



## Power Control and Protection Course

Presented by **POWERDIST** **Basler Electric**  
AUST PTY LTD

13 to 15 March, 2012 in Melbourne

**You are invited to our third Australian PCPC which focuses on Generator Excitation and Protection Systems**

### **Who should attend?**

New and experienced Electrical Engineers and Technicians involved in the Design, Application and Maintenance of Excitation, Synchronising, Paralleling and Protection Systems for Generators.

### **What will you learn?**

- Synchronous Generator Principles
- Excitation System Principles of Operation
- **New: AEMO Grid Connection & Rules**
- Generator Protection Philosophy
- Designing an Excitation System
- Application of Excitation System Componentry
- Tuning a PID Controller
- Power System Stabiliser Theory of Operation
- Typical Excitation Retrofit Applications

To ensure the best interaction with the speakers, the number of participants will be limited so we encourage you to confirm your participation as soon as possible. Enrolment is based on registration and receipt of payment on a first-come, first-served basis. We look forward to welcoming you in March and to providing you with the latest and most detailed information you will need for your present and future Power Generation Control and Protection applications.

Alan Linklater, Manager  
Powerdist Aust Pty Ltd

### Course Details

**When** 13 – 15 March, 2012

**Where** Mantra Hotel  
451 Little Bourke St  
Melbourne Vic 3000  
Tel : 03 9607 3000  
[www.mantra.com.au](http://www.mantra.com.au)

**Note:** We have arranged special rates at the hotel at \$209 per executive suite incl breakfast for 1. Please contact Tiffany Truong on 03 9607 3033 or [tiffany.truong@mantra.com.au](mailto:tiffany.truong@mantra.com.au) and quote "Powerdist Conference".

**Cost:** \$1,990.00 plus 10% GST, per person  
This includes full documentation, lunches and morning/afternoon teas. All other expenses will be borne by the attendee.

**Note:** Refer to our attached Registration Form for Discounts and payment details.

### **This is what others thought of our 2010 PCPC**

**"Good value, good depth into the theory of automatic voltage regulation and parallel generators"** – Peter Handley, Senior Generation Development Engineer, Ergon Energy

**"Very well run with adequate coverage on very useful topics"** – Joe Basse, Manager Network, PNG Power

**"I would recommend it to anyone in the power generation industry"** – Mark Andrews, Electrical Technician, Energy Developments.

**"The course is very applicable to those working in the power industry"** – Farah Rorigado, Electrical Engineer, Mighty River Power (NZ)

### Topics

- Closed Loop Control Systems
- Operating Principles Of Generators
- Automatic Voltage Regulator Selection
- Introduction to Synchronising
- Designing a Voltage Regulating System
- Voltage Regulation and Parallel Operation with Generators
- Parallel Operation with a Network
- **New: AEMO Rules to Connect, Process & Performance Test**
- Application of Static Excitation Systems for replacement of Pilot and Rotary Exciters
- Generator Protection
- Excitation System Protection
- PID Tuning of AVR/Excitation System
- Introduction to Power System Stability

## Doug Steinacher

Doug holds a degree in Electrical Engineering Technology. He has authored several application notes and has presented at the U.S. Electrical Generating Systems Association "On-Site" Power Schools along with supporting various training seminars around the world. He is currently a Product Line Manager for the Excitation Systems Group for Basler Electric Company. In his 22 years of employment with Basler Electric, Doug has held several positions including Engineering Lab Technician, Technical Support Specialist and Product Specialist – Regulation & System Controls Group. His current responsibilities focus on global markets for product enhancements and new product development for Excitation Systems up to 10,000Adc.



## Mark Rutherford

As the owner and founder of TechMark International Ltd, Mark Rutherford has represented Basler Electric in New Zealand for over 20 years. During that time Mark has been responsible for supervising the installation and commissioning of many excitation systems using the full range of Basler Digital Exciters from the DEC100 used on smaller brushless generators through to the DECS-400 used on large static excitation systems. This experience has given Mark a deep understanding of the techniques used to tune the PID parameters in these exciters to optimise their performance. Mark also has experience in implementing and setting power system stabilisers which improve generator damping. Amongst other projects Mark is currently involved in commissioning Basler static excitation systems on 112.5 MVA hydro generators at Meridian Energy's Benmore power station in New Zealand.



## Christophe Del Popolo

Christophe DelPopolo's experience in the power generation industry started at Basler Electric International Headquarters in France where he spent 6 years as the head of the system design division. There he developed knowledge in designing large static digital excitation systems for generators of all ratings. He also has field experience in commissioning full redundant static and brushless systems for various gas, steam and hydro turbines with rotor output current up to 2000A. More recently, Christophe joined Powerdist in Newcastle as Senior Application Engineer and his role is to ensure that the fast growing installed base of Digital AVR's and SES in Australia, PNG & Fiji is well supported.



## Barrie Moor

With over 35 years experience in the Queensland electricity transmission industry, Barrie Moor has been involved in the design, coordination and implementation of protection schemes associated with Queensland's HV & EHV transmission systems since 1981. Barrie also has extensive experience with the protection of large generating plants having had responsibility for the protection of generators at a number of Queensland's major power stations. From 2000 to 2007, Barrie filled the role of Senior Engineer Protection Design as team leader of Powerlink's Protection Design Team. Now in the role of Principal Consultant Substation Protection, Barrie provides specialist Protection Design and Fault Analysis services within Powerlink.



## Julien Hinsinger

Julien started his experience in power generation at Basler Electric in France as a system engineer where he designed excitation systems for brushless and static excitation. Since then, he worked for Clemessy and has been involved in the original design of thermal power stations for EDF (Electricity of France). There, he gained experience in the design of protection panels for generators and step-up transformers in particular. Last year, Julien joined Powerdist to strengthen the team and has been involved in the technical support and commissioning of Basler products.



# Registration Form

**Powerdist / Basler Electric Power Control and Protection Course in Melbourne from 13 to 15 March, 2012**

**FAX to 02 4965 5772 or EMAIL to [admin@powerdist.com.au](mailto:admin@powerdist.com.au)**

1) MR/MS:		JOB TITLE:	
EMAIL:		TEL:	
2) MR/MS:		JOB TITLE:	
EMAIL:		TEL:	
3) MR/MS:		JOB TITLE:	
EMAIL:		TEL:	
4) MR/MS:		JOB TITLE:	
EMAIL:		TEL:	
ORGANISATION NAME:			
ADDRESS:		STATE:	POSTCODE:
CONTACT PERSON: MR/MS		JOB TITLE:	
EMAIL:		TEL:	

**Meals:** Any special dietary requirements?

Please detail:	
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**Cost:**

The cost of the conference is \$1,990.00 plus GST per attendee. *Deadline for registration and payment is **22 February 2012**. You are not officially registered until we receive your payment.*

**Early Bird Discount:** Sign up and make payment by **20 January 2012** to receive a 10% discount

**OR**

**Group Discount:** Any company registering three or more persons at the same time and making a single payment for the total amount will qualify for a 10% discount

An administration charge of 25% will be levied for any cancellation received after **28 February 2012**. A substitute is welcome at no additional charge.

**Method of payment:**

Payment by Bank Transfer:  
 Name of bank: NAB  
 BSB: 082-663  
 A/C No. 58546-8185  
 Account Name: Powerdist Aust Pty Ltd

Payment by Cheque:  
 Mail to Powerdist Aust Pty Ltd,  
 PO Box 197 Kotara NSW 2289

Credit Card:  
 VISA                       MASTERCARD  
 Name on Card: \_\_\_\_\_  
 Card No.: \_\_\_\_\_  
 Expiry Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Purchase Order No. (if applicable): \_\_\_\_\_