

## CONSULTANTS TO THE ELECTRONICS INDUSTRY

- MANUFACTURING START-UP
- PROCESS EVALUATION
- SUBCONTRACTOR QUALIFICATION
- EQUIPMENT EVALUATION
- LEAD-FREE, ESD, PROCESS AND QUALITY AUDITS

## THE LEADER IN HI-TECH TRAINING

- EXPERT TRAINING IN THE LATEST TECHNOLOGIES
- INDUSTRY-DEMANDED CERTIFICATIONS



## PCB TECHNOLOGY

- **QUALITY & INSPECTION**  
IPC-A-610 INSTRUCTOR & OPERATOR CERTIFICATION
- **SOLDERING & ASSEMBLY**  
IPC J-STD-001 INSTRUCTOR & OPERATOR CERTIFICATION
- **BARE BOARD INSPECTION**  
IPC-A-600 INSTRUCTOR & OPERATOR CERTIFICATION
- **REWORK & REPAIR**  
IPC-7711 INSTRUCTOR & OPERATOR CERTIFICATION  
IPC-7721 INSTRUCTOR & OPERATOR CERTIFICATION
- **HAND SOLDERING SKILLS**  
SOLDERING BASICS, THROUGH-HOLE & SURFACE MOUNT TRAINING



## CABLE & WIRE HARNESS TECHNOLOGY

- **QUALITY & INSPECTION**  
IPC-A-620 INSTRUCTOR & OPERATOR CERTIFICATION
- **HANDS-ON LABS**  
SOLDERING, CRIMPING & HARNESS ASSEMBLY TRAINING



## FIBER OPTICS TECHNOLOGY

- **INSTALLER & TECHNICIAN CERTIFICATION**
- **FUNDAMENTALS**
- **TERMINATIONS & CLEANING**

## FIBER OPTICS INSTALLER CERTIFICATION

3-Day Course for Commercial Applications with Extensive "Hands-On"

### COURSE DESCRIPTION

Our mission is to provide students with the hands-on knowledge and the ability to successfully install, test, and troubleshoot fiber optic cables and systems. Students will terminate a variety of ST and SC (standards based) connectors and will be trained to perform mechanical splices. Additionally, students will be trained on Small Form Factor (SFF) connectors such as the VF-45 (Volition) connector by 3M. Students will test and troubleshoot using a light source/power meter and a leak detector. They will also be introduced to the principles of fusion splicing and the use of an OTDR.

### WHO SHOULD BECOME CERTIFIED

Anyone who would be involved with designing, configuring, installing, testing or maintaining fiber optic systems; technicians, system analysts, design engineers, managers, telecommunications professionals, end users, splicers, etc.

### CERTIFICATIONS

We understand the need to provide you with recognized industry certified training. Our three day Certification course will qualify you for:

- BICSI - RCDD & Installation Program Continuing Education Credits
- 3M - Our instructors are 3M Factory Certified Trainers and upon successful completion, you will be a 3M Certified Fiber Optics Technician Installer
- LightTech - A Certificate of Completion will be awarded to all successful participants
- ETA - (Electronics Technicians Association) For an additional cost of \$150, we will administer the ETA Installer examination. Upon successful completion, you will be certified as an ETA Certified Fiber Optics Installer

**MATERIALS** For each class, all the necessary tools and materials will be supplied. Students are welcome to bring their own documents if they wish.

**LOCATION** Classes are held at EPTAC's Corporate Training Center located just 35 miles from Boston and at locations throughout the US and Canada.

**ON-SITE TRAINING** Please call a training consultant and ask about customized course content, on-site training and training around your production schedules.

**REGISTRATION** For up to date pricing and more information on any of the EPTAC programs, or to enroll, please call us toll free or visit eptac.com.

TOLL FREE: **1-800-64-EPTAC**

FAX: **603-296-2377**

E-MAIL: **REGISTER@EPTAC.COM**

WEB: **EPTAC.COM**

### COURSE OUTLINE

#### DAY 1 - FIBER OPTICS, THE PHYSICAL LAYER

- Introduction to fiber optics
- Advantages of fiber optics over copper
- Fiber optic theory & the properties of light
- Applications and principles
- Fiber optic safety precautions
- Reflection and refraction
- Propagation of a fiber optic light wave
- Attenuation of a fiber signal
- Fiber optic cable construction and selecting the right fiber
- Fiber optic distribution hardware
- Stripping and scoring of fiber optic cable

#### DAY 2 - CONNECTORIZATION AND TESTING LAB

- Identification of fiber optic connectors
- 3M connectorization; Hot Melt, AMP MT-RJ, epoxy (ST & SC), VF-45 (Volition)
- Siemon connectorization; ST with Anaerobic Adhesive
- Loss Budgets Calculations
- Testing demonstration and discussion using a light source and power meter

#### DAY 3 - ADVANCED TOPICS AND EVALUATION

- AMP Connectorization; ST to SC Lightcrimp Plus (pre-polished)
- Small Form Factor; MT-RJ to MT-RJ
- Evaluation of students termination skills
- Optical power testing of student cable assemblies
- Evaluation of hands-on performance
- Certifications: 3M - Certificate of Completion, BICSI - Continuing Education Credits (CEC)
- Final course review
- Optional Electronics Technicians Association (ETA) Fiber Optic Installer Certification (FOIC) examination