

# BASLER ELECTRIC DISTRIBUTED GENERATION SCHOOL

*Register today. Space is limited.*

***Join your peers in the industry and learn about Control and Protection required to parallel generators to utility distribution.***

***PLUS "Basler Product Solutions"***  
*including application demos*

- *DGC-2020 Digital Genset Controller with available expansion modules*
- *BE1-11 family of protective relays featuring feeder, intertie and generator protection*

- *9th Annual School with updated topics*
- *3 days of intense learning*
- *Tuition includes free Basler software*
- *10% Early Bird discount; sign up before February 15*

## Event Information

### **Dates:**

March 23-25, 2010

### **Location:**

Fairview Heights IL  
(Near St. Louis MO)

### **Comments from 2009 attendees:**

"My expectations were high but have been exceeded."

"I recommend this school to anyone. It was very insightful. You can tell much thought and planning was put into this course."

"I enjoyed the real life examples, photos, anecdotes, etc."

 **Basler Electric**  
www.basler.com

## Participants will learn:

- What is Distributed Generation? Why is it unique?
- How to control a generator operating in parallel with a distribution network
- How to control the prime mover of a generator operating in parallel with a distribution network
- What causes loss of synchronism and what effect does it have on the synchronous generator?
- How to apply engine control systems intended for standby and portable equipment to Distributed Generation systems
- What IEEE Std 1547™-2003 does and does not say about intertie protection
- How to apply generator control to excitation for islanded or parallel operation
- Protective relay requirements for the DG system, focusing on generator, intertie, and transformer protection

### Introduction to Distributed Generation

- Requirements of the electric utility
- Designing the DG system
- Standards applicable to DG
- Evaluating results vs. model

### Operation of Generators in Parallel with Large Networks

- Theory of operation
- Real power and reactive power
- Loss of generator synchronism
- Loss of excitation
- Loss of network interconnection

### Synchronizing and Load Sharing for Network-Connected Generators

- Engine control and protection systems
- Synchronizing
- Load sharing for DG operation

### Generator Control – Excitation

- Voltage regulator operation
- Parallel operation with a network
- Small excitation – brushless generators
- Medium excitation – brush-type or brushless rotary exciters

### Protection of DG Systems

- Generator protection
- Intertie protection
- Transformer protection
- Review IEEE Std 1547-2003 on interconnection

## Who should attend?

Individuals with a background in switchgear design, consulting, utility intertie, industrial power, and/or engine generator set application can benefit from the knowledge gained at this school.

## Basler Product Solutions

By popular demand, we have expanded the product training. Each day, Basler Application Engineers and instructors will present information on the features and advantages of Basler products as they relate to DG applications discussed in each talk. Sessions include product overviews, review of settings and configurations, and implementation of distributed generation schemes using Basler products. Each student will receive free Basler's BESTCOMS software for applicable products.

## Application Demos

There's more to the Basler Distributed Generation School than lectures. You'll see for yourself how to use what you've learned in the "classroom" in real-life applications by watching real-time demonstrations of some of the latest products and solutions.

Demonstrations scheduled include:

- Generator paralleled to network
- Intertie and generator protection
- Digital Genset Controller and expansion modules
- Synchronizing and PID tuning

## Schedule

### Tuesday, March 23, 2010

8:00 a.m.

Welcome and Introductions  
Lectures, Product Solutions

\*

6:00 p.m.-8:00 p.m.

Ice Breaker Reception

### Wednesday, March 24, 2010

8:00 a.m.

Lectures and Product Solutions

\*

Plant tour and product demos

5:30 p.m. Return to hotel

### Thursday, March 25, 2010

8:00 a.m.

Lectures and Product Solutions

\*

4:30 p.m.

Course review and Graduation

\* Lunch - Compliments of Basler Electric

## Instructors

Basler Electric's in-house experts draw from more than 100 years of experience in the fields of electric power system control and protection. Their backgrounds include Product and System Design Engineering, Product Training, Technical Support, Sales, Field Service, and Application Engineering. Each instructor has individual expertise in Voltage Regulators, Excitation Systems, Genset Controllers, or Protective Relays, as it pertains to Distributed Generation applications. In this course, they share their experience and knowledge through lectures, examples and demonstrations. They will be available for one-on-one discussions.

### Scheduled instructors include:

#### Terry Gaines

Technical Sales Support and Product Training Manager

#### Mike Basler

Power Systems Electrical Engineering Manager

#### Larry Perez

Product Line Manager/KAM, Genset/Generator OEM

#### Jerry Johnson

Application Engineering Supervisor

#### Dr. Kiyong Kim

Consulting Research and Development Engineer

#### Dr. Russell Glenn

Principal Software Engineer

## Logistics

### Registration

Register on-line at [www.basler.com](http://www.basler.com) or fax or mail your completed Registration Fax Back Form(s). **Due to limited seating, enrollment is based on receipt of payment.** The tuition for the 3-day school is \$1,250.00, payable by check, MasterCard, VISA, or American Express. (Please make checks payable to Basler Electric.) *Be an "early bird" and get a 10% discount off the tuition fee if your credit card payment is made or your check is received by February 15!* Upon receipt of payment, an acknowledgment will be sent to you via email. All cancellations received on or before February 12, 2010, will be subject to a \$100 processing fee. Cancellations received after this date will create a credit of the tuition, less processing fee, good toward any other Basler Electric conference or school for one year.

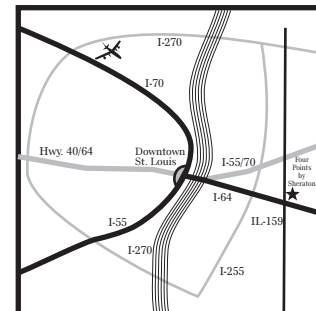
### Transportation

The Four Points by Sheraton is approximately 26 miles (approx. 35 minutes) from St. Louis' Lambert International Airport and 10 minutes from downtown St. Louis. It is located just off Interstate 64 (Exit 12) and IL Route 159, close to The Gateway Arch, a shopping mall and restaurants.

### Lodging/Expenses

A room block (at the group rate of \$85.00 plus tax, single or double occupancy) has been reserved for our students, and your reservation will be made by Basler Electric. We suggest that you check in on Monday, March 22. It is **not** necessary to contact the hotel. The tuition fee includes printed and electronic course material. Continental breakfast and lunch are provided each day and Tuesday evening's icebreaker reception offers an opportunity to network with students and instructors. Travel, lodging, and evening meal expenses are not included.

Guests can enjoy free parking, indoor pool, hot tub, exercise room, and free wireless high speed Internet access.



Four Points by Sheraton, 319 Fountains Parkway  
Fairview Heights, IL 62208

# Registration Form

## Distributed Generation School (March 23-25, 2010)

Please photocopy completed form and fax to: 618 654-2351 Carol Ingram, Corporate Marketing Communications (CMC Dept.) Phone: 618 654-2341 extension 122, e-mail: info@basler.com

From: \_\_\_\_\_ Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

Student Information

Name and Title: \_\_\_\_\_

(Name to appear on I.D. badge) \_\_\_\_\_

Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

(No P.O. Box, please)

City: \_\_\_\_\_ State: \_\_\_\_\_ Country: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Daytime Phone: (        ) \_\_\_\_\_ Fax: (        ) \_\_\_\_\_

E-mail address: \_\_\_\_\_

Hotel Rm Request

Basler Electric will make your reservation. You are responsible for payment.

Single         Double

Arrival Date: \_\_\_\_\_ Departure Date: \_\_\_\_\_

If double, will you be sharing with another attendee? Yes  No

If yes, name: \_\_\_\_\_

Early Bird Discount! On or before Feb. 15, 2010: \$1,125.00. (See Registration Section, page 3)

Payment Information

Check

After February 15, 2010:

\$1,250.00

Please make check payable to Basler Electric Company.

Mail to:

Basler Electric

Attn: Accounting Dept.

Route 143, Box 269

Highland, IL 62249

Credit Card

VISA     MasterCard     American Express

Card Number \_\_\_\_\_

Name on Card: \_\_\_\_\_

Cardholder billing address (if different from above):

\_\_\_\_\_

\_\_\_\_\_

Expiration Date: \_\_\_\_\_

-- Please review cancellation policy, Registration Section, page 3. --



ISO 9001-2008/2000  
ISO 9001-2008    ISO 9001-2000  
Highland, IL USA    Wasselonne, France  
Taylor, TX USA    Suzhou, China



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