

Distribution Volt/VAr Management

March 20 - 22, 2018 (2.5 days)

Birmingham, AL

What is this course about?

Power Factor Correction and Voltage Regulation are essential components for distribution system efficiency and power quality. This course introduces attendees to these concepts and moves quickly into the characteristics and application for power capacitor and voltage regulators then expands to provide information that will be helpful in specifying features and accessories for both devices. Upon completion of the course students will be capable of diagnosing distribution feeders for the proper sizing and placement of this equipment.

Who should attend?

Distribution system managers, engineers and technical personnel of any experience level that have a need to understand efficiency and power quality issues will benefit from this course. Those individuals responsible for the application and operation of power capacitors and voltage regulators will find this course helpful.

Continuing Education Credits

Upon completion, attendees will receive a certificate for 18 Professional Development Hours (PDH). UC Synergetic Course have never been denied as continuing education by any state professional engineers board.

Instructor Bios:

David Sanchez is a Consulting Engineer for UC Synergetic. David has 16 years of experience in the power delivery industry including maintenance, operations, power quality, distribution system planning, distribution design, protection, system analysis, construction standards, asset management, reliability, and joint use. David has worked for investor owned electric utilities and has been recognized, not only for his technical skills, but customer service as well. David is a graduate of New Mexico State University and holds a B.S. Degree in Electrical Engineering Technology.

Jerry Josken is a Senior Consultant for UC Synergetic. Jerry holds a BS in Electrical Engineering Technology from the Milwaukee School of Engineering and a MBA from North Central College. During his 30+ year career with Eaton's Cooper Power Systems Jerry has served as Test Engineer, Design Engineer, Distribution Protection Engineer and Field Application Engineer. Past leadership positions include Chair of IEEE Rural Electric Power Conference (2012) and GLEMS Distribution Equipment /Controls (2013-2014). Presently, Jerry coordinates UCS Training Programs.

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Course Outline

Classes are held 8:30AM to 4:30PM Tuesday and Wednesday
Thursday 8:30AM to noon (local time)

Intro to Volt/VAr Management

- Power System Overview
- Power Quality Issues
- Volt/VAr Strategy

Volt/VAr Fundamental Calculations

- Resistance, Reactance, Impedance
- The Power Triangle
 - KW, KVAR, KVA
- System Loss Calculations
- Voltage Profile Analysis

Power Capacitors

- Characteristics & Application Factors
- Overcurrent Protection
 - Expulsion Fuses
 - Current Limiting Fuses
 - Switch Capacitor Banks
 - Switches
 - Sensors
 - Cap Controls

Voltage Regulators

- Characteristics & Application Factors
- VR Schematic & Nameplate
- VR External Components
- VR Controls

Voltage Regulator Controls

- Basic Setting
 - Set voltage, BW, TD, LDC
 - Features
 - Add Amp/Load Bonus
 - Reverse Power Operation

Bypassing Voltage Regulators

Padmount Volt/VAr Equipment

Transient Overvoltage Protection

- Power Capacitor Banks
- Voltage Regulators

Placement/Coordination of Volt/VAr devices:

- Cap Bank/Cap Bank
- VR/VR
- VR/Cap Bank

Special Application Considerations

- Dispersed Generation
- Auto Feeder Reconfiguration

Integrated Volt/VAr Control

- Conservation Voltage Reduction

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Course Location

This course will be held at the Hilton Garden Inn - Birmingham
The street address is:

Hilton Garden Inn
520 Wildwood Circle Drive
Birmingham, AL 35209

Lodging

No block of rooms have been reserved at any hotel for this seminar.

Suggested hotels:

Hilton Garden Inn
520 Wildwood Circle Drive
Birmingham, AL 35209
Phone: 205-314-0274

Course Registration

The course tuition is \$1495 per person. Tuition will include course materials, refreshments, and lunches on Tuesday and Wednesday. Any company with four or more attendees will save 25%. Contact Jerry Josken (jjosken@ucseng.com) for more information.

Hotel accommodations, transportation and other incidentals will be the student's responsibility.

[Click here to register online](#) or complete the attached registration form. Cancellations received after March 9, 2018 will receive a credit that can be used for tuition on a future UC Synergetic Course. The credit is good for one year and is transferable within the same company. In the unlikely case of course cancellation, UC Synergetic liability is limited to refund of the course registration fee only.

For additional information about this course, other UCS course offerings, or on-site pricing, please contact Jerry Josken at (919) 348-3234 or via e-mail at: jjosken@ucseng.com.



Registration Form – Distribution Volt/VA Management

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Payment methods:

By check, payable to UC Synergetic, Inc. Please attach check to the registration and mail to the address below.

--or--

By credit card. An electronic invoice will be sent to you via email**. This is a secure payment method through PayPal. It does not require a PayPal account.

Circle one: Enclosed is a check for Please charge my credit card in the amount of \$1495.00

Credit Card Type: Card Number:

Name on Card:

Please Complete the Information Below: (attach additional sheets for multiple registrations)

Attendee Name Title

E-mail:

Please provide email address if you would like confirmation of your registration or would like to pay online through PayPal.

Company:

Telephone:

Fax:

Address:

City: State Zip

For payment by check, PO, or other questions regarding payment, please contact:

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