

Education Forum Keynote

5G and the Fourth Industrial Revolution

5G and the Fourth Industrial Revolution are right around the corner, in fact, the wheels are already in motion. Smart Cities, self-driving cars, robotics, artificial intelligence, and connectivity on a scale previously unimaginable will be here before we know it. 5G is not limited to faster speeds and a few new chic consumer technologies, but rather a complete paradigm shift in our society and how we interact with technology. Business operations, our personal relationships, and even the methods in which countries govern themselves will be impacted. The possibilities are nearly limitless.

But first, our industry has the daunting task of getting our infrastructure there. This is already happening with many cities running trials or full roll-outs of 5G. There is a lot that must be done to set the foundation for 5G and it is going to take trained technicians, engineers, site acquisition specialists, carriers, municipalities, and OEMs collaborating to make it happen. Hundreds of thousands of miles of fiber backhaul, the build out of ultra-dense networks, and upgrading existing macro site technologies are an example of some of the work that is ongoing. How will 5G impact the ICT sector, and more importantly what do these changes mean for those who work in the telecommunications industry?

We have the answers to some of those questions and will speculate on others. Let's discuss this exciting new wave of technology, its impact on end users, and the personnel in our industry.



Patrick McMerney is the Chief Operating Officer of 3D Design & Engineering which provides civil, structural, geotechnical, and mechanical engineering services specialized to meet the unique needs of the telecommunications industry.

For over a decade Mr. McMerney has been at the forefront of innovation in design specifically regarding telecommunications including Virtual Site Tours, 3D Laser Site Scanning, 3D PDF presentations, and more. 3D Design & Engineering was the first firm in Texas to incorporate 3D design with semi-autonomous heavy machinery for large projects and one of the few engineering firms in Houston offering 3D laser scanning, photogrammetry, and virtual site tours. 3D Design & Engineering is also specialized in the three-dimensional conception and elaborated engineering applied for the design and analysis of various structures.

Mr. McMerney has an Associate of Science degree specializing in applied engineering technology and holds multiple design certifications including: Autodesk Certified Professional, AVEVA Plant Design Management Systems, and NTT Fiber Optics, as well as being a commercially licensed FAA UAS Pilot (Drone Pilot).

In his free time Mr. McMerney works as a volunteer for the Texas Wireless Association which 3D Design & Engineering is a member of and actively seeks partnerships that place an emphasis on quality, safety, and innovation. Mr. McMerney also enjoys volunteering at events that are committed to enriching the community in Houston, Texas where 3D Design & Engineering is based.



ETA® International
 5 Depot Street
 Greencastle, IN 46135
 (800) 288-3824
 eta@eta-i.org
 www.eta-i.org



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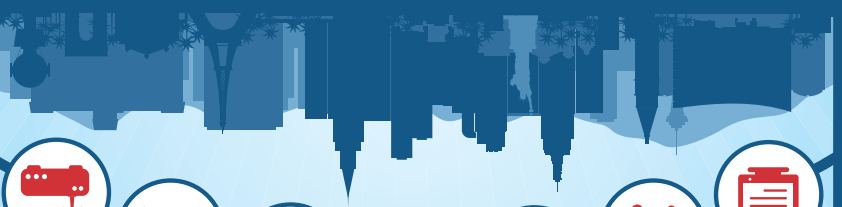
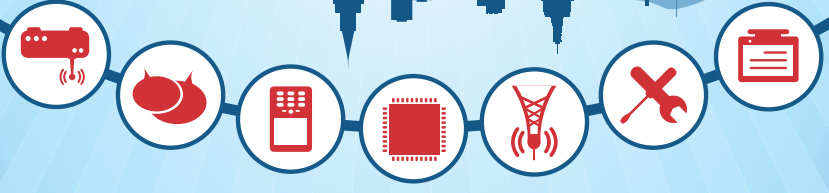
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5GT — 5G Technician: An Introduction to 5G...\$495

The course serves as an introduction to 5G and gives cellular technicians the opportunity to earn a certification that has valuable industry application. This course will be taught using a variety of media, from helpful videos and other visual aids to written material. Attendees will get a first-hand look at industry standards, real world examples and case studies provided by a committee of subject matter experts with backgrounds in engineering, construction, cell carriers, broadcasting and entertainment.

CEta - Associate Certified Electronics Technician...\$475

This two-day workshop is a comprehensive hands-on course that will give you all of the necessary skills in order to be successful in today's electronics industry and includes extensive hands-on training.

DAS - Distributed Antenna Systems...\$899

This two-day course is for anyone interested in learning the fundamental theories, components, installation, maintenance, and support of in-building DAS. Hands-on training will concentrate on connector installation, a simple install, a simple antenna design, and how to identify cabling problems.

GCT1 - General Communications Technician...\$899

This two-day workshop will train the attendee on the 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.

ITS - Information Technology Specialist (Cybersecurity)...\$899

This three-day workshop will 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.

LAS - Line Antenna Sweep...\$899

This frequency domain reflectometer two-day hands-on course goes beyond traditional line sweep and PIM testing and provides all the knowledge needed 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.

All Training Workshops Include A **FREE** ETA Certification Exam!

MRT - Microwave Radio Technician.....\$899

As we move towards 5G and FirstNet implementation, microwave frequencies will be used for more applications and new services. This course is newly designed addressing the changes in roles, performance, installation and maintenance of microwave and millimeter wave radios.

PIM - Passive Intermodulation Testing.....\$495

Wireless carriers are requiring PIM testing at new sites and existing installations in an effort to increase call quality and data rates. The student will learn what PIM is, how it is tested and the difference between PIM testing and other antenna testing techniques.

R56 - Communications Site Installer...\$1169

Based on the NEW Motorola updates of R56 industry codes and standards, this four-day workshop provides a documented set of standards & guidelines for designing safe and reliable communications sites.

RFIM - RF Interference Mitigation...\$899

This course begins with an overview of basic RF principles, signal types, propagation and spectrum allocation. Practical applications include interference hunting tools, the use of monitoring receivers, spectrum analyzers and drive test tools.

STS—Smart Technologies Systems...\$1099

The following key areas will be discussed: Audio and Video; Data Networks and Voice Networks; Fire Alarm Systems, Access Control Systems and Video Surveillance Systems; Heating, Ventilating and Air Conditioning Systems and Electric Power Management Systems, Lighting Control/Data Systems; Facility Management Systems. Hands on labs will include configuration of Power over Ethernet (PoE) powered devices and systems management software configuration of the devices.

** All prices are at early bird rate, which is good through November 8, 2018.
Please check the registration page for current pricing and packages.*

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