chen, Hua-Yi Chen, Wen-Ta Tsai, National Taipei University of Technology; Hong-Wei Lan, Taiwan Power Company; Ching-Yin Lee, Tungnan University, Taiwan	2011-IACC-161 Analysis of a Short-Stroke DC Linear Motor for Nanopositioning Donghua Pan, Li Liyi, KouBaoquan, Wang Tiecheng, Zhang He, Harbin Institute of Technology, China	2011-EPC-253 Pilot-scale experiments of continuous regeneration of ceramics particulate filter in marine Diesel engine using nonthermal plasma-induced ozone injection Kenichi Hanamoto, Kazutoshi Sato, Daihatsu Diesel MFG. Co., Ltd.; Keiichiro Yoshida, Tomoyuki Kuroki, Takuya Kuwahara, Masaaki Okubo, Osaka Prefecture University; T. Yamamoto, Tokyo City University, Japan
2:30 PM	2011-ESC-310 Solar Power Battery Charger with a Parallel-Load Resonant Converter Mei-Sung Kang, Ying-Chun Chuang, Chien-Chih Yu, Kun Shan University; Ching-Ming Lai, Lite-ON Technology Corp.; Yu-Lung Ke, Yuan-Kang Wu, National Penghu University of Science and Technology, Taiwan	2011-IACC-162 Optimization of Transient Behavior of Complex Turbocompressor Shaft Lines Pieder Joerg, ABB Switzerland Ltd, Switzerland; Valerio Depau, Andrea Lenzi, GE Oil & Gas, Italy	2011-EPC-254 Bromomethane decomposition using a pulsed dielectric barrier discharge Tuyoshi Oishi, Oriental Kiden Co., Ltd.; Tomoyuki Kuroki, Masaaki Okubo, Osaka Prefecture University; T. Yamamoto, Tokyo City University, Japan
3:00 PM	2011-ESC-312 Multi-Rates Fuel Cell Emulation with Spatial Reduced Real-Time Fuel Cell Modeling Abdellatif Miraoui, Daniela Chrenko, Institut Supérieur de l'Automobile et des Transports Université de Bourgogne; Fei Gao, Benjamin Blunier, Bouquain David, Université de Technologie de Belfort-Montbéliard, France	2011-IACC-178 A Radial Position Control Method of Bearingless Motor Based on d-q Axis Current Control Mohammad Uddin, Lakehead University, Canada; Shunsuke Kobayashi, Masahide Ooshima, Tokyo University of Science, Suwa College, Japan	2011-EPC-258 Surface treatment of glass by microplasma Marius Blajan, Kazuo Shimizu, Akira Mizuno, Shizuoka University, Japan
3:30 PM	BREAK		
4:00 PM	2011-ESC-316 An Investigation on the Active Power Variations of Wind Farms Shijie Cheng, Weixing Lin, Jinyu Wen, Huazhong University of Science and Technology, China; Wei-Jen Lee, University of Texas at Arlington, USA	2011-IACC-180 Experimental Demonstration Of Ammonia Storage And Slip Modeling With Control For An Scr After-treatment System Abdul Ofoli, UTC College of Engineering and Computer Science, USA	2011-EPC-259 Development of EHD-assisted plasma electrostatic precipitator T. Yamamoto, W. Maeda, Y. Ehara, Tokyo City University H. Kawakami, Fuji Electric Systems, Japan
4:30 PM	2011-ESC-317 Wind Diesel Battery Hybrid System with Power Quality Improvement for Remote communities Miloud Rezkallah, Ecole de technologie supérieure; Amrisha Chandra, ÉTS, Université du Québec, Montréal, Canada	2011-IACC-181 Decoupled Vector Control of Series-Connected Synchronous Motor Mona Moussa, Yasser Dessouky, Arab Academy for Science and Technology, Egypt	2011-EPC-260 The effects of voltage waveform and discharge power on hydrogen and hydrogen peroxide formation in a water-spray gliding arc reactor Wright Finney, Bruce Locke, Florida State University, USA; Radu Burlica, Technical University "Gh. Asachi", Romania
5:00 PM		2011-IACC-195 An Incremental Sliding Mode Controller (Ismc) For Chattering Reduction Nassim Khaled, Cummins Inc; Abdul Ofoli, UTC College of Engineering and Computer Science,	2011-EPC-261 Optical diagnostics of electrical discharge water spray reactors for chemical synthesis Kevin Hsieh, Bruce Locke, Florida State University, USA; Radu Burlica, Technical University, Romania
5:30 PM		2011-IACC-203 Fractional Order PID and Modulated Hysteresis for High Performance Current Control in Multilevel Inverters Kambiz Arab-Tehrani, Ignace Rasoanarivo, Francois-Michel Sargos, GREEN, France	

Technical Sessions: Wednesday, October 12- Afternoon Sessions

Room	Swan 10	Pelican 1	Pelican 2
Committee	IACC	Power Systems Energy	ILDC
	Session #30: Modelling, Simulation and Analysis	Session #31: Power Systems Energy VI	Session #32: ILDC Special Session
	Session chair: Dr. Nahid Mubarakh, Nancy University, France	Session chair: T. David Mills, Savannah River Nuclear Solutions, USA	
	Session organizer: Dr. M. Nasir Uddin, Lakehead University, Canada	Session organizer: Massimo Mitolo, Chu and Gassman, USA	
2:00 PM	2011-IACC-159 <i>Static Characteristic Analysis of a Short-Stroke DC Planar Motor</i> Baoquan Kou, Liyi Li, Donghua Pan, He Zhang, Lu Zhang, Harbin Institute of Technology, China	2011-PSEC-263 <i>A Microprocessor-based Controller for High Temperature PEM Fuel Cells</i> Kourosh Sedghisigarchi, West Virginia University Institute of Technology, USA	<i>New Trends in UV Applications</i> Gord Knight
2:30 PM	2011-IACC-204 <i>PERFORMANCE IMPROVEMENT OF MINING HAUL TRUCKS OPERATING ON TROLLEY SYSTEMS</i> Joy Mazumdar, Siemens Industry Inc	2011-PSEC-281 <i>A New Advanced Method for Assessment of Waveform Distortions Caused by Adjustable Speed Drives</i> Fabio Scarpa, Ansaldo S.p.A.; Antonio Bracale, Pierluigi Caramia, University of Naples Parthenope; Pietro Tricoli, University of Napoli Federico II, L. Piegari, Politecnico di Milano, Italy	<i>EMerge for Research in Reconfigurable Lighting</i> Jo Olsen
3:00 PM	2011-IACC-206 <i>Analysis and Design of Isolated Solar-PV Energy Generating System</i> Bhim Singh, Neha Adhikari, A.L. Vyas, Indian Institute of Technology Delhi, India; Kamal Al Haddad, Ambrish Chandra, ÉTS, Canada	2011-PSEC-278 <i>Design Methodology of Large-scale Thermoelectric Generation: A Hierarchical Modeling Approach in SPICE</i> Qungui Du, Junling Gao, South China University of Technology; Zhengdong Kang, Jianzhong Zhang, Fuxin Electronic Technology, China; Min Chen, Aalborg University, Denmark; Ryosuke Suzuki, Hokkaido University, Japan	<i>OLEDiag: program for OLED lighting performances evaluation</i> Sounil Bhosle
3:30 PM	BREAK		
4:00 PM		2011-PSEC-279 <i>Detailed Analysis of Generator Emulation Control Impedance Network of Microgrid Inverters</i> Nasser Kutkut; Issa Batarseh, Ali Maknoungejad, Zhihua Qu, University of Central Florida, USA	<i>LED Driver and Lighting Applications -</i> Ray-Lee Lin
4:30 PM		2011-PSEC-277 <i>A New Measurement Method for Power Signatures of Non-intrusive Load Monitoring System in Load Identification</i> Hsueh-Hsien Chang, Jin Wen University of Science and Technology; Kun-Long Chen, Yuan-Pin Tsai, National Taiwan University of Science and Technology, Taiwan; Wei-Jen Lee, University of Texas at Arlington, USA	
5:00 PM		2011-PSEC-272 <i>Locating the Origin of Feeder Level Harmonics Utilizing Remote THD Measurements</i> Kerry D. McBee; Marcelo Simoes, Colorado School of Mines, USA	
5:30 PM		2011-PSEC-185 <i>On Performances of Wavelet Modulated Three Phase AC-DC Converters</i> Saleh Saleh, Memorial University of Newfoundland, Canada	

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The **2012 IEEE Industry Applications Society Annual Meeting** will address the technical interests related to industrial applications of electrical energy. Papers are solicited on this subject, especially studies pertaining to the scope of the participating Technical Committees of the IEEE Industry Applications Society, as listed below. For **papers**, draft manuscripts (NOT abstracts or digests alone) should be submitted by e-mail to the identified individuals. Proposals for **Tutorials** (which can range from 4 hours to 8 hours) should include a detailed outline as well as a list of presenters and their credentials.

The **Power System Engineering Committee** is soliciting papers relating to electrical safety and to design, analysis, maintenance or monitoring of electrical generation or distribution systems in industrial, commercial or institutional facilities. Drafts of proposed papers should be sent to Dr. Massimo Mitolo, mmitolo@chugassman.com

The **Industrial Automation and Control Committee** is seeking papers that address the applications of electrical and electronic control devices, sensors, systems, and methods to the conversion, regulation and utilization of electricity for the control of industrial processes and manufacturing. Drafts of proposed papers should be sent to Prof. Mohammad Uddin, muddin@lakeheadu.ca

The **Power System Protection Committee** is soliciting papers relating to the protection of power generation and distribution systems in industrial, commercial or institutional facilities, including both fault protection and surge protection. Drafts of proposed papers should be sent to Mr. Rob Hoerauf robhoerauf@earthlink.net

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The **Industrial Lighting and Display Committee** is soliciting papers on topics pertaining to the production and application of light, and to the application of display technology in industry. Drafts of proposed papers should be sent to Mr Ray Lee Lin, rayleelin@mail.ee.ncku.edu.tw

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The **Mining Industry Committee** is seeking papers related to electrical applications and operations in mines. Drafts of proposed papers should be sent to Dr Thomas Novak, TNovak@cdc.gov

For TUTORIAL topics in the general technical area of industrial applications of electrical energy, please send outlines and presenter details to: Dr Joe Sottile by **1 May 2012**, jsottile@ieee.org

Authors' Deadlines:

- 15 February 2012: Submission of full drafts of proposed papers to the respective technical committee identified above.
- 1 May 2012: Notification of acceptance or rejection by the respective technical committees.
- 1 June 2012: Authors to receive instructions for submission of final conference manuscripts
- 1 July 2012: Deadline for submission of final conference manuscripts to ScholarOne Manuscripts

General Abstract & Digest Requirements: All authors must submit a draft of the proposed paper for evaluation by the responsible Technical Committee. Abstracts or digests alone will not be considered. The draft should identify all authors of the proposed paper, and provide an e-mail address for the corresponding author. All correspondence will be conducted via e-mail. Authors are responsible for assuring that e-mail sent to the corresponding author will NOT be blocked by a spam filter.

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At least one author must register to attend the conference, and pay the required conference registration fee, prior to submitting each final manuscript. Student registrants may not submit papers, but students may be listed as coauthors on papers submitted by other conference registrants. Papers that are not actually presented at the conference will not be eligible for publication by IAS.

Please note that not all IAS Technical Committees hold sessions at the IAS Annual Meeting. If a committee is not listed in this call for papers, you should contact the appropriate IAS Technical Committee or Department Chair for more information.

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