

Master your automation know how in one day!

## ABB Power & Control Road Show

November 5, 2009

7:00am – 6:00pm

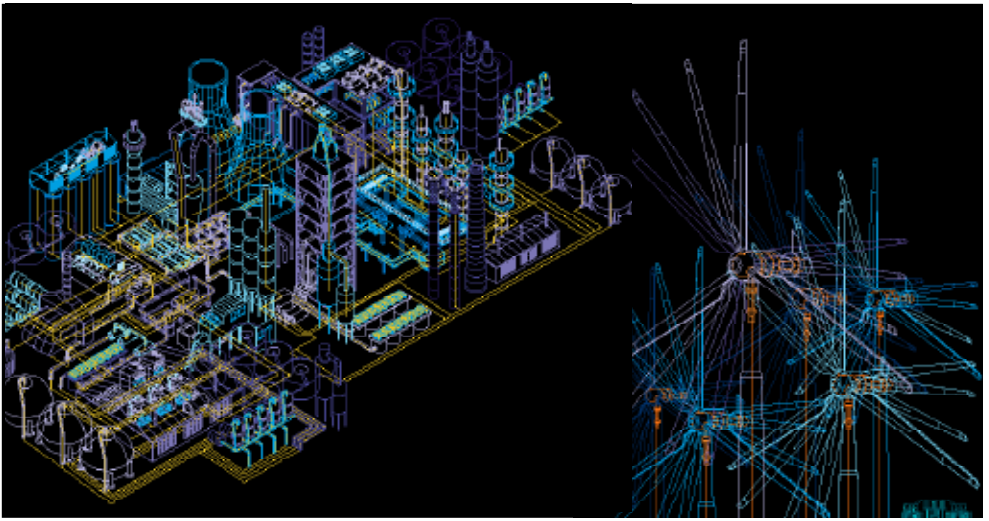
Cowboys Stadium

925 N. Collins St. (Parking Lot 10 /Entry 1)

Arlington, TX 76011

Power and productivity  
for a better world™





*In today's busy environment, it is more difficult than ever to take the time to learn about new and innovative drives, control, power distribution and systems solutions. Knowing how to deliver the results required by shareholders and customers is critical to your continued success. ABB proudly invites you to our Power & Control Road Show... an educational event developed to bring you the latest technologies and world class product solutions.*

**Join us, and in a single day you will:**

- Gain hands-on familiarity with the entire portfolio of ABB's Low Voltage Drives, Motors, Control, Services, Instrumentation Power Products and Systems
- Learn how to significantly reduce the cost of designing, manufacturing and testing electrical panels
- Discover how to optimize your machine performance with innovative technologies such as drives and wireless sensor technology

- Be introduced to the comprehensive lineup of ABB Low Voltage Motors for both domestic and international applications
- Learn how to reduce energy bills by leveraging new drive capabilities
- See and learn about cutting edge Process Automation Systems
- Meet with ABB product and solution experts about new ABB product capabilities
- Speak with your peers and learn from their successes and challenges
- Earn continuing education credits

**Hotel Reservations**

We have negotiated special guest room pricing.

Sheraton Arlington Hotel  
1500 Convention Center Drive  
Arlington, TX 76011

(866) 716-8134 or (817) 261-8200

Or click here for online booking:

[Sheraton Arlington](#)

Ask for the ABB Road Show Rate

**Questions**

Please call your ABB Representative or  
Steven Jones @ (214) 649-9938

**Show Registration**

<http://roadshow.abb-events.com/17a>

**Directions to Event**

<http://dallascowboysmaps.com>

## Thursday, November 5th

This event is designed to be informal and modular: registration and exhibits are open all day. Displays will include: Low Voltage Molded Case Circuit Breakers, AC & DC Drives, Softstarters, Low and Medium Voltage Power Distribution Systems, Disconnect Switches, Contactors, PLCs, Motors, Medium Voltage Systems and a variety of other Control and Automation solutions.

Solutions-based, product-focused workshops will be offered concurrently throughout the day, giving you the opportunity to attend more in-depth sessions that interest you the most.

7:00am – 8:00am	Continental Breakfast, Opening Remarks	4:00pm – 6:00pm	Hospitality, Open Exhibits
12:00pm – 1:00pm	Lunch	ALL DAY	Stadium tours (see on-site schedule)
8:00am – 4:00pm	Open Exhibits and Workshops		

## Workshops

♦♦ Denotes session is IACET accredited for 0.1 CEU hour

### 8:00 am

♦♦ **Ensure You're Using the Right Breaker for the Right Amount of Protection**

Selective Coordination is the key! Learn how to protect your business using ABB's top of the line Tmax (UL489) and Emax (UL 1066) circuit breakers

♦♦ **Code and Safety Considerations for Disconnect Switches**

Examine the code and safety considerations that affect enclosed disconnects (NFPA79, UL508A, OSHA Lockout/tagout, Wire Bending Space, etc.). Learn how to select the right disconnect for your application!

**Drive Requirements for Emergency-Stop & Unintended-Start**

Answers to: What do NFPA79, EN 954-1, and IEC 60204-7 require? What additional hardware is needed? What responsibility does the OEM or integrator have? How does the complete solution all go together? What can ABB do to help?

**IEC vs. NEMA Motors**

As the number of IEC motors bought and sold in the US continues to grow, it is increasingly important to be aware of similarities and differences between IEC and NEMA standards. In this session, we will review some of the more common motor specification items and construction features to serve as a basis for comparison. hazardous area motors and ATEX area definitions and requirements will also be covered.

### 9:00 am

♦♦ **Understanding Motor Control**

Intermediate level course explores meeting the needs of industrial motor control applications - a must as manufacturers review products and systems requirements. Understanding the motor load needs and applying the correct products to the application is the first step in this process. Examine typical motor operation, NFPA 70 and 79 requirements, starting types and best fit applications.

**New Solutions for Process Control Automation**

ABB proudly presents the brand new compact controller to bridge the gap between PLC and DCS (Distributed Control System). See how the Freelance product offering can optimize the engineering and cost of ownership at the same time. One software tool addresses it all: graphic generation, control logic as well as easy integration with external devices such as drives, transmitters and different field buses.

**ABB Low Voltage Drives - Competitive Advantages Identified**

See a competitive comparison of some of the major drives suppliers to ABB's AC350 drive and now ABB can make a difference in your selection.

**Saving Lives using Arc Resistant Relays, Switchgear and Motor Control Centers**

Learn how to lower the risk of arc flash exposure to personnel and equipment through the use of various techniques. Topics will include types of Arc Resistant equipment, how to use relays to reduce arc flash energy levels, new NFPA 2009 standards and how they apply to you, as well as proper labeling and PPE in your plant. The latest Arc Resistant switchgear and motor control centers will be discussed, plus how selecting the correct breakers can protect your people and systems.

### 10:00 am

♦♦ **AC500 Programmable Logic Controller (PLC)**

Do you feel trapped in inflexible and proprietary PLC solutions? Come and see how ABB provides unrivaled PLC freedom-of-use and leads the market in unique, leading-edge PLC innovations.

**Wiring and Grounding Guidelines for PWM AC Drives**

An installation guide that covers wiring practices from the input power to the drive, control wiring and motor leads. Learn the trouble spots when proper grounding or shielding is not followed as well as the effect long motor leads can have.

**What's New in Instrumentation and Why It Matters**

This workshop covers trends in the instrumentation market and, most importantly, how these trends and advances translate into tangible benefits to plant operators. Discuss new measurement and control technologies and new applications for mature products and technologies. Brief case histories will be provided where appropriate.

♦♦ **Power Factor Penalties – How to Avoid the Charges!**

Utilities across the country are raising penalties for poor power factor. This entry level course will introduce you to the concept of power factor, teach you why utilities penalize for poor power factor and how ABB's power quality products can improve your power system and save you money!

### 11:00 am

**Serial Communications vs. Hardwiring in VFDs**

ABB Drives feature a multiplicity of built-in fieldbus options allowing you to put them to work with whatever communications you need.

♦♦ **Control Panel Compliance - Understanding NEC 409 and UL 508A and Calculating Short Circuit Current Rating (SCCR)**

In this intermediate level course, you will learn the ins and outs of current code requirements. Find out how component selection affects your overall short circuit current rating.

**Understanding the Power of ABB's ACH550 and its E-Clipse bypass**

Spend an hour with the ABB HVAC team exploring the advantages of this market leading product offering. Find out why Owners, Engineers and Contractors demand ABB!

♦♦ **Pro M Series Miniature Circuit Breakers and the ProLine Panelboard**

Focuses on the ABB miniature circuit breaker line and addresses the difference between current limiting breakers vs. zero crossing breakers. Also features an overview of the new ABB ProLine Panelboard.

### 1:00 pm

♦♦ **Terminal Block Rail Assembly Software - FREE!**

Learn about Entrellec's free rail assembly software and how simple it can be to configure for panel layout, BOMs and submittals.

♦♦ **Arc Flash Standards and the New ABB MNS-Motor Control Center (LV MCC)**

Discuss the impact of IEEE 1584 in the development of low voltage motor control centers. This session highlights arc flash danger to personnel and the solutions and arc flash hazard reduction features of the new ABB MNS-MCC.

**Boost your AC Drive Portfolio... with DC Drives**

ABB has introduced a DC drive which is synergistic with our AC drive offering. Commissioning/programming do not have to be re-taught!

**Easily Meet Your Harmonics Specification Requirements**

Make it easy! Meeting specification requirements for low harmonics in motor control applications is a must, as utilities and government agencies review their product and system options for new installations and retrofits. Ultra-low harmonic Drives focus on prevention as the cure, rather than mitigation as the fix. This strategy and solution make it easy for you to meet your specs handsily ad easily - whether you are a consulting engineer, system integrator, work for a water district or are an end user. Here's how.

2:00 pm

**How to Choose the Right Transformer Technology**

Discussion of the different technologies available for industrial distribution transformers. From cast to liquid to dry, each of these technologies has its own inherent capabilities and strengths - they will be outlined here. We will provide you with a decision matrix for selecting the right technology for your needs and applications.

**Regenerative Drives: When and Where to Apply Them**

Sometimes your motor wants to act like a generator. Learn about the various methods available to deal with motor power regeneration.

**ABB Low Voltage Drives - Competitive Advantages Identified**

See a competitive comparison of some of the major drives suppliers to ABB's AC350 drive and how ABB can make a difference in your selection.

**From the Breeze to the Grid: Wind Farm Applications and How ABB Fits**

This course takes a look at the traditional wind-plant electrical systems and equipment used in these applications. We will look at the variables that impact designs, ratings, and specifications for the electrical equipment. Applications for pad mounted transformers, breakers, switchgear and STATCOM will also be covered.

3:00 pm

**Cost/Benefit of Maintenance vs. Upgrade vs. Replacement of Switchgear at Industrial Plants**

With aging infrastructure and attrition of supporting work force, many companies are being forced to evaluate options and make decisions on how to support their aging equipment. This session will outline a structure for the evaluation of the cost and benefits of available options ranging from ongoing maintenance, full factory refurbishments, roll in replacement breaker options and various safety upgrades. Looking at these various costs, options and the life extension objectives of the owner will help establish a decision making process.

**Wireless Instrumentation Applications in Your Plant**

This session will cover not only where wireless instrumentation will have the greatest benefits, but also how its information can be used to better monitor and understand process conditions and asset health. In addition to using new battery powered wireless instruments, this session will explore the use case for retrofitting existing HART instruments to also have wireless communications.

**From the Sun to the Grid: Solar Applications and How ABB Fits**

Explore the applications of electrical equipment in the solar industry. You will learn about the many different ABB products put to use when capturing the sun's energy and converting it to useful power. Included will be discussions on the use of low voltage controls, transformers, breakers and converters.

**♦♦ Surge Protection Devices (Don't Let Electrical Surges Scorch your Business)**

Surge voltage cause over \$2 Billion in damage annually in the U.S. This course will discuss the basic need for surge protection, give an overview of ABB surge protection devices available and discuss recent developments in industry regulation.

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7:30AM to 5:30PM, CST,  
Monday - Friday  
Find USA Authorized Distributors  
[www.abb.us/lowvoltage](http://www.abb.us/lowvoltage)



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Cowboy's Stadium!!**

Power and productivity  
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