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## PRESS RELEASE

### Industry Changes Prompt ETA to Revamp Smart Technologies Certification Program

*For those who design and oversee the installation and integration of electronics systems in residences and commercial buildings, Smart Technology Systems (STS) is a professional and accredited certification program developed by ETA® International. The STS now includes the requirements of the Internet of Things being used within Smart Buildings and Smart Homes to validate the knowledge and skills required to be proficient in the many protocols used over diverse media to communicate with and control today's residential and light commercial electronics systems.*

**Greencastle, November 16, 2018:** As the Internet of Things (IoT) continues to grow, [ETA International](http://www.eta-i.org) recognized that the professional trade association's Residential Electronics Systems Installer (RESI) certification needed a revision to certify electronics technicians in the ever-growing field of Smart Technology Systems (STS).

As Internet technology began to spread across the world, it was understood that the Internet Protocol version 4 (IPv4) would limit the growth of the Internet around the world and the Internet Engineering Task Force (IETF) initiated the design and development of IPv6 to support the expanding use of the Internet. Since IPv6 now allows for multiple levels of sub-netting and address allocation, it can support the massive proliferation of devices connected to the Internet.

Twenty years ago, if you wanted to connect devices such as lights, appliances, and HVAC system controls to a single remote control smart system, it was usually done using an X-10 controller system which could be programmed to turn things on and off based on time and a limited number of sensors. The X-10 used the AC wiring system in a building to carry the signals to the X-10 boxes scattered around the building, which each had its own discreet address based on an alpha numeric address scheme; however, the X-10 was not necessarily connected to the Internet.

With the development of additional radio wave technologies and optical cabling, devices within buildings can now be connected not only by local area networks (LANs), but also by Z-Wave, Zigbee, Bluetooth and local Mesh networks which allow devices to be located almost anywhere within a building without limiting their ability to communicate with the Internet.

Technicians now have a whole new world of connected devices to control within a home or building. Devices range from many different types of remote sensors to almost every appliance and electronics device that can be found in today's modern buildings. Since many collections of devices within a smart building can now be addressed and controlled via the Internet with smart phones, tablets or remote computers, it is essential for technicians to be able to identify the ways that those devices and components within a smart building can be connected.

The STS focuses on proficiencies to produce a residential or light commercial electronics systems package that allows all data, control, and communication signals to be integrated at the premise controller and converged into one secure cohesive communication stream, to either be used within the premise or to be passed back and forth through the gateway. It addresses what smart technologies will mean for technicians and engineers based on American National Standards Institute (ANSI), Telecommunication Industry Association (TIA), and Electronic Industries Association (EIA) standards.

ETA offers two levels of expertise for those who install and integrate smart electronics technology into structural systems: the Basic STS and the Master STS. Basic STS installation technicians are responsible for interconnecting electronics communications, data, computer, control or entertainment equipment and converging signals into one faultless system. The Master STS certification prerequisites include successfully completing the Basic STS certification in addition to earning each of the four STS endorsements: Audio/Video, Computer Networking, Security/Surveillance, and Environmental Controls.

Endorsements for the STS are also being revamped. The Audio/Video endorsement will now include closed circuit TV (CCTV) systems, a new endorsement will be added for Environmental Controls (HVAC, automated lawn sprinkler systems, etc.), and once completed, Computer Networking and Security/Surveillance will round out the STS certification endorsements.

ETA has enlisted the help of many electronics technicians on the STS committee, including: Rich Agard, RESIma, Southeast PA Transit Authority; John Baldwin, CETsr; Clifton Beck, Jones Lang Lasalle Americas; Chuck Brooks, elTprep; John Bosnack, Hoosier WiFiGuy; Joseph Delio, CETma, IWA Technical Services Inc.; John Dings, RESI; Marilyn Fernandez, RESI, United States Marine Corp; Michael Goshen, CST, ITS, NST; J.B. Groves, FOIT, FOT-OSP, ITS, Wharton County Junior College (TX); Lawrence Hardman, US Army; Ed Kirkpatrick, PV11; Rick Pinkava, Charles Poole, MI Career and Technical Center; Randy Reusser, Gateway Technical College and John Rooks, AL State University.

**About ETA** - Since 1978, ETA has delivered over 200,000 certification examinations successfully. Widely recognized and frequently used in worker job selection, hiring processes, pay increases, and advancements, ETA certifications are often required as companies bid on contracts. ETA's certifications are personal and travel with the individual, regardless of employment or status change and measure competencies of persons, not products or vendors. All ETA certifications are accredited through the International Certification Accreditation Council (ICAC) and align with the ISO-17024 standard. [www.eta-i.org](http://www.eta-i.org)

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