

OCTOBER 5-9, 2014



**2014**  
**IEEE Industry  
Applications Society**  
**ANNUAL MEETING**

SHERATON VANCOUVER WALL CENTRE HOTEL  
VANCOUVER, BRITISH COLUMBIA





# Welcome Colleagues!

The IAS Annual Meeting has a long tradition of providing an international forum for practicing engineers and technical experts to present and discuss the latest developments in the application of electrical technology covering fields such as automation, control, electrostatics, mining, metals, and standards for electrical installations. The conference emphasizes professional development, learning, sharing of experiences, and networking with peers. This year's conference promises to be very rewarding with a full complement of tutorials, as well as over 180 technical paper presentations including a poster session from Student award winners. Please join us for the Welcome Breakfast on Monday morning when we will share some important announcements and include an update on ways you can maximize your valuable time at the conference this week.

Be sure to check the schedule carefully to ensure that you don't miss a technical learning opportunity or favorite event. Beyond the technical sessions and tutorials, some of the traditional activities during this week's conference include our Sunday Chapters & Membership Department Workshop and a technical tour on Tuesday, this year featuring a visit to the BC Hydro Stave Falls Powerhouse. On Sunday evening, we will be holding a session to guide first time attendees with an overview of our Society and this week's conference events, followed by an opening Reception coupled with our traditional student poster session. The technical program begins on Monday with five new tutorials scheduled throughout the week. Monday also includes the Myron Zucker Student luncheon where you will have the opportunity to meet many of the students attending the conference. Finally, be sure to join us on Wednesday evening at the President's banquet when you can share one final evening with the group and IAS Executive Board while we celebrate and recognize the recipients of this year's IAS awards. As with every annual meeting, the IAS Executive Board and IAS Council will also meet on Wednesday & Thursday to conduct the administrative business of the Society.

The organizing committee of the 49th IAS Annual meeting has worked hard to put this conference together and hope your stay is both pleasant and productive. Again, welcome to beautiful Vancouver British Columbia!

A handwritten signature in black ink, appearing to read 'Dave Durocher', written in a cursive style.

**Dave Durocher**  
*General Chair*



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# General Meeting Information

All conference events will be held at the Sheraton Wall Centre Hotel:

## Sheraton Vancouver Wall Centre Hotel

1088 Burrard Street  
Vancouver, BC V6Z 2R9, Canada

Phone: (604) 331-1000

## INTERNET ACCESS

As an IAS conference attendee, you receive complimentary high-speed internet access in your guest room. Instructions will be provided upon check-in. As part of the IAS Annual Meeting, you will not be charged for this internet service in your guest room.

## REGISTRATION INFORMATION

Registration will be located in the Pavilion Ballroom Foyer, located on the 3rd Level of the Sheraton and will be open the following hours:

■ Sunday	1:00 PM – 7:00 PM
■ Monday	7:00 AM – 7:00 PM
■ Tuesday	7:00 AM – 6:00 PM
■ Wednesday	7:00 AM – 6:00 PM

## BADGES

Badges should be worn at all official functions of the meeting. If you forget or lose your badge, you may obtain a second badge at Registration.

## POSTERS

Student poster displays will be presented during the Welcome Reception which will be hosted in Pavilion Ballroom A/B (and in the foyer space) on Sunday evening from 6:30 PM – 9:30 PM. The posters will be available for viewing starting Monday morning in the foyer area through Tuesday morning.

## SESSION CHAIRS & PRESENTERS

The Authors Breakfast will be held in Grand Ballroom AB immediately before the Welcome Breakfast on Monday morning from 7:00 AM – 8:00 AM. The Author Breakfast on Tuesday will also be held from 7:00 AM – 8:00 AM in the Grand Ballroom AB and in the Junior Ballroom ABC on Wednesday. These breakfasts are open only to the session chairs and authors who will be presenting that day, to provide authors the opportunity to meet their session moderator and peers.

## COMPANION'S ROOM

The Companion's Room is located in Blue Whale (3rd Level), and is open only to guests of conference attendees. It will be available from 8:00 AM – 5:00 PM Monday through Wednesday.

## Special Events

**Sunday, October 5th**

### CMD Chapter's Workshop

*(by invitation only)*

8:00 AM – 5:00 PM

PAVILION BALLROOM – D (3rd Level)

### Guide to the IAS Annual Meeting for First-Time Attendees

5:30 PM – 6:30 PM

JUNIOR BALLROOM – C (3rd Level)

### Welcome Reception & Student Poster Session

6:30 PM – 9:30 PM

PAVILION BALLROOM AB & FOYER  
(3rd Level)

**Monday, October 6th**

### Welcome Breakfast

8:00 AM – 9:00 AM

GRAND BALLROOM – AB (Ballroom Level)

### Myron Zucker Student Luncheon –

*open to all students*

12:30 PM – 2:00 PM

GRAND BALLROOM – AB (Ballroom Level)

**Tuesday, October 7th**

### Tour of BC Hydro Fall

### Stave Powerhouse

*\*Separate Fee (pre-registration required)*  
OFF-SITE

**Wednesday, October 8th**

### IAS Executive Board Meeting

8:00 AM – 5:00 PM

PORT MCNEIL (4th Level)

### Council Meeting/Workshop Luncheon

12:00 PM – 1:30 PM

JUNIOR BALLROOM (3rd Level)

### President's Reception

*(by invitation only)*

6:00 PM – 7:00 PM

CONSTELLATION SUITE

(35th Level, South Tower)

### IEEE IAS Awards & President's Banquet

7:00 PM – 9:30 PM

JUNIOR BALLROOM (3rd Level)

**Thursday, October 9th**

### IAS Executive Board Meeting

7:00 AM – 12:00 PM

PORT MCNEIL (4th Level)

# Sponsors

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

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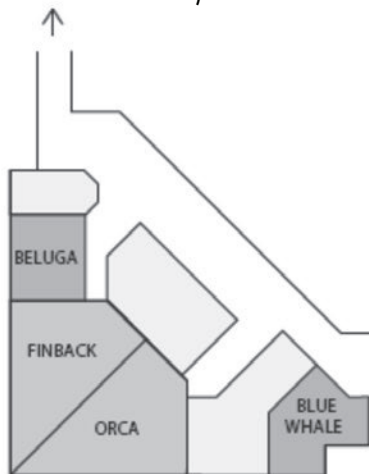


## SUPPORTER

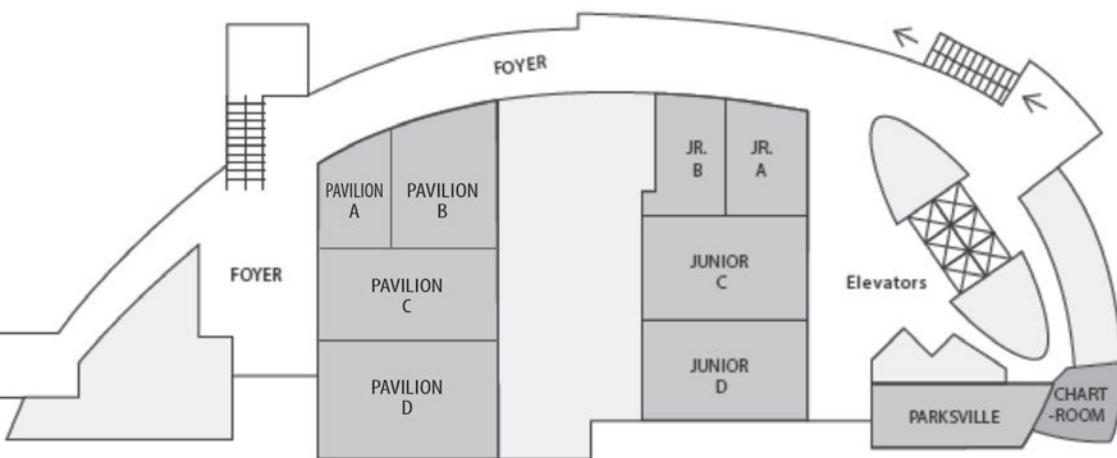


# Hotel Floor Plan

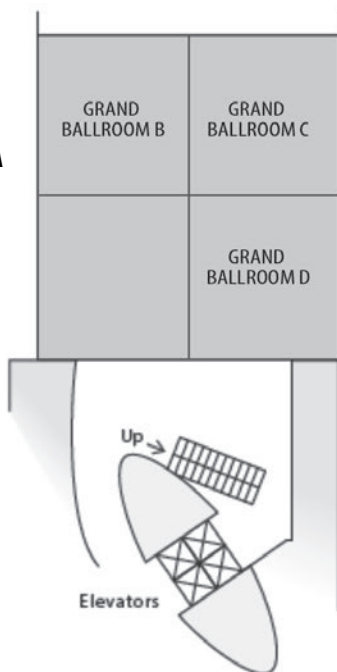
3RD LEVEL  
(Residential Tower)



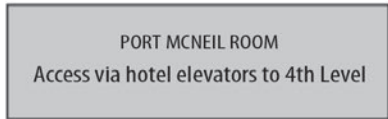
3RD LEVEL  
(North Tower)



GRAND BALLROOM LEVEL  
(North Tower)



4TH LEVEL  
(North Tower)





ANNUAL MEETING 2014

# Schedule at a Glance

SUNDAY \* OCTOBER 5

SCHEDULE AT A GLANCE

	Junior Ballroom A	Junior Ballroom B	Junior Ballroom C	Pavilion Ballroom C	Pavilion Ballroom D	Pavilion Ballroom AB + Foyer
8:00 AM					CMD Chapter's Workshop	
8:30 AM						
9:00 AM						
9:30 AM						
10:00 AM						
10:30 AM						
11:00 AM						
11:30 AM						
12:00 PM						
12:30 PM						
1:00 PM		Technical Standards Coordinating Committee				
1:30 PM						
2:00 PM	PSP Generator Grounding Working Group Meeting	TBCC First Principles (Base Book)	PSP Communications, Part 1	TUTORIAL #1 (Pourali)		
2:30 PM						
3:00 PM		TBCC Reliability Working Group				
3:30 PM						
4:00 PM	TBCC Protection & Coordination WG	TBCC MOS Working Group	TBCC Emergency Standby Power Systems WG			
4:30 PM						
5:00 PM		TBCC Power Systems Analysis WB				
5:30 PM			*Guide to the IAS Annual Meeting – 1st Time Attendees			
6:00 PM						
6:30 PM					Welcome Reception	
7:00 PM						
7:30 PM						
8:00 PM						
8:30 PM						
9:00 PM						

# Schedule at a Glance

## MONDAY \* OCTOBER 6

SCHEDULE AT A GLANCE

	Grand Ballroom AB	Grand Ballroom D	Pavilion Ballroom A	Pavilion Ballroom B	Pavilion Ballroom C	Pavilion Ballroom D					
7:00 AM	<b>Author's Breakfast</b>										
7:30 AM											
8:00 AM	<b>Welcome Breakfast</b>										
8:30 AM											
9:00 AM		<b>TUTORIAL #2 (Donlon)</b>	<b>SESSION 1 IACC #1</b>	<b>SESSION 3 Metals #1</b>	<b>SESSION 2 EPC #1</b>	<b>SESSION 4 ILDC #1</b>					
9:30 AM											
10:00 AM											
10:30 AM											
11:00 AM											
11:30 AM											
12:00 PM											
12:30 PM	<b>Myron Zucker Student Luncheon</b>										
1:00 PM											
1:30 PM											
2:00 PM		<b>SESSION 7 IACC #2</b>	<b>SESSION 8 Metals #2</b>	<b>SESSION 9 EPC #2</b>	<b>SESSION 10 ILDC #2</b>						
2:30 PM											
3:00 PM											
3:30 PM											
4:00 PM											
4:30 PM											
5:00 PM											
5:30 PM											
6:00 PM		<b>IACC Committee Meeting</b>	<b>Metals Committee Meeting</b>	<b>EPC Committee Meeting</b>	<b>ILDC Committee Meeting</b>						
6:30 PM											
7:00 PM	<b>CMD Dinner</b>										
7:30 PM											
8:00 PM											
8:30 PM											
9:00 PM											





# Schedule at a Glance

## TUESDAY \* OCTOBER 7

SCHEDULE AT A GLANCE

	Grand Ballroom AB	Pavilion Ballroom A	Pavilion Ballroom B	Pavilion Ballroom C
7:00 AM	<b>Author's Breakfast</b>			
7:30 AM				
8:00 AM		<b>SESSION 12 IACC #3</b>	<b>SESSION 13 ESC #1</b>	<b>SESSION 14 EPC #3</b>
8:30 AM				
9:00 AM				
9:30 AM				
10:00 AM				
10:30 AM				
11:00 AM				
11:30 AM				
12:00 PM				
12:30 PM				
1:00 PM				
1:30 PM				
2:00 PM		<b>SESSION 17 IACC #4</b>	<b>SESSION 18 ESC #2</b>	<b>SESSION 19 EPC #4</b>
2:30 PM				
3:00 PM				
3:30 PM				
4:00 PM				
4:30 PM				
5:00 PM				
5:30 PM				
6:00 PM			<b>I&amp;CPS Department Meeting</b>	
6:30 PM				
7:00 PM				
7:30 PM				



# Schedule at a Glance

## WEDNESDAY \* OCTOBER 8

SCHEDULE AT A GLANCE

	Junior Ballroom	Port McNeil	Pavilion Ballroom A	Pavilion Ballroom B	
7:00 AM	Author's Breakfast				
7:30 AM					
8:00 AM		IAS Board Meeting	SESSION 23 IACC #5	SESSION 24 ESC #3	
8:30 AM					
9:00 AM					
9:30 AM					
10:00 AM					
10:30 AM					
11:00 AM					
11:30 AM					
12:00 PM	Board/Council Luncheon				
12:30 PM					
1:00 PM					
1:30 PM			SESSION 28 IACC #6		
2:00 PM					
2:30 PM					
3:00 PM					
3:30 PM					
4:00 PM					
4:30 PM					
5:00 PM					
5:30 PM					
6:00 PM					
6:30 PM					
7:00 PM	President's Banquet				
7:30 PM					
8:00 PM					
8:30 PM					
9:00 PM					
9:30 PM					

# Schedule at a Glance

## WEDNESDAY \* OCTOBER 8

Pavilion Ballroom C	Pavilion Ballroom D	Junior Ballroom D	Constellation Suite
SESSION 25 Mining #3	SESSION 26 PSE #3	SESSION 27 EPC #5	
SESSION 29 PSPC #1	SESSION 30 PSEC #4	TUTORIAL # 3 (LeDoux)	
			President's Reception (by invitation only)

SCHEDULE AT A GLANCE

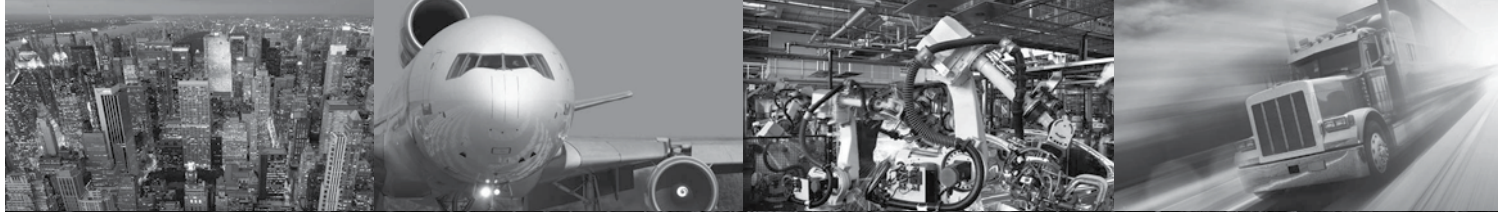


# Schedule at a Glance

## THURSDAY \* OCTOBER 9

SCHEDULE AT A GLANCE

	Port McNeill	Pavilion Ballroom A	Pavilion Ballroom C	Pavilion Ballroom D
7:00 AM	<b>IAS Executive Board Meeting</b>			
7:30 AM				
8:00 AM		<b>TUTORIAL #4 (Rifaat)</b>	<b>SESSION 31 PSEC #5</b>	<b>TUTORIAL #5 (Bumblauskas)</b>
8:30 AM				
9:00 AM				
9:30 AM				
10:00 AM				
10:30 AM				
11:00 AM				
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4:30 PM				



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# Committee Meetings

Committee	Start Time	End Time	Location
<b>SATURDAY * OCTOBER 4</b>			
CMD Committee Meeting	8:00 AM	5:00 PM	Pavilion Ballroom C
<b>SUNDAY * OCTOBER 5</b>			
CMD Workshop	8:00 AM	5:00 PM	Pavilion Ballroom D
Technical Standards Coord Main Meeting	1:00 PM	2:00 PM	Jr. Ballroom B
TBCC First Principles WG	2:00 PM	3:00 PM	Jr. Ballroom B
PSP Communications WG 1	2:00 PM	3:30 PM	Jr. Ballroom C
PSP Generator Grounding WG	2:00 PM	4:00 PM	Jr. Ballroom A
TBCC Reliability WG	3:00 PM	4:00 PM	Jr. Ballroom B
TBCC Protection and Coordination WG	4:00 PM	5:00 PM	Jr. Ballroom A
TBCC MOS Working Group	4:00 PM	5:00 PM	Jr. Ballroom B
TBCC Emergency Standby WG	4:00 PM	5:00 PM	Jr. Ballroom C
TBCC Power System Analysis WG	5:00 PM	6:00 PM	Jr. Ballroom B
Introduction to Annual Meeting for First Time Attendees	5:30 PM	6:30 PM	Pavilion Ballroom C
Welcome Reception/Poster Session	6:30 PM	9:30 PM	Pavilion Ballroom AB + Foyer
<b>MONDAY * OCTOBER 6</b>			
Tech Standards Coordinating Committee	9:00 AM	10:00 AM	Jr. Ballroom B
PSE Program Plan Subcommittee	9:00 AM	10:30 AM	Jr. Ballroom A
PSP Communications WG #2	9:00 AM	11:00 AM	Jr. Ballroom C
TBCC 1st Principles WG	10:00 AM	11:00 AM	Jr. Ballroom B
PSE Reliability WG	10:30 AM	11:00 AM	Jr. Ballroom A
TBCC PS Design WG	11:00 AM	12:00 PM	Jr. Ballroom C
TBCC Grounding WG	11:00 AM	12:00 PM	Jr. Ballroom B
PSE Power Systems Analysis Subcommittee	11:30 AM	12:00 PM	Jr. Ballroom A
I&CPS Meetings Committee	12:30 PM	1:30 PM	Jr. Ballroom C
PSE Emergency Standby Subcommittee	2:00 PM	2:30 PM	Jr. Ballroom A
PSP Low Voltage Subcommittee	2:00 PM	2:30 PM	Jr. Ballroom B
PSE Safety, Operations Subcommittee	2:30 PM	3:00 PM	Jr. Ballroom A
PSP Surge Protection Subcommittee	2:30 PM	3:00 PM	Jr. Ballroom B
PSP Medium Voltage Subcommittee	3:00 PM	3:30 PM	Jr. Ballroom B
PSE Power Systems Design Subcommittee	3:00 PM	3:30 PM	Jr. Ballroom A
PSE Grounding Subcommittee	3:30 PM	4:00 PM	Jr. Ballroom A
PSP Main Committee Meeting	3:30 PM	4:30 PM	Jr. Ballroom B
PSE Power Quality Subcommittee	4:00 PM	4:30 PM	Jr. Ballroom A
PSE Forensics WG	4:30 PM	5:00 PM	Jr. Ballroom A
Energy Systems Committee Meeting	4:30 PM	5:30 PM	Jr. Ballroom B
PSE Main Committee Meeting	5:00 PM	6:00 PM	Jr. Ballroom A
Metals Committee Meeting	6:00 PM	7:00 PM	Pavilion Ballroom B
ILDC Committee Meeting	6:00 PM	7:00 PM	Pavilion Ballroom D
EPC Committee Meeting	6:00 PM	7:00 PM	Pavilion Ballroom C
IACC Committee Meeting	6:00 PM	8:00 PM	Pavilion Ballroom A
<b>TUESDAY * OCTOBER 7</b>			
Pubs/Transactions	8:00 AM	9:00 AM	Jr. Ballroom A
Pubs/Magazine	9:00 AM	10:00 AM	Jr. Ballroom A
Scholar One User Group	10:30 AM	12:00 PM	Jr. Ballroom A
Codes and Standards Committee	11:00 AM	12:00 PM	Jr. Ballroom B
I&CPS Technical Program Committee	12:00 PM	1:30 PM	Jr. Ballroom B
2015 Annual Meeting Committee Chairs	12:30 PM	1:30 PM	Jr. Ballroom A
Mining Committee Meeting	6:00 PM	7:00 PM	Pavilion Ballroom D
MSDAD Department Meeting	6:00 PM	7:00 PM	Parksville
I&CPS Department Committee Meeting	6:00 PM	8:00 PM	Pavilion Ballroom B





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# Technical Program

## MONDAY \* OCTOBER 6 \* MORNING SESSIONS

9:00 AM – 12:30 PM

ROOM: **Pavilion  
Ballroom A**

SESSION CHAIRS:  
Dr. Babak Nahidmobarakeh  
*France, Nancy-Universite*  
Dr. Norma Anglani  
*University of Pavia*

ORGANIZER:  
Dr. Abdul, R. Ofoli  
*University of Tennessee  
at Chattanooga*

**SESSION 1**  
**Advanced Controls**

9:00 AM – 9:30 AM

**2014-IACC-0468 \* Behavioral Characterization of Electric Vehicle Charging Loads in a Distribution Power Grid through Modeling of Battery Chargers**

AUTHORS: Ahmed Haidar, *University of Wollongong*; Kashem Muttaqi, *University of Wollongong*

IACC

9:30 AM – 10:00 AM

**2014-IACC-0470 \* Mixed-integer Linear Programming for The Optimal Design and Management of Air Compressor Rooms**

AUTHORS: Giusi Quartarone, *University of Pavia*; Norma Anglani, *University of Pavia*

IACC

10:00 AM – 10:30 AM

**2014-IACC-0447 \* An Offset-free Multivariable Model Predictive Control for Quadruple Tanks System**

AUTHORS: Masood Askari, *University of Malaya*; Mahmoud Moghavvemi, *University of Malaya*; Haider Almurib, *The University of Nottingham Malaysia Campus*; Kashem Muttaqi, *University of Wollongong*

IACC

11:00 AM – 11:30 AM

**2014-IACC-0458 \* On Opportunities of Dimensioning a (Virtual) Flux Based Hysteresis Controller for Minimal Switching Frequency**

AUTHORS: P. Dost, *Ruhr-Universität Bochum*; Constantinos Sourkounis, *Ruhr-University Bochum*

IACC

11:30 AM – 12:00 PM

**2014-IACC-0443 \* A Novel Design Method for Adaptive Full Order Observer Feedback Matrix and Speed Estimation Algorithm**

AUTHORS: Wei Sun, *Harbin Institute of Technology*; Yong Yu, *Harbin Institute of Technology*; Gaolin Wang, *Harbin Institute of Technology*; Dianguo Xu, *Harbin Institute of Technology*

IACC

12:00 PM – 12:30 PM

**2014-IACC-0477 \* Reliability Assessment of Adjustable Speed Drives Using State Markov Models**

AUTHORS: Nicolae Brinzei, *CRAN*; Babak Nahid-Mobarakeh, *GREEN*

IACC

*The list of contributors on the papers submitted for this Conference was provided by the authors. IEEE is not responsible for missing or misspelled names, disambiguation of authors with similar names, or the sequence in which the names are listed.*



<p>9:00 AM – 12:30 PM</p> <p>ROOM: <b>Pavilion Ballroom C</b></p> <p>SESSION CHAIR: Dr. Kelly Robinson <i>Electrostatic Answers</i></p> <p>ORGANIZER: Dr. Maciej A. Noras <i>University of North Carolina at Charlotte</i></p> <p><b>SESSION 2</b> <b>Electrostatics Applications</b></p>	<p>9:00 AM – 9:30 AM <span style="float:right">EPC #1</span></p> <p><b>2014-EPC-0284 * Improving Safety of Industrial Electrostatic Processes Through Consensus Standards</b></p> <p>AUTHOR: Charles Noll, <i>XiPro Technologies LLC</i></p>
	<p>9:30 AM – 10:00 AM <span style="float:right">EPC #1</span></p> <p><b>2014-EPC-0285 * An Updated History of the Electrostatic Processes Committee of the IAS</b></p> <p>AUTHORS: G.S. Peter Castle, <i>UWO</i>, William Greason, <i>University Western Ontario</i></p>
	<p>10:00 AM – 10:30 AM <span style="float:right">EPC #1</span></p> <p><b>2014-EPC-0324 * Recent Experimental Advances in Electrohydrodynamic Conduction Pumping Research</b></p> <p>AUTHORS: Jamal Seyed-Yagoobi, <i>Worcester Polytechnic Institute</i>; Viral Patel, <i>Worcester Polytechnic Institute</i></p>
	<p>11:00 AM – 11:30 AM <span style="float:right">EPC #1</span></p> <p><b>2014-EPC-0287 * Characteristics of Atmospheric Non-Thermal Microplasma Actuator</b></p> <p>AUTHORS: Kazuo Shimizu, <i>Shizuoka University</i>; Yoshinori Mizuno, <i>Shizuoka University</i>; Marius Blajan, <i>Shizuoka University</i></p>
	<p>11:30 AM – 12:00 PM <span style="float:right">EPC #1</span></p> <p><b>2014-EPC-0288 * Processing of Carbonated Beer by Pulsed Electric Fields</b></p> <p>AUTHORS: Ahmed Gad, <i>University of Waterloo</i>; Shesha Jayaram, <i>University of Waterloo</i></p>
	<p>12:00 PM – 12:30 PM <span style="float:right">EPC #1</span></p> <p><b>2014-EPC-0313 * Improved Overall Performances of a Tribo-Aero-Electrostatic Separator for Granular Mixtures</b></p> <p>AUTHORS: Mohamed Miloudi, <i>University of Sidi Bel Abbes</i>; Lucian Dascalescu, <i>University of Poitiers</i>; Jia Li, <i>University of Shanghai</i>; Karim Medles, <i>University of Sidi Bel Abbes</i>; Amar Tilmatine, <i>University of Sidi Bel Abbes</i></p>
<p>9:00 AM – 12:00 PM</p> <p>ROOM: <b>Pavilion Ballroom B</b></p> <p>SESSION CHAIR: Prof. Cheng-Tsung Liu <i>National Sun Yat-Sen University</i></p> <p>ORGANIZER: Mr. Thomas J. Dionise <i>Eaton Corporation</i></p> <p><b>SESSION 3</b> <b>Metals Finishing, Control, Measurements and Sensors</b></p>	<p>9:00 AM – 9:30 AM <span style="float:right">Metals</span></p> <p><b>2014-METC-500 * A Critical Analysis of Standard Methods for Characterization of Electrical Steels: Losses in High Speed Induction Motors</b></p> <p>AUTHORS: Andre Costa, <i>UFMG</i>; Braz Cardoso, <i>Federal University of Minas Gerais</i>; Rodrigo Bastos, <i>UFMG</i>; Sebastiao Paolinelli, <i>APERAM South America</i>; Sebastiao Nau, <i>WEG</i>; Ramon Valle, <i>UFMG</i></p>
	<p>9:30 AM – 10:00 AM <span style="float:right">Metals</span></p> <p><b>2014-METC-501 * Cutting and Punching Impacts on Laminated Electromagnetic Steels to the Designs and Operations of Synchronous Reluctance Motors and Operations of Synchronous Reluctance Motors</b></p> <p>AUTHORS: Cheng-Tsung Liu, <i>National Sun Yat-Sen University</i>; Bo-Yan Chang, <i>National Sun Yat-Sen University</i>; Kuo-Yuan Hung, <i>National Sun Yat-Sen University</i>; Sheng-Yang Lin, <i>China Steel Corporation</i></p>
	<p>10:00 AM – 10:30 AM <span style="float:right">Metals</span></p> <p><b>2014-METC-502 * Parameter Identification Method for 3-phase Induction Heating System</b></p> <p>AUTHORS: Nguyen Anh, <i>Ho Chi Minh City University of Technology</i>; Dung Phan, <i>Ho Chi Minh City University of Technology</i>; Duy Nguyen, <i>Université de Toulouse, Laboratoire PLAsma et Conversion d'Énergie</i>; Long Nguyen, <i>Université de Toulouse, Laboratoire PLAsma et Conversion d'Énergie</i>; Olivier Durrieu, <i>Université de Toulouse, Laboratoire PLAsma et Conversion d'Énergie</i>; Pascal Maussion, <i>Université de Toulouse</i></p>

MONDAY  
TECHNICAL SESSIONS

	<p>11:00 AM – 11:30 AM <span style="float: right;">Metals</span></p> <p><b>2014-METC-503 * Advanced Control to Reduce the Likelihood of Cobbles in the Tandem Rolling of Hot Metal Strip</b></p> <p>AUTHORS: John Pittner, <i>University of Pittsburgh</i>; Marwan Simaan, <i>University of Central Florida</i></p>
	<p>11:30 AM – 12:00 PM <span style="float: right;">Metals</span></p> <p><b>2014-METC-504 * Flatness Measurement Using Two Laser Stripes to Remove the Effects of Vibrations</b></p> <p>AUTHORS: Ruben Usamentiaga, <i>University of Oviedo</i>; Julio Molleda, <i>University of Oviedo</i>; García Daniel, <i>University of Oviedo</i>; Francisco Bulnes, <i>University of Oviedo</i>; Joaquin Entrialgo, <i>University of Oviedo</i>; Carlos Suarez, <i>University of Oviedo</i></p>
<p>9:00 AM – 12:30 PM</p> <p>ROOM: <b>Pavilion Ballroom D</b></p> <p>SESSION CHAIR: Dr. Munekatsu Date <i>NTT Media Intelligence Laboratories, NTT Corporation, Japan</i></p> <p>ORGANIZER: Prof. Kazutake Uehira <i>Kanagawa Institute of Technology, Japan</i></p> <p><b>SESSION 4</b> Display</p>	<p>9:00 AM – 9:30 AM <span style="float: right;">ILDC #1</span></p> <p><b>2014-ILDC-0351 * Three Dimensional Motion Picture Technologies</b></p> <p>AUTHORS: Ken-ichi Aoshima, <i>Japan Broadcasting Corp</i>; Kinjou Hidakazu, <i>Japan Broadcasting Corp</i>; Kenji Machida, <i>Japan Broadcasting Corp</i>; Daisuke Kato, <i>Japan Broadcasting Corp</i>; Kiyoshi Kuga, <i>Japan Broadcasting Corp</i>; Tomoyuki Mishina, <i>Japan Broadcasting Corp</i>; Hiroshi Kikuchi, <i>Japan Broadcasting Corp</i>; Naoki Shimidzu, <i>Japan Broadcasting Corp</i></p> <p>9:30 AM – 10:00 AM <span style="float: right;">ILDC #1</span></p> <p><b>2014-ILDC-0339 * EEFL (External Electrode Fluorescent Lamp) Driving Methods</b></p> <p>AUTHOR: Walter Kaiser, <i>University of São Paulo</i></p> <p>10:00 AM – 10:30 AM <span style="float: right;">ILDC #1</span></p> <p><b>2014-ILDC-0340 * OLED Equivalent Circuit Model with Temperature Coefficient and Intrinsic Capacitor</b></p> <p>AUTHORS: Ray-Lee Lin, <i>National Cheng Kung University</i>; Jhong-Yan Tsai, <i>National Cheng Kung University</i>; David Buso, <i>Université de Toulouse</i>; Georges Zissis, <i>Université de Toulouse</i></p> <p>11:00 AM – 11:30 AM <span style="float: right;">ILDC #1</span></p> <p><b>2014-ILDC-0341 * Design Considerations for New 3D Image Display System with Improved Compatibility with Invisibility and Readability</b></p> <p>AUTHORS: Hiroshi UNNO, <i>Kanagawa Inst. &amp; Tech.</i>; Youichi TAKASHIMA, <i>NTT Service Evolution Research Lab.</i>; Kazutake UEHIRA, <i>Kanagawa Inst. &amp; Tech.</i></p> <p>11:30 AM – 12:00 PM <span style="float: right;">ILDC #1</span></p> <p><b>2014-ILDC-0342 * Applications of Optoelectronic Watermarking Technique to New Business and Industry Systems Utilizing Flat Panel Displays and Smart Devices</b></p> <p>AUTHORS: Kazutake UEHIRA, <i>Kanagawa Institute of Technology</i>; Kayo Suzuki, <i>Acaterial Ltd.</i>; Hiroaki Ikeda, <i>Consultant</i></p> <p>12:00 PM – 12:30 PM <span style="float: right;">ILDC #1</span></p> <p><b>2014-ILDC-0343 * Lighting – Reduce the Consumption and Increase the Comfort of the Users</b></p> <p>AUTHORS: Pascal DUPUIS, <i>Université Paul Sabatier</i>; Angel Barroso, <i>Université Paul Sabatier</i>; Laurent CANALE, <i>LAPLACE Lab.</i>; Corinne Alonso, <i>Université Paul Sabatier</i>; Georges Zissis, <i>University of Toulouse</i></p>

MONDAY  
TECHNICAL SESSIONS

<b>9:00 AM – 12:00 PM</b> <b>ROOM: Junior Ballroom D</b> <b>SESSION CHAIR:</b> Dr. Joseph Sottile <i>University of Kentucky</i> <b>ORGANIZER:</b> Dr. Joseph Sottile <i>University of Kentucky</i> <b>SESSION 5</b> <b>Zucker Design Presentations</b>	<b>9:00 AM – 9:30 AM</b> <span style="float: right;">Zucker Presentations</span> <b>Paper 1 * Comparison of Model Predictive Control Techniques for Active Suspension</b> AUTHOR: German David Montañez Pedraza, <i>Pontificia Universidad Javeriana, Bogota, Colombia</i>
	<b>9:30 AM – 10:00 AM</b> <span style="float: right;">Zucker Presentations</span> <b>Paper 2 * Mitigation of Stick Slip During Drilling Using Model Reduction and Model Based Controller</b> AUTHOR: Naveen Velmurugan, <i>Pandit Deendayal Petroleum University, Gandhinagar, Gujarat, India</i>
	<b>10:00 AM – 10:30 AM</b> <span style="float: right;">Zucker Presentations</span> <b>Paper 3 * GatorPilot</b> AUTHOR: Mark Parrish and Jordan Street, <i>University of Florida, Gainesville, FL, USA</i>
	<b>11:00 AM – 11:30 AM</b> <span style="float: right;">Zucker Presentations</span> <b>Paper 4 * Multi-Source Electric Go-Kart</b> AUTHORS: Jonathan Blake, Nathan Butterfield, Joshua Calkins, and Anupam Ojha, <i>University of Connecticut, Storrs, CT, USA</i>
	<b>11:30 AM – 12:00 PM</b> <span style="float: right;">Zucker Presentations</span> <b>Paper 5 * SURPASS (Supplemented Urgency Regulating Personal Alert Safety System)</b> AUTHORS: Matthew Brazza, Paul Kania, and Minh Pham, <i>Rutgers University, NJ, USA</i>
<b>9:00 AM – 12:30 PM</b> <b>ROOM: Parksville</b> <b>SESSION CHAIR:</b> Ms. Maria Puentes Castilla <i>Universidad de los Andes</i> <b>ORGANIZER:</b> Dr. Peter Magyar <i>IAS CMD</i> <b>SESSION 6</b> <b>Student Session 1</b>	<b>9:00 AM – 9:30 AM</b> <span style="float: right;">Student Session</span> <b>Paper 1 * Improvement of WAMS-Based Electromechanical Modes Identification</b> AUTHORS: Camilo Andrés Ordoñez, <i>Universidad de los Andes, Bogota, Colombia</i>
	<b>9:30 AM – 10:00 AM</b> <span style="float: right;">Student Session</span> <b>Paper 2 * EV Battery Charger: Design and RT Test on a Battery Emulation Platform</b> AUTHOR: Maria Paula Puentes Castilla, <i>Universidad de los Andes, Bogota, Colombia</i>
	<b>10:00 AM – 10:30 AM</b> <span style="float: right;">Student Session</span> <b>Paper 3 * MPPT Based Solar Power Scheme with Active Sun Tracking System</b> AUTHORS: Priya Sadananda Pai, <i>Mahatma Gandhi University, Rajiv Gandhi Institute of Technology, Government Engineering College, Kottayam, Kerala, India</i>
	<b>11:00 AM – 11:30 AM</b> <span style="float: right;">Student Session</span> <b>Paper 4 * Application of Life Data Analysis in the Aging Power System</b> AUTHOR: Tibor Fazekas, <i>Budapest University of Technology and Economics, Budapest, Hungary</i>
	<b>11:30 AM – 12:00</b> <span style="float: right;">Student Session</span> <b>Paper 5 * Servo Control of Wheeled Inverted Pendulum Using Pole Placement Controller</b> AUTHOR: Sumit Chhabria, <i>Pandit Deendayal Petroleum University, Gujarat, India</i>
	<b>12:00 12:30 PM</b> <span style="float: right;">Student Session</span> <b>Paper 6 * Vector Analysis and Control of an Induction Motor Drive System Using DSpace</b> AUTHORS: Antigoni Noula, Galini Kondyli, Christina – Panagiota Malliou, Nick Papanikolaou, Athanasios Karlis, <i>Democritus University of Thrace, Xanthi, Greece</i>

**MONDAY**  
**TECHNICAL SESSIONS**

MONDAY \* OCTOBER 6 \* AFTERNOON SESSIONS

2:00 PM – 6:00 PM

ROOM: **Pavilion Ballroom A**

SESSION CHAIRS:  
 Dr. Osama A. Mohammed  
*Florida International University*  
 Dr. S. A. Saleh  
*University of New Brunswick Fredericton, Canada*

ORGANIZER:  
 Dr. S. A. Saleh  
*University of New Brunswick Fredericton, Canada*

**SESSION 7**  
**Motor Drives I**

2:00 PM – 2:30 PM

**2014-IACC-0439 \* Recent Advances in Loss Minimization Algorithms for IPMSM Drives**

AUTHORS: Felipe Azevedo, *Lakehead University*; Mohammad Uddin, *Lakehead University*

IACC

2:30 PM – 3:00 PM

**2014-IACC-0440 \* Implementation and Performance of Position Sensorless PMSM Control in Industrial Drives**

AUTHORS: Jingbo Liu, *Rockwell Automation*; Takayoshi Matsuo, *Rockwell Automation*; Thomas Nondahl, *Rockwell Automation*; Peter Schmidt, *Rockwell Automation*; Timothy Rowan, *Rockwell Automation*; Robert De Lange, *Rockwell Automation*

IACC

3:00 PM – 3:30 PM

**2014-IACC-0459 \* Implementation of d-q Decoupling and Feed-Forward Current Controller for Grid Connected Three Phase Voltage Source Converter**

AUTHORS: Azziddin Razali, *Memorial University of Newfoundland Canada*; Aziz Rahman, *Memorial University of Newfoundland*; Nasrudin Rahim, *Universitiy Malaya*

IACC

3:30 PM – 4:00 PM

**2014-IACC-0449 \* Independent Rated Speed Control of Two Induction Motors Fed by a Four-Leg Inverter**

AUTHORS: Yuji Kubo, *Meiji University*; Takayuki Moroi, *Meiji University*; Kouki Matsuse, *Meiji University*; Hisao Kubota, *Meiji University*; Kaushik Rajashekara, *The University of Texas at Dallas*

IACC

4:30 PM – 5:00 PM

**2014-IACC-0451 \* Online Loss Minimization Based Adaptive Flux Observer for Direct Torque and Flux Control of PMSM Drive**

AUTHORS: Mohammad Uddin, *Lakehead University*; HonBin Zou, *Lakehead University*; Felipe Azevedo, *Lakehead University*

IACC

5:00 PM – 5:30 PM

**2014-IACC-0453 \* Design of a Novel 6/5 Segmental Rotor Type Switched Reluctance Motor**

AUTHORS: Zhenyao Xu, *Kyungshung University*; Dong Hee Lee, *Kyungshung University*; Jin-Woo Ahn, *Kyungshung University*

IACC

5:30 PM – 6:00 PM

**2014-IACC-0454 \* Vector Controlled Two Induction Motor Drives Fed by Matrix Converter**

AUTHORS: Akitoshi Nakajima, *Meiji University*; Kiyoya Sakaki, *Meiji University*; Kouki Matsuse, *Meiji University*; Hisao Kubota, *Meiji University*; Kaushik Rajashekara, *The University of Texas at Dallas*

IACC

MONDAY  
 TECHNICAL SESSIONS

<p>2:00 PM – 5:00 PM</p> <p>ROOM: <b>Pavilion Ballroom B</b></p> <p>SESSION CHAIR: Prof. Juan M. Lopera <i>University of Oviedo</i></p> <p>ORGANIZER: Mr. Richard White <i>Charter Steel</i></p> <p><b>SESSION 8</b> <b>Metals Electrical Distribution, Harmonics, Power Quality</b></p>	<p>2:00 PM – 2:30 PM</p> <p><b>2014-METC-505 * Active Series Reactor for Electric Arc Furnace Based on Electronic Power Converter</b></p> <p>AUTHORS: Igor Pires, <i>Universidade Federal de Minas Gerais</i>; Marcelo Murta, <i>Arcelor Mittal</i>; Braz Filho, <i>Universidade Federal de Minas Gerais</i></p>	Metals #2
	<p>2:30 PM – 3:00 PM</p> <p><b>2014-METC-506 * Electric Arc Furnace Model in Distribution Systems</b></p> <p>AUTHORS: Eduardo Cano-Plata, <i>Universidad Nacional de Colombia</i>; Armando Ustariz-Farfan, <i>Universidad Nacional de Colombia</i>; Oscar Soto, <i>Universidad Nacional de Colombia</i></p>	Metals #2
	<p>3:00 PM – 3:30 PM</p> <p><b>2014-METC-499 * Comprehensive Analysis to Specify a Static Var Compensator for an Electric Arc Furnace Upgrade</b></p> <p>AUTHORS: Sam Morello, <i>ARM EnerTech Associates, LLC</i>; Thomas Dionise, <i>Eaton Corporation</i>; Thomas Mank, <i>Standard Steel, LLC</i></p>	Metals #2
	<p>3:30 PM – 4:00 PM</p> <p><b>2014-METC-507 * Data Mining Framework for Power Quality Event Characterization of Iron and Steel Plants</b></p> <p>AUTHORS: Mennan Guder, <i>METU</i>; Ozgul Salor, <i>Gazi University &amp; Hacettepe University</i>; Isik CADIRCI, <i>Hacettepe University</i>; Baris Ozkan, <i>METU</i>; Erinc Altintas, <i>Gazi University</i></p>	Metals #2
	<p>4:30 PM – 5:00 PM</p> <p><b>2014-METC-508 * Analysis of Burn Out and Random Trips at Starting of a 2984kW Induction Motor Driving a Main Blower</b></p> <p>AUTHORS: Leonardo Adolpho Silva, <i>Federal University of Sao Joao del Rei</i>; Igor Pires, <i>Universidade Federal de Minas Gerais</i>; Karina Giancoti, <i>Odebretch</i>; Francisco Rodrigues, <i>Odebretch</i></p>	Metals #2
<p>2:00 PM – 5:30 PM</p> <p>ROOM: <b>Pavilion Ballroom C</b></p> <p>SESSION CHAIR: Prof. Rajesh Sharma <i>Arkansas State University</i></p> <p>ORGANIZER: Prof. Masaaki Okubo <i>Osaka Prefecture University</i></p> <p><b>SESSION 9</b> <b>Electrical Charging and Discharging</b></p>	<p>2:00 PM – 2:30 PM</p> <p><b>2014-EPC-0299 * Maximize Static Dissipator Neutralization Efficiency</b></p> <p>AUTHOR: Kelly Robinson, <i>Electrostatic Answers, LLC</i>.</p>	EPC #2
	<p>2:30 PM – 3:00 PM</p> <p><b>2014-EPC-0300 * An investigation on the charging level of a ligament-droplet system atomized in a uniform electric field</b></p> <p>AUTHORS: Husam Osman, <i>UWO</i>; Osameh Ghazian, <i>UWO</i>; Kazimierz Adamiak, <i>UWO</i>; G.S. Peter Castle, <i>UWO</i>; Charles Fan, <i>GM</i>; Joseph Simmer, <i>GM</i></p>	EPC #2
	<p>3:00 PM – 3:30 PM</p> <p><b>2014-EPC-0298 * Tribocharging Phenomena in Sliding Contacts between Polymeric Materials</b></p> <p>AUTHORS: Thami Zeghloul, <i>University of Poitiers</i>; Lucian Dascalescu, <i>University of Poitiers</i>; Karim Rouagdia, <i>University of Guelma</i>; Ali Fatihou, <i>University of Poitiers</i>; Pascal Renoux, <i>University of Poitiers</i>; Dominique Souchet, <i>University of Poitiers</i></p>	EPC #2
	<p>3:30 PM – 4:00 PM</p> <p><b>2014-EPC-0301 * An Electrostatic Field Driven Ionizer for a Moving Charged Target</b></p> <p>AUTHORS: Toshiyuki Sugimoto, <i>Yamagata University</i>; Kazutoshi Furutachi, <i>Yamagata University</i>; Yoshio Higashiyama, <i>Yamagata University</i></p>	EPC #2
	<p>4:30 PM – 5:00 PM</p> <p><b>2014-EPC-0302 * Triboelectrification of Ice</b></p> <p>AUTHOR: Hisashi Shio, <i>Hokkaido University</i></p>	EPC #2

MONDAY  
TECHNICAL SESSIONS



	5:00 PM – 5:30 PM	EPC #2
	<b>2014-EPC-0498 * Submicron PM Removal of an ESP Combined with a Metallic Foam Filter for Large Volumetric Diesel Engines</b>	
	AUTHORS: Hak-Joon Kim, <i>Korea Institute of Machinery and Materials</i> ; Bangwoo Han, <i>Korea Institute of Machinery and Materials</i> ; Chang-Gyu Woo, <i>Korea Institute of Machinery and Materials</i> ; Yong-Jin Kim, <i>Korea Institute of Machinery and Materials</i>	
2:00 PM – 6:00 PM	2:00 PM – 2:30 PM	ILDC #2
ROOM: <b>Pavilion Ballroom D</b>	<b>2014-ILDC-0325 * The Optimization of Color-Mixed LED Lighting</b>	
SESSION CHAIR: Prof. J. Marcos Alonso <i>University of Oviedo, Spain</i>	AUTHORS: SongBor Chiang, <i>Industrial Technology Research Institute</i> ; KuoHsiang Chien, <i>Industrial Technology Research Institute</i>	
ORGANIZER: Prof. Ray-Lee Lin <i>National Cheng Kung University, Taiwan.</i>	2:30 PM – 3:00 PM	ILDC #2
<b>SESSION 10 LED Lighting</b>	<b>2014-ILDC-0326 * A Family of Insulated Integrated Drivers to Feed LED's Lamps to Street Lighting with Reduced Capacitances</b>	
	AUTHORS: Paulo Luz, <i>UFSM</i> ; Priscila Bolzan, <i>UFSM</i> ; Thiago Maboni, <i>UFSM</i> ; Marcelo Cosetin, <i>UFSM</i> ; Ricardo Nederson do Prado, <i>Federal University of Santa Maria</i>	
	3:00 PM – 3:30 PM	ILDC #2
	<b>2014-ILDC-0327 * Dimmable Single-stage SEPIC-Ćuk Converter for LED Lighting with Reduced Storage Capacitor</b>	
	AUTHORS: Marcelo Cosetin, <i>Federal University of Santa Maria</i> ; Thaís Bolzan, <i>Federal University of Santa Maria</i> ; Paulo Vargas Luz, <i>Federal University of Santa Maria</i> ; Marcelo da Silva, <i>Federal University of Santa Maria</i> ; José Alonso, <i>Universidad de Oviedo</i> ; Ricardo Nederson do Prado, <i>Federal University of Santa Maria</i>	
	3:30 PM – 4:00 PM	ILDC #2
	<b>2014-ILDC-0328 * A New Technique to Equalize Branch Currents in Multiarray LED Lamps Based on Variable Inductor</b>	
	AUTHORS: Rafael Pinto, <i>Federal University of Santa Maria</i> ; Marcos Alonso, <i>University of Oviedo</i> ; Marina Perdigão, <i>Instituto de Telecomunicações, University of Coimbra</i> ; Marcelo da Silva, <i>UFSM</i> ; Ricardo Nederson do Prado, <i>Federal University of Santa Maria</i>	
	4:30 PM – 5:00 PM	ILDC #2
	<b>2014-ILDC-0329 * Forecasting Electrical Parameters of Mass-Produced LED Luminaire using the Monte Carlo Method</b>	
	AUTHORS: William Witt, <i>General Electric</i> ; Ana Stankovic, <i>Cleveland State University</i>	
	5:00 PM – 5:30 PM	ILDC #2
	<b>2014-ILDC-0330 * Simplified Models of LED Ballasts for Spice</b>	
	AUTHORS: Rikardo Simanjuntak, <i>PT PLN (Persero)</i> ; Pascal DUPUIS, <i>Université Paul Sabatier</i> ; Leoš Kukačka, <i>Technical University in Liberec</i> ; Georges Zissis, <i>University of Toulouse</i>	
	5:30 PM – 6:00 PM	ILDC #2
	<b>2014-ILDC-0331 * Power Quality of Energy Saving Lamps Under Wide Voltage Variations</b>	
	AUTHORS: Rikardo Simanjuntak, <i>PT PLN (Persero)</i> ; Pascal DUPUIS, <i>Université Paul Sabatier</i> ; Laurent CANALE, <i>LAPLACE Lab.</i> ; Ngapuli Sinisuka, <i>Institut Teknologi Bandung</i> ; Georges Zissis, <i>University of Toulouse</i>	

MONDAY  
TECHNICAL SESSIONS

<p>2:00 PM – 6:00 PM</p> <p>ROOM: <b>Parksville</b></p> <p>SESSION CHAIRS: Ms. Katherine Kim <i>Ulsan National Institute of Science and Technology (UNIST), Korea</i> Athanasios Karlis <i>Democritus University of Thrace, Xanthi, Greece</i></p> <p>ORGANIZER: Ms. Maria Puentes Castilla <i>Universidad de los Andes</i></p> <p><b>SESSION 11</b> <b>Student Session 2</b></p>	<p>2:00 PM – 2:30 PM <span style="float: right;">Student</span></p> <p><b>Paper 1 * Smart House Network: A Smart House Network Using Wired Sensors Based on Arduino Architecture</b></p> <p>AUTHORS: Christina-Panagiota Malliou, Paschalis Pelitaris, Christos Pnevmatikos, Elias Kosmatopoulos, <i>Democritos University of Thrace, Xanthi, Greece</i></p> <hr/> <p>2:30 PM – 3:00 PM <span style="float: right;">Student</span></p> <p><b>Paper 2 * IAS Goes Mobile</b></p> <p>AUTHOR: Aristotelis Farmakis, <i>Democritus University of Thrace, Xanthi, Greece</i></p> <hr/> <p>3:00 PM – 3:30 PM <span style="float: right;">Student</span></p> <p><b>Paper 3 * Home and Building Automation Project of a Residential Healthcare Facility</b></p> <p>AUTHORS: Michelle G. Gómez De Franco – Giacomo Greco – Cristina Moscatiello, <i>Università di Roma La Sapienza – University of Rome, Italy</i></p> <hr/> <p>4:00 PM – 4:30 PM <span style="float: right;">Student</span></p> <p><b>Paper 4 * Overview on Demand Side Management Experiences</b></p> <p>AUTHOR: Beáta Polgári, <i>Budapest University of Technology and Economics, Budapest, Hungary</i></p> <hr/> <p>4:30 PM – 5:00 PM <span style="float: right;">Student</span></p> <p><b>Paper 5 * Performance Testing and Power Quality of AC Home Chargers of Electric Vehicles (EVs)</b></p> <p>AUTHOR: Julio César Chinchilla, <i>Universidad Nacional de Colombia, SEDE Bogotá, Colombia</i></p> <hr/> <p>5:00 PM – 5:30 PM <span style="float: right;">Student</span></p> <p><b>Paper 6 * Solar Tree Project</b></p> <p>AUTHOR: Hamza Merzić, <i>University of Sarajevo, Sarajevo, Bosnia and Herzegovina</i></p> <hr/> <p>5:30 PM – 6:00 PM <span style="float: right;">Student</span></p> <p><b>Paper 7 * Suboptimal MPPT Control for Power Management in PV-Diesel Remote Area Power Supply Systems</b></p> <p>AUTHOR: Yingjie Tan, <i>University of Wollongong – New South Wales, Australia</i></p>
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TUESDAY  
TECHNICAL SESSIONS

**TUESDAY \* OCTOBER 7 \* MORNING SESSIONS**

<p>8:00 AM – 11:30 AM</p> <p>ROOM: <b>Pavilion Ballroom A</b></p> <p>SESSION CHAIRS: Mr. Tan Ma <i>Florida International University</i> Dr. Kashem Muttaqi <i>University of Wollongong, Australia</i></p> <p>ORGANIZER: Dr. Donald Zinger <i>Northern Illinois University, USA</i></p> <p><b>SESSION 12</b> <b>Power System Control I &amp; Intelligent Systems (combined)</b></p>	<p>8:00 AM – 8:30 AM <span style="float: right;">IACC #3</span></p> <p><b>2014-IACC-0467 * A Novel Tuning Method for Advanced Line Drop Compensator and Its Application to Response Coordination of Distributed Generation with Voltage Regulating Devices</b></p> <p>AUTHORS: Kashem Muttaqi, <i>University of Wollongong</i>; An Le, <i>University of Tasmania</i>; Michael Negnevitsky, <i>University of Tasmania</i>; Gerard Ledwich, <i>QUT</i></p> <hr/> <p>8:30 AM – 9:00 AM <span style="float: right;">IACC #3</span></p> <p><b>2014-IACC-0472 * Hardware Module Design of a Real-time Multi-Sensor Fire Detection and Notification System using Fuzzy Logic</b></p> <p>AUTHORS: Robert Sowah, <i>University of Ghana</i>; Abdul Ofoli, <i>UTC College of Engineering and Computer Science</i>; Selase Krakani, <i>University of Ghana</i>; Seth Fiawoo, <i>University of Ghana</i></p> <hr/> <p>9:00 AM – 9:30 AM <span style="float: right;">IACC #3</span></p> <p><b>2014-IACC-0473 * A Web-based Communication Module Design of a Real-time Multi-Sensor Fire Detection and Notification System</b></p> <p>AUTHORS: Robert Sowah, <i>University of Ghana</i>; M. Ali Chowdhury, <i>BUET</i>; Abdul Ofoli, <i>UTC College of Engineering and Computer Science</i>; Selase Krakani, <i>University of Ghana</i>; Seth Fiawoo, <i>University of Ghana</i></p>
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	<p>9:30 AM – 10:00 AM <span style="float: right;">IACC #3</span></p> <p><b>2014-IACC-0450 * Real-Time Testing of a Fuzzy Logic Controller Based Grid-Connected Photovoltaic Inverter System</b></p> <p>AUTHORS: M Hannan, <i>Universiti Kebangsaan Malaysia</i>; Z Ghani, <i>Universiti Kebangsaan Malaysia</i>; A Mohamed, <i>Universiti Kebangsaan Malaysia</i>; Mohammad Uddin, <i>Lakehead University</i></p>
	<p>10:30 AM – 11:00 AM <span style="float: right;">IACC #3</span></p> <p><b>2014-IACC-0464 * Real-Time Optimal Scheduling of Smart Power Distribution Systems Using Integrated Receeding Horizon Control and Convex Conic Programming</b></p> <p>AUTHORS: Sukumar Kamalasadana, <i>University of North Carolina at Charlotte</i>; Seyedmahdi Moghadasi, <i>University of North Carolina at Charlotte</i></p>
	<p>11:00 AM – 11:30 AM <span style="float: right;">IACC #3</span></p> <p><b>2014-IACC-0474 * Power Quality Improvement in Isolated Distributed Generating System Using DSTATCOM</b></p> <p>AUTHORS: Sabha Raj Arya, <i>Indian Institute of Technology Delhi</i>; Krishan Bhalla, <i>Indian Institute of Technology Delhi</i>; Ram Niwas, <i>Indian Institute of Technology Delhi</i>; Bhim Singh, <i>Indian Institute of Technology Delhi</i>; Ambrish Chandra, <i>ÉTS</i>; Kamal Al-Haddad, <i>ÉTS</i></p>
8:00 AM – 12:00 PM	<p>8:00 AM – 8:30 AM <span style="float: right;">ESC #1</span></p> <p><b>2014-ESC-0254 * A Data-Driven Process Control Topology for Energy Efficiency Optimization of Fan Operation in E/R Ventilation System of Marine Vessels</b></p> <p>AUTHOR: Stefanos Manias, <i>National Technical University of Athens (NTUA)</i></p>
	<p>8:30 AM – 9:00 AM <span style="float: right;">ESC #1</span></p> <p><b>2014-ESC-0253 * A Collaborative Design of Aggregated Residential Appliances and Renewable Energy for Demand Response Participation</b></p> <p>AUTHORS: Meng Liu, <i>The University of Texas at Arlington</i>; Franklin Quilumba, <i>University of Texas at Arlington</i>; Wei-Jen Lee, <i>University of Texas at Arlington</i>; Spyridon Giannoutsos, <i>National Technical University of Athens (NTUA)</i></p>
	<p>9:00 AM – 9:30 AM <span style="float: right;">ESC #1</span></p> <p><b>2014-ESC-0241 * An Overview of AMI Data Preprocessing to Enhance the Performance of Load Forecasting</b></p> <p>AUTHORS: Franklin Quilumba, <i>University of Texas at Arlington</i>; Wei-Jen Lee, <i>University of Texas at Arlington</i>; Heng Huang, <i>University of Texas at Arlington</i>; David Yanshi Wang, <i>Consolidated Edison Company of New York</i>; Robert Szabados, <i>Consolidated Edison Company of New York</i></p>
	<p>9:30 AM – 10:00 AM <span style="float: right;">ESC #1</span></p> <p><b>2014-ESC-0250 * Dispatch Scheduling for a Wind Farm with Hybrid Energy Storage Based on Wind and LMP Forecasting</b></p> <p>AUTHORS: Meng Liu, <i>The University of Texas at Arlington</i>; Franklin Quilumba, <i>University of Texas at Arlington</i>; Wei-Jen Lee, <i>University of Texas at Arlington</i></p>
	<p>10:30 AM – 11:00 AM <span style="float: right;">ESC #1</span></p> <p><b>2014-ESC-0247 * Examination and Measurement of Range Extension Using Different Recuperation Modes in Electric Vehicles</b></p> <p>AUTHORS: Philipp Spichartz, <i>Ruhr-University Bochum</i>; P. Dost, <i>Ruhr-Universität Bochum</i>; Constantinos Sourkounis, <i>Ruhr-University Bochum</i></p>
	<p>11:00 AM – 11:30 AM <span style="float: right;">ESC #1</span></p> <p><b>2014-ESC-0246 * Novel Hybrid Market Price Forecasting Method with Data Clustering Techniques for EV Charging Station Application</b></p> <p>AUTHORS: Piampoom Sarikprueck, <i>University of Texas at Arlington</i>; Wei-Jen Lee, <i>University of Texas at Arlington</i>; Asama Kulvanitchaiyanunt, <i>The University of Texas at Arlington</i>; Victoria Chen, <i>The University of Texas at Arlington</i>; Jay Rosenberger, <i>The University of Texas at Arlington</i></p>

	11:30 AM – 12:00 PM	ESC #1
	<b>2014-ESC-0239 * Optimization Techniques for Improved Power Factor and Energy Efficiency for Batch Industrial Processes</b>	
	AUTHORS: Darren Rabosky, <i>Harris Group, Inc.</i> ; Pankaj Sen, <i>Colorado School of Mines</i>	
8:00 AM – 12:00 PM	8:00 AM – 8:30 AM	EPC #3
<b>ROOM: Pavilion Ballroom C</b>	<b>2014-EPC-0303 * Photo-Electrochemical Hydrogen Production Using Novel Carbon Based Material</b>	
SESSION CHAIR: Prof. Wamadev Balachandran <i>Brunel University</i>	AUTHORS: Rajesh Sharma, <i>Arkansas State University</i> ; Keith Arnoult, <i>Arkansas State University</i> ; Sunil Ramasahayam, <i>University of Arkansas at Little Rock</i> ; Saad Azam, <i>University of Arkansas at Little Rock</i> ; Zachary Hicks, <i>University of Arkansas at Little Rock</i> ; Ali Shaikh, <i>University of Arkansas at Little Rock</i> ; Tito Viswanathan, <i>University of Arkansas at Little Rock</i>	
ORGANIZER: Prof. Lucian Dascalescu <i>University of Poitiers</i>		
<b>SESSION 14 Electrostatics in Environmental Applications</b>	8:30 AM – 9:00 AM	EPC #3
	<b>2014-EPC-0304 * Development of Low-Temperature Sintering Technique for Plastic Dye-Sensitized Solar Cells</b>	
	AUTHORS: Shungo Zen, <i>The University of Tokyo</i> ; Ryo Ono, <i>The University of Tokyo</i> ; Tetsuji Oda, <i>The University of Tokyo</i>	
	9:00 AM – 9:30 AM	EPC #3
	<b>2014-EPC-0307 * Non-thermal Plasma System for Marine Diesel Engine Emissions Control</b>	
	AUTHORS: Wamadeva Balachandran, <i>Brunel University</i> ; Radu Beleca, <i>Brunel University</i> ; Nadarajah Manivannan, <i>Brunel University</i> ; Maysam Abbod, <i>Brunel University</i>	
	9:30 AM – 10:00 AM	EPC #3
	<b>2014-EPC-0306 * Effect of Water Spray on Adsorbed Toluene Decomposition by Nonthermal Plasma Flow</b>	
	AUTHORS: Tomoyuki Kuroki, <i>Osaka Prefecture University</i> ; Masanari Tanaka, <i>Osaka Prefecture University</i> ; Masaaki Okubo, <i>Osaka Prefecture University</i>	
	10:30 AM – 11:00 AM	EPC #3
	<b>2014-EPC-0305 * Electrodynamic Removal of Dust From Solar Mirrors and Its Applications in Concentrated Solar Power (CSP) Plants</b>	
	AUTHORS: Malay Mazumder, <i>Boston University</i> ; Mark Horenstein, <i>Boston University</i> ; Jeremy Stark, <i>Boston University</i> ; John Hudelson, <i>Boston University</i> ; Arash Sayyah, <i>Boston University</i> ; Calvin Heiling, <i>Boston University</i> ; Julius Yellowhair, <i>Sandia National Laboratories</i>	
	11:00 AM – 11:30 AM	EPC #3
	<b>2014-EPC-0308 * Basic Study on Indoor Air Quality Improvement by Atmospheric Plasma</b>	
	AUTHORS: Kazuo Shimizu, <i>Shizuoka University</i> ; Yusuke Kurokawa, <i>Shizuoka University</i> ; Marius Blajan, <i>Shizuoka University</i>	
	11:30 AM – 12:00 PM	EPC #3
	<b>Paper 7 *</b>	

**TUESDAY**  
**TECHNICAL SESSIONS**

<p>8:00 AM – 12:00 PM</p> <p>ROOM: <b>Pavilion Ballroom D</b></p> <p>SESSION CHAIR: Mr. Miguel Reyes NIOSH</p> <p>ORGANIZER: Mr. Eduardo Wiechmann University of Concepción</p> <p><b>SESSION 15</b> Mining Industry 1</p>	<p>8:00 AM – 8:30 AM Mining #1</p> <p><b>2014-MIC-0256 * Dynamic Modeling, Parameter Identification, and Payload Estimation of Mining Cable Shovels</b></p> <p>AUTHORS: Abdol Rasuli, <i>The University of British Columbia</i>; Shahram Tafazoli, <i>University of British Columbia</i>; William Dunford, <i>UBC</i></p>
	<p>8:30 AM – 9:00 AM Mining #1</p> <p><b>2014-MIC-0257 * Integrated Mechanical-Electrical Modeling of an AC Electric Mining Shovel and Evaluation of Power Requirements during a Truck Loading Cycle</b></p> <p>AUTHORS: M. Anibal Valenzuela, <i>University of Concepcion</i>; Matias Valenzuela G., <i>University of Concepcion</i></p>
	<p>9:00 AM – 9:30 AM Mining #1</p> <p><b>2014-MIC-0258 * Voltage Regulation in Mine Power Distribution Systems: Problems and Solutions</b></p> <p>AUTHORS: Luis Morán, <i>Universidad de Concepcion</i>; Jose Espinoza, <i>Universidad de Concepcion</i>; Rolando Burgos, <i>Virginia PolyTechnique Insitute</i></p>
	<p>9:30 AM – 10:00 AM Mining #1</p> <p><b>2014-MIC-0259 * Energy Quality and Efficiency of an Open Pit Mine Distribution System: An Evaluation.</b></p> <p>AUTHORS: Pablo Aqueveque, <i>University of Concepcion</i>; Eduardo Wiechmann, <i>University of Concepcion</i>; Luis Munoz, <i>University of Concepcion</i>; Jorge Henriquez, <i>University of Concepcion</i></p>
	<p>10:30 AM – 11:00 AM Mining #1</p> <p><b>2014-MIC-0276 * Energy Quality and Efficiency of an Open Pit Mine Distribution System: An Improvement</b></p> <p>AUTHORS: Eduardo Wiechmann, <i>University of Concepcion</i>; Pablo Aqueveque, <i>University of Concepcion</i>; Luis Munoz, <i>University of Concepcion</i>; Jorge Henriquez, <i>University of Concepcion</i></p>
	<p>11:00 AM – 11:30 AM Mining #1</p> <p><b>2014-MIC-0260 * DC Power vs AC Power Distribution for Mobile Mining Equipment</b></p> <p>AUTHORS: Galina Mirzaeva, <i>The University of Newcastle</i>; Mohsen Ghaffarpour Jahromi, <i>The University of Newcastle</i>; David Gay, <i>The University of Newcastle</i>; Steven Mitchell, <i>The University of Newcastle</i></p>
	<p>11:30 AM – 12:00 PM Mining #1</p> <p><b>2014-MIC-0273 * Infrared Windows Applied in Switchgear Assemblies: Taking Another Look</b></p> <p>AUTHORS: David Durocher, <i>Eaton Corporation</i>; David Loucks, <i>Eaton Corporation</i></p>
<p>8:00 AM – 12:00 PM</p> <p>ROOM: <b>Junior Ballroom D</b></p> <p>SESSION CHAIR: Dr. Massimo Mitolo <i>Eaton Corp.</i></p> <p>ORGANIZER: Dr. Massimo Mitolo <i>Eaton Corp.</i></p> <p><b>SESSION 16</b> Power Systems Engineering I</p>	<p>8:00 AM – 8:30 AM PSE #1</p> <p><b>2014-PSEC-0386 * Electrical Safety of Aeronautical Ground Lighting Systems</b></p> <p>AUTHORS: Massimo Mitolo, <i>Eaton Corp.</i>; Fabio Freschi, <i>Politecnico di Torino</i>; Riccardo Tommasini, <i>Politecnico di Torino</i></p>
	<p>8:30 AM – 9:00 AM PSE #1</p> <p><b>2014-PSEC-0279 * Magnetic Field Mitigation at Power Frequency: Design Principles and Case Studies</b></p> <p>AUTHORS: Davide Bavastro, <i>Politecnico di Torino</i>; Aldo Canova, <i>Politecnico di Torino</i>; Fabio Freschi, <i>Politecnico di Torino</i>; Luca Giaccone, <i>Politecnico di Torino</i>; Michele Manca, <i>Politecnico di Torino</i></p>
	<p>9:00 AM – 9:30 AM PSE #1</p> <p><b>2014-PSEC-0293 * Grounding and Bonding: A Combined Protection Against Electric Shock</b></p> <p>AUTHORS: Giuseppe Parise, <i>Sapienza University of Rome</i>; Luigi Martirano, <i>Sapienza University of Rome</i>; Luigi Parise, <i>Sapienza University of Rome</i></p>

TUESDAY  
 TECHNICAL SESSIONS



9:30 AM – 10:00 AM	PSE #1
<b>2014-PSEC-0292 * Grounding Systems Efficiency in Areas with Reduced Accessibility</b>	
AUTHORS: Giuseppe Parise, <i>Sapienza University</i> ; Luigi Parise, <i>Sapienza University</i> ; Luigi Martirano, <i>Sapienza University</i> ; Alex Farber, <i>Israel Electric Company</i> ; Boris Katz, <i>Israel Electric Company</i>	
10:30 AM – 11:00 AM	PSE #1
<b>2014-PSEC-0296 * An Effective Approach to Reducing Arc Flash Hazards in Power Systems</b>	
AUTHORS: Xiaodong Liang, <i>Washington State University Vancouver</i> ; Bagen Bagen, <i>Manitoba Hydro</i> ; David Gao, <i>University of Denver</i>	
11:00 AM – 11:30 AM	PSE #1
<b>2014-PSEC-0297 * Load Filter Design Method for Medium Voltage Drive Applications in Electrical Submersible Pump Systems</b>	
AUTHORS: Xiaodong Liang, <i>Washington State University Vancouver</i> ; Narayan Kar, <i>University of Windsor</i> ; Joe Liu, <i>Schlumberger</i>	
11:30 AM – 12:00 PM	PSE #1
<b>2014-PSEC-0384 * Considerations in the Design of Grounding System for Solar Farms</b>	
AUTHORS: Eduardo Enrique, <i>Stantec Consulting Ltd.</i> ; Ibro Hadzismajlovic, <i>Stantec Consulting Ltd.</i> ; Ben Shen, <i>Stantec Consulting Ltd</i>	

**TUESDAY \* OCTOBER 7 \* AFTERNOON SESSIONS**

2:00 PM – 6:00 PM	2:00 PM – 2:30 PM	IACC #4
<b>ROOM: Pavilion Ballroom A</b>  SESSION CHAIR: Dr. M. D. Kankam NASA, USA Dr. Sukumar Kamalasan UNC Charlotte, USA  ORGANIZER: Dr. Kashem Muttaqi University of Wollongong, Australia  <b>SESSION 17                  Power System Control II</b>	<b>2014-IACC-0445 * Design of Robust Voltage Control System for Improving Transient and Voltage Stability on Distributed Generation Expansion</b>	
	AUTHOR: Seung-Mook Baek, <i>Kongju National University</i>	
	2:30 PM – 3:00 PM	IACC #4
	<b>2014-IACC-0462 * Integrated Control of Battery Energy Storage Management Systems Considering PV Capacity Firming and Energy Time Shift Applications</b>	
	AUTHORS: Sukumar Kamalasan, <i>University of North Carolina at Charlotte</i> ; Sherif Abedlrazek, <i>University of North Carolina at Charlotte</i>	
	3:00 PM – 3:30 PM	IACC #4
	<b>2014-IACC-0463 * Design and Real-time Implementation of Optimal Power System Wide Area System-Centric Controller based on Temporal Difference Learning</b>	
AUTHORS: Sukumar Kamalasan, <i>University of North Carolina at Charlotte</i> ; Reza Yousefian, <i>University of North Carolina at Charlotte</i>		
3:30 PM – 4:00 PM	IACC #4	
<b>2014-IACC-0478 * Impact of Plug-In Electric Vehicle Battery Charging on a Distribution System</b>		
AUTHORS: S. K. Bunga, <i>University of Tennessee at Chattanooga</i> ; Ahmed Eltom, <i>University of Tennessee at Chattanooga</i> ; N. Sisworahardjo, <i>University of Tennessee at Chattanooga</i>		
4:30 PM – 5:00 PM	IACC #4	
<b>2014-IACC-0480 * Real Time Benefit Computation for Electric Distribution System Automation and Control</b>		
AUTHORS: Farshid Shariatzadeh, <i>Washington State University</i> ; Sayonsom Chanda, <i>Washington State University</i> ; Anurag Srivastava, <i>Washington State University</i> ; Anjan Bose, <i>Washington State University</i>		

TECHNICAL SESSIONS  
TUESDAY



	5:00 PM – 5:30 PM	IACC #4
	<b>2014-IACC-0475 * Suboptimal MPPT Control for Power Management in PV-Diesel Remote Area Power Supply Systems</b>	
	AUTHORS: Yingjie Tan, <i>University of Wollongong</i> ; Lasantha Meegahapola, <i>The University of Wollongong</i> ; Kashem Muttaqi, <i>University of Wollongong</i>	
	5:30 PM – 6:00 PM	IACC #4
	<b>2014-IACC-0465 * Mitigating Tap-changer Limit Cycles in Electricity Networks Embedded with Local Generation Units</b>	
	AUTHORS: Ranamuka Dothinka, <i>University of Wollongong</i> ; Ashish Agalgaonkar, <i>University of Wollongong</i> ; Kashem Muttaqi, <i>University of Wollongong</i> ; M. J. E. Alam, <i>University of Wollongong</i>	
2:00 PM – 5:30 PM	2:00 PM – 2:30 PM	ESC #2
<b>ROOM: Pavilion Ballroom B</b>	<b>2014-ESC-0240 * DC Bus Stabilization of Li-Ion Battery Based Energy Storage for Hydrogen/Solar Power Plant for Autonomous Network Applications</b>	
SESSION CHAIR: Mr. Joe Weber <i>Emerson Electric</i>	AUTHORS: Phatiphat Thounthong, <i>King Mongkut's University of Technology North Bangkok</i> ; Suwat Sikkabut, <i>King Mongkut's University of Technology North Bangkok</i> ; Pongsiri Mungporn, <i>King Mongkut's University of Technology North Bangkok</i>	
ORGANIZER: Prof. Wei-Jen Lee <i>University of Texas at Arlington</i>	2:30 PM – 3:00 PM	ESC #2
<b>SESSION 18 Energy Systems II</b>	<b>2014-ESC-0249 * A Coordination Control Strategy of Voltage Source Converter Based MTDC for Offshore Wind Farms</b>	
	AUTHORS: Jing-guo Ren, <i>Shandong University</i> ; Ke-Jun Li, <i>Shandong University</i> ; Li-jun Sun, <i>Shandong University</i> ; Jianguo Zhao, <i>State Grid of China Technology College</i> ; Yongliang Liang, <i>Jinan, Shandong Province</i> ; Wei-Jen Lee, <i>University of Texas at Arlington</i> ; Zhaohao Ding, <i>University of Texas at Arlington</i> ; Ying Sun, <i>Shandong University</i>	
	3:00 PM – 3:30 PM	ESC #2
	<b>2014-ESC-0255 * Electronic Power Transformer to Secure the Power Supply of a Mission Critical Microgrid</b>	
	AUTHORS: Dan Wang, <i>Huazhong University of Science and Technology</i> ; Chengxiong Mao, <i>Huazhong University of Science and Technology</i> ; Jiming Lu, <i>Huazhong University of Science and Technology</i> ; Wei-Jen Lee, <i>University of Texas at Arlington</i>	
	3:30 PM – 4:00 PM	ESC #2
	<b>2014-ESC-0242 * Coordinated Control Strategy of Wind Turbine Generator and Energy Storage Equipment for Frequency Support</b>	
	AUTHORS: Lu Miao, <i>School of Electrical &amp; Electronic Engineering</i> ; Jinyu Wen, <i>Huazhong University of Science and Technology</i> ; Hailian Xie, <i>ABB China</i> ; Chengyan Yue, <i>ABB China</i> ; Wei-Jen Lee, <i>University of Texas at Arlington</i>	
	4:30 PM – 5:00 PM	ESC #2
	<b>2014-ESC-0236 * Induction Heating Appliance with a Mobile Double-Coil Inductor</b>	
	AUTHORS: Fernando Sanz, <i>I3A Universidad de Zaragoza</i> ; Carlos Sagues, <i>I3A Universidad de Zaragoza</i> ; Sergio Llorente, <i>BSH Home Appliances Group</i>	
	5:00 PM – 5:30 PM	ESC #2
	<b>2014-ESC-0251 * Stochastic Resource Planning Strategy to Improve the Efficiency of Microgrid Operation</b>	
	AUTHORS: Zhaohao Ding, <i>University of Texas at Arlington</i> ; Wei-Jen Lee, <i>University of Texas at Arlington</i> ; Juanjuan Wang, <i>South China University of Technology</i>	

TUESDAY  
 TECHNICAL SESSIONS

2:00 PM – 5:30PM

ROOM: **Pavilion Ballroom C**

SESSION CHAIR:  
Prof. Karim Medles  
*University Djillali Liabès Sidi Bel Abbès*

ORGANIZER:  
Prof. Jamal Yagoobi  
*Worcester Polytechnic Institute*

**SESSION 19  
Electrostatic  
Measurements**

2:00 PM – 2:30 PM

EPC #4

**2014-EPC-0315 \* Advances in Electric Charge Measurements in Semi-Conducting Structures by Non-Destructive Thermal Methods**

AUTHORS: Sylvain Baudon, *Université Montpellier 2*; Petru Notingher, *Université Montpellier 2*; Stéphane Holé, *ESPCI*; Serge Agnel, *Université Montpellier 2*

2:30 PM – 3:00 PM

EPC #4

**2014-EPC-0314 \* Interpretation of Surface Potential Measurements Performed with the Vibrating Capacitive Probe of an Electrostatic Voltmeter**

AUTHORS: Ali Fatihou, *University of Poitiers*; Lucian Dascalescu, *University of Poitiers*; Noureddine Zouzou, *University of Poitiers*; Marius Dumitran, *Politehnica University*

3:00 PM – 3:30 PM

EPC #4

**2014-EPC-0317 \* High Voltage Power Supply and Control Technologies for Electrostatic Precipitators in Biomass Applications**

AUTHORS: Norbert Grass, *Georg Simon Ohm University*; Thomas Fischer, *Georg Simon Ohm University*

3:30 PM – 4:00 PM

EPC #4

**2014-EPC-0323 \* Modeling Detection and Electrical Parameters of Rapidly Moving Charged Objects**

AUTHORS: Maciej Noras, *University of North Carolina at Charlotte*; Stephen Vinci, *U.S. Army Research Laboratory*; David Hull, *U.S. Army Research Laboratory*

4:30 PM – 5:00 PM

EPC #4

**2014-EPC-0318 \* Characteristics of Contact Discharge Using 6GHz Current Probe**

AUTHORS: Yutaka Soda, *Probetek*; Tetsuji Oda, *The University of Tokyo*

5:00 PM – 5:30 PM

EPC #4

**2014-EPC-0316 \* Contactless Electric Field and Space Charge Measurement Across Solid Dielectrics : A Fully Non-intrusive Thermal Technique**

AUTHORS: Jean-Charles Laurentie, *IES*; Petru Notingher, *Université Montpellier 2*; Hanen Yahyaoui, *Université Montpellier 2*

2:00 PM – 5:30 PM

ROOM: **Pavilion Ballroom D**

SESSION CHAIR:  
Dr. Joseph Sottile  
*University of Kentucky*

ORGANIZER:  
Mr. Eduardo Wiechmann  
*University of Concepción*

**SESSION 20  
Mining Industry II**

2:00 PM – 2:30 PM

Mining #2

**2014-MIC-0262 \* Statistical Analysis and Modeling of VLF/ELF Noise in Coal Mines for Through-the-Earth Wireless Communications**

AUTHORS: Lincan Yan, *NIOSH*; Joseph Waynert, *NIOSH*; Carl Sunderman, *NIOSH*; Nicholas Damiano, *NIOSH*; Jose Espinoza, *Universidad de Concepcion*

2:30 PM – 3:00 PM

Mining #2

**2014-MIC-0263 \* A Transferrable Shell-Based Magnetic Flux Density Distribution Model for a Magnetic Proximity Detection System**

AUTHORS: Jingcheng Li, *NIOSH*; Jacob Carr, *NIOSH*; Adam Smith, *NIOSH*; Joseph Waynert, *NIOSH*

3:00 PM – 3:30 PM

Mining #2

**2014-MIC-0264 \* Advancements in Vibration Monitoring for the Mining Industry**

AUTHORS: David Mazur, *Rockwell Automation*; John Kay, *Rockwell Automation*; Ken Mazur, *Rockwell Automation*

3:30 PM – 4:00 PM

Mining #2

**2014-MIC-0265 \* Injury Surveillance and Safety Considerations for Large Format Lead-Acid Batteries Used in Mining Applications**

AUTHORS: Miguel Reyes, *NIOSH*; Thomas Novak, *University of Kentucky*

TUESDAY  
TECHNICAL SESSIONS

	4:30 PM – 5:00 PM	Mining #2
	<b>2014-MIC-0268 * Selecting the Proper LED Light Fixture to Enhance Safety in Harsh &amp; Hazardous Environments</b>	
	AUTHORS: Devon Jenkins, <i>Eaton Crouse-Hinds</i> ; Anshuman Bhargava, <i>Eaton Crouse-Hinds</i>	
	5:00 PM – 5:30 PM	Mining #2
	<b>2014-MIC-0267 * A Novel Security Monitoring System of Coal Mine Based on Power Line Communication Dynamic Routing Technology</b>	
	AUTHORS: Liang Zhang, <i>Harbin Institute of Technology</i> ; Xiaosheng Liu, <i>Harbin Institute of Technology</i> ; Dianguo Xu, <i>Harbin Institute of Technology</i>	
2:00 PM – 6:00 PM	2:00 PM – 2:30 PM	PSE #2
<b>ROOM: Junior Ballroom D</b>	<b>2014-PSEC-0291 * Conservative Measurements of Touch and Step Voltages by Auxiliary Electrodes at Reduced Distance</b>	
SESSION CHAIR: Mr. Kent Saylor <i>P2S Engineers</i>	AUTHORS: Giuseppe Parise, <i>Sapienza University</i> ; Luigi Martirano, <i>Sapienza University</i> ; Luigi Parise, <i>Sapienza University</i> ; Salvatore Celozzi, <i>Sapienza University</i> ; Rodolfo Araneo, <i>Sapienza University</i>	
ORGANIZER: Dr. Massimo Mitolo <i>Eaton Group</i>	2:30 PM – 3:00 PM	PSE #2
<b>SESSION 21 Power Systems Engineering II</b>	<b>2014-PSEC-0294 * Safety System with Harmless First Fault: Complete &amp; Medical IT-System</b>	
	AUTHORS: Giuseppe Parise, <i>Sapienza University of Rome</i> ; Carlo Mazzetti, <i>Sapienza University of Rome</i> ; Luigi Parise, <i>Sapienza University of Rome</i> ; Fabio Fiamingo, <i>Sapienza University of Rome</i>	
	3:00 PM – 3:30 PM	PSE #2
	<b>2014-PSEC-0364 * What is RCM and How Could it be Applied to the Critical Loads?</b>	
	AUTHORS: Robert Schuerger, <i>HP Critical Facilities Services</i> ; Robert G. Arno, <i>Exelis AIS</i> ; Neal Dowling, <i>MTechnology</i> ; Stephen Fairfax, <i>MTechnology</i> ; Joe Weber, <i>ASCO Power Technologies</i>	
	3:30 PM – 4:00 PM	PSE #2
	<b>2014-PSEC-0361 * Long Term Field Study of Lightning Surges Through Traffic Monitoring In-Pavement Sensors</b>	
	AUTHOR: Bruce Harvey, <i>FAMU-FSU College of Engineering</i>	
	4:30 PM – 5:00 PM	PSE #2
	<b>2014-PSEC-0363 * Snubber Circuit Design for Transformers in Urban High Rise Office Building</b>	
	AUTHOR: Peter Sutherland, <i>General Electric Company</i>	
	5:00 PM – 5:30 PM	PSE #2
	<b>2014-PSEC-0362 * Harmonics in Electrical Power Systems: Effects of New Technologies</b>	
	AUTHOR: Peter Sutherland, <i>General Electric Company</i>	
	5:30 PM – 6:00 PM	PSE #2
	<b>2014-PSEC-0282 * A Multi -Megawatt Test Facility for Renewable Energy Research</b>	
	AUTHORS: John Fox, <i>Clemson University</i> ; Mark McKinney, <i>The Citadel</i> ; Edward Collins, <i>Clemson University</i> ; Konstantin Bulgakov, <i>Clemson University</i> ; Thomas Salem, <i>Clemson University</i>	

TUESDAY  
 TECHNICAL SESSIONS

2:00 PM – 5:00 PM

ROOM: **Parksville**

SESSION CHAIR:

Prof. Walter Kaizer  
Universidade de Sao Paulo,  
Brasil

ORGANIZER:

Prof. Francis Dawson  
University of Toronto,  
Canada

**SESSION 22  
Lighting**

2:00 PM – 2:30 PM

ILDC #3

**2014-ILDC-0332 \* Bidirectional Flyback Converter Connected to the Grid and Applied to a Distributed Microgeneration and Street Lighting System**

AUTHORS: Maicol Melo, *Universidade Federal de Santa Maria*; Andre Kirsten, *Universidade Federal de Santa Maria*; Marco Dalla-Costa, *UFSM*; Jorge Garcia, *University of Oviedo*; Pablo Quintana, *University of Oviedo*

2:30 PM – 3:00 PM

ILDC #3

**2014-ILDC-0333 \* Low-Frequency Burst Modulation Applied to Single-Stage SEPIC Half-Bridge Topology to Feed an Electrodeless Fluorescent Lamp with Dimming Capability**

AUTHORS: Jeferson Fraytag, *Federal University of Santa Maria*; Ricardo Marchesan, *Federal University of Santa Maria*; Marson Schlittler, *Federal University of Santa Maria*; Alysson Seidel, *Federal University of Santa Maria*; Ricardo Nederson do Prado, *Federal University of Santa Maria*; José Alonso, *Universidad de Oviedo*; Marcelo da Silva, *Federal University of Santa Maria*

3:00 PM – 3:30 PM

ILDC #3

**2014-ILDC-0334 \* Application of a Plasma Arc Lamp for Thermal Processing of Semiconductor Wafers**

AUTHORS: Harpreet Grover, *University of Toronto*; Francis Dawson, *University of Toronto*; Dave Camm, *Camm Consulting*; Yann Cressault, *Université de Toulouse*; Markus Lieberer, *Mattson Technologies, Inc.*

3:30 PM – 4:00 PM

ILDC #3

**2014-ILDC-0335 \* A Review on Variable Inductors and Variable Transformers: Applications to Lighting Drivers**

AUTHORS: Marina Perdigão, *Instituto de Telecomunicações, University of Coimbra*; Maikel Menke, *Federal University of Santa Maria*; Alysson Seidel, *Universidade Federal de Santa Maria*; Rafael Pinto, *Federal University of Santa Maria*; Marcos Alonso, *University of Oviedo*

4:30 PM – 5:00 PM

ILDC #3

**2014-ILDC-0336 \* Four-parameter Taylor Series Based Light-Emitting-Diode Model**

AUTHORS: Ray-Lee Lin, *National Cheng Kung University*; Jhong-Yan Tsai, *National Cheng Kung University*; José Alonso, *Universidad de Oviedo*; David Gacio, *Universidad de Oviedo*

5:00 PM – 5:30 PM

ILDC #3

**2014-ILDC-0338 \* A True Parallel Lamp Operation Universal Program Start Dimming Ballast Platform Based on Decoupled Half-bridge Inverter**

AUTHORS: Wei Xiong, *Universal Lighting Technologies*; Ana Stankovic, *Cleveland State University*

5:30 PM – 6:00 PM

ILDC #3

**2014-ILDC-0337 \* Program Start Fluorescent Ballast with Clamped-Q Resonant Filament Heating Circuit**

AUTHORS: Wei Xiong, *Universal Lighting Technology*; Ana Stankovic, *Cleveland State University*

TUESDAY  
TECHNICAL SESSIONS

WEDNESDAY \* OCTOBER 8 \* MORNING SESSIONS

8:00 AM – 12:00 PM

ROOM: **Pavilion Ballroom A**

SESSION CHAIRS:  
 Dr. Anurag Srivastava  
*Washington State University*  
 Dr. Akshay Rathore  
*National University of Singapore*

ORGANIZER:  
 Dr. Akshay Rathore  
*National University of Singapore*

**SESSION 23**  
**Power Converter Control**

8:00 AM – 8:30 AM

IACC #5

**2014-IACC-0452 \* Fundamental Switching Frequency Optimal Pulse Width Modulation of Medium Voltage Cascaded Seven-Level Inverter**

AUTHORS: Akshay Rathore, *National University of Singapore*; Amarendra Edpuganti, *National University of Singapore*

8:30 AM – 9:00 AM

IACC #5

**2014-IACC-0455 \* A Survey of Low Switching Frequency Modulation Techniques for Medium-Voltage Multilevel Converters**

AUTHORS: Akshay Rathore, *National University of Singapore*; Amarendra Edpuganti, *National University of Singapore*

9:00 AM – 9:30 AM

IACC #5

**2014-IACC-0444 \* A Three-Phase Boost AC-AC Voltage Converter**

AUTHORS: Mohammad Hossain, *Bangladesh University of Engineering and Technology & Chittagong University of Engineering and Technology*; Mohammad Uddin, *Lakehead University*

9:30 AM – 10:00 AM

IACC #5

**2014-IACC-0446 \* Design and Evaluation of a Digital Control System for Power Converters at Advanced Photon Source**

AUTHORS: Liping Guo, *Northern Illinois University*; Muhammad Aqil, *Home*; Donald Zinger, *Northern Illinois University*; Ju Wang, *Argonne National Laboratory*

10:30 AM – 11:00 AM

IACC #5

**2014-IACC-0448 \* Comparison of Two Modulation Strategies for a Three Level Inverter Synchronous Reluctance Motor Drive**

AUTHORS: Lesedi Masisi, *Concordia University*; Pragasen Pillay, *Concordia University*; Sheldon Williamson, *Concordia University*

11:00 AM – 11:30 AM

IACC #5

**2014-IACC-0466 \* Improving EMC Behavior and Energy Efficiency of BOOST Converter with Power Switches having Low Switching Frequency and High dv/dt**

AUTHORS: Ignace Rasoanarivo, *GREEN*; Matthieu Urbain, *GREEN, UDL*; François-Michel Sargos, *GREEN*; Babak Nahid-Mobarakeh, *GREEN*

11:30 AM – 12:00 PM

IACC #5

**2014-IACC-0479 \* A Modified Single Carrier-Based Modulation Scheme for a 3-Level Neutral-Point-Clamped (NPC) DC/AC Traction Inverter Drive**

AUTHORS: Abhijit Choudhury, *Concordia University*; Pragasen Pillay, *Concordia University*; Sheldon Williamson, *Concordia University*

WEDNESDAY  
TECHNICAL SESSIONS

<p>8:00 AM – 11:30 AM</p> <p>ROOM: <b>Pavilion Ballroom B</b></p> <p>SESSION CHAIR: Prof. Wei-Jen Lee <i>University of Texas at Arlington</i></p> <p>ORGANIZER: Mr. Joe Weber <i>Emerson Electric</i></p> <p><b>SESSION 24</b> <b>Energy Systems III</b></p>	<p>8:00 AM – 8:30 AM</p> <p><b>2014-ESC-0244 * Energy Management Method for Residential Distributed Generation System Using Photovoltaic Cells and Fuel Cell Vehicle</b></p> <p>AUTHORS: Shunsuke Sakae, <i>Okayama University</i>; Akiko Takahashi, <i>Okayama University</i>; Jun Imai, <i>Okayama University</i>; Shigeyuki Funabiki, <i>Okayama University</i></p>	ESC #3
	<p>8:30 AM – 9:00 AM</p> <p><b>2014-ESC-0248 * Energy Efficiency Measurement Procedure for Gearboxes in Their Entire Operating Range</b></p> <p>AUTHORS: Stijn Derammelaere, <i>Ugent</i>; Steve Dereyne, <i>Ugent</i>; Pieter Defreyne, <i>Ugent</i>; Elewijn Algoet, <i>Ugent</i>; Florian Verbelen, <i>Ugent</i>; Kurt Stockman, <i>Ugent</i></p>	ESC #3
	<p>9:00 AM – 9:30 AM</p> <p><b>2014-ESC-0237 * Integration of Wind-Power and Wave-Power Generation Systems Using a DC Micro Grid</b></p> <p>AUTHORS: Sheng-yen Lu, <i>True Buddha School</i>; Li Wang, <i>National Cheng Kung University</i>; Te-ming Lo, <i>National Cheng Kung University</i></p>	ESC #3
	<p>9:30 AM – 10:00 AM</p> <p><b>2014-ESC-0243 * Maintenance-Centric Energy Management of Industrial Plants Assisted by Demand Response</b></p> <p>AUTHORS: Salman Mohagheghi, <i>Colorado School of Mines</i>; Neda Raji, <i>Contronic LLC</i></p>	ESC #3
	<p>10:30 AM – 11:00 AM</p> <p><b>2014-ESC-0252 * Short-term Load Forecasting Using Regression Based Moving Windows with Adjustable Window-Sizes</b></p> <p>AUTHORS: Dao Vu, <i>University of Wollongong</i>; Kashem Muttaqi, <i>University of Wollongong</i>; Ashish Agalgaonkar, <i>University of Wollongong</i></p>	ESC #3
	<p>11:00 AM – 11:30 AM</p> <p><b>2014-ESC-0245 * Supercapacitor Cycle Life Equalization in a Microgrid through Flexible Distribution of Energy and Storage Resources</b></p> <p>AUTHORS: Hussam Khasawneh, <i>The Ohio State University</i>; Mahesh Illindala, <i>The Ohio State University</i></p>	ESC #3
<p>8:00 AM – 12:00 PM</p> <p>ROOM: <b>Pavilion Ballroom C</b></p> <p>SESSION CHAIR: Mr. Eduardo Wiechmann <i>University of Concepción</i></p> <p>ORGANIZER: Mr. David Durocher <i>Eaton Corp.</i></p> <p><b>SESSION 25</b> <b>Mining Industry III</b></p>	<p>8:00 AM – 8:30 AM</p> <p><b>2014-MIC-0269 * Motor Drive Systems Reliability: Impact of the Environment Conditions on the Electronic Component Failure Rates</b></p> <p>AUTHORS: Frederico Souza, <i>Federal University of Minas Gerais</i>; Hélder De Paula, <i>UFMG</i>; Philippe Pereira, <i>Federal University of Minas Gerais</i>; Anderson Rocha, <i>CEFET-MG – Coordenação de Eletrotécnica</i>; Braz Cardoso, <i>Federal University of Minas Gerais</i></p>	Mining #3
	<p>8:30 AM – 9:00 AM</p> <p><b>2014-MIC-0261 * A Cost-Benefit Analysis of Electric Loaders to Reduce Diesel Emissions in Underground Hard Rock Mines</b></p> <p>AUTHORS: William Jacobs, <i>University of Western Australia</i>; Melinda Hodkiewicz, <i>University of Western Australia</i>; Thomas Braunl, <i>University of Western Australia</i></p>	Mining #3
	<p>9:00 AM – 9:30 AM</p> <p><b>2014-MIC-0271 * Modeling and Evaluation of Cycloconverter-Fed, Two-Stator Windings SAG Mill Drive. Part I: Modeling Options</b></p> <p>AUTHORS: M. Anibal Valenzuela, <i>University of Concepcion</i>; Pablo Castro, <i>University of Concepcion</i></p>	Mining #3

**WEDNESDAY**  
**TECHNICAL SESSIONS**



	9:30 AM – 10:00 AM	Mining #3
	10:30 AM – 11:00 AM	Mining #3
	<b>2014-MIC-0272 * Modeling and Evaluation of Cycloconverter-Fed, Two-Stator Windings SAG Mill Drive. Part II: Starting Evaluation</b>	
	AUTHORS: M. Anibal Valenzuela, <i>University of Concepcion</i> ; Pablo Castro, <i>University of Concepcion</i>	
	11:00 AM – 11:30 AM	Mining #3
	<b>2014-MIC-0274 * Charge Behavior Analysis in Ball Mill by Using Estimated Torque</b>	
	AUTHORS: Priscila Esteves, <i>Centro Federal de Educação Tecnológica de Minas Gerais</i> ; Marcelo Stopa, <i>CEFET/MG</i> ; Braz Filho, <i>UFMG</i> ; Roberto Galery, <i>UFMG</i>	
	11:30 AM – 12:00 PM	Mining #3
	<b>2014-MIC-0270 * Driving AC Motors through Long Distances with DC Transmission: Experimental Results</b>	
	AUTHORS: Hélder De Paula, <i>UFMG</i> ; Welington Almeida, <i>CEFET</i> ; Philipe Pereira, <i>Federal University of Minas Gerais</i> ; Anderson Rocha, <i>CEFET-MG – Coordenação de Eletrotécnica</i> ; Braz Cardoso, <i>Federal University of Minas Gerais</i>	
8:00 AM – 12:00 PM	8:00 AM – 8:30 AM	PSE #3
ROOM: <b>Pavilion Ballroom D</b>	<b>2014-PSEC-0359 * A Novel High-Power-Factor Single-Stage Converter for Micro-Scale Wind Power Generation System</b>	
SESSION CHAIR: Mr. Kent Saylor <i>P2S Engineers</i>	AUTHORS: Yi-Hung Liao, <i>National Penghu University of Science and Technology</i> ; Li-Ching Yang, <i>National Penghu University of Science and Technology</i>	
ORGANIZER: Dr. Massimo Mitolo <i>Eaton Corp.</i>	8:30 AM – 9:00 AM	PSE #3
<b>SESSION 26 Power Systems Engineering III</b>	<b>2014-PSEC-0346 * Analysis of Measured Power-Quality Results of a PV System Connected to Peng-Hu Power System</b>	
	AUTHORS: Sheng-yen Lu, <i>True Buddha School</i> ; Li Wang, <i>National Cheng Kung University</i> ; Shun-Chin Ke, <i>National Cheng Kung University</i> ; Che-Hao Chang, <i>National Cheng Kung University</i> ; Zhi-Hao Yang, <i>National Cheng Kung University</i>	
	9:00 AM – 9:30 AM	PSE #3
	<b>2014-PSEC-0349 * Analysis of High Frequency Phenomena in Medium-Power Photovoltaic Systems</b>	
	AUTHORS: Philipe Pereira, <i>Federal University of Minas Gerais</i> ; Hélder De Paula, <i>UFMG</i> ; Braz Cardoso, <i>Federal University of Minas Gerais</i> ; José Brito, <i>COELBA</i> ; Anderson Rocha, <i>CEFET-MG – Coordenação de Eletrotécnica</i>	
	9:30 AM – 10:00 AM	PSE #3
	<b>2014-PSEC-0295 * Simulation and Sensitivity Analysis of a Fuzzy-Based Building Automation Control System</b>	
	AUTHORS: Giuseppe Parise, <i>Sapienza University of Rome</i> ; Luigi Martirano, <i>Sapienza University of Rome</i> ; Luigi Parise, <i>Sapienza University of Rome</i> ; Matteo Manganelli, <i>Sapienza University of Rome</i>	
	10:30 AM – 11:00 AM	PSE #3
	<b>2014-PSEC-0290 * Wise Port &amp; Business Energy Management: Port Facilities, Electrical Power Distribution</b>	
	AUTHORS: Giuseppe Parise, <i>Sapienza University of Rome</i> ; Luigi Parise, <i>Sapienza University of Rome</i> ; Luigi Martirano, <i>Sapienza University of Rome</i> ; P. (Ben) Chavdarian, <i>Port of Long Beach</i> ; Chun-Lien Su, <i>National Kaohsiung Marine University</i> ; Andrea Ferrante, <i>Ministry of Infrastructure and Transport</i>	

WEDNESDAY  
TECHNICAL SESSIONS

	11:00 AM – 11:30 AM	PSE #3
	<b>2014-PSEC-0360 * Analysis of PEV Charging Impact on Distribution Transformer Aging for Charging Station Transformer Design</b>	
	AUTHORS: Chun-Lien Su, <i>National Kaohsiung Marine University</i> ; Kai-En Zheng, <i>National Kaohsiung Marine University</i> ; Rong-Ceng Leou, <i>Cheng Shiu University</i> ; Chan-Nan Lu, <i>National Sun Yat-Sen University</i> ; Jen-Hao Teng, <i>National Sun Yat-Sen University</i> ; Kuo-Feng Huang, <i>Institute for Information Industry</i>	
	11:30 AM – 12:00 PM	PSE #3
	<b>2014-PSEC-0283 * Characterizing Voltage Sags and Swells Using Three-phase Voltage Ellipse Parameters</b>	
	AUTHORS: M. R. Alam, <i>University of Wollongong</i> ; Kashem Muttaqi, <i>University of Wollongong</i> ; A. Bouzerdoum, <i>University of Wollongong</i>	
8:00 AM – 11:30 AM	8:00 AM – 8:30 AM	EPC #5
<b>ROOM: Junior Ballroom D</b>	<b>2014-EPC-0309 * Study of a Tribo –Aero- Electrostatic Separator for Mixtures of Powdery Materials</b>	
SESSION CHAIR: Prof. Petru Nottingher <i>Université Montpellier</i>	AUTHORS: Mekhalef Benhafssa Abdelkader, <i>University Djillali Liabès Sidi Bel Abbès</i> ; Karim Medles, <i>University Djillali Liabès Sidi Bel Abbès</i> ; M Boukhoulda, <i>University of Sidi Bel Abbès</i> ; Amar Tilmatine, <i>University of Sidi bel Abbès</i> ; Sara Messal, <i>University of Poitiers</i> ; Lucian Dascalescu, <i>University of Poitiers</i>	
ORGANIZER: Prof. Rajesh Sharma <i>Arkansas State University</i>	8:30 AM – 9:00 AM	EPC #5
	<b>2014-EPC-0310 * Correlation Between the Geometric-Electric Report of an Electrostatic Precipitator Wire-Cylinder in Order to Optimize the Cost-Efficiency</b>	
	AUTHORS: Malika Bengrit, <i>Technology</i> ; Farid Miloua, <i>APELEC laboratory</i> ; Amar Tilmatine, <i>Technology</i> ; Sidi-Mohamed Remaoun, <i>APELEC Laboratory, Djillali Liabès University of Sidi Bel-Abbes</i> ; Djelloul Berrached, <i>Technology</i>	
	9:00 AM – 9:30 AM	EPC #5
	<b>2014-EPC-0312 * Multi Criterion Control for Three Variables of an Industrial Roll-Type Electrostatic Separator</b>	
	AUTHORS: Khouira Senouci, <i>University Djillali Liabès Sidi Bel Abbès</i> ; Karim Medles, <i>University Djillali Liabès Sidi Bel Abbès</i> ; Sara Messal, <i>University of Poitiers</i> ; Lucian Dascalescu, <i>University of Poitiers</i>	
	9:30 AM – 10:00 AM	EPC #5
	<b>2014-EPC-0320 * Numerical Simulation of the Trajectory of the Insulating Particles in a Tribo-Aero-Electrostatic Separator</b>	
	AUTHORS: S Touhami, <i>University of Sidi Bel Abbès</i> ; Wessim Aksa, <i>University of Sidi Bel Abbès</i> ; Karim Medles, <i>University of Sidi Bel Abbès</i> ; Amar Tilmatine, <i>University of Sidi bel Abbès</i> ; Lucian Dascalescu, <i>University of Poitiers</i>	
	10:30 AM – 11:00 AM	EPC #5
	<b>2014-EPC-0321 * Experimental Modelling of a New Tribo-electrostatic Separation Process for Micronized Plastic Particles</b>	
	AUTHORS: Amar Tilmatine, <i>University of Sidi bel Abbès</i> ; Youssouf Brahami, <i>University of Sidi bel Abbès</i> ; Rabah Ouiddir, <i>University of Sidi bel Abbès</i> ; Karim Medles, <i>University of Sidi Bel Abbès</i> ; Abdelber Bendaoud, <i>University of Sidi-bel-Abbes</i> ; Lucian Dascalescu, <i>University of Poitiers</i>	
	11:00 AM – 11:30 AM	EPC #5
	<b>2014-EPC-0322 * Modeling And Optimization of a Separator for Granular Mixtures of Multiple Insulating Materials</b>	
	AUTHORS: Wessim Aksa, <i>University Djillali Liabès Sidi Bel Abbès</i> ; Karim Medles, <i>University Djillali Liabès Sidi Bel Abbès</i> ; Mohamed Rezoug, <i>University Djillali Liabès Sidi Bel Abbès</i> ; Rabah Ouiddir, <i>APELEC Laboratory</i> ; Abdelber Bendaoud, <i>University of Sidi-bel-Abbes</i> ; Lucian Dascalescu, <i>University of Poitiers</i>	

**SESSION 27  
Electrostatic  
Separation**

WEDNESDAY  
TECHNICAL SESSIONS

WEDNESDAY \* OCTOBER 8 \* AFTERNOON SESSIONS

1:30 PM – 5:00 PM

ROOM: **Pavilion Ballroom A**

SESSION CHAIRS:  
 Prof. Arif Islam  
*Florida International University*  
 Dr. Masahide Ooshima  
*Tokyo University of Science, Suwa*

ORGANIZER:  
 Dr. Masahide Ooshima  
*Tokyo University of Science, Suwa*

**SESSION 28**  
**Motor Drives II**

1:30 PM – 2:00 PM

IACC #6

**2014-IACC-0456 \* Single-Phase Power Generation Employing VFC for Standalone Three-Phase Doubly Wound Asynchronous Generator**

AUTHORS: Shailendra Sharma, *Indian Institute of Technology & Shri G. S. Institute of Technology & Science*; Bhim Singh, *Indian Institute of Technology-Delhi*; Ambrish Chandra, *ETS*; Kamal Al Haddad, *ETS*

2:00 PM – 2:30 PM

IACC #6

**2014-IACC-0457 \* Modeling and V/F control of a Hysteresis Interior Permanent Magnet Motor**

AUTHORS: S. F. Rabbi, *Memorial University of Newfoundland*; M. Halloran, *Memorial University of Newfoundland*; T. LeDrew, *Memorial University of Newfoundland*; A. Matchem, *Memorial University of Newfoundland*; Aziz Rahman, *Memorial University of Newfoundland*

2:30 PM – 3:00 PM

IACC #6

**IACC #62014-IACC-0461 \* MTPA and FW Based Robust Nonlinear Speed Control of IPMSM Drive Using Lyapunov Stability Criterion**

AUTHORS: Garin Schoonhoven, *Lakehead University*; Mohammad Uddin, *Lakehead University*

3:30 PM – 4:00 PM

IACC #6

**2014-IACC-0471 \* Modeling and Diagnostic of Incipient Inter-turn Faults for a Three Phase Permanent Magnet Synchronous Motor**

AUTHORS: Najla Haje Obeid, *GREEN*; Thierry Boileau, *GREEN*; Babak Nahid-Mobarakeh, *GREEN*

4:00 PM – 4:30 PM

IACC #6

**2014-IACC-0460 \* On influence of various modulation schemes on a PMSM within an electric Vehicle**

AUTHORS: P. Dost, *Ruhr-Universität Bochum*; Constantinos Sourkounis, *Ruhr-University Bochum*

4:30 PM – 5:00 PM

IACC #6

**2014-IACC-0442 \* Accurate Inverter Error Compensation Using Self-Tuning Stator Current Estimation Error in Sensorless Induction Motor Drives**

AUTHORS: Wei Sun, *Harbin Institute of Technology*; Yong Yu, *Harbin Institute of Technology*; Gaolin Wang, *Harbin Institute of Technology*; Dianguo Xu, *Harbin Institute of Technology*

1:30 PM – 5:00 PM

ROOM: **Pavilion Ballroom A**

SESSION CHAIR:  
 Mr. Gary Fox  
*GE Energy Management*

ORGANIZER:  
 Mr. Rob Hoerauf  
*Hoerauf Consulting Inc*

**SESSION 29**  
**Power Systems Protection I**

1:30 PM – 2:00 PM

PSPC #2

**2014-PSPC-0486 \* An MVDC Microgrid for a Remote Area Mine Site: Protection, Operation, and Control**

AUTHORS: Chen Yuan, *The Ohio State University*; Mohammed Haj-ahmed, *The Ohio State University*; Mahesh Illindala, *The Ohio State University*

2:00 PM – 2:30 PM

PSPC #2

**2014-PSPC-0482 \* Influence of Power Electronic Converters on Current-Voltage Behaviors During Faults in DGU-s – Part 1: Wind Energy Conversion Systems**

AUTHORS: Saleh Saleh, *University of New Brunswick*; A. S. Aljankawey, *The University of New Brunswick*; Muhammad Abu-Khaizaran, *Birziet University*; B. Sayid, *Palestine Technical University*

2:30 PM – 3:00 PM

PSPC #2

**2014-PSPC-0483 \* Influence of Power Electronic Converters on Current-Voltage Behaviors During Faults in DGU's – Part II: Photovoltaic Systems**

AUTHORS: Saleh Saleh, *University of New Brunswick*; A. S. Aljankawey, *The University of New Brunswick*; B. Sayid, *Palestine Technical University*; Muhammad Abu-Khaizaran, *Birziet University*

WEDNESDAY TECHNICAL SESSIONS

	<p>3:30 PM – 4:00 PM <span style="float:right">PSPC #2</span></p> <p><b>2014-PSPC-0485 * Loss-of-Excitation Protection and Underexcitation Controls Correlation for Synchronous Generators in a Real Time Digital Simulator</b></p> <p>AUTHORS: Aurelio L.M. Coelho, <i>Federal University of Itajuba</i>; Aurelio L.M. Coelho, <i>Itajuba Federal University</i>; Carlos Carrer, <i>Itajuba Federal University</i>; Carlos Guerrero, <i>Itajuba Federal University</i>; Paulo Silveira, <i>Itajuba Federal University</i></p>
	<p>4:00 PM – 4:30 PM <span style="float:right">PSPC #2</span></p> <p><b>2014-PSPC-0487 * Study of Protection Strategy for Microgrid</b></p> <p>AUTHORS: Zhaoyun Zhang, <i>Huazhong University of Science &amp; Technology</i>; Shilin Gong, <i>Yunnan Power Grid Co</i>; Yanzhao Feng, <i>Yunnan Power Grid Co</i>; Wei Chen, <i>Huazhong University of Science &amp; Technology</i>; Zhe Zhang, <i>Huazhong University of Science &amp; Technology</i></p>
	<p>4:30 PM – 5:00 PM <span style="float:right">PSPC #2</span></p> <p><b>2014-PSPC-0484 * Instantaneous Apparent Power-Based Anti-Islanding for Distributed Co-Generation Systems</b></p> <p>AUTHORS: Saleh Saleh, <i>University of New Brunswick</i>; A. S. Aljankawey, <i>The University of New Brunswick</i>; Ryan Meng, <i>The University of New Brunswick</i>; Julian Meng, <i>University of New Brunswick</i></p>
<p>1:30 PM – 5:30 PM</p> <p><b>ROOM: Pavilion Ballroom A</b></p> <p>SESSION CHAIR: Mr. Sergio Panetta <i>I-Gard</i></p> <p>ORGANIZER: Dr. Massimo Mitolo <i>Eaton Corp.</i></p> <p><b>SESSION 30 Power Systems Engineering IV</b></p>	<p>1:30 PM – 2:00 PM <span style="float:right">PSE #4</span></p> <p><b>2014-PSEC-0348 * Cooperative Control of Power Conditioners in High-Voltage Distribution Systems Comprising a Large Number of PV Systems</b></p> <p>AUTHORS: Kazuya Fukunaga, <i>Okayama University</i>; Akiko Takahashi, <i>Okayama University</i>; Jun Imai, <i>Okayama University</i>; Shigeyuki Funabiki, <i>Okayama University</i></p>
	<p>2:00 PM – 2:30 PM <span style="float:right">PSE #4</span></p> <p><b>2014-PSEC-0350 * Field Measurements, Modeling, and Analysis of Power System Harmonics Caused by Industrial Customers</b></p> <p>AUTHORS: Jesús Játiva-Ibarra, <i>National Polytechnic School</i>; Gabriela Navarro Mendez, <i>National Polytechnic School</i>; Franklin Quilumba, <i>University of Texas at Arlington</i>; Wei-Jen Lee, <i>University of Texas at Arlington</i></p>
	<p>2:30 PM – 3:00 PM <span style="float:right">PSE #4</span></p> <p><b>2014-PSEC-0280 * Performance Enhancement of Actively Controlled Hybrid DC Microgrid with Pulsed Load</b></p> <p>AUTHORS: Mustafa Farhadi, <i>Florida International University</i>; Osama Mohammed, <i>Florida International University</i></p>
	<p>3:30 PM – 4:00 PM <span style="float:right">PSE #4</span></p> <p><b>2014-PSEC-0382 * Stability Robustness Analysis and its Improvement for an Industrial Microgrid</b></p> <p>AUTHORS: Ajit Anbiah Renjit, <i>The Ohio State University</i>; Mahesh Illindala, <i>The Ohio State University</i>; Rama Yedavalli, <i>The Ohio State University</i></p>
	<p>4:00 PM – 4:30 PM <span style="float:right">PSE #4</span></p> <p><b>2014-PSEC-0345 * Evaluation of Measured Power-Quality Results of a Wind Farm Connected to Taiwan Power System</b></p> <p>AUTHORS: Sheng-yen Lu, <i>True Buddha School</i>; Li Wang, <i>National Cheng Kung University</i>; Shun-Chin Ke, <i>National Cheng Kung University</i>; Che-Hao Chang, <i>National Cheng Kung University</i>; Zhi-Hao Yang, <i>National Cheng Kung University</i></p>
	<p>4:30 PM – 5:00 PM <span style="float:right">PSE #4</span></p> <p><b>2014-PSEC-0381 * Harmonic Analysis and Simulation of Multi-pulse Rectifiers Applied in Electrolysis Industry</b></p> <p>AUTHORS: Zhiheng Ma, <i>Zhejiang University</i>; Zheng Xu, <i>Zhejiang University</i>; Yujun Li, <i>Zhejiang University</i></p>

WEDNESDAY  
TECHNICAL SESSIONS

5:00 PM – 5:30 PM PSE #4  
**2014-PSEC-0358 \* Performance Analysis of a Boost Inverter with a Silicon Carbide Device for Commercial Applications**  
 AUTHORS: Nadia Smith, *University of Arkansas*; Roy McCann, *University of Arkansas*; Yahia Makableh, *University of Arkansas*; Ramesh Vasan, *University of Arkansas*; Omar Manasreh, *The University of Arkansas*

**THURSDAY \* OCTOBER 9 \* MORNING SESSIONS**

8:00 AM – 11:30 AM

ROOM: **Pavilion Ballroom C**

SESSION CHAIR:  
Mr. Sergio Panetta  
*I-Gard*

ORGANIZER:  
Dr. Massimo Mitolo  
*Eaton Corp.*

**SESSION 31  
Power Systems  
Engineering V**

8:00 AM – 8:30 AM PSE #5  
**2014-PSEC-0380 \* Ignition Characteristics of Residential Series Arc Fault in 220V HIV Wire**  
 AUTHORS: Won-Sik Moon, *Soongsil Univ.*; Jae-Chul Kim, *Soongsil University*; Ara Jo, *Soongsil Univ.*; Sun-Bae Bang, *Korea Electrical Safety Research Institute*; Won-Sik Ko, *HETCO Inc.*

8:30 AM – 9:00 AM PSE #5  
**2014-PSEC-0385 \* A Controllable Local Peak Shaving Strategy for Effective Utilization of PEV Battery Capacity for Distribution network Support**  
 AUTHORS: M. J. E. Alam, *University of Wollongong*; Kashem Muttaqi, *University of Wollongong*; Danny Sutanto, *University of Wollongong*

9:00 AM – 9:30 AM PSE #5  
**2014-PSEC-0365 \* Design and Analysis of a Three-phase Rotary Transformer for Doubly Fed Induction Generators**  
 AUTHORS: Hui Zhong, *Shandong University*; Lin Zhao, *Gannon University*; Xiuhe Wang, *Shandong University*; Li Xiao, *Gannon University*

9:30 AM – 10:00 AM PSE #5  
**2014-PSEC-0281 \* Rural Distribution Meter Failures in Colombia**  
 AUTHORS: Eduardo Cano-Plata, *Universidad Nacional de Colombia*; Oscar Soto, *Universidad Nacional de Colombia*; Armando Ustariz-Farfan, *Universidad Nacional de Colombia*; Camilo Younes, *Universidad Nacional de Colombia*

10:30 AM – 11:00 AM PSE #5  
**2014-PSEC-0347 \* A Preliminary Study on Total Energy-Density Variations of a Buddhist Temple in Taiwan through Long-Term Field Measurements of Electric-Field Strength**  
 AUTHORS: Sheng-yen Lu, *True Buddha School*; Li Wang, *National Cheng Kung University*

11:00 AM – 11:30 AM PSE #5  
**2014-PSEC-0490 \* Speed Sensorless Based Adaptive Maximum Power Point Tracking Control of IPM Synchronous Wind Generator**  
 AUTHORS: Mohammad Uddin, *Lakehead University*; Nirav Patel, *Lakehead University*

THURSDAY  
TECHNICAL SESSIONS







# Tutorials

SUNDAY ★ OCTOBER 5

2:00 PM – 6:00 PM

## **Probability Methods for Conducting Reliability Analysis for Industrial and Commercial Power**

Dr. Masoud Pourali  
*KimiaPower, PLLC*

PAVILION BALLROOM C

This tutorial will provide the theoretical background for performing basic reliability analysis for industrial and commercial power systems. Some basic concepts of probability theory are discussed, as these are essential to the understanding and development of quantitative reliability. The objective of this tutorial is to familiarize the audience with upcoming IEEE Std. 3006.5 and provide the basic concepts required for reliability analyses used in the planning and design of industrial and commercial electric power distribution systems. It is necessary to consider the cost of power outages when making design decisions for new and existing power distribution systems, as well as to have the ability to make quantitative “cost-versus-reliability” trade-off studies. This tutorial will provide a review of probability; reliability and availability; probability distributions, probability density functions, cumulative distribution functions; hazard function; Weibull distribution; exponential distribution; methods of reliability and availability analysis; qualitative system analysis; performing reliability and availability analyses; modeling solutions; and common cause failures (CCF).

MONDAY ★ OCTOBER 6

9:00 AM – 1:00 PM

## **Reliability of IGBT Modules in Industrial Applications**

John F. Donlon  
*Powerex, Inc.*

GRAND BALLROOM D

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 include a discussion of 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 presentation will also include a discussion of the latest technology in power modules, including SiC. The tutorial 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.

## WEDNESDAY ★ OCTOBER 8

12:30 PM – 5:30 PM

### **Application Concerns for Medium Voltage Motors and Drives**

Kurt LeDoux  
*Toshiba International Corporation*

JUNIOR BALLROOM D

Medium voltage drives are used to control the speed of large electric motors, and many different types of designs are available from suppliers of these products. The different designs present several different challenges, especially for the motor, when a drive is required for an installation. This tutorial will present evidence that solid state starters or reduced voltage starters may not effectively reduce inrush and a drive must be selected. When a drive must be used, variables such as air or water cooling, internal or external transformers, differences in power conversion devices and other design issues have advantages and disadvantages. It is the intent of this tutorial to simplify some of the marketing claims from manufacturers and help the user to make an educated decision when purchasing a variable speed motor controller.

## THURSDAY ★ OCTOBER 9

8:00 AM – 12:00 PM

### **Protection System Coordination for Modern Distribution and Industrial Power Systems**

Rasheek Rifaat  
*Jacobs Canada*

PAVILION BALLROOM A

Since the inception of industrial electrical systems, coordination tasks were performed to ensure that protection systems would operate with the necessary reliability and security. The tools to perform such tasks have evolved from the use of a light table and log-log curve sheets into computer programs with Graphic User Interface (GUI). Meanwhile, protective devices have also gone through significant advancements, from electromechanical devices to multifunctional, numerical devices. However, a good number of protection coordination principles have not changed. This tutorial will include the following items: principles and basics of protection system coordination; fault current in symmetrical and unsymmetrical conditions, symmetrical component analysis; modern coordination programs; multifunctional numerical devices used in distribution and industrial systems; coordinating protection of main components of modern distribution and industrial systems; blocking and conditional operations and their use for coordination; and concerns in setting and testing of smart relays and systems.

8:00 AM – 5:00 PM

### **Maintenance Considerations and Planning for Electric Power Equipment**

Dan Bumblauskas  
*University of Northern Iowa, PFC Services Inc., and ABB Inc.*

PAVILION BALLROOM D

An introduction to various types of transformers and circuit breakers will be provided along with a discussion on the evolution of maintenance practices, including time based maintenance, condition based maintenance, reliability based maintenance, and predictive maintenance. This tutorial will detail two predictive maintenance models, a population data analysis, and an 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 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.



# IEEE-IAS Leadership

## 2014 Industry Applications Society Council

### IAS Administrative Office

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Piscataway, NJ 08854  
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email: [ias-administrator@ieee.org](mailto:ias-administrator@ieee.org)

## Executive Board

The Executive Board consists of all Society Officers, Operating Department Chairs, Staff Department Chairs, Standing Committee Chairs, Members-at-large and the Annual Meeting General Chair. The Executive Board is empowered to amend bylaws, nominate officers and members-at-large and approve appointments.

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### Industrial & Commercial Power Systems

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**Joseph Sottile**, University of Kentucky, USA . . . . . jsottile@ieee.org

### Meetings

**R. Mark Nelms**, Auburn University, USA . . . . . m.nelms@ieee.org

### Publications

**Ahmed Rubaai**, Howard University, USA . . . . . arubaai@howard.edu

### Standards

**S. Mark Halpin**, Auburn University, USA . . . . . halpin@eng.auburn.edu

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**Bruno Lequesne**, Eaton Corporation, USA . . . . . bruno.lequesne@ieee.org

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**Clifton Oertli**, NEI Electric Power Engineering, USA . . . . . coertli@ieee.org

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**Uday Deshpande**, USA . . . . . uday@ieee.org

### Long Range Planning

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### Nominating

**Bruno Lequesne**, Eaton Corporation, USA . . . . . bruno.lequesne@ieee.org

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**PES:** . . . . .

**PELS: Enrico Santi** . . . . . esanti00@CEC.SC.EDU

### Annual Meeting Chairs

**2015 – Dallas, Texas, USA, Tomy Sebastian**, Halla Mechatronics, USA . . . . . t.sebastian@ieee.org

**2016 – Portland, Oregon, USA, Tomy Sebastian**, Halla Mechatronics, USA . . . . . t.sebastian@ieee.org

### Society Administrator

**Lynda Bernstein**, IEEE Operations Office . . . . . ias-administrator@ieee.org





# Call for Papers

## 2015 IEEE Industry Applications Annual Meeting

Addison (Dallas area), Texas, USA

October 18-22, 2015

[www.ieee.org/ias2015](http://www.ieee.org/ias2015)

The **2015 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 individuals identified below. Proposals for TUTORIALS (which may range from 4 hours to 8 hours) should include a detailed outline as well as a list of presenters and their credentials.

**General Topics** – papers relating to topics of general technical interest in the field of industrial applications and electrical energy not related to a specific technical committee should be sent to Dr. Tomy Sebastian, [t.sebastian@ieee.org](mailto:t.sebastian@ieee.org)

The **Metal Industry Committee** is soliciting papers relating to making, shaping, or treating of metals. Drafts of proposed papers should be sent to Mr. Tom Dionise, [ThomasJDionise@eaton.com](mailto:ThomasJDionise@eaton.com)

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 Mr. Kent Sayler, [kent.sayler@ieee.org](mailto:kent.sayler@ieee.org)

The **Industrial Lighting and Display Committee** is soliciting papers relating to light sources and drivers, and display power supplies and more general in lighting system and display technology. Drafts of proposed papers should be sent to Technical Committee Program Chair Prof. J. Marcos Alonso: [marcos@uniovi.es](mailto:marcos@uniovi.es)

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 submitted online at <http://www.openconf.org/ias2015iacc>. Any issues with the online system should be sent to Dr. Abdul R. Ofoli, [abdul-ofoli@utc.edu](mailto:abdul-ofoli@utc.edu)

The **Electrostatic Processes Committee** is seeking papers on topics related to fundamentals and industrial applications of electrostatics including but not limited to electrohydrodynamics, electrostatic measurements, computational electrostatics, electrostatic precipitation and separation, coronas and gas discharges, and ESD/EOS. Draft of the proposed manuscripts should be sent to the Technical Committee Program Chair Dr. Rajesh Sharma, [rsharma@astate.edu](mailto:rsharma@astate.edu)

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](mailto:robhoerauf@earthlink.net)



The **Energy Systems Committee** is soliciting papers related to energy sources, energy management, system control and related issues in industrial, commercial or institutional facilities. Drafts of proposed papers should be sent to Mr. Joe Weber, [joe.weber@emerson.com](mailto:joe.weber@emerson.com)

The **Codes and Standards Committee** is soliciting papers related to electrical codes and standards governing the of the electrical infrastructure in industrial or commercial facilities. Drafts of proposed papers should be sent to: Mr. Steven Townsend, [steven.townsend@ieee.org](mailto:steven.townsend@ieee.org)

The **Mining Industry Committee** is seeking papers related to electrical applications and operations in mines. Drafts of proposed papers should be sent to Mr. Miguel Reyes, [miguel.reyes@cdc.hhs.gov](mailto:miguel.reyes@cdc.hhs.gov)

The TUTORIAL program is seeking proposals for presentations on topics in the general technical area of industrial applications of electrical energy, please send outlines and presenter details to: Dr Iqbal Husain by **1 May 2015**. [ihusain2@ncsu.edu](mailto:ihusain2@ncsu.edu)

## Authors' Deadlines:

- **1 April 2015:** Submission of full drafts of proposed papers to the respective technical committee identified above.
- **1 June 2015:** Notification of acceptance or rejection by the respective technical committees.
- **1 July 2015:** Authors to receive instructions for submission of final conference manuscripts
- **1 August 2015:** Deadline for submission of FINAL conference manuscripts to ScholarOne Manuscripts

## General Requirements:

All authors must submit a draft of the proposed paper for evaluation by the sponsoring 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.

Final submission of manuscripts will be done electronically to the IAS ScholarOne Manuscripts site. The submitting author must execute an IEEE Copyright Transfer at the time of manuscript submission. All submissions will be screened for similarity to previously published material. Authors of papers sponsored for presentation by the Power System Engineering Power System Protection, Energy Systems, Codes and Standards, and Metals Industry and Mining Industry Committees will be automatically be reviewed for possible publication in IEEE Transactions on Industry Application or IEEE Industry Applications Magazine, and authors will receive feedback from this review following the 2015 IAS Annual Meeting. Authors of papers sponsored for presentation by the Industrial Automation and Control, Electrostatic processes, and Industrial Lighting and Display Committees may request review for publication following presentation at the 2015 IAS Annual Meeting.



At least one author must register to attend the conference, and pay the full conference registration fee, prior to submitting each final manuscript. Papers that are not actually presented at the conference will not be eligible for publication by IAS.

Students are encouraged to participate in the Annual Meeting, and are welcome to submit papers. Zucker Educational Grants are available to provide financial support for selected students attending the Annual Meeting; for further information, contact the IAS Education Department, [ihusain2@ncsu.edu](mailto:ihusain2@ncsu.edu).

Please note that not all IAS Technical Committees hold sessions at the IAS Annual Meeting every year. 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.



# 2014 Chapters & Membership Development Department

CHAIR: **Peter Magyar** . . . . . peter.magyar@ieee.org

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# SAVE THE DATE

