

# ELECTRICAL POWER ENGINEER!NG SEMINARS

**FALL 1991** 



INDUSTRIAL AND COMMERCIAL POWER SYSTEMS

PROTECTION OF CO-GENERATION PLANTS

LARGE STORAGE BATTERIES FOR STATIONARY USE

# POWER ENGINEERING COURSE INFORMATION

# **Convenient Registration**

At the IEEE, we make your registration easy and convenient:

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- Simply Fax us your completed registration form, indicating method of payment, to (908) 562-1571, 24 hours daily
- Mail us your completed registration form with payment to: IEEE Standards Seminars Attn: C.P.
   445 Hoes Lane
   P.O. Box 1331
   Piscataway, NJ
   08855-1331, USA
- Telephone us at (908) 562-3805 anytime between 9:00 am-5:00 pm Eastern time, Monday through Friday

If you're registering within 3 weeks of the course date, please call us to confirm course availability. We will promptly process your registration and send you a confirmation letter detailing seminar, hotel, and ground transportation information. Please see the attached seminar registration form.

# **Expert Instructors**

Each IEEE seminar is conducted by a team of experts in their field, thoroughly versed in the subject matter of their course, knowledgeable of all IEEE industry standards relating to that course, and backed by years of solid industry experience.

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If necessary, IEEE reserves the right to substitute instructors. Substitute instructors will be of equal caliber to the instructors highlighted in this brochure.

# Accommodating Course Schedules

The seminars begin between 8:00 am and 9:00 am each day, with course registration occurring on the first morning, 30 minutes prior to the seminar. Lunch and timely breaks are provided daily. Courses adjourn at approximately 5:00 pm.

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## **CEU Awards**

The Continuing Education Unit (CEU) is a standard measure for non-credit continuing education programs. One CEU is awarded for every ten contact hours of IEEE course participation. When you successfully complete our seminars, you'll receive an IEEE Certificate stating the CEUs you have earned.

# Substitutions and Cancellations

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Substitutions may be made at any time. Cancellations may be made up to 10 working days before the seminar. Cancellations made within 10 working days of the course date are subject to a \$200 cancellation processing fee. If you must cancel, be sure to obtain a cancellation number from our Registrar to ensure proper credit. The IEEE must charge the full registration fee if the registered participant fails to attend.

In the unlikely event of a seminar cancellation, IEEE's liability is limited to the prompt refund of the registration fee paid.

# Support Material

Attendees of IEEE's Power Engineering Seminars receive a wealth of valuable support material, including various IEEE standards relating to recommended practices involving the implementation of commercial and industrial power systems. If you are unable to attend any of our courses, but would like to order the IEEE support material, please use the attached order form.

# **IEEE SAVINGS**

# Team Registration Savings

If three or more people from your organization sign up for one or more seminars, you save 10% on each registration fee. You must register at the same time and let us know that you are part of a team. Just photocopy the attached order form for each team member and save 10% per person.

# Tax-Deductible Fees

The IEEE registration fees you incur for continuing your professional education to maintain and improve your on-the-job skills are fully tax deductible. Please see the seminar descriptions inside for individual course fees.

#### **Hotel Discounts**

Although arrangements for hotel accommodations are your responsibility, if you call the course hotel and mention that you're attending an IEEE seminar pro-

gram, you'll receive a special group discount. A block of rooms will be held until 30 days prior to each course date, so reserve your rooms today. For hotel information on each seminar, refer to the inside seminar information.

# IEEE's Airline Savings

American Airlines is the official airline of IEEE Standards Seminars. Call American Airlines at 1 (800) 433-1790 and mention IEEE Standards Seminars and Star File S05Z1BZ. You will receive a 45% discount off regular coach fares or 5% off special fares!

# IEEE's SPECIAL SERVICES

## **On-Site Seminars**

As a fast and cost-effective means of training your staff, the IEEE provides an on-site seminar program. Under this program, the IEEE can custom-tailor a course to your organization's needs and conduct it at your location.

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With today's high travel costs, the savings that an on-site seminar produces can be quite substantial. Likewise, the opportunity for your staff to train together fosters a better and faster understanding within your team.

# For additional information on IEEE Standards Seminars, call (908) 562-3805.

IEEE Standards Seminars are copyrighted and may not be recorded in any form. All prices in this brochure are subject to change.

# IEEE'S EXPERTS in POWER ENGINEERING

#### Carl E. Becker

For 27 + years, Mr. Becker has worked for the Cleveland Electrical Illuminating Company designing and supervising the design of customer stations of up to 138 ky - and some several hundred megawatts in size. Backed with an MBA from Case Western Reserve Univeristy and a BSEE from Ohio University he has taught collegelevel courses in power system analysis and electrical energy conservation, while conducting various seminars relating to electrical energy conservation. Mr. Becker is supervisor of the Customer Engineering Unit at the Cleveland Electric Illuminating Company, and he participated in the development of the IEEE recommended practice for energy conservation and planning in industrial facilities

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#### Jack Bellack

Mr. Bellack is a former General Supervising Engineer for the Cleveland Electric Illuminating Co., with experience in designing fossil-fueled power plants, substations, and the Perry Nuclear Plant. A Fellow of the IEEE, Mr. Bellack organized the IEEE Working Group on Batteries, which he chaired for 18 years. He has also served on many IEEE working groups and subcommittees of the Power Generation and Substation Committee. In addition. Mr. Bellack served as Chair of the Cleveland Section of the IEEE. He is a registered Professional Engineer in the state of Ohio

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#### Kao Chen

Mr. Chen, President of Carl-sons Consulting Engineers, has extensive experience in energy management for industrial and commercial facilities. During the 1970s, he was instrumental in establishing a comprehensive and highly successful relighting program to enhance the national energy conservation effort. During the 1980s, he served as Chair of the Production and Application of Light Committee and the Industrial Utilization Systems Department of the IEEE Industry Applications Society. A life fellow of the IEEE, Mr. Chen has published over 70 papers and articles on energy management and conservation. He has authored chapters for several of the IEEE

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Color Books standards, being a major contributor to the IEEE Bronze Book. Mr. Chen is a registered Professional Engineer in NJ and NY.

#### Joseph Cristino, PE

. . . . . . . . . . . . . . . . . . . Joseph Cristino, President and Principal Engineer of Cristino Associates Inc., provides instruction on substation battery installation. maintenance, and testing. His prior work experience includes 18 years with Northeast Utilities in the test division. During that time, he authored edited and produced the Northeast Utilities Battery Maintenance video tape entitled Keeping the Heart Healthy. Mr. Cristino is a registered Professional Engineer in Connecticut, Maine, and Massachusetts, and has served on the IEEE working group on batteries since 1987.

# Walt A. Elmore

. . . . . . . . . . . . . . . . . . Manager of the Consulting Engineering Section of ABB Power T & D Company, Mr. Elmore provides much expertise in the classroom. His papers have appeared in IEEE Transactions, and the proceedings of the Texas A&M. Georgia Tech, Pennsylvania Electric Association, and Western Protective Relaying conferences. He has also published articles in Electrical World and Transmission and Distribution magazines, and has authored six chapters in the book Applied Protective Relaying. Mr. Elmore is an IEEE Fellow

#### Daniel L. Goldberg

Mr. Goldberg worked for the Port Authority of New York and New Jersey for 35 years (16 of them as the Chief Electrical Engineer) where he was responsible for a variety of electrical engineering projects, including expansions at Kennedy, Newark, and LaGuardia airports; construction of piers and a marine passenger ship terminal; electrical system modifications at New York City's World Trade Center; and construction of an industrial site. A Fellow of the IEEE,

Mr. Goldberg chaired the working group that developed the 1974 edition of the IEEE published standard on electrical power systems in commercial buildings. He is currently assisting in the updating process of these and related standards materials.

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Mr. Griffin is former Manager of

#### Clayton H. Griffin

System Protection and Control at Georgia Power Company, where he was responsible for all relay application engineering, field test engineering, and SCADA installation on the system. From 1974 to 1988, he served on the faculty of the School of Electrical Engineering at Georgia Tech, teaching graduate and undergraduate courses in power system relaying An expert in his field and a Fellow of IEEE, Mr. Griffin's papers have been published in IEEE Transactions on Power Apparatus and Systems Flectrical World and Transmission and Distribution, and in proceedings of the Georgia Tech and Pennsylvania Electric Association relaying conferences.

#### M. Shan Griffith

Mr. Griffith is Technical Design Manager in Electrical Engineering and Design at Brown & Root USA, Inc. A Fellow of IEEE and past Chair of the Industrial and Commercial Power Systems Department of the IEEE's Industry Applications Society, Mr. Griffith is a highly active member of the power engineering community. His expertise is reflected in a number of IEEE standards in the power engineering arena, including those relating to system and equipment protection.

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#### Pat O'Donnell

Mr. O'Donnell is a Consulting Electrical Engineer for El Paso Natural Gas Company. His work involves all aspects of the design and application of industrial electric and power and control systems including primary responsibility for developing company electrical engineering standards. In addition to his dedicated activity within the IEEE's Industry Applications Society, Power Systems Technologies Committee, and Emergency and Standby Power Systems Subcommittee, Mr. O'Donnell chaired the committee that produced the latest edition of the IEEE recommended practice for emergency and standby power systems.

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# Louie J. Powell

Application Development, at GE's Industry Services Engineering Department, developing electric power distribution systems for industry. With 20 + years experience in industrial power systems, his principal expertise resides with design and protection of large systems operating at medium and high voltages. He has authored and co-authored numerous technical papers presented at the IEEE, American Power Conference, and regional technical conferences. An asset in the classroom, he has taught seminars on power systems protection throughout the world and for four years he was on the Adjunct Faculty of the Center for Electrical Power Engineering at Rensselaer Polytechnic Institute.

Mr. Powell is Manager, Power Systems

#### George Rockefeller

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Mr. Rockefeller, President of Rockefeller Associates, has over 40 years of professional experience in the electric power industry. He was Section Manager at Consolidated Edison Company in New York City, and an Application Engineer at Westinghouse Relay-Instrument Division. While at Westinghouse, he directed the 1971 project that resulted in the world's first field installation of a computer relaying system. A Fellow of the IEEE, he has authored several books and over 30 technical papers. He lectures extensively in the field of power system relaying, and directs a course at the Center for Professional Development.

#### Stan E. Zocholl

Mr. Zocholl is Director of Protection Technology at ABB Power T & D Company, Protective Relay Division. He holds over a dozen patents associated with power system protection using solid state tech nology, and was responsible for the development of solid state overcurrent, ground, reclosing, and other protection relays and static trip devices. A fellow of the IEEE, his papers have appeared in IEEE Transactions and the proceedings of the Texas A&M, Georgia Tech, Pennsylvania Electric Association, and the Western Protective Relaying conferences.

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# **ENERGY** MANAGEMENT

In Industrial and **Commercial Facilities** 

An Essential 2-Day **IEEE Standards Seminar** 

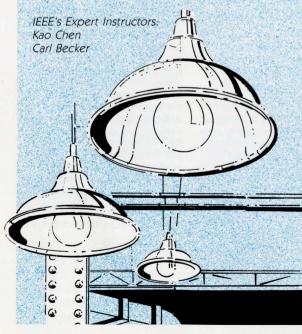
# Course Overview

In this seminar, you'll learn about:

 Electrical energy conservation in industrial and commercial facilities

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- Organizing and managing an effective energy conservation program
- Efficiency and loss evaluation in equipment
- Energy conservation in lighting systems
- New concepts in efficient room lighting designs
- State-of-the-art lighting energy standards
- The interaction of lighting with other building subsystems
- Survey and appraisal techniques of energy and utility systems using energy accounting methods
- Economic models and utility rate structures to determine the cost of electricity and evaluate loss
- Demand control techniques for load management
- Energy saving devices
- Co-generation technology
- World energy scenarios and their effects on the environment



n today's power-driven society, mankind has been forced to take a serious look at the world energy situation, and to take strides to conserve its endangered supply. Energy's biggest consumer, industrial and commercial businesses, are obliged now more than ever to evaluate their costly, and often extravagant, use of our valued energy resources. If industry is to conserve energy and curtail its associated costs, it must begin to look at new energy efficient practices and methods of doing business. This seminar is one of the few resources available today that offer engineers solutions for energy conservation founded on state-of-the-art technology. Based on IEEE Std 241-1990 and IEEE Std 739-1984, this essential course covers the latest methodologies for organizing, implementing, and managing energy conservation programs at industrial and commercial facilities. Upon completion, you'll understand how to utilize high efficiency components in systems and energy effective designs and operations at facilities... establishing a successful energy conservation program and achieving significant energy savings at your facility.

# **Benefits Gained**

When you're back on the job, apply your new expertise and:

- Make smart, economic justifications for installing an energy management system in your work environment
- Competently plan and manage an energy conservation program
- Curtail costs by reducing energy use through more effective housekeeping measures
- Achieve significant energy savings in existing plant processes
- Properly analyze and measure energy savings for electrical equipment and machines
- Evaluate lighting systems and
- Save lighting energy by applying innovative design approaches
- Apply sound load and demand control concepts
- Perform feasibility analyses of cogeneration

# Who Should Attend

................... Anyone who manages industrial and commercial facilities or systems and is involved in the planning, design, maintenance, and operation of electrical manufacturing and supporting equipment with energy saving objectives, especially:

- System Engineers, Designers, and Consultants
- Industrial and Commercial Plant Management

- Facility Engineers
  - Field Construction and Start-up Engineers
  - Project and Equipment Application Engineers

# **Date and Location**

Phoenix, AZ Sept. 26 – 27, 1991 Hotel Westcourt 10220 N. Metro Parkway East Phoenix, AZ 85051 (602) 997-5900 Room rate: \$85 (single or double occupancy)

# Support Material

■ IEEE Recommended Practice for Electric Power Systems in Commercial Buildings, IEEE Std 241-1990

- IEEE Recommended Practice for Energy Conservation and Cost-Effective Planning in Industrial Facilities, IEEE Std 739-1984
- A complete lecture notebook

# Seminar Fees

Fee: \$795 IEEE Members: \$750 The IEEE registration fee includes continental breakfast, lunch, and refreshments.

1.3 Continuing Education Units An IEEE Certificate of Completion

Learn the latest concepts and practices of electrical energy conservation in industrial and commercial facilities!

# Planning, Design, Protection, Operation, and Maintenance INDUSTRIAL AND COMMERCIAL **POWER SYSTEMS**

A Comprehensive 3-Day **IEEE Standards Seminar** 

# Course Overview

In this seminar, you'll learn about:

 Industrial power system design, configurations, grounding, and voltage considerations

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- Principles of systems analysis and specialty studies
- Equipment protection (transformer, bus, cable circuit, motor and generator)
- Commercial building designs, power distribution, voltages, and currents
- Short circuit calculations and interrupter applications
- Emergency power types, applications, and ratings
- Electrical safety, testing, preventive/ routine maintenance, and special requirements
- IEEE reliability survey on failure rates and downtimes

engineers, this seminar focuses on the safe and effective design, operation, and protective maintenance of industrial and commercial power systems. It presents both existing approaches and new techniques involving systems design, equipment protection, commercial power distribution, emergency back-ups, and more. Based on the IEEE's "Color Book" series of standards relating to today's power systems, this highly informative course offers engineers worldwide the most up-to-date, reliable data on the protective and effective implementation of industrial and commercial power systems.

eveloped specifically for today's electrical and electronics

# **Benefits Gained**

When you're back on the job, you'll Phoenix, AZ Sept. 23 – 25, 1991 be able to:

- Effectively plan an industrial or commercial power system
- Properly appraise and select breakers, fuses, and related equipment
- Provide for easy, cost-effective power system operation, maintenance, and protection

# Who Should Attend

- Design/Consulting Engineers
- Plant/Facility Engineers
- Construction/Maintenance Staff
- Start-up Engineers
- Protection Equipment Engineers
- Anyone involved with power systems

IEEE's Expert Instructors: M. Shan Griffith Carl E. Becker Daniel L. Goldberg Pat O'Donnell

# **Dates and Locations**

Hotel Westcourt 10220 N. Metro Parkway East Phoenix, AZ 85051 (602) 997-5900 Room rate: \$85 (single or double occupancy)

 Orlando, FL Nov. 20 – 22, 1991 Marriott Orlando Hotel 8001 International Drive Orlando, FL 39819 (407) 351-2420 Room rate: \$85 (single or double occupancy)

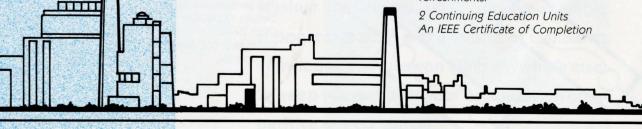
# Support Material

■ The Complete Set of IEEE Color Books (Nine Recommended Practices for industrial and commercial power systems - a \$271 Value!)

A complete lecture notebook

# Seminar Fees

Fee: \$990 IEEE Members: \$940 The IEEE registration fee includes continental breakfast, lunch, and refreshments.



Cost-Effectively Protect Your Power Systems!

# PROTECTION OF CO-GENERATION PLANTS

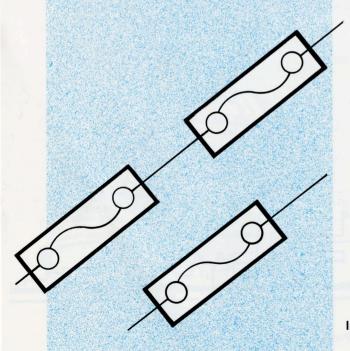
Paralleled with Utility Transmission Systems

A Dynamic 3-Day IEEE Standards Seminar

# Course Overview

In this seminar, you'll learn about:

- System planning, protection, and coordination
- Basic principles of symmetrical components and instrument transformers
- Synchronous and induction generator protection principles
- Setting relay systems for cogeneration configurations
- Transformer protection, bus protection, feeder protection, and motor protection
- Automatic load shedding
- Protection of various types of plant and utility interface substations
- Relay protection of the utility transmission system



his seminar is designed for those involved with the planning, design, operation, and/or protection of co-generation facilities — particularly those facilities operating in parallel with a utility. ■ Detailing application criteria for all types of protective systems, this seminar reviews symmetrical components, transformers, and planning and coordination techniques. ■ Protection principles are addressed relating to synchronous and induction generators, co-generation plant electric supply systems, plant and utility interface substations, and utility transmission systems. ■ Based on various industry-recognized IEEE standards, this seminar offers the most current recommended practices for the protection of co-generation plants.

## **Benefits Gained**

When you return to the job, you'll have the expertise to:

- Coordinate and protect plant and utility interface substations in your environment
- Perform relay-setting calculationsSelect current transformer rations
- Select and coordinate fuses
- Realize the effects of plant grounding variations on protective systems design

# Who Should Attend

Anyone involved with the design, operation, and maintenance of cogeneration facilities, especially:

- System Engineers
- System Designers
- Industrial Manufacturing Management
- Consulting Engineers
- Electric Utility Personnel

#### Date and Location

Denver, CO Oct. 15 – 17, 1991
The Brown Palace Hotel
321 Seventeenth Street
Denver, CO 80202
(303) 297-3111
Room rate: \$90 (single or double occupancy)

# Support Material

A \$277 value!

- IEEE Guides and Standards for Protective Relaying Systems, Spring 1991 Edition
- IEEE Guide for Safety in AC Substation Grounding, IEEE Std 80-1986
- IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, IEEE Std 242-1986
- IEEE Recommended Practice for Industrial and Commercial Power Systems Analysis, IEEE Std 399-1990
- IEEE Guide for Interfacing Dispersed Storage and Generation Facilities with Electric Utility Systems, IEEE Std 1001-1988
- A complete lecture notebook

# Seminar Fees

Fee: \$990 IEEE Members: \$940 The IEEE registration fee includes continental breakfast, lunch, and refreshments.

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2.1 Continuing Education Units
An IEEE Certificate of Completion

IEEE's Expert Instructors: Clayton H. Griffin W.A. Elmore L.J. Powell George Rockefeller S.E. Zocholl

Implement the Latest IEEE Practices for Co-Generation Plant Protection!

he largest professional technical society in the world with over 300,000 members worldwide, the IEEE (Institute of Electrical and Electronics Engineers) is a leading developer of today's industry standards.

IEEE standards are subjected to a strict consensus approval process that ensures their technical accuracy and industry applicability and integrity. That's why they're used

by today's leading manufacturers, utilities, government agencies, research labs, and universities. To advance your professional skills and the competitive stature of your organization, you need to know your standards and how to apply them in your environment.

IEEE seminars are tailored to meet your

particular requirements, covering relevant industry standards that add value to your organization. Each IEEE seminar is led by a team of industry experts, many of whom participated in developing the standards — so you not only get the specifications, you get the rationale behind the standard and learn how the standard directly applies to you. As an IEEE seminar participant, you'll receive valuable

knowledge you just won't find anywhere else.

To keep yourself and your organization competitive, enroll today!

support materials and a wealth of standards

# LARGE STORAGE **BATTERIES FOR** STATIONARY USE

Design, Installation, Operation, Maintenance, and Testing

A Concentrated 1-Day **IEEE Standards Seminar** 

# Course Overview

In this seminar, topics include:

- An overview of the IEEE Recommended **Practices for Battery Systems**
- Battery location and environmental requirements
- Handling, storage, mounting, initial measurement, and start-up
- Float voltage, charging, maintenance inspections and timing, operational limits, variation with corrective actions, and their timing
- Acceptance, performance, service, and special testing
- Analysis of test data, expected variations, and correlation with maintenance data
- Battery and cell replacement
- Test results, degradation, safety considerations, and timing
- Nuclear Class 1E applications
- Recent interpretation requests of IEEE Std 450

his specialized seminar is developed for utility personnel in plants or substations; technical staff involved in battery design installation, operation and maintenance; and personnel staff at standby design installations. Based on IEEE's industry-recognized Recommended Practices for Battery Systems, this one-day program provides the most accurate and current information available on battery design and installation requirements, testing techniques, battery and cell replacement, operational limits, and maintenance. Upon completion, you'll know the detailed application criteria required to effectively select, size, install, and maintain large storage batteries.

# **Benefits Gained**

When you complete this seminar. you'll know:

- Application criteria for battery design, installation, maintenance, and test
- What effects battery performance
- How to select the right battery for your application
- How to determine load requirements

# Who Should Attend

Anyone involved in battery design, test, troubleshooting, or maintenance of battery installations should attend this seminar, partic-

- Utility Technical Staff
- Personnel at Standby Installations
- Plant/Substation Technical Staff
- Electric Utility Personnel

IEEE's Expert Instructors Jack Bellack Joe Cristino

# **Date and Location**

Atlanta, GA November 5, 1991 The Ritz-Carlton Atlanta Hotel 181 Peachtree Street, NE Atlanta, GA 30303 (404) 659-0400 Room rate: \$99 (single or double occupancy)

# Support Material

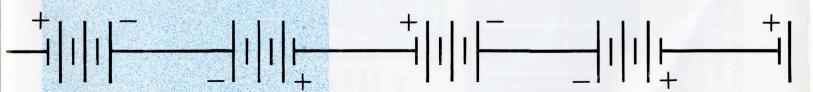
As a seminar participant, you will receive the following reference materials (A \$72 Value!)

- IEEE Stationary Battery Standards Collection, Summer 1991 Edition
- A complete lecture notebook

#### Seminar Fees

Fee: \$490 IEEE Members: \$440 The IEEE registration fee includes continental breakfast, lunch, and refreshments.

0.7 Continuing Education Units An IEEE Certificate of Completion



Effectively Select, Size, Install, and Maintain Large Storage Batteries

# SEMINAR REGISTRATION FORM

Fax: (908) 562-1571 Call: (908) 562-3805

Please photocopy this form for other members of your staff or team.

POWER ENGINE	ERING REGIST	RATION		Check here if this confirms a registration you already made by phone.
Energy Management ☐ September 26-27, 1991 Fee: \$795	Phoenix, AZ IEEE Member: \$750	Industrial and Commerci September 23-25, 1991 November 20-22, 1991 Fee: \$990	Phoenix, AZ	Check here if you would like information on our spring power seminars.  TOTAL FEE:  LESS GROUP
Protection of Co-Generation		Large Storage Batteries for Stationary Use		DISCOUNT: (10% for 3 or
October 15-17, 1991 Fee: \$990	Denver, CO IEEE Member: \$940	<ul><li>November 5, 1991</li><li>Fee: \$490</li></ul>	Atlanta, GA IEEE Member: \$440	more attendees)

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Quantity	IEEE Standards	Product No.	List Price	Member Price*	Total
	Complete Set of IEEE Color Book Series	SH12682	\$271.00	\$189.70	
nov c	IEEE Recommended Practice for Electric Systems in Health Care Facilities, IEEE Std 602-1986	SH10256	\$46.00	\$32.20	
item se	IEEE Guides and Standards for Protective Relaying Systems, Spring, 1991 Edition	SH14399	\$95.00	\$66.50	
work	IEEE Guide for Safety in AC Substation Grounding, IEEE Std 80-1986	SH10579	\$42.00	\$29.40	
i no si	IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, IEEE Std 242-1986		\$41.00	\$28.70	
	IEEE Recommended Practice for Industrial and Commerical Power Systems Analysis, IEEE Std 399-1990	SH13433	\$46.00	\$32.20	
Souls Souls	IEEE Guide for Interfacing Dispersed Storage and Generation Facilities with Electric Utility Systems, IEEE Std 1001-1980	SH12405	\$65.50	\$45.85	
	IEEE Stationary Battery Standards Collection, Summer, 1991 Edition		\$72.00	\$50.40	

Add Applicable Sales Tax on CA, DC, NJ, NY Shipments:

Postage/

- IEEE Member number must be included in order.
- Postage & Handling for orders totaling \$1-\$50 US dollars, add \$4; \$51-\$75, add \$5; \$76-\$100, add \$6; \$101-\$200, add \$8; over \$200, add \$15.

7/91

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# **IEEE STANDARDS DEPARTMENT**

ATTN: C.P. 445 HOES LANE, PO BOX 1331 PISCATAWAY, NJ 08855-1331, USA