

TRANSMISSION & DISTRIBUTION **WORLD**

TM



2010 TRAINING SOURCEBOOK

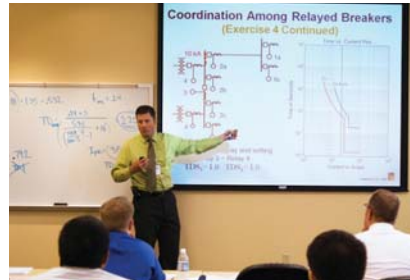


SEL University

Training Where You Are



Three Convenient Training Options



**Classroom
Courses**



**On-Site
Courses**



**Flexible
E-Learning**

SEL University has classes on:

NEW Arc-Flash Hazard-APP 751A
Communications
Overhead Transmission
WBT and CBT Training Resources
Power Systems

Protection
Substation Maintenance and Monitoring
IT and Automation
Metering
Motors

SEL offers continuing education units through:



Training the Next Generation of Power Engineers

Visit www.selinc.com/selu10 for a complete schedule of SEL University courses and registration information.

2010 Training Sourcebook

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To Our Readers:

We are pleased to present the third-annual issue of the *T&D World Training Sourcebook*. The educational programs listed within are designed to enhance professional development, provide networking opportunities and keep you abreast of new technologies and trends. It is important for you to continually improve your skills while earning CEU credits and maintaining industry contacts.

Training today comes in many forms, whether in the classroom or via webinars, interactive Web-based courses or conferences, and videos. Finding a quality program that is right for you does not have to be time-consuming. *T&D World* has located the top training program to fit your needs. You will find this *T&D World Training Sourcebook* useful in finding the topic, delivery vehicle and level of educational program to suite your needs.

In addition to this printed sourcebook, *Transmission & Distribution World* is pleased to offer T&D World eTrain, an online newsletter e-mailed twice a month with a Web-site location that hosts archived content. In each issue, we feature an instructor, highlight a course series and list upcoming individual courses and industry events. Sign up for T&D World eTrain at www.tdworld.com to make sure you get the latest information on training.

We welcome your input, whether you are looking for a specific training course or would like us to review your course for future listing. Feel free to contact us.

With highest regards,



Susan Schaefer
Training Coordinator
susan.schaefer@penton.com



Rick Bush
Editorial Director
rbush@tdworld.com

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2010 Training Sourcebook

Arc Flash Hazard

Arc Flash Compliance

AVO Training Institute; www.avotraining.com; 877-594-3156
info@avotraining.com

Arc Flash Workshop

RMEL; www.rmel.org; 303-865-5544; timblum@rmel.org

Complete Arc Flash Program for Utility and Industrial Systems Complete NESC 2007 Review and Complete Arc Flash Program for Utility and Industrial Systems

S&C Electric Co.; www.sandc.com; 773-338-1000
vstewart@sandc.com



Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

SEL – Feeder Protection with Arc Flash Detection (APP-751A)

SEL University; www.selinc.com/selu; 509-338-4026
selu@selinc.com



Asset Management

Circuit Breaker Test and Maintenance Conference

Finepoint; www.circuitbreakerconference.com; 707-833-6288
fmi@sonic.net

ACDC Power Transmission Conference: Oct. 20-22, 2010 Developments in Power System Protection International Conference: March 29, 2010, Manchester, UK

The Institution of Engineering and Technology; www.theiet.org
 44 (0) 1438 767 343; eventscs2@theiet.org

The Application and Practices of Multi-Function Electrical Testing for Substation Assets

OMICRON; www.omicronusa.com; training@omicronusa.com



Competitive Power Generation

Industrial Energy Users

Integrated Gasification Power Fundamentals

Power Plant Financial Modeling and Evaluation

GE Energy – Power Systems and Energy Course (PSEC)
www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

Power Delivery Consultants Inc.

www.pdc-cables.com; 518-384-1300; j.williams@pdc-cables.com

PTEC 411 – Transformer Diagnostics – 1.8 CEUs

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
 518-395-5005; pti-edpro.ptd@siemens.com

Smart Grid: The Intelligent Power System

GE Digital Energy
www.gedigitalenergy.com/multilin/training
 905-201-2151; training.multilin@ge.com



The smart grid course provides a comprehensive understanding of the emerging smart grid “Intelligent Power System.” The course will review all aspects of the smart grid, including definition, major components, important features and practical examples of this new technology.

Strategies and Planning for Improving Asset Performance

S&C Electric Co.; www.sandc.com; 773-338-1000
vstewart@sandc.com



SUB-101 SubSTATION Server Training SUB-102 SubSTATION Explorer 2 Training SUB-103 PowerSYSTEM Center Training

Subnet Solutions Inc.; www.subnet.com; 403-270-8885
info@subnet.com

Business

PDEC 650 – Power Distribution System

Economics – 1.2 CEUs

PSEC 515 – Introduction to Project Management for Power System Engineers – 1.8 CEUs

PSEC 540 – Overview of Competitive Energy Markets – 1.8 CEUs

PSEC 635 – Power System Scheduling and Operation – 1.8 CEUs

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education; 518-395-5005
pti-edpro.ptd@siemens.com



Deregulated Power Markets

Global Power Markets

Power Plant Financial Modeling and Evaluation

Strategic Transmission and Generation Planning

U.S. Electric Power Industry

Utility Economics and Power Systems Operation

GE Energy – Power Systems and Energy Course (PSEC)
www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

Smart Grid: The Intelligent Power System

GE Digital Energy; www.gedigitalenergy.com/multilin/training
 905-201-2151; training.multilin@ge.com

Circuit Breakers

Alexander Publications

www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Circuit Breaker Maintenance, Medium Voltage

AVO Training Institute Inc.
www.avotraining.com; 877-594-3156
avotraining@avotraining.com



This three-and-a-half-day course covers components and ratings for metal-clad switchgear, specifically 5-kV and 15-kV air and vacuum circuit breakers; maintenance requirements; how to perform complete service (inspection, removal, disassembly, cleaning, tightening, reassembly, lubrication and adjustment) in lab; how to perform contact resistance, insulation resistance and operation tests and evaluate results in lab; and understanding the advantages of a breaker timing/travel test. More than 10 locations nationwide and at your site worldwide.

Circuit Breaker Maintenance, Low Voltage

Circuit Breaker Maintenance, Molded- and Insulated-Case

Circuit Breaker Maintenance, SF₆

AVO Training Institute Inc.; www.avotraining.com; 877-594-3156
avotraining@avotraining.com

EnergyU.org offers the nation's premier online AND instructor-led training curricula for the electric and gas distribution industries.

Electric Substation Equipment Recognition (ELEC-01101)

Substation Safety (ELEC-01502)

Substations: Theory and Applications (ELEC-01103)

Relays: Theory and Application (ELEC-01104)

Substation Batteries (ELEC-01105)

Substation Maintenance (ELEC-01206)

Substation Troubleshooting (ELEC-01307)

EnergyU, a service of MEA; www.energyu.org; 651-289-9600 x112
tomj@midwestenergy.org

Circuit Breaker Test and Maintenance Conference

Finepoint; www.circuitbreakerconference.com
 707-833-6288; fmi@sonic.net

Technical Information Course High-Voltage Switching Technology Air-Insulated Circuit Breaker (3A)
 Siemens Power Academy TD – Nuremberg, Germany
www.siemens.com/energy/power-academy-td
 49 911 433-7005/7416/8008; power-academy.td@siemens.com

Communications

Alexander Publications
www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Fundamentals of Wireless Communications

GE Digital Energy; www.gedigitalenergy.com
 905-201-2151; training.multilin@ge.com
 The GE Digital Energy – MDS Fundamentals of Radio Frequency Training course is intended to be experiential, providing a real-world perspective with in-depth, hands-on training that covers: radio-frequency fundamentals, system design and configuration for multiple applications and environments, and radio interfacing, OSI layer communications and critical cyber security.



IEC 61850

GE Digital Energy; www.gedigitalenergy.com
 905-201-2151; training.multilin@ge.com
 This course will introduce the major sections of the IEC 61850 standard, including substation design, communication methods, and monitoring and control applications. Students will also configure communication networks as described by the IEC 61850 standard and test the performance of the different methods of peer-to-peer messaging that are defined in the protocol.



JungleMux SONET Multiplexer Hands-On Training

GE Digital Energy; www.gedigitalenergy.com; 905-201-2151
training.multilin@ge.com
 The course will provide a comprehensive understanding of the product structure, operation and maintenance of common equipment (relevant to the customer's system), operation and configuration of interface units, explanation of node assignment drawings, interpretation of alarms, as well as system maintenance and troubleshooting.

Utility Power System Communications

GE Digital Energy; www.gedigitalenergy.com; 905-201-2151
training.multilin@ge.com
 This course will provide the students with a comprehensive understanding of the different communication hardware and protocols that are found in modern substations and industrial power systems. The students will be introduced to common communications terminology and will receive hands-on experience in setting up and configuring RS232, RS485, twisted pair and fiber-optic Ethernet LANs.

Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
clavem@marneassociates.com

Basics and Trends of Numerical Communication in Substations
Basic Knowledge of System Protection Communication of Power Transmission and Distribution Networks
Basics of Communication Networks and the Application in Power Transmission and Distribution
IEC 61850 the Standard for Substation Automation – Basics
IEC 61850 Workshop – Configuration and Application in SIPROTEC
Basics, Application and Commissioning of IEC 61850 Communication Networks
 Siemens Power Academy TD – Nuremberg, Germany
www.siemens.com/energy/power-academy-td
 49 911 433-7005/7416/8008; power-academy.td@siemens.com

Smart Grid: The Intelligent Power System

GE Digital Energy
www.gedigitalenergy.com/multilin/training
 905-201-2151; training.multilin@ge.com
 The smart grid course provides a comprehensive understanding of the emerging smart grid "Intelligent Power System." The course will review all aspects of the smart grid, including definition, major components, important features and practical examples of this new technology.



Using the SMP Gateway Data Concentrator
COOPER Power Systems
Using the DNP3 Protocol with SMP Gateway
Using IEC 60870-5-101, 103 and 104 with SMP Gateway
Using IEC 61850 with SMP Gateway
 Cooper Power Systems: www.cooperpowereas/training
 514-845-6195; training@cybectec.com

PRO-01 DNP3 Protocol Training

Subnet Solutions Inc.
www.subnet.com; 403-270-8885
info@subnet.com
 Provides a solid, technical understanding of DNP3. Students will learn about the protocol, its features, capabilities, message structure, polling options, practical uses, benefits and more. Contact us to sign up: info@subnet.com; 403-270-8885; www.subnet.com.



SUB-101 SubSTATION Server Training
SUB-102 SubSTATION Explorer 2 Training
SUB-103 PowerSYSTEM Training Center
TEST-01 ASE2000 Test Set Training

Subnet Solutions Inc.; www.subnet.com; 403-270-8885
info@subnet.com

Smart Grid Conference: Intelligent Technologies Smart Grid Roundtable

RMEI; www.rmei.org; 303-865-5544; timblum@rmei.org

Distribution Planning

Alexander Publications

www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Distribution Conference: Distribution Systems Best Practices Distribution Line Staking Workshop Distribution Roundtable

RMEI; www.rmei.org; 303-865-5544; timblum@rmei.org

Distributed Generation Systems Training Course

The Institution of Engineering and Technology
www.theiet.org/disgen; 44 (0) 1438 765 657
events2@theiet.org
 Intensive training focusing on distributed generation systems and industrial experiences. Topics include generator control, sizing and protection, distribution networks, fault calculations and power conversion.



Distribution Overcurrent Protection and Coordination (DOPC)

S&C Electric Co.; www.sandc.com
 773-338-1000; vstewart@sandc.com



Electrical Power II: Distribution Systems – General (ELEC-07101)
Electrical Power III: Distribution Systems – Above Ground (ELEC-07102)
Electrical Power IV: Distribution Systems – Below Ground (ELEC-07103)

EnergyU, a service of MEA; www.energyu.org; 651-289-9600 x112
tomj@midwestenergy.org

EnergyU.org offers the nation's premier online and instructor-led training curricula for the electric and gas distribution industries.

Underground Line Equipment Recognition (ELEC-03101)
Transformers II: Below Ground (ELEC-03103)
Padmounted Transformer Maintenance (ELEC-03204)
Padmounted Switchgear Maintenance (ELEC-03205)
Underground Conductors: Install/Repair/Replace (ELEC-03206)
Underground Conductor Splicing Procedures (ELEC-03207)
Horizontal Directional Drilling (ELEC-03208)
Cable Terminations (ELEC-03212)
Padmounted Transformer: Troubleshooting (ELEC-03309)
Padmounted Switchgear: Troubleshooting (ELEC-03310)
Excavation Safety (ELEC-03502)
Working in Enclosed and Confined Spaces (ELEC-03511)

EnergyU, a service of MEA; www.energyu.org
 651-289-9600 x112
tomj@midwestenergy.org

Distribution Planning

Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

Smart Grid: The Intelligent Power System

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

Smart Metering Conference: Feb. 23, 2010, London UK

The Institution of Engineering and Technology
www.theiet.org/smart-metering; 44 (0) 1438 765 65
eventscs1@theiet.org

PDEC 500 – Introduction to Distribution Systems and Power Circuit Analysis – 2.7 CEUs



PDEC 590 – Substation Engineering and Design – 2.7 CEUs

PDEC 600 – Distribution Planning and Reliability Assessment – 1.2 CEUs

PDEC 620 – Distributed Generation and Energy Storage Applications on Power Systems – Presented by Nova Energy Specialists – 1.2 CEUs

PDEC 630 – Low-Voltage Secondary Networks – 1.8 CEUs

PDEC 650 – Power Distribution System Economics – 1.2 CEUs

PDEC 655 – Distribution Automation Analysis for the Smart Grid – 2.7 CEUs

PTEC 535 – Underground Cable Systems – Presented by Power Delivery Consultants Inc. – 2.7 CEUs

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com

System Planning and Quality of Power Distribution and Industry Networks

Switching Devices and Switchgear – Basics and Application

Technical Information Course – Benefits and Features of MVDC/SIPLINK Technology

Technical Information Course Medium-Voltage Switchgear

Siemens Power Academy TD – Nuremberg, Germany
www.siemens.com/energy/power-academy-td
49 911 433-7005/7416/8008; power-academy.td@siemens.com

Fiber Optics

Alexander Publications

www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Fiber Optics 1-2-3

The Light Brigade Inc.; www.lightbrigade.com; 206-575-0404
sales@lightbrigade.com

Fiber Optics Splicing and Testing, Advanced

Fiber Optics Splicing and Testing, Basic

AVO Training Institute; www.avotraining.com; 877-594-3156
info@avotraining.com

IEC 61850

GE Digital Energy; www.gedigitalenergy.com; 905-201-2151
training.multilin@ge.com

Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

PTEC 410 – Introduction of Fiber Optics – Presented by FiberNext LLC – 1.8 CEUs

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com

Smart Grid: The Intelligent Power

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

Generation

Deregulated Power Markets

Global Power Markets

Power Plant Financial Modeling and Evaluation

Strategic Transmission and Generation Planning

U.S. Electric Power Industry

Utility Economics

GE Energy – Power Systems and Energy Course (PSEC)
www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

Infrared Imaging

Level I Infrared Thermography Training

Level II Infrared Thermography Training

Infrared Cameras Inc.; www.infraredtraininginstitute.com
409-861-0788; garys@infraredcamerasinc.com

Infrared Training Center

FLIR Systems
www.infraredtraining.com; 866-TRAIN-IR
info_us@infraredtraining.com



IT and Automation

Alexander Publications

www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Basics of Programmable Logic Controllers

AVO Training Institute Inc.; www.avotraining.com; 877-594-3156
avotraining@avotraining.com

PSSC 600 – Using Python to Integrate PSS@E Workflow – 1.8 CEUs



PSSC 675 – Fundamentals of PSS@ODMS – Modeling and Analysis – 0.6 CEUs

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com

Fundamentals of Telecontrol and Automation

IT Security Basics

IT Security in Automation Technology

Network Technology Basics

Network Technology in Automation Technology

Ruggedized Communications for Harsh Environments

SICAM PAS – Basic Course

SICAM 1703 – Complete

SICAM 1703 – Power Week

SICAM 1703 – Service

TM 1703 (e)mic – WebParameterization

Siemens Power Academy TD – Nuremberg, Germany
www.siemens.com/energy/power-academy-td
49 911 433-7005/7416/8008; power-academy.td@siemens.com

SUB-102 SubSTATION Explorer 2 Training

Subnet Solutions Inc.; www.subnet.com
403-270-8885; info@subnet.com

Provides attendees a solid understanding of

SubSTATION Explorer 2 configuration and how

to use it as a substation visualization tool and Internet-enabled HMI. Contact us to sign up: info@subnet.com; 403-270-8885; www.subnet.com.



PRO-01 DNP3 Protocol Training

SUB-101 SubSTATION Server Training

SUB-103 PowerSYSTEM Center Training

TEST-01 ASE2000 Test Set Training

Subnet Solutions Inc.; www.subnet.com; 403-270-8885
info@subnet.com

Using the SMP Gateway Data Concentrator

Securing the SMP Gateway

Using Soft PLC with SMP Gateway

Cooper Power Systems: www.cooperpowereas/training
514-845-6195; training@cybectec.com



Metering

Alexander Publications

www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Metering with the PQM and EPM Series Meters

GE Digital Energy; www.gedigitalenergy/multilin/training
905-201-2151; training.multilin@ge.com



This course begins with an overview of the standard applications where power-system metering is used, followed by a demonstration of how to apply the entire line of metering devices available in the GE Multilin family. Through a combination of lectures and practical lab exercises, the class will learn how to correctly configure the PQM11, ePM1000, EPM4000, EPM5000, EPM6000 and EPM9000 series of meters.

Smart Grid: The Intelligent Power System

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

Smart Metering Conference:

Feb. 23, 2010, London, UK

The Institution of Engineering and Technology
www.theiet.org/smart-metering; 44 (0) 1438 765 657
events1@theiet.org



This premier UK event will focus on finance and delivery of a smart meter program, customer engagement, data management, forging the future smart grid and the "smart home."

Motors**Motor and Generator Maintenance and Testing**

AVO Training Institute Inc.
www.avotraining.com; 877-594-3156
avotraining@avotraining.com



This four-day course covers operating principles, construction and application of AC and DC motors and generators. Participants will learn how to perform insulation resistance, high potential and surge-comparison testing in lab, as well as how to perform brush, commutator and maintenance procedures and troubleshooting in lab. More than 10 locations nationwide and available at your site worldwide.

Motor Controls and Starters, Low-Voltage Variable Frequency Drives

AVO Training Institute Inc.; www.avotraining.com; 877-594-3156
avotraining@avotraining.com

Motor Protection Principles and Relaying

GE Digital Energy; www.gedigitalenergy
905-201-2151; training.multilin@ge.com



This course addresses the training requirements of electrical maintenance staff responsible for MM300, 239, 269 Plus, 369, M60, SR469 and SPM motor management relays. Through a combination of lectures and practical lab exercises, the class will learn how to correctly configure, monitor and troubleshoot specific Multilin motor protection relays.

Power Electronics, Machines and Drives International Conference: April 19-21, 2010, Brighton, UK

The Institution of Engineering and Technology
www.theiet.org/pem; 44 (0) 1438 767 343; events1@theiet.org

Operations**Circuit Breaker Test and Maintenance Conference**

Finepoint; www.circuitbreakerconference.com; 707-833-6288
fmi@sonic.net

Distributed Generation Systems Training Course

The Institution of Engineering and Technology
www.theiet.org/disgen; 44 (0) 1438 765 657; events2@theiet.org

Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

SSOT-310 – Reliability Coordinator Operator Certification

SSOT-320 – Balancing, Interchange and Transmission Operator Certification
SSOT-330 – Balancing and Interchange Operator Certification
SSOT-340 – Transmission Operator Certification
SSOT-400 – Advanced System Operator Courseware (ASOC™)

SSOT-500 – Emergency Operations, Black Start and System Restoration Training for System Operators

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com

Overhead Transmission**ACDC Power Transmission Conference: Oct. 20-22, 2010**

Developments in Power System Protection International Conference: March 29, 2010, Manchester, UK

Distributed Generation Systems Training Course

The Institution of Engineering and Technology; www.theiet.org
44 (0) 1438 765 657; events2@theiet.org

EnergyU.org offers the nation's premier online AND instructor-led training curricula for the electric and gas distribution industries.

Transmission System Safety (ELEC-06501)**Electrical Power I: Transmission Systems (ELEC-06102)****Overhead Line Equipment Recognition (ELEC-02101)****Transformers I: Above Ground (ELEC-02102)****Distribution Poles and Pole Appurtenances (ELEC-02103)****Transmission Structures and Appurtenances (ELEC-02104)****Switches: Theory and Application (ELEC-02105)****Street Lights (ELEC-02206)****Pole-Top Emergency Response (ELEC-02507)****Pole-Mounted Transformer Troubleshooting and Maintenance (ELEC-02308)****Overhead Line Installations: Conductor Stringing (ELEC-02209)****Ergonomics and Rigging for Pole Climbing (ELEC-02110)****Climbing Basics: Wood/Steel Poles; Lattice Structures (ELEC-02111)****Overhead Conductors: Install/Repair/Replace (ELEC-02212)****Splicing Overhead Services (ELEC-02213)****Pole Grounding, Statics and Ground Rods (ELEC-02414)****Storm Work (ELEC-02216)****Live Line Work: Glove and Hotstick Use (ELEC-02517)**

EnergyU, a service of MEA; www.energyu.org; 651-289-9600 x112
tomj@midwestenergy.org

Alexander Publications

www.alexanderpublications.com; 800-992-3031
info@alexanderpublications.com

Complete NESC 2007 Review

S&C Electric Co.; www.sandc.com
773-338-1000; vstewart@sandc.com

**Marne and Associates Inc.**

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

Power Delivery Consultants Inc.

www.pdc-cables.com; 518-384-1300; j.williams@pdc-cables.com

PTEC 500 – Fundamentals of Overhead Transmission Line Design – 2.7 CEUs**PTEC 510 – Fundamentals of Power System**

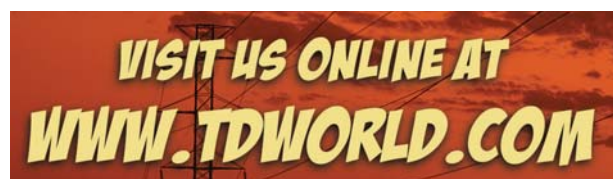
Electromagnetic Compatibility (EMC) – 1.8 CEUs

PTEC 520 – Overhead Transmission Line Upgrading – 1.8 CEUs**PTEC 650 – Overvoltages and Insulation Coordination – 2.7 CEUs**

Siemens Power Academy TD-NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com

**Power Systems****Battcon Stationary Battery Conference**

Alber; www.battcon.com; 954-623-6660
jennifer.stryker@alber.com



Basics of SFRA and Interpretation Criteria for Condition Assessment of Power Transformers



OMICRON; www.omicron.at
91 11 41586602; training.india@omicron.at

SFRA measurements prove to be useful tool for the condition assessment of power transformers and a proven tool for asset management. Participants become familiar with the basics of SFRA measurements, which is an important parameter to know the mechanical strength of power transformers.

Condition Assessment of Current Transformers



OMICRON
www.omicron.at
91 11 41586602; training.india@omicron.at

The participants learn about the basics and application of the latest diagnostic methods on current transformers. Apart from the methods, procedures from location and type of faults in CTs are also covered. Also covered are practical examples of Residual Life Assessment of aged CTs.

ACDC Power Transmission Conference: Oct. 20-22, 2010 Developments in Power System Protection International Conference: March 29, 2010

Distributed Generation Systems Training Course

The Institution of Engineering and Technology; www.theiet.org
44 (0) 1438 767 343; eventscs2@theiet.org

Complete NESC 2007 Review

S&C Electric Co.; www.sandc.com
773-338-1000; vstewart@sandc.com



Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

Measurement of Power Transformers Using the Primary Test System CPC 100 and Applications of the CPTD1



OMICRON; 800-OMICRON (664-2766)
www.omicron.at; training@omicron.at

Participants learn to use the CPC 100 together with the CPTD1. They perform different hands-on tests on power transformers in small groups of three to four persons.

Power Electronics, Machines and Drives International Conference: April 19-21, 2010, Brighton, UK



The Institution of Engineering and Technology
www.theiet.org/pemd; 44 (0) 1438 767 343; eventscs1@theiet.org

Showcasing the latest research findings and practical innovations in electrical drives, machines and power electronics systems, PEMD is a world-leading forum for power technology.

Distribution Systems Planning and Engineering Power Electronic Applications in Transmission: HVDC and FACTS Power Generation Control and Excitation Power System Analysis and Symmetrical Components Power System Dynamics

Power Systems Fundamentals
Protective Relaying Fundamentals
Reactive Power Compensation and Voltage Control
Smart Grid: Substation/Distribution Automation
Surge Analysis and Equipment Application
Synchronous Machine Fundamentals
Transmission Planning and Analysis

GE Energy – Power Systems and Energy Course (PSEC)
www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

PDEC 563 – Understanding System Losses – 1.8 CEUs



PDEC 620 – Distributed Generation and Energy Storage Applications on Power Systems – Presented by Nova Energy Specialists – 1.2 CEUs
PDEC 655 – Distribution Automation Analysis for the Smart Grid – 2.7 CEUs
PSEC 500 – Power Flow Analysis – 1.2 CEUs
PSEC 505 – Power Flow Analysis with Applications – 2.7 CEUs

PSEC 510 – Analytical Methods for Voltage Control and Reactive Power Planning – 2.7 CEUs

PSEC 520 – Industrial Power System Applications – 2.7 CEUs
PSEC 535 – Power System Studies for Wind Integration – 2.7 CEUs
PSEC 540 – Overview of Competitive Energy Markets – 1.8 CEUs
PSEC 600 – Introduction to Power System Dynamics – 2.7 CEUs
PSEC 635 – Power System Scheduling and Operation – 1.8 CEUs
PSEC 638 – Power System Reliability – 1.2 CEUs
PSEC 640 – Fundamentals of Protective Relaying – 1.8 CEUs
PSEC 655 – Power System Stability and Stabilizer Tuning – 2.1 CEUs
PSEC 655 – Power Electronics in Transmission Systems (HVDC, FACTS) and Wind Power – 2.7 CEUs
PSEC 780 – Power System Dynamics – 3.3 CEUs
PSSC 790 – Reactive Power Planning Using PSS@E – 1.8 CEUs
PTEC 410 – Introduction of Fiber Optics – Presented by FiberNext LLC – 1.8 CEUs
SSOT-310 – Reliability Coordinator Operator Certification
SSOT-320 – Balancing, Interchange and Transmission Operator Certification
SSOT-330 – Balancing and Interchange Operator Certification
SSOT-340 – Transmission Operator Certification
SSOT-400 – Advanced System Operator Courseware (ASOCTM)
SSOT-500 – Emergency Operations, Black Start and System Restoration
Training for System Operators
Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com

Principles of Power System Planning

Siemens Power Academy TD – Nuremberg, Germany
www.siemens.com/energy/power-academy-td
49 911 433-7005/7416/8008; power-academy.td@siemens.com

SEL – System Fundamentals for Engineers (PWR5 400)

SEL – Protecting Power Systems for Technicians (PROT 301)
SEL – Protecting Power Systems for Engineers (PROT 401)
SEL – Synchrophasor Measurement and Application (SYS 309)
SEL University; www.selinc.com/selu; 509-338-4026
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The Application and Practices of Multi-Function Electrical Testing for Substation Assets



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Smart Grid: The Intelligent Power System

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www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com



The smart grid course provides a comprehensive understanding of the emerging smart grid “Intelligent Power System.” The course will review all aspects of the smart grid, including definition, major components, important features and practical examples of this new technology.

PQ and Reliability

Alexander Publications

www.alexanderpublications.com; 800-992-3031;
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High-Voltage Engineering and Testing Training Course: May 10-14, 2010

The Institution of Engineering and Technology; www.theiet.org/hvet
44 (0) 1438 765 657; eventscs1@theiet.org

Power Quality and Harmonics

AVO Training Institute Inc.; www.avotraining.com; 877-594-3156
avotraining@avotraining.com

Power System Voltage Stability Seminar

S&C Electric Co.; www.sandc.com
773-338-1000; vstewart@sandc.com



PSEC 638 – Power System Reliability – 1.2 CEUs

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www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

Smart Grid: The Intelligent Power System

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

Utility Power Factor and Harmonics Workshop

RMEL; www.rmel.org; 303-865-5544; timblum@rmel.org

Protection

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**Developments in Power System Protection International
Conference: March 29, 2010**



The Institution of Engineering and Technology
www.theiet.org/dpsp; 44 (0) 1438 767 343; eventscs2@theiet.org

This established conference provides up-to-date understanding of recent developments and future trends in the design, application and management of power-system protection and control systems.

Distribution Reliability

S&C Electric Co.; www.sandc.com
773-338-1000; vstewart@sandc.com



Distribution Protection

GE Digital Energy
www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com



This course provides a basic understanding of GE's Multilin feeder and transformer protective relay installation, operation and troubleshooting procedures. Students will learn basic protection theory associated with each relay in addition to the installation, configuration and testing of protective elements using simulation software. Practical lab exercises reinforce material covered in the class lectures.

F650 Digital Bay Controller

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

The course covers the specifications, installation, wiring procedures and how to integrate the F650's control, protection and HMI functions. Hands-on lab exercises will reinforce concepts and procedures presented during the class lectures.

Fundamentals of Modern Protective Relaying

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

The Fundamentals of Modern Protective Relaying course provides a comprehensive understanding of the principles of digital power system relaying and protection applications. The class will review the major components of a power system as well as basic theory and protection principles. Hands-on lab exercises will reinforce concepts and procedures presented during the class lectures.

Motor Protection Principles and Relaying

GE Digital Energy; www.gedigitalenergy.com
905-201-2151; training.multilin@ge.com

This course addresses the training requirements of electrical maintenance staff responsible for MM300, 239, 269 Plus, 369, M60, SR469 and SPM motor management relays. Through a combination of lectures and practical lab exercises, the class will learn how to correctly configure, monitor and troubleshoot specific Multilin motor protection relays.

Universal Relay (UR) Advanced Applications

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

The protection engineer will gain an in-depth understanding of the major protective element algorithms for the B30, B90, C30, C60, D30, D60, F35, F60, G60, L90, M60*, T35 and T60. The review of oscillography and event logs for specific faults will aid the class in learning to evaluate the Universal Relay's performance.

Universal Relay (UR) Platform

GE Digital Energy; www.gedigitalenergy.com/multilin/training
905-201-2151; training.multilin@ge.com

The Universal Relay platform refers to the hardware, protection, software and communications features common to all UR family members. The UR platform is the building block for modern substation protection, control and data communication solutions. This course provides a systematic approach to the integration of control and protection functions within the Universal Relay.

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PTs, CTs and CCVTs (ELEC-05105)

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EnergyU, a service of MEA; www.energyu.org; 651-289-9600 x112
tomj@midwestenergy.org

IEC 61850

GE Digital Energy; www.gedigitalenergy.com
905-201-2151; training.multilin@ge.com

**PDEC 540 – Distribution Transformers,
Grounding and Protection – 1.8 CEUs**



PDEC 550 – Distribution Surge Protection – 0.9 CEUs

PDEC 630 – Low-Voltage Secondary Networks – 1.8 CEUs

**PSEC 510 – Analytical Methods for Voltage Control and
Reactive Power Planning – 2.7 CEUs**

PSEC 640 – Fundamentals of Protective Relaying – 1.8 CEUs

PTEC 650 – Overvoltages and Insulation Coordination – 2.7 CEUs

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REYROLLE Protection Product Training ARGUS-C 75R11, 75R12

REYROLLE Protection Product Training ARGUS-M 75R21, 75R22

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Participants learn how to efficiently test the fundamental parameters for overcurrent protection, line protection and transformer differential protection with the CMC test system. They will become familiar with the text procedure for secondary relay testing in alternating hands-on and minds-on activities.

**Protective Relaying Fundamentals
Surge Analysis and Equipment Application**

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www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

Microprocessor-Based Relay Testing, Generation

AVO Training Institute Inc.; www.avotraining.com
877-594-3156; avotraining@avotraining.com



This four-and-a-half-day course covers: generator protection relay theory, elements, connections, applications and communication methods; interpretation of internal/external relay schematics; use of MPRT and other electronic test equipment; and set, test, troubleshoot and interpret results for SEL 300G, Basler GPS 100, GE Multilin 489, ABB GPU and Beckwith 3020 in labs. More than 10 locations nationwide and available at your site worldwide.

Protective Relay Maintenance, Basic

AVO Training Institute Inc.; www.avotraining.com
877-594-3156; avotraining@avotraining.com



Designed for personnel responsible for the application, maintenance and testing of relays at utility facilities, this four-and-a-half-day course covers: electromagnetic induction protective relay theory, application and components; interpretation of internal/external wiring diagrams and timing curves for typical relays; CT and PT connections and polarity; visual and mechanical inspections; use of MPRT with TVI; and test, calibrate, repair and troubleshoot relays in lab. More than 10 locations nationwide and at your site worldwide.

Short-Circuit Analysis

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877-594-3156; avotraining@avotraining.com



This four-day course covers: IEEE/ANSI recommended practices; symmetrical components theory and application; impedance diagram development; model development, including three-phase, SLG, L-L and LLG fault; calculations for symmetrical and asymmetrical short-circuit currents; manual point-to-point balanced and unbalanced short-circuit analysis; and building a computer-based analysis using SKM System Analysis Inc. A-FAULT software. More than 10 locations nationwide and at your site worldwide.

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SEL 710 (APP 405)****SEL Distribution System Protections (PROT 403)****SEL Industrial Power System Protection (PROT 405)****SEL Transmission Line Protection (PROT 407)****SEL Generation System Protection (PROT 409)****SEL Substation Equipment Protection (PROT 411)****SEL Synchrophasor Measurement and Application (SYS 309)**

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Smart Grid: The Intelligent Power System

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The smart grid course provides a comprehensive understanding of the emerging smart grid "Intelligent Power System." The course will review all aspects of the smart grid, including definition, major components, important features and practical examples of this new technology.

SUB-103 PowerSYSTEM Center Training

Subnet Solutions Inc.; www.subnet.com
403-270-8885; info@subnet.com



Teaches attendees how to configure PowerSYSTEM Center (formerly known as EnterpriseSERVER.NET) applications to facilitate NERC CIP Remote IED Access (My IEDs), event file retrieval and analysis (My Faults), and manage non-SCADA data integration (My Assets) to utility Business Intelligence systems. Contact us to sign up: info@subnet.com; 403-270-8885; www.subnet.com.

SUB-101 SubSTATION Server Training**SUB-102 Substation Explorer 2 Training**

Subnet Solutions Inc.; www.subnet.com
403-270-8885; info@subnet.com

**Testing Protection Relays with
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OMICRON
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training@omicronusa.com



Participants expand their knowledge of techniques for testing various types of relays with the OMICRON CMC Test System. They will also learn how to develop customized test plans and templates for the various types of single or multifunction relays using the OMICRON Control Center and create customized reports. They will also learn how to develop techniques in alternative testing methods using advanced software functionality. Houston, Texas

Renewable Energy

ACDC Power Transmission Conference: Oct. 20-22, 2010

Smart Metering Conference: Feb. 23, 2010, London UK

Developments in Power System Protection International Conference:

March 29, 2010, Manchester, UK

Distributed Generation Systems Training Course

High-Voltage Engineering and Testing Training Course: May 10-14, 2010

Power Electronics, Machines and Drives International Conference:

April 10-21, 2010, Brighton, UK

The Institution of Engineering and Technology; www.theiet.org

44 (0) 1438 765 657; eventscs1@theiet.org

Deregulated Power Markets**Fuel Flexibility and Alternative Energy Applications****Global Power Markets****Power Systems Fundamentals****Solar Power Fundamentals****U.S. Electric Power Industry****Wind Power Fundamentals**

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Solar Renewable Technologies Conference

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Safety

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Arborist I

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Circuit Breaker Test and Maintenance Conference

Finepoint; www.circuitbreakerconference.com; 707-833-6288
fmi@sonic.net

Confined Space

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avotraining@avotraining.com

Electrical Safety for OSHA 1910/NFPA 70E

Electrical Reliability Services; www.assetweb.com/ers; 775-746-8484
training@electricalreliability.com

Electrical Safety for Utilities

AVO Training Institute; www.avotraining.com
877-594-3156; info@avotraining.com

This four-day course covers: electrical hazards and safety procedures for working on transmission, generation and distribution power systems; personal protective equipment requirements; energized and de-energized work procedures; temporary/permanent grounding systems; specific equipment hazards; safe work programs; and OSHA 29 CFR 1910.311-355, .269, .303, .308, .137, and .147 and NESC requirements. More than 10 locations nationwide and available at your site worldwide.



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Electrical Safety for Inspectors

National Electrical Code

NFPA 70E Electrical Safety Requirements

OSHA Electrical Safety Related Work Practices

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Electrical Safety for Managers

Electrical Safety for Utilities

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Shermco Industries; www.shermco.com; 888-358-4271
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High-Voltage Engineering and Testing Training Course: May 10-14, 2010

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44 (0) 1438 765 657; events1@theiet.org

Marne and Associates Inc.

www.marneassociates.com; 406-544-8997
davem@marneassociates.com

Arc Flash Workshop

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Software Applications

Advanced Visual Testing Software

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EnerVista Software Suite Integration

GE Digital Energy; www.gedigitalenergy.com; 905-201-2151
training.multilin@ge.com



This course is designed to provide students with hands-on experience in performing system integration using the EnerVista Viewpoint Monitoring software. Class labs will give students a chance to set up and configure all of the different types of communications network architectures that are available for protective relays and meters, and then proceed to learn how to create an entire monitoring and data collection system using the EnerVista Viewpoint Monitoring software.

Power Electronics, Machines and Drives International Conference:

April 19-21, 2010, Brighton, UK

High-Voltage Engineering and Testing Training Course: May 10-14, 2010

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PSEC 530 - Modeling Wind Farms Using

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PSSC 570 – PSS@E Optimal Power Flow – 1.5 CEUs

PSSC 600 – Using Python to Integrate PSS@E Workflow – 1.8 CEUs

PSSC 675 – Fundamentals of PSS@ODMS – Modeling and Analysis – 0.6 CEUs

PSSC 700 – PSS@MUST – Managing and Utilizing System Transmission – 2.1 CEUs

PSSC 705 – PSS@E Graphical Model Builder – Control Systems Theory and Application to PSS@E – 1.8 CEUs

PSSC 708 – PSS@E Theory, Use and Interpretation of Small Signal Stability Analysis (NEVA) – 1.8 CEUs

PSSC 710 – PSS@E – Advanced Power Flow – 2.7 CEUs

PSSC 715 – PSS@E – Advanced Dynamic Simulation – 2.7 CEUs

PSSC 720 – PSS@E – Model Writing – 1.8 CEUs

PTEC 620 – Advanced Transmission Planning with Modern Network Analysis Tools (PSS@E, PSS@MUST, PSS@E OPF) – 2.7 CEUs

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SICAM 1703 – Engineering

SICAM 230 V6.x Configuration

SIGRA – Efficient Interpretation of Fault Records

Toolbox II – Basic Course

Siemens Power Academy TD – Nuremberg, Germany

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SUB-101 SubSTATION Server Training

Subnet Solutions Inc.; www.subnet.com

403-270-8885; info@subnet.com

Teaches attendees how to configure SubSTATION Server (formerly known as SubstationSERVER.NET), integrate it into a substation and transmit data beyond the substation. Contact us to sign up: info@subnet.com; 403-270-8885; www.subnet.com.



SUB-102 SubSTATION Explorer 2 Training

SUB-103 PowerSYSTEM Center Training

TEST-01 ASE2000 Test Set Training

Subnet Solutions Inc.; www.subnet.com

403-270-8885; info@subnet.com

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Smart Grid: The Intelligent Power System
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905-201-2151; training.multilin@ge.com

Substation Maintenance and Monitoring

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info@alexanderpublications.com

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Finepoint; www.circuitbreakerconference.com
707-833-6288; fmi@sonic.net

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773-338-1000; vstewart@sandc.com



**Basics of Partial-Discharge
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Participants become familiar with the possibilities and limitations of partial-discharge measurements and their analysis of different test objects. The operation of the MPD 600PC software is explained, and the different display modes are demonstrated. Participants use their newly acquired knowledge on a test object and thus gain confidence applying the test procedures.

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Substation Maintenance (ELEC-01206)
Substation Troubleshooting (ELEC-01307)
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tomj@midwestenergy.org

General Electric LR-65 and LR-83 LTC Training Class
General Electric LRT-68 and LRT-72 LTC Training Class
General Electric LRT-200 Series LTC Training Class
Federal Pacific TC-546 and TC-525 LTC Training Class
McGraw Edison 550 Series LTC Training Class
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Siemens-Allis TLH-20 and TLH-21 LTC Training Class
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Substation Maintenance I
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www.avotraining.com; 877-594-3156
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This four-and-a-half-day course covers: substation applications, components and safety procedures; insulation and contact resistance, overpotential, vacuum integrity, power factor testing and tank-loss index for air, oil and vacuum medium-voltage circuit breakers; switchgear arrangement, torque requirements, insulation systems and maintenance. More than 10 locations nationwide and at your site worldwide.

Substation Maintenance II
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www.avotraining.com; 877-594-3156
avotraining@avotraining.com



This four-and-a-half-day course covers: substation applications, components and safety procedures; air and disconnect switch maintenance and testing; grounding maintenance and testing; transformer maintenance and testing; perform insulation resistance, transformer turns ratio (TTR), power/dissipation factor, core excitation, winding resistance and a wide range of insulating liquid tests in lab. More than 10 locations nationwide and at your site worldwide.

The Application and Practices of Multi-Function Electrical Testing for Substation Assets

OMICRON



OMICRON; www.omicronusa.com
training@omicronusa.com

Participants will be introduced to multi-function electrical testing using the OMICRON CPC100 measurement system and accessories. This will be a comprehensive course focusing on diagnostic applications for high-voltage substation apparatus. The training class will consist of four components: (1) Introduction to Multi-Function Electrical Testing; (2) Diagnostics Tests; (3) Apparatus; (4) Operation of the CPC100 Test Set and Accessories. Boston, Massachusetts

Using the SMP Gateway Data Concentrator Securing the SMP Gateway Using Visual T&D – HMI/SCADA

COOPER Power Systems

Cooper Power Systems; www.cooperpowereas.com/Training
514-845-6195; training@cybectec.com

TEST-01 ASE2000 Test Set Training

Subnet Solutions Inc.; www.subnet.com
403-270-8885; info@subnet.com

Learn how to use the ASE2000 DNP3 Test Set, and how to parse messages, fine-tune timing parameters and troubleshoot communications. Significant hands-on time with master, remote and monitor modes. Contact us to sign up: info@subnet.com; 403-270-8885; www.subnet.com.



PRO-01 DNP3 Protocol Training

SUB-101 SubSTATION Server Training
SUB-102 SubSTATION Explorer 2 Training
SUB-103 PowerSYSTEM Center Training

Subnet Solutions Inc.; www.subnet.com
403-270-8885; info@subnet.com

Using Sweep Frequency Response Analysis (SFRA) as a Diagnostic Tool for Assessing the Mechanical Integrity of Power Transformers

OMICRON



OMICRON; www.omicronusa.com; training@omicronusa.com

Participants will learn about the basic theory and application of the Sweep Frequency Response Analysis. The training class will consist of four components: (1) Introduction to SFRA; (2) Performing SFRA Measurements; (3) Analysis and Interpretation of SFRA Results; (4) Operation of SFRA Instrument. Boston, Massachusetts

T&D Engineering

ACDC Power Transmission Conference: Oct. 20-22, 2010

The Institution of Engineering and Technology
www.theiet.org/acdc; 44 (0) 1438 765 657
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Alexander Publications

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Distribution Reliability

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773-338-1000; vstewart@sandc.com



High-Voltage Engineering and Testing Training Course: May 10-14, 2010

The Institution of Engineering and Technology
www.theiet.org/smart-metering; 44 (0) 1438 765 657
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PSEC 655 – Power Electronics in Transmission Systems (HVDC, FACTS) and Wind Power – 2.7 CEUs

PTEC 411 – Transformer Diagnostics – 1.8 CEUs

PTEC 500 – Fundamentals of Overhead Transmission Line Design – 2.7 CEUs

PTEC 510 – Fundamentals of Power System Electromagnetic Compatibility (EMC) – 1.8 CEUs

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www.usa.siemens.com/energy/pti-education

518-395-5005; pti-edpro.ptd@siemens.com

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Basics of Load and Short-Circuit Calculation in Power Transmission and Distribution Systems

Basics of Power System Technology for Transmission and Distribution, Part 1

Basics of Power System Technology for Transmission and Distribution, Part 2

Engineering of Bay Controllers 6MD66 with IEC 61850

Siemens Power Academy TD – Nuremberg, Germany

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49 911 433-7005/7416/8008; power-academy.td@siemens.com

Distribution Systems Planning and Engineering

Power Electronic Applications in Transmission: HVDC and FACTS

Power Generation Control and Excitation

Power System Analysis and Symmetrical Components

Power System Dynamics

Protective Relaying Fundamentals

Reactive Power Compensation and Voltage Control

Surge Analysis and Equipment Application

Synchronous Machine Fundamentals

GE Energy – Power Systems and Energy Course (PSEC)

www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

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j.williams@pdc-cables.com

PDC Power Delivery Consultants, Inc.

PDC offers several short courses on the analysis, design and uprating of underground and submarine power cables, and overhead transmission lines. In addition to the scheduled courses, we also organize on-site courses — usually hosted by a utility — where the material is tailored to the needs of the host organization. PDC is accredited with the International Association of Continuing Education and Training (IACET) and the Florida Board of Professional Engineers for CEUs/PDHs.

Power Electronics, Machines and Drives International Conference:

April 19-21, 2010, Brighton, UK

The Institution of Engineering and Technology

www.theiet.org/smart-metering; 44 (0) 1438 765 657

eventscs1@theiet.org

PRO-01 DNP3 Protocol Training

SUB-101 SubSTATION Server Training

SUB-102 SubSTATION Explorer 2 Training

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Transmission Line Design Workshop

Distribution Line Staking Workshop
RMEL; www.rmel.org; 303-865-5544; timblum@rmel.org

Training Resources**Alexander Publications**

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Coverage includes T&D topics: transmission, substations, overhead and underground distribution, metering, safety, grounding, power quality, OSHA and NESC requirements. Delivered as printed books, on disk (CDs and DVDs) and online at the Hot Line training center.

Circuit Breaker Test and Maintenance Conference

Finepoint; www.circuitbreakerconference.com; 707-833-6288
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McGraw Edison 550 Series LTC Training Class
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SEL University; www.selinc.com/selu; 509-338-4026; selu@selinc.com

**Smart Metering Conference: Feb. 23, 2010, London UK**

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Transmission Planning**Alexander Publications**

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Power System Dynamics Certifications

Siemens Power Academy TD - NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com



The Power System Dynamics curriculum is designed for experienced power system engineers with prerequisite experience in power flow and who are ready to take on power system dynamics. Siemens Power Academy TD - NA offers Associate, Advanced and Expert Certifications programs in this curriculum. These certifications combine requirements of training/education, experience and validation that create a training road map to assist both learner and employer with faster on-boarding of new hires, provide solid milestones for employee development plans, and serve as a mechanism for knowledge transfer and succession planning.



www.tdworld.com

Power System Engineering Certifications

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com



The Power System Engineering curriculum is designed to provide a broad series of skills and knowledge that apply to transmission, distribution and other grid specialties. Siemens Power Academy TD – NA offers Associate, Advanced and Expert Certifications programs in this curriculum. These certifications combine requirements of training/education, experience and validation that create a training road map to assist both learner and employer with faster on-boarding of new hires, provide solid milestones for employee development plans and serve as a mechanism for knowledge transfer and succession planning.

Power Transmission Engineering Certifications

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The Power Transmission Engineering curriculum is designed to address the knowledge and skills needed for professionals in system and resource planning transmission planning and others requiring skill and experience in the use of PSS@E. Siemens Power Academy TD – NA offers Associate, Advanced and Expert Certifications programs in this curriculum. These certifications combine requirements of training/education, experience and validation that create a training road map to assist both learner and employer with faster on-boarding of new hires, provide solid milestones for employee development plans, and serve as a mechanism for knowledge transfer and succession planning.

PSEC 505 – Power Flow Analysis with Applications – 2.7 CEUs

PSEC 530 – Modeling Wind Farms using PSS@E – 1.2 CEUs

PSEC 535 – Power System Studies for Wind Integration – 2.7 CEUs

PSEC 780 – Power System Dynamics – 3.3 CEUs

PSSC 500 – PSS@E – Introduction to Power Flow and Steady-State Analysis – 2.7 CEUs

PSSC 550 – PSS@E – Introduction to Dynamic Simulation – 2.7 CEUs

PSSC 570 – PSS@E Optimal Power Flow – 1.5 CEUs

PSSC 700 – PSS@MUST – Managing and Utilizing System Transmission – 2.1 CEUs

PSSC 705 – PSS@E Graphical Model Builder – Control Systems Theory and Application to PSS@E – 1.8 CEUs

PSSC 708 – PSS@E Theory, Use and Interpretation of Small Signal Stability Analysis (NEVA) – 1.8 CEUs

PSSC 710 – PSS@E – Advanced Power Flow – 2.7 CEUs

PSSC 715 – PSS@E – Advanced Dynamic Simulation – 2.7 CEUs

PSSC 720 – PSS@E – Model Writing – 1.8 CEUs

PSSC 790 – Reactive Power Planning Using PSS@E – 1.8 CEUs

PTEC 620 – Advanced Transmission Planning with Modern Network Analysis Tools (PSS@E, PSS@MUST, PSS@E OPF) – 2.7 CEUs

PTEC 635 – Transmission Reliability Study using PSS@E – 1.8 CEUs

Siemens Power Academy TD – NA
www.usa.siemens.com/energy/pti-education
518-395-5005; pti-edpro.ptd@siemens.com



General Information Course High-Voltage Switching Technology System Planning and Quality of Power Transmission Networks

Siemens Power Academy TD – Nuremberg, Germany
www.siemens.com/energy/power-academy-td
49 911 433-7005/7416/8008; power-academy.td@siemens.com

Transmission Conference: Evolution of the Grid Transmission Roundtable

RMEL; www.rmel.org; 303-865-5544; timblum@rmel.org

Transmission Planning and Analysis

GE Energy – Power Systems and Energy Course (PSEC)
www.ge-energy.com/psec; 518-385-2222; martin.shalhoub@ge.com

Underground T&D

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Horizontal Directional Drilling (ELEC-03208)

Cable Terminations (ELEC-03212)

Padmounted Transformer: Troubleshooting (ELEC-03309)

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PTEC 535 - Underground Cable Systems – Presented by Power Delivery Consultants Inc. – 2.7 CEUs

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Splicing and Terminating of Medium-Voltage Cables

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Cable Testing and Fault Location

AVO Training Institute; www.avotraining.com
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Other

Basic Electrical Troubleshooting

Basic Electricity

Electrical Print Reading

Electronics for Electricians

Electronics Troubleshooting

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2010 Calendar of Events

January

Jan. 10-13: National Utility Contractors Association's Utility Construction Expo '10, Orlando, Florida, U.S., (703) 358-9300; www.nuca.com

February

Feb. 3-7: 2010 ABC National Convention, San Diego, California, U.S., (703) 812-2000; www.abc.org

Feb. 10-17: NRECA 2010 Annual Meeting, Atlanta, Georgia, U.S., (703) 907-5500; www.nreca.org

Feb. 12-15: TechAdvantage 2010 Conference & Expo, Atlanta, Georgia, U.S., (703)907-5578; www.techadvantage.org

Feb. 22-25: APPA Legislative Rally, Washington, D.C., U.S., (202) 467-2900; www.appanet.org

March

March 7-11: IEEE/PES Transformers Committee Spring 2010 Meeting, Houston, Texas U.S., (732) 562-3900; www.transformerscommittee.org

March 14-18: Corrosion 2010, San Antonio, Texas, U.S., (281) 228-6200; www.nace.org

March 19-24: Power & Communication Contractors Association (PCCA) 2010 Convention, Walt Disney World, Florida, U.S., (703) 212-7734; www.pccaweb.org

March 21-26: 2010 International Conference of Doble Clients, Boston, Massachusetts, U.S., (617) 926-4900; www.doble.com

March 23-25: DistribuTECH Conference and Exhibition, Tampa, Florida, U.S., (918) 832-9265; www.distributech.com

March 24-25: Globalcon Energy, Power and Facilities Management Strategies and Technologies Conference & Expo, Philadelphia, Pennsylvania, U.S., (770) 447-5083; www.globalconevent.com

March 28-31: American Public Power Association (APPA) Engineering & Operations Technical Conference, Omaha, Nebraska, U.S., (202) 467-2942; www.appanet.org

April

April 18-21: American Public Works Association (APWA) 2010 North American Snow Conference, Omaha, Nebraska, U.S., (816) 595-5240; www.apwa.net

April 19-22: IEEE/PES, T&D Conference & Exhibitions, New Orleans, Louisiana, U.S., (504) 427-3390; www.ieeet-d.org

April 19-23: Energy Hannover Fair, Hannover, Germany, (609) 987-1202; www.hannovermesse.de

April 25-29: GITA's 2010 Geospatial Infrastructure Solutions Conference & Exhibition, Phoenix, Arizona, U.S., (303) 337-0513; www.gita.org

May

May 12-14: Lightfair International Trade Show & Conference, Las Vegas, Nevada, U.S., (212) 248-5000; www.lightfair.com

May 16-19: Utility Supply Management Alliance Annual Educational Conference 2010, San Antonio, Texas, U.S., (816) 532-4844; www.usma.com

June

June 5-9: Institute of Industrial Engineers Annual IIE Conference 2010, Cancun, Mexico (770) 449-0460; www.iieannual.org

June 13-16: Edison Electric Institute (EEI) 2010 Annual Convention and Expo, Hollywood, Florida, U.S., (202) 508-5131; www.eei.org

June 20-23: American Public Power Association (APPA) National Conference, Orlando, Florida, U.S., (202) 467-2900; www.appanet.org

June 20-23: Electric Utility Fleet Managers Conference 57th Annual (EUFMC), Williamsburg, Virginia, U.S., (757) 220-1795; www.eufmc.com

June 23-25: Southeastern Electric Exchange Annual Conference and Trade Show, Miami, Florida, U.S., (404) 233-1188; www.theexchange.org

July

July 14-17: National Society of Professional Engineers Annual Conference and Expo, Orlando, Florida, U.S., (703) 684-2800; www.nspe.org

August

Aug. 15-18: American Public Works Association 2010 (APWA) The Best in Show Public Works, Boston, Massachusetts, U.S., (816) 472-6100; www.apwa.net

Aug. 22-27: International Council on Large Electric Systems 43rd CIGRÉ Conference, Paris, France, www.cigre.org

September

Sept. 12: Rocky Mountain Electrical League (RMEL) Fall Convention, Tucson, Arizona, U.S., (303) 695-0089; www.rmel.org

Sept. 12-15: Utilimetrics International Symposium, Austin, Texas, U.S., (847) 480-9628; www.utilimetrics.org

Sept. 26-28: Utility Purchasing Management Group's 79th Annual Educational Conference, San Diego, California, U.S., (913) 768-7005; www.upmg.org

October

Oct. 4-8: Finepoint's Circuit Breaker Test & Maintenance Annual Conference, Pittsburgh, Pennsylvania, U.S., (707) 833-6288; www.circuitbreakerconference.com

Oct. 10-14: National Electrical Contractors Association (NECA) Convention Exposition, Las Vegas, Nevada, U.S., (301) 215-4507; www.necaconvention.org

Oct. 13-16: Association of Edison Illuminating Companies Annual Meeting, Kiawah Island, South Carolina, U.S., (205) 257-2530; www.aeic.org

Oct. 14-17: 27th Annual International Lineman's Rodeo & Expo, Overland Park, Kansas, U.S., (913) 967-1865; www.linemansrodeokc.com

Oct. 19-21: Instrument Society of America (ISA) Expo 2010, Houston, Texas, U.S., (919) 549-8411; www.isa.org

November

Nov. 7-9: Illuminating Engineering Society of North America Annual Conference, Toronto, Ontario, Canada, (212) 248-5000; www.iesna.org

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- ▶ Power Factor Testing
- ▶ Introduction to Asset Management
- ▶ Testing CTs using the CT Analyzer
- ▶ Sweep Frequency Response Analysis
- ▶ Moisture Determination & Dielectric Diagnostics of Transformers
- ▶ Basic of Partial Discharge (PD)
- ▶ and much, much more...

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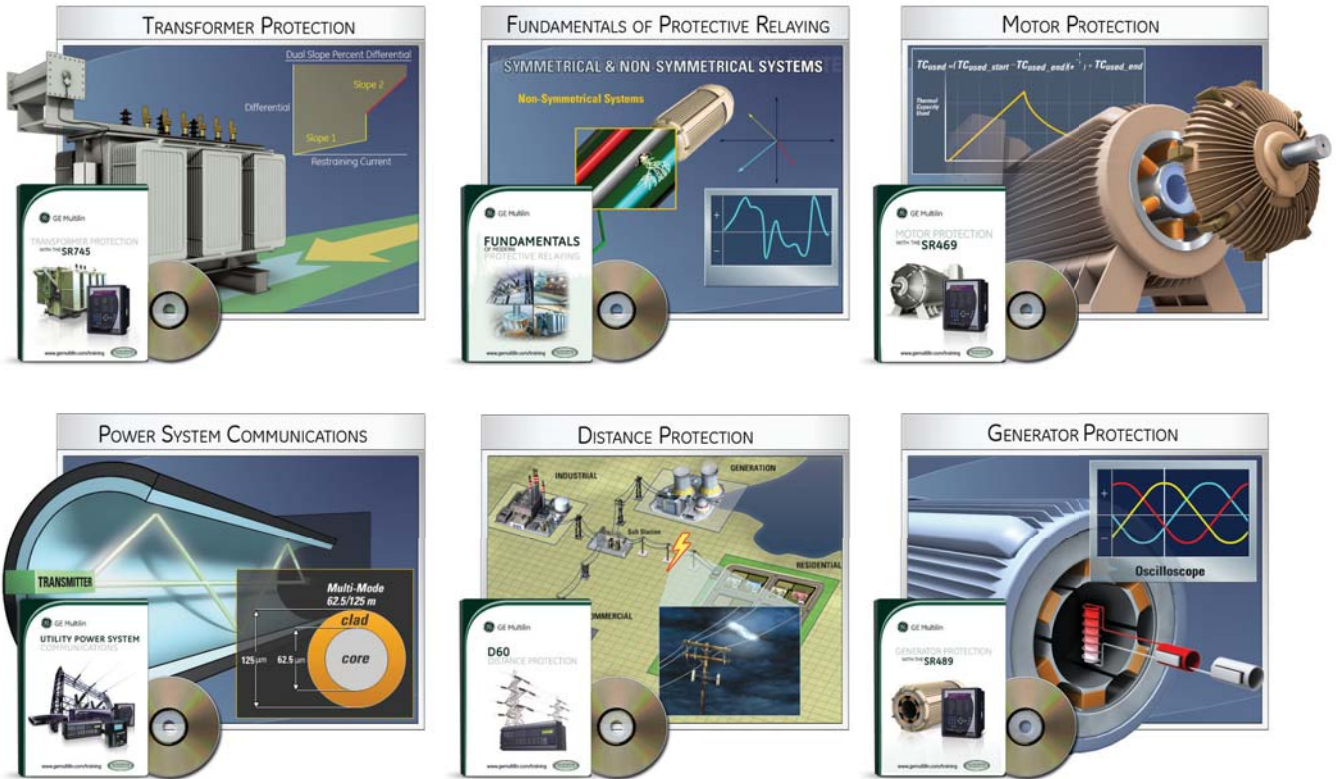
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