Electrical Substation Design Fundamentals, May 17-19

Protective Relaying Principles and Applications, May 20-21

GENERAL INFORMATION
Fee
The fee includes program materials, continental breakfast, lunch and breaks. Lodging and other meals are not included.

Lodging
You may make your own lodging arrangement at the facility of your choice. Hotel information will be mailed with your enrollment confirmation. When contacting the hotel, mention that you will be attending a UW-Milwaukee seminar. You may qualify for a discount.

Cancellations
Please call 414-227-4100 at least seven days before the course starts for a refund. Cancellations received less than seven days before the start of the course will be subject to a late cancellation fee. You may enroll a substitute at any time before the course starts, or you may apply the enrollment fee to a future course.

In the event the School cancels a class, the University of Wisconsin–Milwaukee will reschedule, refund fees or apply the fee payment to any other School of Continuing Education engineering classes offered in the next 12 months. Liability of cancellation is specifically limited to the amount of the pre-paid class fee and excludes any incidental or consequential damages.

Continuing Education Units (CEUs)
All programs in this catalog carry Continuing Education Units (CEUs). CEUs are a means of recognizing and recording satisfactory participation in nondegree programs. One CEU is awarded for each 10 contact hours (or equivalent) in an organized continuing education experience. All CEUs earned through the University of Wisconsin–Milwaukee School of Continuing Education become a part of your permanent record.

ONSITE TRAINING
Any program can be designed to meet your organization’s unique and specific employee development needs. There are many compelling advantages to partnering with UWM SCE. Maximize Convenience by choosing your optimal dates, times and location. Save Time with staff spending fewer hours away from work. Build Teamwork through group brainstorming and shared learning experiences. Custom Tailor Content to your needs to accomplish specific organizational objectives. Or, use the curriculum as-is.

For more information, contact Murali Vedala at 414-227-3121 or mvedala@uwm.edu.

For course outlines, instructor bios and certificate information visit sce-eng.uwm.edu

Message Code: FB-25-10-B

Keycode: ENG
**Power Systems Courses**

**ELECTRICAL SUBSTATION DESIGN FUNDAMENTALS**

This program is presented as an introductory course on the fundamentals for the electrical, civil and structural design issues of electric power substations. Topics cover safety, standards, site development, grounding practices, bus configurations, AC and DC ancillary systems, and major equipment. Examine practical issues important in developing an engineered solution. Current industry topics are integrated into the classroom presentation material. After this course, you will have a broad foundation for the development of new, and the upgrade of existing, substation facilities.

This course also provides an introduction to electrical substation engineering for non-electrical engineers, as well as a civil and structural introduction for non-civil/structural engineers.

**Who should attend**
The course curriculum is intended for, but not limited to, engineers in the first three years of a substation design position. This course can replace, or compliment, an existing training program. Engineers, managers interested in/or involved with the overall electrical power development of new, and the upgrade of existing, substation facilities. Substation Project Chronology: - Workflow and Project Sequence - Planning and Reliability - Site Identification and Acquisition - Engineering Design, Drawings and Documentation - Construction, Testing and Commissioning

**Day 1**

**Day 2**

**Day 3**

**Who should attend**
This course is for analysts, designers, engineers and technicians involved with the design, development or utilization of transmission lines, distribution lines, substations or medium voltage motors as well as anyone involved in protective relay selection and application.

**Instructor**
Anthony Sleva's experience includes design and analysis of transmission and distribution substations, power plant electrical systems, railway systems, and industrial plant electrical systems with an emphasis on protective relaying, short circuit analysis, electrical system operations, cold load inrush phenomena, and security of substation hardware.

He is a Senior Member of IEEE, graduate of Penn State University, licensed professional engineer in Pennsylvania and Maryland. Mr. Sleva has authored a textbook, “Protective Relay Principles and Applications”, which is provided for this course.

**PROTECTIVE RELAYING PRINCIPLES AND APPLICATIONS**

This program presents fundamental concepts of protective relaying. It covers basic fundamentals, important setting considerations and short circuit current calculations. You also learn how overcurrent, phase distance and differential relay settings are determined. You gain the ability to determine setpoints for protective relays commonly encountered in substations, switchyards and industrial plants for protection of feeders, lines, transformers, buses and motors.

**Who should attend**
This course is for analysts, designers, engineers and technicians involved with the design, development or utilization of transmission lines, distribution lines, substations or medium voltage motors as well as anyone involved in protective relay selection and application.

**Instructor**
Anthony Sleva's experience includes design and analysis of transmission and distribution substations, power plant electrical systems, railway systems, and industrial plant electrical systems with an emphasis on protective relaying, short circuit analysis, electrical system operations, cold load inrush phenomena, and security of substation hardware.

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**Seattle Hotel Information**
These two Seattle May courses will be held at the Crowne Plaza Hotel 1113 6th Ave. Seattle, WA 98101 To make hotel reservations call 1.800.521.2762. You must mention your attendance at the Electrical Engineering program offered by University of Wisconsin–Milwaukee to obtain the discounted rate. The block of rooms reserved for this program will be released to the general public by April 23, 2010. Room availability and discounted rates cannot be guaranteed after this time.

**Visit our website for other courses**
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