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IEC
United States
National Committee
of the IEC

CTA Launches First-Ever Industry-Led Standard for AI in Healthcare

by Kerri Haresign, Consumer Technology Association



More than 50 organizations—from major tech giants to startups and healthcare industry leaders—convened by the Consumer

Technology Association (CTA®) have developed the first-ever ANSI-accredited standard for the use of artificial intelligence in healthcare. This standard, part of CTA's new initiative on AI, is the first in a series that will set a foundation for implementing medical and healthcare solutions built on AI. The standard creates a firm base for the growing use of AI in healthcare technology to help better diagnose diseases, monitor patients' recoveries and help people live healthier lives.

AI-related terms are used in different ways, leading to confusion—especially in the healthcare industry, including virtual care and remote patient monitoring. To address this problem, CTA announced the working group with 30 members less than a year ago, which now includes a wide range of decision makers from 52 organizations and member companies to develop a standard built on consensus. The standard—11 definitions and characteristics—provides a framework for better understanding AI technologies and common terminology so consumers, tech companies and care providers can better communicate, develop, and use AI-based healthcare technologies.

A broader AI committee at CTA also published an ANSI-accredited standard that addresses the pervasiveness of AI-enabled technology across the entire consumer technology industry. The standard



defines over 30 terms including machine learning, model bias, artificial neural network, and trustworthiness.

As health systems and providers use AI tools such as machine learning to diagnose, treat and manage disease, there's an urgent need to understand and agree on AI concepts for consistent use. This standard does exactly that. As the healthcare system deals with clinician shortages, an aging population, and the persistence of chronic diseases in the US, technologically driven solutions, such as AI, will increasingly be used to meet clinician and patient needs, the group notes.

Among the definitions, the standard includes highly debated terms such

as "assistive intelligence," which the group defined as a category of AI software that "informs" or "drives" diagnosis or clinical management of a patient, however the healthcare provider makes the ultimate decisions before clinical action is taken.

AI will play a major role in driving efficiency in healthcare. It will support clinicians in making more precise diagnosis and offer personalized treatment and better guidance toward improved outcomes. This implies that AI will be used for decision support and decision making, which stresses the need for professionals to be able to take ownership and apply judgment and empathy. Transparency and a common language will be

key to enable the proper and safe functioning of AI.

Other definitions include terms like de-identified data, synthetic data, remote patient monitoring and patient decision support system.

The standards are available for download at: <https://shop.cta.tech/collections/standards/artificial-intelligence>. For additional information about the work or to get involved in future projects, please contact Kerri Haresign (kharesign@cta.tech). 

Participating organizations include:

98point6 Inc.
AdvaMed
Amazon
American Association for Clinical Chemistry
American Medical Association
American Telemedicine Association
AT&T
Aural Analytics
BioIntelliSense
BlackBerry
Brookings Institution
CarePredict, Inc.
Connected Health Initiative
Doctor on Demand
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Margolis, MD, Center for Health Policy
Federation of State Medical Boards
Fitbit
Google Inc.
Ginger
Health Innovational Alliance
Humana
Humetrix
IBM
Intel Corporation
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LG Electronics
Livongo Health
Magic Leap, Inc.
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National Urban League
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Osso VR
Philips
Reemo
SDI Technologies, Inc.
SHIFT Performance
Global
The Joint Commission
The Omega Concern, LLC
United Spinal Association
Valencell
Validic
Verizon
Volar Health, LLC
VOXX International
Xperi

ANSI COVID-19 RESPONSE



ANSI is here for you during this difficult time. Get the latest updates and responses to the COVID-19 health crisis via the newly launched ANSI COVID-19 Resource Webpage, highlighting the standardization community's response efforts. Follow news at www.ansi.org/COVID-19.

USNC LINKEDIN



Would you like to stay updated with the news and events of the USNC? [Join our LinkedIn Group](#) to learn about and provide input on all issues electrotechnical that can affect your life, from your own home to the other side of the globe! If you have any information to share on LinkedIn, please contact Scott Fogel (sfogel@ansi.org).

APPLY NOW: USNC 2020 IEC Young Professionals Competition

Deadline: Friday, July 31, 2020

The U.S. National Committee (USNC) of the International Electrotechnical Commission (IEC) has opened nominations for emerging electrotechnology professionals to participate in an in-depth, three-day IEC Young Professionals 2020 Workshop, which will be held on November 9–11, 2020, in conjunction with the 84th IEC General Meeting in Geneva, Switzerland.

The competitive workshop will bring together young professionals from around the world who are at the beginning of their careers in electrotechnical standardization and conformity assessment. The IEC National Committee selects and recognizes each candidate; the overall goal is to bolster the future of technology transfer, and long-term national involvement in the international standardization arena.

The USNC will select up to three young professionals to represent the United States at the 2020 workshop. Industry, the government, academic bodies, consumer organizations, or any other member of the U.S. standards and conformance community that uses, benefits from, or contributes to the IEC's work in electrotechnical standardization and conformity assessment may nominate candidates. Eligible individuals will have completed their undergraduate education and are in the early stages of their profession—graduate engineers or managers, for example.

Alongside recipients from other nations, the USNC-selected young professionals will take part in a workshop focused on information about the IEC and relevant strategies for international standardization and/or conformity assessment work. Participants will have the opportunity to visit local industry, receive guidance from a mentor, and observe a meeting of the IEC Standardization Management Board (SMB) and Conformity Assessment Board (CAB). Individuals chosen to take part in the Young Professionals 2020 Workshop will receive financial support for their travel to Geneva, and will receive up to three nights of accommodations.

Please submit nominations to Ade Gladstein (agladstein@ansi.org).

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NEMA TS 10 Connected Vehicle Infrastructure – Roadside Equipment

by Steve Griffith, PMP NEMA



Back in April 2019, the NEMA Transportation Management Systems Section (representing

companies that manufacture roadside Intelligent Transportation Systems (ITS) equipment and infrastructure—including but not limited to traffic controllers, signal displays, crosswalk signs, flashing school zone safety beacons, conflict monitors, dynamic message signs, communications interfaces, software, and firmware modules) commissioned a Connected Vehicle Infrastructure Technical Committee to develop a harmonized technical specification, NEMA TS 10 for roadside connected vehicle devices.

A vital component of the connected vehicle ecosystem is the ability for vehicles and the infrastructure to communicate with each other regardless of the type of device or underlying communication technology, which is what NEMA TS 10 addresses. There are (3) main goals/objectives for the NEMA TS 10 standard.

Support present and future

mobility: The NEMA TS 10 standard is for the equipment deployed at the roadside to support standardized Over the Air (OTA) wireless messages, applications and cyber security measures of Original Equipment Manufacturer (OEM) vehicles operating throughout North America communicating to: other OEM private vehicles, public agency vehicles such as emergency and transit, fleet



vehicles (freight delivery, taxis, and ride share), central management systems (traffic, transit, emergency, freeway), personal information devices such as smart phones, micromobility, infrastructure sensors, and rail grade crossings. A goal of the standard is to accommodate, but not require, future equipment environments and capabilities.

Support Infrastructure Owner/Operator Procurements: this enables user agencies to have confidence in procuring infrastructure equipment that will not become obsolete as technology advances. The Road Side Unit (RSU) device proposed here is designed for extensibility, to implement future wireless technologies and applications without need for replacement within the expected service life of the RSU. This standard also recognizes that there could be multiple configurations of the RSU device depending on a user agency's procurement needs


Reduce long-term cost of total ownership: The functional and performance requirements of the RSU devices proposed are designed for practical implementation of multiple transportation applications at less long-term total cost of ownership. For example, the cost of RSUs may be shared among agencies such as traffic, transit and emergency districts to replace multiple special-

purpose roadside devices serving dedicated functions, such as signal control, transit priority and emergency preemption that become RSU software applications.

The NEMA TS 10 standard describes the following attributes of the RSU:

- » **Physical:** Hardware platform, mechanical and environmental
- » **Software:** Communications stack, security and minimum set of standard messages
- » **Interfaces:** Terrestrial and wireless
- » **Performance:** Latency and computational capacity

The standard recognizes that there are many applications that can and could be supported by an RSU. Such applications are identified and described by the minimum requirements that must be supported for those applications. A given RSU may support one or more applications. At relevant places, the standard identifies options which allow an agency to tailor a procurement specific to that agency's needs.

A draft of the standard was completed last December and has been circulated for comments and feedback during an open comment period. The standard is expected to be published Q3 2020. 

NEMA EVSE 1 Charging Network Interoperability Standard - A Contactless RFID Credential for Authentication

by Steve Griffith, PMP NEMA



Open and standardized access to EV charging services are seen as high-priority initiatives

for the EV industry. Through the adoption of standardized directories, credentials, charging session data exchange, and the ability to establish charging sessions across different EV charging networks, EV drivers will be able to find and receive charging services on any EV charging network that participates in service roaming with the EV charging provider to which the EV drivers are affiliated.

NEMA recently published an EV Charging Network Interoperability Standard: NEMA EVSE 1-2018 that describes a protocol for authenticating EV charging service requests using contactless proximity Radio Frequency Identification (RFID)-type credentials. Authentication provides assurance to the Electric Vehicle (EV) charging network that the EV driver is the correct authorized party incurring a financial or other obligation for the services to be rendered. Similarly, the EV driver can have confidence that transactions have not been authenticated using forged or fraudulent credentials.


The method of EV driver authentication involves the use of an ISO/IEC 7816-4/5/8-based challenge-response application layer protocol and ISO/IEC 14443 contactless communication. EV drivers (also referred to as users) can hold the contactless authentication credentials in proximity to EV



charging stations to authenticate, authorize, and receive EV charging services. The authentication credentials can be implemented in wallet-sized cards, mobile phones, key-fob tokens, or other physical form factors. Contactless authentication devices compliant with this standard on EV charging stations interact with authentication credentials to obtain unique and verifiable challenge-response data ascribing to the authenticity of the credentials. The challenge-response data are then sent to and validated by the credential authenticators in an online manner to confirm that the authentication credentials have not been impersonated (or otherwise compromised) and that the authentication credentials are in good standing (i.e., not declared lost or the associated account overdrawn).

The authentication credential and protocol defined by this standard

applies to intra-network operation, as well as operation across inter-networked, multi-operator EV charging networks—with the principal difference in the latter case that authentication takes place at the foreign EV charging network responsible for issuing the credential, rather than at the local network. By defining an industry standard authentication credential, service interoperability and roaming is made possible enabling EV drivers to receive charging and other services among compatible equipment and participating networks.

Now that the EVSE 1 Standard is published, NEMA intends to further promulgate it by converting it into an ANSI/NEMA Standard. Interested stakeholders are invited to participate in an ANSI Canvass body that will be governing this process. 

Striking the Work-Life Balance

by Ken Gettman, retired from NEMA



Standardization professionals have societies, they have awards for recognition, and they even travel and see the world meeting colleagues

and friends from around the globe. However, the effort to maintain and develop the documents that keep global commerce functioning and that ensure safety and reduced risk of injury or damage from a plethora of products (think agriculture to medical to mechanical and electrical equipment) can involve long hours of eye-straining work. Traveling may seem glamorous to those who see limited time away from home, but it wears and tears a body when living out of a suitcase many times each year. However, the eye-straining and fatigue is well worth the warm, fuzzy feeling when acknowledged by your peers as an award recipient or when you simply know that your contribution facilitated production of a quality document.


However, there are a vast collection of “unsung standardization heroes” who help the identified professionals keep up the good work—the partners and families. These include spouses especially, but also include parents, children, friends, and even coworkers. The standardization professionals (StdP) are frequently invested in reviewing documents, developing comments and/or new proposals, researching existing specifications, and determining whether proposals will have any negative impact on the



domestic interests they represent. Important activities, critical to ensuring effective, complete and fair standards, but they take away time that StdP can contribute to the plethora of items needing attention within their homes and for their families.

So while the StdP are otherwise engaged, how does one stay connected to and supportive of their families? Actively listen to the special ones in your life, make notes so you remember stated or implied requests,

and keep promises. Volunteer to take on and actually complete as many tasks your family needs as are within your capacity. Keep in contact with your family, especially significant others, during the day when working in your office and frequently when traveling.

A special mention to my wife, the love of my life, for her forty years of support, tolerance and putting up with my work. I hope to do my best to return the favor in my retirement. 

Major Changes in USNC Model Operating Procedures (MOP) for USNC Technical Advisory Groups (USNC TAGs)

by Muhammad Ali , HP Inc.



Group Managers:

Historically, each of the members of the USNC Technical Management Committee (TMC) was assigned as a

Group Manager to a

selection of USNC TAGs to provide a channel of communication between the TMC and the related USNC TAGs. In the revised MOP, this position for group manager has been eliminated and the USNC Office will serve as a conduit between TMC and the USNC TAGs.

Consensus: A definition for Consensus has been added in the revised procedures. The definition has been taken from ISO/IEC Directives Part 1. It is defined as, "General agreement, characterized by the absence of sustained opposition to substantial issues by any part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments."

NOTE: Consensus need not imply unanimity.

New USNC TAG Members: The revised USNC TAG MOP clearly states that the USNC TAG shall vote on the acceptance of new members based upon the information from sections 7.1 and 7.2.

Resource Expert: The MOP makes it clear that each resource expert is elected by vote of the USNC TAG.

They must also be re-appointed, re-elected, and re-confirmed each year. This needs to be documented in the USNC TAG minutes each year. There is an additional statement added that clarifies that if a USNC TAG wishes to nominate an additional resource expert, justification must be submitted to the USNC Office. The Resource Expert can vote and does count towards the number of participants to establish a USNC TAG.

Appointment of U.S. Experts to an IEC PT/MT/WG:

The qualification requirements of a U.S. expert has been clarified. USNC TAG Members are required to judge the experts based on the criteria defined in 7.8 a through h. There is more emphasis on "One Organization; One Voice" and multiple experts from the same company should be avoided unless a transition is underway. A balanced representation is intended, and the procedures define the following interest groups: Producers, Users, Testing/Certification, Regulatory/Inspection, and Special Expert.

Producer: Individuals who are involved in the production, manufacture, or distribution of the type of product or system under the scope of the USNC TAG. This includes individuals involved in the design, engineering support, manufacturing, testing, and/or marketing of the type of product or system; or who are employed by or represent a producer, manufacturer, or distribution of the type of product or system.

User: Individuals who are involved in using the type of product or system that is the topic of the USNC TAG, but who are not involved with the production, manufacture or distribution of that type of product or system.

Testing/Certification: Individuals who represent organizations that provide testing, assessment and/or certification of the type of product or system that is the topic of the USNC TAG.


Regulatory/Inspection: Individuals who represent governmental entities having regulatory or inspection interest in or influence over the type of product or system that is the topic of the USNC TAG.

Special Expert: Individuals who have expertise in an aspect of the type of product or system that are not covered by another interest group.

Appointed Delegates and Observers to TC/SC Meetings:

The revised procedure clarifies how observers can attend TC/SC meetings. Their approval is by USNC TAG vote and is to be recorded in the minutes.

Consumer Advocate: The MOP clarifies that the Consumer Advocate can vote and counts towards the number of participants to establish a USNC TAG. The approval of consumer advocate is to be recorded in the minutes each year.

USNC Honorary Life Members: The MOP establishes that Honorary Life Members do have voting rights within the USNC TAG. 

Call for Action and Participation in Standards!

USNC Participants and TAG Administrator Needed For:

IEC approved one (1) new Subcommittee: IEC/SC 8C: Network Management

Individuals who are interested in becoming a participant or the TAG Administrator for SC 8C: Network Management are invited to contact Adelana Gladstein at agladstein@ansi.org as soon as possible.

Please see the scope for SC 8C below:

Scope:

Standardization in the field of network management in interconnected electric power systems with different time horizons including design, planning, market integration, operation and control. SC 8C covers issues such as resilience, reliability, security, stability in transmission-level networks (generally with voltage 100kV or above) and also the impact of distribution level resources on the interconnected power system, e.g. conventional or aggregated Demand Side Resources (DSR) procured from markets.

SC 8C develops normative deliverables/guidelines/technical reports such as:

- » Terms and definitions in area of network management
- » Guidelines for network design, planning, operation, control, and market integration
- » Contingency criteria, classification, countermeasures, and controller response, as a basis of technical requirements for reliability, adequacy, security, stability and resilience analysis
- » Functional and technical requirements for network operation management systems, stability control systems, etc.




- » Technical profiling of reserve products from DSRs for effective market integration.
- » Technical requirements of wide-area operation, such as balancing reserve sharing, emergency power wheeling.

IEC approved one (1) new Committee: IEC Project Committee (PC) 128: Operation of electrical installations

Individuals who are interested in becoming a participant or the TAG Administrator for PC 128: Operation of electrical installations are invited to contact Adelana Gladstein at agladstein@ansi.org as soon as possible.

Please see the scope for PC 128 below:

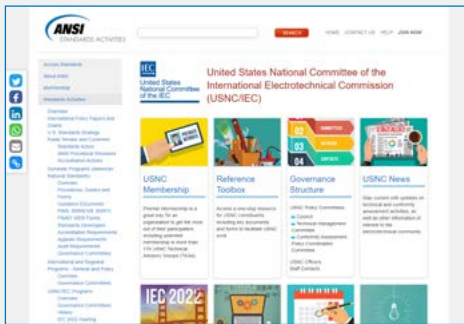
Scope:

Standardization in the field of broad (general) principles of operation of electrical installations. These operating instructions are intended to ensure that all operation of and work activity on, with, or near electrical installations can be carried out safely. These are electrical installations operating at voltage levels from and including extra-low voltage up to and including high voltage. These electrical installations are designed for the generation, transmission, conversion, distribution and use of electrical power. Some of these electrical installations are permanent and fixed, such as a distribution installation in a factory or office complex, others are temporary, such as on construction sites and others are mobile or capable of being moved either whilst energised or whilst not energised nor charged. 

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The USNC has a fresh and new look to our website!

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DECISION DEPOT



This column provides easy access to recent decisions that have been made regarding IEC and USNC policies and procedures that directly affect

our members. Click the link below to access the recent decisions.

See the Decision List below for the decision at at SMB meeting 167, held on February 12, 2020 in New Delhi, India

[SMB: SMB/6970/DL](#)

UPCOMING EVENTS

Due to the ongoing health crisis, many upcoming events have been postponed or are being held remotely. Please check the website of the individual organization for up-to-date information.

OPPORTUNITIES FOR YOUNG AND EMERGING PROFESSIONALS IN STANDARDS: AN INTRODUCTION TO THE USNC AND IEC WEBINAR

May 20, 2020 at 2:00 PM EDT

To register for the webinar, please contact Ade Gladstein (agladstein@ansi.org).

Save the date!

IEC 2022 General Meeting, Host City: San Francisco

Sponsor the IEC 2022 General Meeting, hosted by the USNC

For only the seventh time since 1904, the United States is gearing up to host the IEC General Meeting, 31 October – 4 November, 2022, in San Francisco. Organizations with a stake in all areas of electrotechnology are invited to demonstrate their commitment to international standardization and conformity assessment through sponsorship of the 10-day event.

For more information, see the [IEC 2022 Sponsorship Brochure](#) or contact Adelana Gladstein at: agladstein@ansi.org or 212-642-4965.



Thank you to the organizations already on board as IEC 2022 sponsors!



ABOUT THIS PUBLICATION

The USNC Current newsletter is distributed to the constituency of the U.S. National Committee (USNC) of the International Electrotechnical Commission (IEC). It provides updates on technical activities and other information of interest to members of the electrotechnical community. Some articles are reprinted with permission from the IEC News log.

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Contributions are gladly accepted for review and possible publication, subject to revision by the editors. Submit proposed news items to: Scott Fogel, sfogel@ansi.org