

The 2009 IEEE Industry Applications Society Annual Meeting

A comprehensive offering for the practicing engineer

**Houston,
Texas
October 4-8, 2009**

Welcome!

The IEEE-Industry Applications Society Annual Meeting is the premier meeting place for individuals interested in the industrial application of electrical systems. It brings together experts, practitioners, field engineers, and newcomers, from industry and academia, for in-depth discussions on issues concerning power systems as used in plants and factories, automation systems, mining or metal-producing operations, etc. This meeting has a full complement of tutorials geared towards the practicing engineer, as well as technical presentations about both new research and practical solutions developed in the field. Technical committees will also meet to work on standards that may be of interest to you and your employer.

The Conference will be held October 4-9, 2009 at the Hyatt Regency, located in downtown Houston, Texas. This classic downtown Houston hotel is set in the heart of the business and entertainment districts. The city itself is a welcoming



Downtown skyline from Buffalo Bayou



Downtown Houston

blend of Western and Southern heritage and style.

In these difficult economic times, however, the conference will remain focused on the essential: Professional development, learning from experts, sharing of experiences, and networking with your peers in your field of interest. We hope to welcome you in Houston for this exciting gathering. You will find some details here and more on our website at www.ieee.org/ias2009.

Tutorial Program

The conference will feature a full complement of tutorials, with a total of eight half-day tutorials spanning a total of two days. You can attend a total of four tutorials with a simple, single registration, with the material for all tutorials included in this package. This tutorial program is new in this format and extent at this conference, and we invite you to look at the list of topics below.

This program is specifically tailored to the practicing engineer in the field, and in particular it can

**Advance Registration Ends
31 August 2009**

www.ieee.org/ias2009

help you fulfill your annual training requirements. Continuing Education Units (CEUs) or Professional Development Hours to maintain professional license or certification will be available with these tutorials. IEEE is an official Continuing Education Units (CEUs) Authorized Provider

through The International Association of Continuing Education and Training (IACET), and has adopted IACET guidelines and criteria for all its continuing professional development

programs.

Technical Paper Program

The technical paper program is a showcase of the technological diversity of our profession. A total of some 140 papers will be presented in 24 different sessions, with 30 minutes allocated for presentation and discussion. Plenty of

New for 2009

- * Expanded tutorial sessions
- * Meeting format



For further information please contact the conference chair, Bruno Lequesne at Bruno.lequesne@ieee.org



Tutorial Topics

Grounding	Substation equipment	HV power transformers
Basic concepts or industrial applications	Typical components and hardware	HV and EHV design standards
Standards (national/ IEEE/ IEC)	Typical designs 13.8–500 kV	American National Standards Institute (ANSI) versus IEC
National Electrical Code (NEC) specific	Application considerations or capacity versus load	Basic and special application considerations
IEEE Green Book	Open air versus enclosed	Monitoring and protection
Case studies	Minimum clearance of live parts	Cooling fluids
	Substation system protection concepts and considerations	Testing and commissioning
Uninterruptible power systems (UPS) or batteries	Industrial area classifications	Substation automation
Industrial UPS application considerations	NEC articles, International Electrotechnical Commission (IEC) comparisons	Understanding digital communications protocol and network fundamentals
UPS load types	Understanding the NEC classifications	Ethernet fundamentals
UPS power networks and configurations	Hardware or equipment specification and selection	Transmission control protocol or Internet protocol
Battery systems, types, sizing, and configurations	Case studies	Traditional protocols
Battery monitoring		IEC 61850 or utility communication architecture
NEC		National Fire Protection Association (NFPA) 70E
NEC industrial sections		Electrical safety in the workplace
NEC updates		
NEC problem areas		

Conference Schedule

The Conference will start on Sunday, October 4th, with a welcome reception as well as some technical committee meetings. The Technical sessions will be presented in parallel tracks from Monday to Wednesday, starting with a single, plenary session on Monday morning. The tutorials will be presented on Wednesday and Thursday. Various IAS society and social functions will also take place. Most notably, a banquet on Tuesday for honor various awardees and a luncheon on Monday for students. Plenty of space is left in the program for networking and informal discussions.

opportunity will exist for further one-on-one discussion with the presenter during the conference's various breaks and social events. The program will start on Monday morning with a plenary session bringing together various topics of general interest in this area.

The technical sessions will include: For general issues related to power systems in industry, there will be 6 sessions on protection, reliability, renewables, grounding, etc. There will be 5 sessions dedicated to applications to the metal production and mining industries: drive controls, instrumentation, safety, etc. Of particular interest is a special session on power and arc flash issues in metal production. Topics on industrial lighting and displays, including HID Lighting, and LEDs and drivers will be addressed in 4 other sessions. For

industrial automation, a total of 6 sessions will address issues ranging from motor control to the intelligent control of systems, including advanced sensing and real time control, or automation in renewable energy systems. Issues of interest to the appliance industry, specifically the design of

appliance motor and drives, constitute another focus at the conference. Finally, papers on electrostatic and non-thermal plasma processes will be presented in 2 sessions.

IEEE Standards Working Group Meetings

IEEE standard working group meetings are open to anyone interested in attending. Several working groups will be meeting in conjunction with IAS 2009.

For Students

The IAS Annual Meeting welcomes and encourages the participation of engineering students, either graduate or undergraduate, in the conference. Various programs are available. Of particular interest to students is the Myron Zucker travel award, given to a number of students to help defray the cost of travelling to and attending the conference. Application deadline is August 15th, and details can be found on the conference website.

In addition, all students are invited to a special luncheon on Monday. This is great opportunity to network with others in your field of interest, and to get to better know the IEEE, the IAS, and what our technical community has to offer to you.

**Single registration
for all tutorials**