

Institute For Technical Advancement

| 908-494-1353 | Fax 732-748-1422 | www.ita-seminars.com

Winter/Spring
2018

- **Take 20 hours and get 4 additional hours for \$50.00! ***

*(Doesn't apply to 10 hour NEC Code Review)



- 34 hour Package only \$649. \$220.00 discount!
- Full course listing at our website: www.ita-seminars.com
- Refreshments and coffee at each seminar.
- All seminars are subject to cancellation or rescheduling.
- We are approved in many states. Call for more info.

New Topics:

1. Microgrid Technology - 4 hours*
2. The DC Connected Home - 8 hours*
3. Lighting for Energy Savings - 8 hours*



4. A/C and Refrigeration Equipment - 4 hours*
5. Class I, II & III Circuits - 4 hours*
6. Wireless Power Control Networks - 8 hours*
7. Medium Voltage Systems - 4 hours*
8. Commercial Energy Retrofit - 8 hours*

*course description on the other side and the website: www.ita-seminars.com

10 hour 2017 NEC Electrical Code Update Seminar

All courses have been approved by NJ Board of Electrical Contractors for continuing education requirements.

PHILADELPHIA/CHERRY HILL

Holiday Inn

2175 Marlton Pike, Cherry Hill, NJ 08002

856-663-5300

Course #:

(C2-17) January 26, Fri., 8:00 am to 4:00 pm

February 2, Fri., 8:00 am to 11:00 am

** for additional 4 hours on February 2 look for C18-1MVS

TRENTON

Ramada Inn Bordentown

1083 Rt. 206 N., Bordentown, NJ 08050

609-298-3200

Course #:

(B3-17) March 22, Thu., 8:00 am to 4:00 pm

March 23, Fri., 8:00 am to 11:00 am

** for additional 4 hours on March 23 look for B18-1VFD

HAZLET

Holiday Inn Hotel

2870 Highway 35, Hazlet, NJ 07730

732-888-2000

Course #:

(HT3-17) January 11, Thu., 8:00 am to 4:00 pm

January 12, Fri., 8:00 am to 11:00 am

** for additional 4 hours on January 12 look for HT18-1EVC

LINDEN/CLARK

Holiday Inn - New

36 Valley Road, Clark, NJ 07066

732-574-0100

Course #:

(L3-17) February 24, Sat., 8:00 am to 4:00 pm

February 25, Sun., 8:00 am to 11:00 am

** for additional 4 hours on February 25 look for L18-1EVC

BRIDGEWATER/SOMERSET

Clarion Hotel

60 Cottontail Lane, Somerset, NJ 08873

732-560-9880

Course #:

(S2-17) January 6, Sat., 8:00 am to 4:00 pm

January 7, Sun., 8:00 am to 11:00 am

** for additional 4 hours on January 7 look for S18-1MVS

(S3-17) March 3, Sat., 8:00 am to 4:00 pm

March 4, Sun., 8:00 am to 11:00 am

** for additional 4 hours on March 4 look for S18-145

PARSIPPANY

Days Inn Hotel

3159 Rt. 46 East, Parsippany, NJ 07054

973-335-0200

Course #:

(P5-17) February 12, Mon., 8:00 pm to 1:00 pm

February 13, Tue., 8:00 pm to 1:00 pm

(P6-17) March 15, Thu., 8:00 am to 4:00 pm

March 16, Fri., 8:00 am to 4:00 pm

** for additional 4 hours on March 16 look for P18-3MGT

LOOK ! * * You can get 14 hours in just 2 days!

Take a 10 hr. code review with a 4 hr.

seminar the same day at the same location



Each attendee is required to bring a 2017 NEC Code Book or recognized book of 2017 Code changes for the 10 hour 2017 NEC Code Review Seminar.

For your convenience 2017 NEC Code Book and 2017 Illustrated Changes to the Code are available for sale at each seminar.

Rescheduling policy:

Rescheduling prior to 7 days in advance pending availability.

Rescheduling less than 2 days in advance, all prior payments consider forfeited

No show: payment consider forfeited.

Rescheduling and scheduling unused credits pending class availability.

Call Joanna to sign up for courses 908-494-1353

email: joanna@ita-seminars.com



24 hour NJ Board Approved Seminars

PHILADELPHIA/CHERRY HILL

Holiday Inn

2175 Marlton Pike, Cherry Hill, NJ 08002

856-663-5300

Course #:

- (C18-1CER) **Commercial Energy Retrofit**, Jan. 20, Sat., 8 to 5 pm
- (C18-1MVS) **Medium Voltage Systems**, Feb. 2, Fri., 12 pm to 4 pm
- (C18-1AR) **A/C & Refrigeration Equipment**, March 8, Thu., 8 am to 12 pm
- (C18-1MGT) **Microgrid Technology**, March 8, Thu., 1 pm to 5 pm

TRENTON

Ramada Inn Bordentown

1083 Rt 206 N, Bordentown, NJ 08050

609-298-3200

Course #:

- (B18-2DC) **The DC Connected Home**, March 19, Mon., 8 am to 5 pm
- (B18-2ES) **Electrical Safety**, March 20, Tue., 8 am to 5 pm
- (B18-1LS) **Lighting for Energy Savings**, March 21, Wed., 8 am to 5 pm
- (B18-1VFD) **VFDs**, March 23, Fri., 12 pm to 4 pm

MILLVILLE

Quality Inn

1701 N 2nd Street, Millville, NJ 08332

856-327-3300

Course #:

- (M18-1C) **Calculations**, Jan. 27, Sat., 9 am to 6 pm
- (M18-1OP) **Overcurrent Protection**, Feb. 23, Fri., 9 am to 1 pm
- (M18-1M) **Motors & Motor Controls**, Feb. 23, Fri., 2 pm to 6 pm

TOMS RIVER

Howard Johnson

955 Hooper Avenue, Toms River, NJ 08753

732-244-1000

Course #:

- (TR18-1GN) **Generators Res. & Commercial**, Feb. 21, Wed., 8 am to 5 pm
- (TR18-1T) **Transformers**, March 9, Fri., 8 am to 12 pm
- (TR18-1CR) **Conduits & Raceways**, March 9, Fri., 1 pm to 5 pm

HAZLET

Holiday Inn

2870 Highway 35, Hazlet, NJ 07730

732-888-2000

Course #:

- (HT18-1GB) **Grounding & Bonding**, Jan. 8, Mon., 8 am to 5 pm
- (HT18-1ES) **Electrical Safety**, Jan. 9, Tue., 8 am to 5 pm
- (HT18-2GN) **Generators Res. & Commercial**, Jan. 10, Wed., 8 am to 5 pm
- (HT18-1EVC) **Electrical Vehicle Chargers**, Jan. 12, Fri., 12 pm to 4 pm
- (HT18-1SC) **Service Calculations**, Feb. 8, Thu., 8 am to 5 pm
- (HT18-1DC) **The DC Connected Home**, March 7, Wed., 8 am to 5 pm
- (HT18-1CC) **Class I, II, III Circuits**, March 27, Tue., 8 am to 12 pm
- (HT18-1OP) **Overcurrent Protection**, March 27, Tue., 1 pm to 5 pm

LINDEN/CLARK

Holiday Inn - New

36 Valley Road, Clark, NJ 07066

732-574-0100

Course #:

- (L18-1DC) **The DC Connected Home**, Feb. 10, Sat., 8 am to 5 pm
- (L18-1EVC) **Electrical Vehicle Chargers**, Feb. 25, Sun., 12 pm to 4 pm
- (L18-2GN) **Generators Res. & Commercial**, March 10, Sat., 8 am to 5 pm
- (L18-1MW) **Motors & Motor Cont. Workshop**, March 17, Sat., 8 to 5 pm

BRIDGEWATER/SOMERSET

Clarion Hotel

60 Cottontail Lane, Somerset, NJ 08873

732-560-9880

Course #:

- (S18-1GN) **Generators Res. & Commercial**, Jan. 3, Wed., 8 am to 5 pm
- (S18-1C) **Calculations**, Jan. 4, Thu., 8 am to 5 pm
- (S18-1WN) **Wireless Power Control Networks**, Jan. 5, Fri., 8 to 5 pm
- (S18-1MVS) **Medium Voltage Systems**, Jan. 7, Sun., 12 pm to 4 pm
- (S18-2ES) **Electrical Safety**, Feb. 28, Wed., 8 am to 5 pm
- (S18-1GB) **Grounding & Bonding**, March 1, Thu., 8 am to 5 pm
- (S18-2LS) **Lighting for Energy Savings**, March 2, Fri., 8 am to 5 pm
- (S18-145) **Pools, Spas & Hot Tubs**, March 4, Sun., 12 pm to 4 pm

CLINTON

Holiday Inn

111 West Main Street, Clinton, NJ 08809

908-735-5111

Course #:

- (CN18-1TP) **Transformers & Power Distrib. Workshop**, Jan. 14, Sun., 8 am to 5 pm
- (CN18-2DC) **The DC Connected Home**, Feb. 6, Tue., 8 am to 5 pm
- (CN18-1VFD) **VFDs**, March 28, Wed., 8 am to 5 pm
- (CN18-1MGT) **Microgrid Technology**, March 28, Wed., 1 pm to 5 pm

HACKETTSTOWN

Quality Inn

1925 Rt. 57 West, Hackettstown, NJ 07840

908-813-8500

Course #:

- (H18-1CER) **Commercial Energy Retrofit**, Jan. 28, Sun., 8 am to 5 pm
- (H18-1EE) **Electrical Estimating**, Feb. 3, Sat., 8 am to 5 pm
- (H18-1LS) **Lighting for Energy Savings**, March 24, Sat., 8 am to 5 pm

SADDLE BROOK

Garden Plaza Hotel

129 Pehle Avenue, Saddle Brook, NJ 07663

201-845-7800

Course #:

- (SB18-1MGT) **Microgrid Technology**, Jan. 19, Fri., 8 am to 12 pm
- (SB18-1AR) **A/C & Refrigeration Equipment**, Jan. 19, Fri., 1 pm to 5 pm
- (SB18-1WN) **Wireless Power Control Networks**, Feb. 9, Fri., 8 am to 5 pm
- (SB18-1TP) **Transformers & Power Distrib. Workshop**, March 6, Tue, 8 am to 5 pm
- (SB18-1C) **Calculations**, March 29, Thu., 8 am to 5 pm

PARSIPPANY

Days Inn Hotel

3159 Rt 46 E, Parsippany, NJ 07054

973-335-0200

Course #:

- (P18-1CER) **Commercial Energy Retrofit**, Jan. 13, Sat., 8 am to 5 pm
- (P18-2WN) **Wireless Power Control Networks**, Feb. 14, Wed., 8 am to 5 pm
- (P18-2GB) **Grounding & Bonding**, Feb. 15, Thu., 8 am to 5 pm
- (P18-2TP) **Transformers & Power Distrib. Workshop**, Feb. 16, Fri., 8 am to 5 pm
- (P18-1LS) **Lighting for Energy Savings**, March 12, Mon., 8 am to 5 pm
- (P18-2DC) **The DC Connected Home**, March 13, Tue., 8 am to 5 pm
- (P18-1GN) **Generators Res. & Commercial**, March 14, Wed., 8 am to 5 pm
- (P18-3MGT) **Microgrid Technology**, March 16, Fri., 12 pm to 4 pm

Phone numbers listed for each venue are for lodging &/or directions only

Crash seminars - 34 hrs in 5 days:

Bridgewater	January 3 to January 7
Hazlet	January 8 to January 12
Parsippany	February 12 to February 16
Bridgewater	February 28 to March 4
Parsippany	March 12 to March 16
Bordentown	March 19 to March 23

~ You can either take all 5 days
or mix & match those days
into your schedule.



We also offer an
**all Saturday 34 hr package in
Linden/Clark**

Call Joanna if you need help putting a package together 908-494-1353
email: joanna@ita-seminars.com



**Institute For
Technical
Advancement**

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5 Day Crash Seminars!!!

Bridgewater January 3 to January 7
 Hazlet January 8 to January 12
 Parsippany February 12 to February 16
 Bridgewater February 28 to March 4
 Parsippany March 12 to March 16
 Bordentown March 19 to March 23



New

Full 34 hr Package on Saturdays in Linden/Clark!

First and Last Name _____ License Number _____

Seminar Number _____

Seminar Number _____

Address _____

Phone _____

E-mail address _____

- \$100.00 4 hour seminar (\$110.00 at the door)
- \$200.00 8 hour seminar (\$220.00 at the door)
- \$269.00 10 hour Code Update Review (\$280.00 at the door)
- \$50.00 additional fee for each state certification other than NJ
- \$550.00 24 hour package (\$50.00 savings)
- \$649.00 34 hour package (\$220.00 savings)

Make check payable to:

ITA

Mail the payment to:

ITA

**P.O. Box 248
Martinsville, NJ 08836**



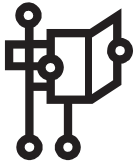
All confirmations will be e-mailed. Certificate issued upon completion. All cancellation must be in writing and received 10 days prior to seminar. \$25.00 registration fee is non-refundable. For failure to cancel, registrant is liable for total cost. \$25.00 fee required for re-scheduling missed classes. Rescheduling at 3 days in advance at no cost. Two forms of ID required at all seminars. Faxed or phoned reservations do not guarantee a seat. Seat guaranteed by pre-payment only. All prepaid credits valid until March 31, 2018 ONLY. No refunds for unused credits after March 31, 2018. Credits issued per person and are not transferable.

Credit card # _____ Exp. date _____

Signature _____

- Check MasterCard Visa

If you need more info call Joanna 908-494-1353, email joanna@ita-seminars.com



Course Description

All courses have been approved by NJ Board of Electrical Contractors for continuing education requirements.

Generators Res. & Commercial NEW - (4 hr) Backup power source selection, sizing and installation are the topics of this course. Topics include NEC compliance, as well as other code requirements, installation calculations and new technologies for backup generators. The 8 hr version is extended to include more in depth topics, as well as examples of practical installations.

Electrical Safety - (8 hr) Electrical safety in the workplace, including the concepts of Hazard/Risk evaluation, shock, electrocution, arc flash, and arc blast are some of the topic to be discussed. Other topics include Personal Protective Equipment (PPE), incident energy calculations, safety-related maintenance requirements, Lockout/Tagout procedures, and electrical safety programs.

Commercial Energy Retrofit - (8 hr) Energy analysis, installation of energy efficient systems and retrofit for commercial and small industrial premises, including efficient lighting, efficient motors and compressors, VFD applications, power factor correction and government rebates and incentives for installing such systems.

VFDs - (4 hr) Variable frequency drive motors have become the most popular type of motor for new and existing applications because of their energy saving and soft-start capabilities. Many utilities are now offering rebates for the installation or retrofitting with VFDs. This seminar examines the proper selection, application and installation of VFDs.

Transformers - (4 hr) Application, sizing, selection, overcurrent protection, and installation of transformers as per 2017 NEC.

Calculations - Learn to make your daily calculations fast and easy! This course includes fast and easy methods for conductor sizing, conduit sizing, ampacity requirements, overcurrent protection, motor loads, transformers, single phase and three phase circuits. Examples and real life practice situations will be given to show fast and easy methods for NEC compliance. Three phase circuits, transformer protection, inrush currents, harmonics, AISC ratings, short circuit analysis, and protection relays will be the focus. A necessary course for the contractor that gets involved with jobs bigger than "repair jobs", and for any contractor that wants to know more.

Electrical Estimating - (8 hr) Different estimating and bidding procedures, scope of work, takeoffs, establishing material costs and labor rates, overhead calculations, and preparation of an estimate.

Conduits & Raceways - (4 hr) Proper application, sizing, and installation of various types of conduits, raceways, pull boxes and junction boxes. Includes conductor selection, conduit fill requirements, and applications as per NEC requirements.

Pools, Spas and Hot Tubs - (4 hr) The 2017 NEC requirements for electrical installations of swimming pools, spa and hot tubs, will be examined. Included will be the proper electrical installation techniques for bonding and power distribution for equipment, as well as lighting, required for code compliance.

Medium Voltage Systems - (4 hr) Most commercial and industrial facilities are supplied with primary voltages in excess of 1kV by the electric utility. Medium Voltage, 1kV to 100kV, the materials techniques and installation requirements are presented

Wireless Power Control Networks - (8 hr) Installation and configuring of wireless lighting controls such as Z-wave and Zigbee. Actual examples. Includes integration of lighting control into other systems including shades, HVAC and audio systems.

Motors and Motor Controls Workshop - (8 hr) a useful and effective topic for anyone who installs motors or maintains motors or motor control circuits. Single and multiple motor installation as per NEC requirements, Actual examples with class participation.

Transformers and Power Distribution Workshop - (8 hr) Transformers and their associated wiring, as per the 2017 NEC, including transformer sizing, primary and secondary overcurrent protection sizing, and primary and secondary conductor and conduit sizing. Presented as a "hands-on" workshop where actual examples are presented in class, and solutions are found as a group. Bring your code book and a calculator.

Service Calculations Workshop - (8 hr) Residential, commercial and industrial service and feeder calculations in a "Hands-On" workshop style class as per new NEC requirements. A great course for the apprentice, as well as a refresher for the veteran contractor. Bring a calculator as well as your notebook.

A/C and Refrigeration Equipment - (4 hr) Power wiring for air-conditioning and refrigeration equipment and their branch circuits as per NEC art. 440.

Class I, II, III Circuits - (4 hr) Understanding the differences, as well as wiring and installation of class I, II, III and remote control signaling and power-limited circuits.

Lighting for Energy Savings - (8 hr) Save money and energy with lighting while still maintaining good light quantity and quality. Calculating energy-efficient lighting options to use the same amount of light for less money. Learn strategies for comparing and buying lighting products and using them efficiently.

Microgrid Technology - (4 hr) One of the biggest trends in the electrical industry today is microgrid technology. This technology is being implemented in commercial and industrial systems as well as in electric utilities. The 2017 NEC now recognizes microgrids and their applications. This course will explore the technology, applications, as well as the NEC requirements for microgrids.

The DC Connected Home - (8 hr) The home of tomorrow will run on direct current! In fact, your home already runs primarily on DC. Other than a few appliances, everything you own—from your computer to your light bulbs to your cell phone is running on direct current. As fossil fuels diminish and renewable energy sources increase, the transition to DC powered homes accelerates. Get prepared for these future concepts now.

Overcurrent Protection Devices - (4 hr) If you are a Residential, Commercial or Industrial electrician, you use overcurrent protection devices. But do you really understand the difference between current limiting fuses, instantaneous circuit breakers, thermal-magnetic breakers, protective relays and all the other circuit protection options? A complete understanding of the different overcurrent protection devices and their proper application will be presented.



Your instructor:
Edward Osoliniec, PE



(Instructor #142) Ed is involved in all aspects of electrical contracting, design, planning, project management and education. His background includes both bachelor degree in electrical engineering and a master degree in electrical engineering from the University of California at Berkeley. He is a licensed P.E. and a licensed electrical contractor (license #8973) in NJ. He is a CPE, Certified Professional Estimator certified by the American Society of Professional Estimators. He has 20 years of classroom teaching experience in Electrical Engineering Technology at colleges in NJ, including NJIT. He currently has 4 patents pending for devices he developed related to the electrical power distribution industry. Edward has combined his talents as a P.E. and electrical contractor to operate a successful electrical contracting and design business. He consults for major corporations and municipalities for electrical systems design. In the past he presented code review courses for major corporations for considerably more money and right now the same courses are offered to the general public at discount prices. His age and contracting experience are not outdated.