

EF18 HANDS-ON TRAINING WORKSHOPS



• Associate Certified Electronics Technician (CETa)

Presented by Chris Miller, CETsr, Heartland Community College

This workshop is a comprehensive two day, hands-on course that will update your skills in order to be successful in today's electronics industry and includes extensive hands-on training. If you are a beginning technician needing expert guidance and more in-depth information or a practicing electronics technician wanting to enhance your skill level to advance in your career, this workshop will prepare you for success with ETA's Associate Certified Electronics Technician (CETa) certification exam.

Wednesday-Thursday (March 7-8, 2018) - \$410

• Communications Site Installer (R56)

Presented by Michael Barton, CETsr, Motorola R56 Audit Team & Commdex Consulting

Based on the NEW Motorola updates of R56 industry codes and standards, this four-day workshop is for Motorola employees and affiliates only (unless invited and Motorola authorization given) that provides a documented set of standards & guidelines for designing safe and reliable communications sites, helps guarantee personnel safety, equipment reliability and equipment availability. This hands-on workshop validates attendees knowledge or core concepts required in the installation of a communications site and explores all the NEW competencies recently introduced to ensure that communications sites are constructed to industry best practices and communications equipment operates in an environment that assures service reliability and longevity.

Monday-Thursday (March 5-8, 2018) - \$1,399

• Cybersecurity and Information Technology (ITS)

Presented by Charles Brooks, eITPrep - Managing Director and Educational Technologies Group - Vice President

The ITS workshop will prepare attendees to challenge the new ITS certification exam from ETA International. Each exam domain will be unpacked to provide the attendee with a complete defense in-depth strategy for implementing cybersecurity solutions to any network environment - including wireless networks. They also will be made aware of attack vectors, tools and techniques used to Pentest network computing environments.

Wednesday-Friday (March 7-9, 2018) - \$949

• Distributed Antenna Systems (DAS)

Presented by Dane Brockmiller, FOI, LAS, PIM, Dover Telecommunication Services

This two-day hands-on course is for technicians, managers and venue owners who need to understand the role of DAS in wireless today. This is a comprehensive course covering the six major areas of DAS, small cell, applications and deployments (noted below in detail).

Learn the latest development, installation and planning for VHF and UHF public safety DAS. Emphasis will be placed on the differences between this form of DAS and carrier-based systems along with how DAS interacts with wireless carriers and Wi-Fi. DAS coverage and component testing will be demonstrated along with plenty of hands-on exercises.

Monday-Tuesday (March 5-6, 2018) - \$949

• Fiber To The Antenna (FTTA)

Presented by Phil Shoemaker, FOI, FOT-OSP, Light Brigade

Fiber to the Antenna is intended for those who install, test and maintain fiber optic communication systems for Outside Plant FTTA installations and onsite antenna applications. Novice and experienced fiber professionals alike will find this workshop and extensive hands-on skills training beneficial for successful fiber optics careers with a practical understanding to properly install and maintain fiber optic networks. The four-day class includes 16 hours of classroom lecture combined with 16 hours of hands-on exercises.

Monday-Thursday (March 5-8, 2018) - \$1,849

• General Communications Technician - Level 1 (GCT1)

Co-Presented by Rob Walker, LAS, PIM, ATRG Technical Services and Merle Taylor, CETsr, Wilson Electronics

This certification program introduces public safety professionals and support staff to various communications concepts and technologies, including: interoperable communications solutions, LMR communications, satellite, telephone, data, and computer technologies used in incident response and planned events. This two-day workshop trains emergency responders on practices and procedures common to radio communication technicians during all-hazards emergency operations. This course will help communications technicians work within the Incident Command System (ICS) organizational structure. It is intended for federal, state, local, and tribal

emergency response professionals and coordination/support personnel with communications backgrounds. Individuals who are responsible for managing a Strategic Technology Reserve (radio cache, mobile communications vehicle, or other deployable communications assets) are encouraged to attend.

Monday-Tuesday (March 5-6, 2018) - \$949

• **General Communications Technician - Level 2 (GCT2)**

Presented by Ira Wiesenfeld, CETms, IWA Technical Services, Inc.

The GCT Level 2 workshop prepares attendees for an advanced level of industry understanding. It elevates the skill levels of those already in the field, and delves into the details that are found every day when working in the telecommunications industry. Expanding on the US Department of Homeland Security COMT program, GCT Level 2 covers everything needed to complete your ETA certification.

There will be live demonstrations, using state-of-the-art equipment included during the program. These areas include: basic electronics, fundamentals of radio, tools, test equipment, power systems, cabling and installations, environmental systems, antennas, transmission lines, towers, operating principles and details on radios and radio systems, serial data and IP networks, basics of fiber optic lines and systems, telephony, satellite communications, physical plant considerations, site procedures, and safety practices.

Monday-Tuesday (March 5-6, 2018) - \$949

• **Line Antenna Sweep (LAS)**

Presented by Jay Thompson, CETsr, Dover Telecommunications Services

This frequency domain reflectometer hands-on course is designed for beginners as well as senior-level technicians and engineers, this course goes beyond traditional line sweep and PIM testing and provides all the knowledge in order to test and evaluate RF signals that begin at the output of a radio transmitter and eventually are propagated into the air to a receiver. Hands-on exercises will include applications of everyday problems found in the field such as: testing fundamentals, reflectometers, RF wattmeters, calibration, determining problems, distance-to-fault measurements, system sweeps, FDR operation and troubleshooting.

Monday-Tuesday (March 5-6, 2018) - \$949

• **Mobile Communications Electronics Technician (MCET)**

Presented by Chris Dalton, LAS, Radio System Analytics

The second level of Mobile Communications and Electronics Installation is the Technician level. It is an advanced installation class built upon knowledge, past experiences, vehicle manufacturer suggestions and radio technician feedback to ensure that the installer is well-trained and versed in the installation of complex electronic systems into modern vehicles. It is designed to identify, mitigate and avoid risk exposure to equipment installation service shops and to enhance the safety of installer personnel through education.

Today's vehicles are technological marvels and contain hundreds of systems. These systems control vehicle operation and functionality for powertrain control, supplemental restraints

and safety systems such as anti-lock brakes, stability control activation and throttle position; they receive input from hundreds of sensors. If improperly installed, aftermarket electronic equipment can cause harmful interference to onboard systems causing unsafe, unintended and adverse effects on vehicle performance.

Monday-Wednesday (March 5-7, 2018) - \$1,199

• **Microwave Radio Technician (MRT)**

Presented by Tom Dover, Dover Telecommunications Services

Microwave radio still plays a major role in radio and data transmission systems. Wireless carriers continue to deploy microwave systems for data backhaul, and with the advancement of LTE for public safety, the need for microwave communications continues to grow.

This two-day course is designed for students and professionals who encounter point-to-point radio at microwave frequencies. This is a comprehensive hands-on course focusing on how radio works in all applications, how digital transmission (modulation) is derived for high-speed data, the principals of microwave frequency propagation and antenna systems. Much of this course will be devoted to hands-on testing and troubleshooting approaches for radio technicians. Federal regulators and OSHA RF safety training will also be covered.

Monday-Tuesday (March 5-6, 2018) - \$949

• **Photovoltaic Installer - Level 1 (PVI1)**

Presented by Jay Warmke, PVI1, Blue Rock Station

Solar electric will soon be incorporated into many systems, especially remote installations such as mobile phone towers, weather monitoring stations, emergency response systems, disaster preparedness and many more. Professionals working with advanced communication systems will find it critical to have a basic understanding of PV systems to keep their installations fully functioning in the future.

You will get your hands on a working PV system and will dismantle and reinstall it while troubleshooting to ensure its proper operation. You will learn how to integrate battery backup, wind turbines, and become familiar with the latest emerging PV technologies along with the various options such as grid-tied, stand-alone, micro-inverters and power optimizers.

Monday-Friday (March 5-9, 2018) - \$1,049

• **Radio Frequency Interference and Mitigation (RFIM)**

Presented by Don Huston, Bird Technologies

This two-day course is for anyone involved with radio services, wireless or other types of communications systems. Delivered in a concise, systematic way that will enhance your skill level, regardless of your experience, this is a comprehensive hands-on course that will give you all of the necessary skills in order to find and correct RF signal interference. The class begins with basic theory of radio and test equipment, concluding with hands-on applications of everyday problems found in the field. Designed to include beginners as well as senior level technicians and engineers, this course goes beyond interference hunting.

Wednesday-Thursday (March 7-8, 2018) - \$949