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Without cooperation and communication between organizations, International Standardization work can be hampered by unnecessary obstacles, particularly in areas of emerging technologies. The IEC recognizes the benefit to all in sharing the issues we face and knowledge gained as we delve into new and exciting areas of uncharted territory. Here, IEC vice president and Standardization Management Board (SMB) chairman Frank Kitzantides shares his insights on the growing collaboration between the SMB and the International Organization for Standardization's Technical Management Board (TMB).

The International Electrotechnical Commission: Increasing Cooperation and Collaboration

*by Frank Kitzantides
IEC Vice President and SMB Chairman*

In February 2004, one of my goals as the new IEC vice president and chairman of the Standardization Management Board (SMB) was to increase cooperation with the International Organization for Standardization (ISO) Technical Management Board (TMB), to deal with emerging and converging technologies and to minimize duplication of the technical work. This also became one of the goals of the subsequent SMB Standardization Strategy, first published in 2005, under Objective 5, "Reduce the costs of participation in the standards development process."

Building Relationships

Ziva Patir of the Standards Institution of Israel (SII) and I had known each other for a number of years. Ms. Patir was also the ISO vice president technical, and chairman of the TMB. She invited me to the TMB meeting in June 2004. We both thought that this was timely and a great opportunity to get our two technical management boards to start talking to each other.

This was the first time in the history of the two organizations that the chairman of one of the technical management bodies was invited to attend the meeting of the other body. While TMB was a smaller body than SMB and operated differently, it still dealt with technical policy issues that are common to both ISO and IEC. These issues include global relevance, TC/SC strategic business plans, security,

environment, energy efficiency, nanotechnologies, etc. The TMB meeting was very informative, and Ms. Patir and I agreed that occasional attendance by both TMB and SMB chairs at each others' meetings would improve cooperation and synergy of the two organizations.

Ms. Patir was subsequently invited to and attended the IEC SMB meeting in February 2005, and was a (continued)



LATEST FROM THE IEC

IEC Smart Grid Portal Addresses Global Energy Challenges

The IEC has provided a basis for building safe and efficient Smart Grid projects with the launch of its web portal, *IEC Global Standards for Smart Grid*. This unique one-stop access point provides a comprehensive catalogue of focused standards for anyone involved in Smart Grid projects.



The dedicated web zone, which will be expanded as projects evolve, provides users with a single database of standards that are applicable to a large variety of Smart Grid projects. It clearly demonstrates the purpose of Smart Grid standards in facing technical and interoperability challenges.

The site also provides a definition of the Smart Grid concept, a section regarding regional differences, context, and needs, and is a good starting point for anyone wishing to understand what Smart Grid is all about. The aim of Smart Grids is to optimize energy distribution and use, as well as integrate electricity from small and big producers and from renewable sources. To do so, Smart Grid projects depend on protocols and standards that assure seamless interoperability of existing and new devices and systems.

To satisfy global energy needs and protect our planet, we must become increasingly efficient in how we produce, distribute, and use energy. The IEC's web portal, along with its framework for standardization developed with leading experts on Smart Grid technology, will help many countries to take the first step toward addressing their energy efficiency challenge.

Further information

To visit the *IEC Global Standards for Smart Grid* web portal, [click here](#). ■

FEATURED ARTICLE

The International Electrotechnical Commission: Increasing Cooperation and Collaboration (continued)

frequent attendant at SMB meetings throughout her term of office. Her successor, Jacob Holmblad of the Danish Standards Institution, continues to support the need for strong cooperation and liaison between SMB and TMB, and has supported the chairs' participation at each others' meetings. Mr. Holmblad and I have developed an excellent cooperation.

Reciprocal Benefits

The first joint meeting between representatives of TMB and SMB was held in May 2006, and there have been annual meetings ever since. At these meetings we review crossover issues, exchange views, express concerns, and discuss specific technical and policy issues that cannot be resolved between the staffs of the two organizations. It should be noted that the joint TMB/SMB group does not have decision-making powers, and any recommendations must be approved by the SMB and TMB.

Meetings are held in Geneva during the week in June when the regular SMB and TMB meetings take place in order to accommodate the members. The number of representatives from each group is small, usually not more than five, and is chosen on a rotational basis considering the size of the country, the geography, balance of interests, and the issues involved.

I believe these meetings have been beneficial and have helped alleviate questions of dispute. We have been able to resolve a number of areas of overlap and duplication. There has also been strengthening of TMB and SMB collaboration with the establishment of several joint groups to address such crossover issues as market relevance, simplifying the range of ISO/IEC deliverables, and approving guidelines for technical committees (TCs) developing standards to support public policies.

Also, good collaboration was established

between TMB and SMB Strategic Groups addressing energy efficiency and renewable energy sources, environmental standardization, security, and nanotechnologies.

In general, we have been so successful that

there was no need for the activation of the Joint Technical Advisory Board of SMB and TMB (JTAB), or "the court of last resort" for technical disputes between ISO and IEC.

Future Considerations

While there is good progress today – certainly a vast improvement from the past – as technologies converge, jurisdictional issues will continue to emerge. Early detection of such issues is important, and the two secretariats must keep each other informed and, whenever possible, try to resolve jurisdictional issues before they are brought up at SMB and TMB.

Secretariat staffs, including the two chief executive officers, must continue to pursue cooperation and collaboration as vital to our stakeholders, and must also ensure that the established procedures in the ISO/IEC Directives Part 1 are followed. These procedures state in part that the allocation of work between ISO and IEC is based on the agreed principle that all questions relating to international standardization in the electrical and electronic engineering fields are reserved to IEC.

With these considerations in mind, cooperation and collaboration between IEC and ISO should continue to grow and provide mutual benefit for both organizations as exciting new technologies emerge in the future. ■



*Frank Kitzantides,
IEC Vice President
and SMB Chairman*

LATEST FROM THE IEC

ACOS Safety Workshop Brings Together Organizations, Industry, Governments

by Lawrence B. Farr
Eaton Corporation

Safety is the subject of substantial regulation all over the world, and the IEC is active in the key standardization work required. A workshop entitled *Risk assessment in IEC safety standardization work supporting regulations* was developed by the IEC Advisory Committee on Safety (ACOS) in response to Goal 1 of IEC Masterplan 2006: Closer cooperation between IEC standard writers and regulators.

This ninth international ACOS workshop took place May 18–19 in Milan, and was attended by 100 stakeholders from 15 countries. The workshop was sponsored by the Italian National Committee of the IEC as part of their 100th anniversary celebration.

Friedrich Harless, ACOS chairman, set the tone for the workshop with a discussion of “International Standardization and the Role of IEC.” ACOS secretary Charles Jocquemart discussed the role of ACOS in establishing safety standards. Hiromichi Fujisawa, IEC vice president and Conformity Assessment Board (CAB) chairman, discussed the role of conformity assessment.

Norbert Anselmann of the Directorate General Enterprise and Industry discussed the role of standards in the regulatory environment in the European Commission, followed by input from government representatives of Japan, China, and the United States.

The afternoon session was led by Christoph Preusse, chairman of IEC Technical Committee (TC) 199, *Safety of machinery*, discussing the development of IEC Draft 62368, *Audio/video, information and communication technology equipment – Safety requirements*, using the hazard-based approach. The IEC

guide *Guidelines for safety related risk assessment and risk reduction for low voltage equipment* was also reviewed.

The second day featured a look at systematic risk assessment and its implementation in product standards. The basis for the discussions was a newly developed “hazard list” drawn from Annex A of IEC Guide 104, *The preparation of safety publications and the use of basic safety publications and group safety publications*.

Each breakout group was issued a particular type of equipment and charged with developing a standard for safety for that type. The equipment assignments were:

- Office equipment (printer)
- Audio/video equipment (flat screen)
- Household equipment (espresso machine)
- LV portable luminaire

Workshop participants developed a number of main conclusions: Firstly, risk assessment for low-voltage equipment is already widely used by test houses, market inspectors, authorities for safety regulations, etc. The approaches were found to be different in many regions of the world, and the use of a risk assessment guide would be beneficial for achieving harmonization of working methods among different authorities.

Secondly, technical requirements for products must be consistent if they are to allow conformity assessment techniques to be effective. And finally, accident monitoring and

assessment is not just the responsibility of the manufacturer, but also of governments. It is vital for all groups to give good feedback to the IEC for effective standards development. ■



LATEST FROM THE IEC

NCs of the Americas Meet in Buenos Aires

The Forum of IEC National Committees

of the Americas (FINCA) held its annual meeting September 21–22 in Buenos Aires, Argentina.



FINCA members

Members of

FINCA are the IEC National Committees (NCs) of Argentina, Brazil, Canada, Mexico, and the United States. The forum was hosted by the Comité Electrotécnico Argentino (CEA), the Argentinean National Committee of the IEC, and the Instituto Argentino de Normalización y Certificación (IRAM).

The agenda covered major focal points and meetings of the IEC, plus regional issues. Amaury Santos, regional manager of the IEC Latin America Regional Centre (IEC-LARC), provided a report on recent IEC activities, and members commented on the regional situation. Among the discussions was how to improve contact and facilitate communication with countries in the Americas who are participants in the IEC Affiliate Country Programme. Members debated how they might stimulate their participation in IEC technical meetings, fora, and other events.

Attendees agreed to compile a list of regional events at which it would be useful for FINCA members and IEC-LARC to be present. They also agreed to continue the FINCA workshop in conjunction with the Pan American Standards Commission (COPANT) Annual Meeting (next meeting, April 26–30, 2010, in Mexico City), to develop a mentoring program to help countries in the Affiliate Country Programme, and to consider creating a multi-language website for information on IEC and electrotechnical activities in the Americas.

After FINCA countries had drawn up an action plan to cover all the issues discussed, they accepted the invitation of the Brazilian NC to host the FINCA meeting in 2010. ■

2009 IEC General Meeting Held in Tel Aviv, Israel

The 73rd IEC General Meeting (GM) was held October 18–22 in Tel Aviv, Israel.

It was hosted by the IEC National Committee (NC) of Israel, the Standards Institution of Israel (SII). Over 1,100 delegates from 44 countries participated in the meetings of 44 Technical Committees (TCs) and Subcommittees (SCs) including, for the first time, the International Organization for Standardization (ISO)/IEC Joint Technical Committee (JTC) 1 Plenary. The IEC Strategic Management Board (SMB) also met.

General Meeting Highlights

Elections: Dr. Klaus Wucherer from Germany was elected as future IEC President for a three year term (January 1, 2011–December 31, 2013). The current members of the Council Board (CB) and the Conformity Assessment Board (CAB) were re-elected (there were no additional candidates submitted), as were the current members of the SMB (an additional SMB candidate from Mexico was not elected).

Deferral of dues: With the continued challenges presented by the global economic crisis, the dues deferral option – allowing member countries to defer 40% of their annual dues against a 5-year promissory note (interest of 0.1% per annum) – was extended for 2010.

Coping with the energy challenge: The Market Strategy Board (MSB) Special Working Group (SWG)'s white paper was reviewed at the MSB meeting, and a number of issues were raised. Most important was the inclusion of a new section on nuclear power generation. The white paper stresses that the best way towards energy efficiency is to use electricity – for example, electric vehicles (EVs) over gasoline. The document will be finalized and submitted to the CB for approval and circulation to NCs early next year. A task force was also established to review and develop short term priorities on electrical energy efficiency.

Technology round table: Issues raised by MSB participants included EVs, electrical power storage systems, wireless power transmission, and medical power systems. A list of technologies will be established to identify those that need immediate attention (for most of them, standardization activities are already underway). A new SWG was set up to deal with certification of systems in “optimized, connected enterprises.”

Policy on meeting attendance fees: The Executive Committee reconfirmed the IEC policy that NCs hosting IEC meetings (TCs, SCs, or their Working Groups [WGs]) are not permitted to charge their delegates meeting participation fees. This policy does not apply to other fees (e.g., for social events).

E-Mobility Workshop: A workshop sponsored by SII featured prominent speakers, including Shai Agassi, the founder of Better Place, who is pushing forward the electric car. Better Place is designing and installing charging points and battery switch stations for electric cars and partnering with Renault to design an electric car. Mr. Agassi said that Israel will have the first electric car network in 2011.

Presidents Workshop: The second NC Presidents Workshop was well received, with good exchange of ideas on members' needs and priorities and how IEC should address them.

SMB Meeting Highlights

Smart Grid: The SMB/Strategic Group (SG) 3, identified 24 IEC TCs with published International Standards playing a role in Smart Grid initiatives and discussed how these standards address the priorities of stakeholders. The SG agreed on a basic set of standards representing cross-cutting needs and provided information on the status of the work through Frameworks 1 and 2 of the action plan.

SG 3's convener and secretary attended the National Institute of Standards and Technology



Tel Aviv, Israel

(NIST) Smart Grid Workshop in August 2009 and reported that IEC standards were recognized as crucial in the development of the NIST roadmap (which at present includes 10 IEC standards). IEC agreed to actively support identified and prioritized action fields. SG3 will review the list of some 60 standards identified by NIST at its meeting in Denver on November 19–20.

Power transmission from offshore to onshore:

Following an initiative from Sweden on this subject, TC 18, *Electrical installations of ships and of mobile and fixed offshore units*, together with other relevant IEC and ISO committees, will consider which new standards are required to cover high-voltage (HV) offshore based non-explosive power stations, both for receiving power from onshore and for supplying the onshore grid. TC 20, *Electric cables*, will inform SMB when a mature International Council on Large Electric Systems (CIGRÉ)–B1 document for onshore cable standard for HV AC and DC is available for use as the basis for an International Standard.

Telephone chargers: A Memorandum of Understanding (MoU) regarding mobile phone chargers was signed by Digital Europe (a consortia of industrial stakeholders in the mobile telephone industry) and the European Commission to develop European standards based on their micro-USB specification. The E.U. standardization mandate for a one-charger-fits-all solution has been sent to the European standards developing organizations (SDOs). Digital Europe will give the copyright of their existing specification to the European SDO nominated by the E.U. to develop

2009 IEC General Meeting Held in Tel Aviv, Israel (continued)

European Norms (ENs). These ENs, once published, would then be submitted, via the Dresden agreement, to IEC. The MoU states, among other items, that all who had signed will in the future deliver mobile phones equipped with a socket that enables charging through the micro-USB.

Within IEC, TC 100, *Audio, video and multimedia systems and equipment*, has two projects on 2-mm barrel connectors and is in the process of communicating with the USB Forum, the owner of the micro-USB specification, with a view to allocating intellectual property rights to IEC for future new proposals (NPs) by TC 100.

Alternative referee test methods: It was agreed that the IEC should be flexible and allow each TC/SC to decide, as a function of their needs, on the necessity of designating a referee test method. This will require a revision to the wording of the ISO/IEC Directives, expected to be finalized at the next SMB meeting in February 2010.

IEC Guides: It was agreed that TC/SC attention should be drawn to the fact that the IEC Guides contain mandatory as well as non-mandatory text. A review has been undertaken to identify the mandatory and non-mandatory parts. All future Guides will give a clear indication of these elements. ISO/IEC Guides will also be considered for review in the future.



Automotive electrotechnics: The draft revision of the 19-year-old ISO/IEC Agreement was postponed by the ISO TMB until February 2010, mainly due to objections from ISO TC 122, *Road Vehicles*, who felt that the present

Agreement clearly and sufficiently delineates the responsibilities of ISO and IEC.

While it is expected that SMB and TMB will approve the revised MoU early next year, positioning IEC interests in this emerging electric vehicle technology continues to be difficult despite advancements in the electric vehicle industry that demonstrate the need for IEC to become the key player. SMB and TMB are exploring ways of synergy and closer cooperation. The next joint SMB/TMB group session is scheduled for June 2010.

SMB Strategy 2008–2011: The Brazilian and Dutch SMB members reported on how experts are recruited in their countries. They discussed how they identify new areas where full consensus standards are needed, soliciting input from academia and research institutes. All the presentations will be made available on the IEC website so that NCs can learn from each other. Australia, Sweden, and the U.S. will report at the next meeting.

SMB SG 4 on Low-Voltage (LV) DC: The new SG 4, *LVDC Distribution Systems up to 1500V*, has established its membership under the convenership of Sweden. The group has produced a program with three meetings planned, the first to take place in December.

SMB SG 2: The SMB received a report from SG 2, *Standardization of Ultra-High-Voltage (UHV) Technologies*. The SMB approved recommendations on the scope of SG 2, on providing a definition of UHV, and on creating a road map for UHV DC technologies.

Joint IEC-CIGRÉ Coordination Group (JICCG): Having given the report from its final meeting, the JICCG was disbanded. The report provides guidance to IEC and CIGRE in the development of UHV standardization for AC and DC where the state of the art permits such standardization to be undertaken. Outstanding issues identified by JICCG will be addressed by SMB SG 2.

SMB SG 1: The work of SG 1, *Energy Efficiency and Renewable Resources*, is progressing quickly, and its 24 recommendations are being implemented. A detailed report with possible additional recommendations is expected for the February 2010 SMB meeting.

TC 23: TC 23, *Electrical accessories*, has been requested to develop a plan to address the concerns of the USNC, supported by other NCs, about several TC 23 standards covered by its SCs that do not reflect the needs of significant global markets, and to revise its Strategic Business Plan accordingly. This matter primarily concerns plugs and socket outlets.

ISO/IEC JTC 1: The chairman of ISO/IEC JTC 1, *Information Technology*, reported on several on-going issues, including alignment with the ISO/IEC Directives, coordination and liaison with TC 100, and the JTC 1 initiated innovations. SMB noted the JTC 1 initiative for the establishment of a SWG on Smart Grid and emphasised that Smart Grid activities should be coordinated in one body, namely SMB SG 3.

Relations with other SDOs: Several cross-over issues between ISO and IEC are under consideration. One is mechatronics, where an ISO proposal for a new field of technical activity could duplicate ongoing work in existing ISO and IEC TCs. ISO/TMB and SMB are to consult further before continuation of this work. There was an inquiry about CENELEC's action to reject the adoption of IEC standards as ENs as a result of the IEC-IEEE Dual Logo Agreement. The CENELEC representative reported that these will be considered on a case-by-case basis.

U.S. hosts next GM: Finally, it was formally announced that the 2010 GM will be held in Seattle on October 6–15. With over 91 TCs and SCs represented and over 2,400 delegates and accompanying persons in attendance, it will be the largest GM to date. ■

LATEST FROM THE IEC

Korean Fuel Cell Workshop Promotes Further Collaboration

A June 13-15 workshop brought together over 30 experts at the invitation of the IEC and Seoul National University (SNU) School of Mechanical and Aerospace Engineering to discuss the latest research and standardization developments in fuel cells. *The International Workshop on Fuel Cell Systems 2009 – Research and Standardisation* was held in connection with the plenary meeting of IEC TC 105, *Fuel cell technologies*, in Seoul.

Fuel cells have recently been re-identified as offering tremendous potential in addressing global environmental and energy concerns, and research activities have been strengthened. But as the technology grows, marketability, safety, and sustainability are increasing challenges. This workshop was organized to bring together science and industry to address these issues.

IEC TC 105 presented background on the development of fuel cell safety standards, as well as the industrial view on sustainable fuel cell life cycle analysis, access to market, and regulation. The development of a Polymer Electrolyte Fuel Cell (PEFC) system performance standard was discussed to show operational activities of standardization.

SNU's current research activities were highlighted in presentations on analysis and modelling of Solid Oxide Fuel Cell (SOFC)/ Gas Turbine (GT) hybrids and their performance and application, flow visualization of the dynamic water transport in PEFC, and research on PEFC fabrication for improving performance and durability. Discussions on micro fuel cell systems and Balance of Plant (BoP) systems for portable fuel cells demonstrated the importance of research in product development. ■



LATEST FROM THE IEC

IEC TC 113 Takes First Steps toward Nanoelectronics Standards Roadmap

Since its first official meeting took place in March 2007, IEC Technical Committee (TC) 113, *Nanotechnology standardization for electrical and electronic products and systems*, has seen dramatic growth and activity. Under the leadership of Norbert Fabricius, secretary, Thomas Chapin, chairman, Gerd Weking, assistant secretary, and Rémy Baillif, technical officer, TC 113 now comprises 87 experts from 12 nations who work in close cooperation with ISO TC 229, *Nanotechnologies*.

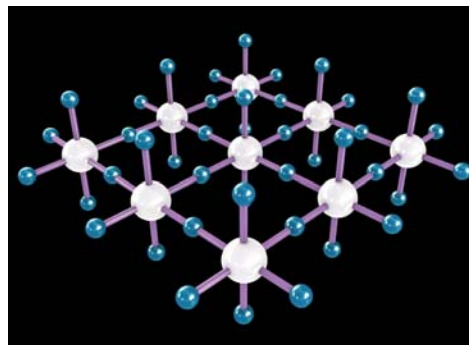
What Is Nano?

Now familiarly used but not always fully understood, the term *nano* actually relates to matters of scale. *Nanotechnology* does not concern just one area of technology but is transversal and can be applied to many matters that have a bearing on electrotechnology. The common denominator between all is that the outstanding performance obtained with nanotechnology-enabled products emanates from structures that measure less than 100 nanometers.

Nanotechnology is multidisciplinary and therefore, within the IEC, can be associated with electronics, magnetics and electromagnetics, electroacoustics, multimedia, telecommunication, and energy production. Specific topics that the committee focuses on are terminology, symbols, measurement and performance, reliability, design and development, electromagnetic compatibility, safety, and the environment. Activities revolve around components or intermediary assemblies that emanate from nano-scaled materials and processes. The relevant fields include:

- Nano-structured sensors
- Nanoelectronics, materials and devices
- Optoelectronics
- Optical materials and devices
- Organic (Opto) electronics
- Magnetic materials and devices
- Radio frequency devices, components and systems
- Electrodes with nano-structured surfaces
- Electrotechnical properties of nanotubes/nanowires
- Analytical equipment and techniques for measurement of electrotechnical properties
- Patterning equipment and techniques, mask and lithography
- Performance and reliability assessment for nanoelectronics
- Fuel cells
- Bioelectronic applications

Nanotechnology is expected to be one of the key technologies of the 21st century. It has



enormous potential for the development of new products with exceptional performance. Recent reports indicate that the materials and equipment market for nanoelectronics was \$1.8 billion in

2005 and is expected to grow to over \$4 billion in 2010. The continued rapid growth of nanotechnology-based industries has required increased international standardization activities to support equitable and efficient business models. Effective International Standards will permit the use of nano-enabled products in any nation.

Steps Taken

TC 113 recently collaborated with two U.S. entities, the National Institute of Standards and

LATEST FROM THE IEC

IEC TC 113 Takes First Steps toward Nanoelectronics Standards Roadmap (continued)

Technology (NIST) and Energetics Incorporated, to conduct a survey of members of the international community on priorities for standards and measurements in this field. The survey ran for approximately 6 months during 2008 and elicited more than 450 completed survey responses from 45 countries.

Energetics Incorporated and NIST then conducted a joint statistical analysis of the survey results and wrote a paper detailing the analysis. The paper, "Priorities for Standards and Measurements to Accelerate Innovations in Nano-Electrotechnologies: Analysis of the NIST–Energetics–IEC TC 113 Survey," was published in the *NIST Journal of Research*, Volume 114, Issue 2, March–April 2009.

The survey results, which were analyzed by two different statistical methods, gave consistent priorities for items ranked in each of five nano-electrotechnology categories: 1. properties; 2. products; 3. cross-cutting technologies; 4. general discipline areas; and 5. stages of the linear economic model.

The global consensus prioritizations suggested that IEC TC 113 should focus initially on standards and measurements for electronic and

electrical properties of sensors and fabrication tools that support performance assessments of nanotechnology-enabled sub-assemblies used in energy, medical, and computer products.

In view of the fact that TC 113 members consulted with a great number of people representing a broad cross-section of the nano-electrotechnology community, it was of no surprise to note the qualitative nature of the findings. The findings served to validate TC 113's planning efforts and demonstrated that its overall strategy is fully coherent.

Mapping a Course

The IEC TC 113–NIST–Energetics survey was the first step in developing the IEC TC 113 Nanoelectronics Standards Roadmap (INSR). The survey results will be used by members of TC 113 as part of the inputs to the INSR, intended to formulate a vision of market needs in terms of products and cross-cutting technologies for nano-electrotechnology, and standards and associated measurements to accelerate innovation, fabrication, commercialization, and use of products during their entire life cycle from research to end-of-life/recycling/disposal.

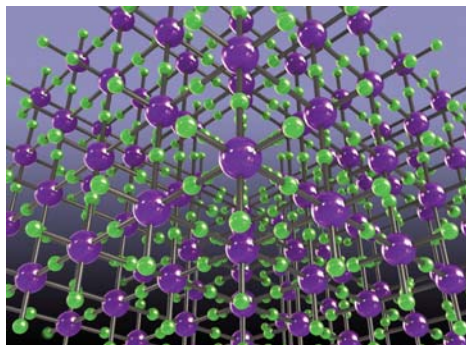
The INSR will be an IEC integrated roadmap involving IEC stakeholders. These stakeholders include the IEC National Committees that represent the electrotechnical industries in their respective countries, as well as IEC TC 113 liaison organizations such as the Institute for Electrical and Electronics

Engineers (IEEE) and Semiconductor Equipment and Materials International (SEMI).

The INSR will be developed by a newly formed Task Group within IEC TC 113 and published as a

Technical Report that will be revised twice a year. The officers of IEC intend that the INSR will complement other publicly available roadmaps such as the U.S.-based International Technology Roadmap for Semiconductors (ITRS) and the IEEE Nanoelectronics Standards Roadmap.

By setting up the INSR, TC 113 is leading the way forward, providing the means to other branches of technology to concentrate on their own areas of work while assuring that they are responding to market needs. ■



LATEST FROM THE IEC

IEC General Secretary and CEO Ronnie Amit Visits ANSI

Aharon (Ronnie) Amit, General Secretary and CEO of the IEC, met with leaders of the USNC and the American National Standards Institute (ANSI) during a visit to the United States on July 22–23.

On Wednesday, July 22, Mr. Amit addressed officers and Council members of the USNC, officers of ANSI's board of directors, and ANSI senior staff in a series of meetings held at ANSI headquarters in Washington, DC. On Thursday, July 23, Mr. Amit spoke at a meeting of the ANSI Executive Committee, also in Washington.

During the discussions, Mr. Amit highlighted the quality, experience, and seniority of the technical experts who populate IEC Technical Committees, as well as the quality and level of experience of managers. He stressed IEC's continued goal of more efficient processes and tools for the development of International Standards. And he addressed IEC's efforts to identify market needs, manage its intellectual property, distinguish between national interests and global interests, and utilize International Standards as strategic tools, particularly to drive the participation of developing nations.

"This was an excellent opportunity to discuss the challenges and opportunities we all face in standards and conformity assessment at the national and global level," said Jim Matthews, USNC president.

Ronnie Amit became IEC General Secretary on January 1, 1999, and previously served as Deputy General Secretary and Special Operations Director. ■



(L-R): S. Joe Bhatia, ANSI President and CEO; Ronnie Amit, IEC General Secretary and CEO; Art Cote, Chairman of the ANSI Board of Directors

LATEST FROM THE IEC

2009 IEC Lord Kelvin Awards Presented

During the October General Meeting in Tel Aviv, Israel, IEC President Jacques Régis presented the 2009 IEC Lord Kelvin Award to three recipients: Thomas A. Hanson, Uwe Klausmeyer, and Koichi Mori. This prestigious award acknowledges outstanding contributions to IEC electrotechnical work in international standardization, conformity assessment, and related activities.



Thomas A. Hanson of the United States is an internationally recognized expert in fiber optics and a strong proponent of consensus standardization who has made substantial contributions in the telecommunications sector for optical communications. He has been a key leader, author, and contributor to IEC TC Technical Committee (TC) 86, *Fibre optics*, and has served as a liaison between IEC and the Telecommunication Standardization Sector (ITU-T).

Uwe Klausmeyer of Germany is a leading authority on explosive atmospheres and, for the past six years, chairman of the IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX). His efforts in the area of conformity assessment have resulted in the system becoming the single global compliance structure it is today for the many specialized industries involved in the Ex field.

Koichi Mori of Japan is a world authority on environmental issues and promoter of international standardization. He was elected chairman of IEC TC 111, *Environmental standardization for electrical and electronic products and systems*, from its outset in 2005, and remained until his recent retirement. As the Japanese delegate to the IEC Standardization Management Board (SMB), he has been an invaluable contributor to environmental standardization matters. ■

LATEST FROM THE IEC

IEC Updates the WTO at TBT Committee Meeting

On June 25–26, the IEC presented an update on its activities to the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Committee meeting in Geneva. The IEC was represented by Françoise Rauser in her capacity as IEC international liaison officer. She gave a brief statement concerning IEC activities for the first semester of 2009. A new Committee chairperson, Ami Levin of Israel, was elected during the two-day meeting, which was attended by approximately 100 participants. The meeting made reference to document G/TBT/W/310: *Summary Report of the TBT Workshop on the Role of International Standards in Economic Development*, of March 16–17, 2009. This report includes a case study about Kenya by IEC affiliate coordinator for Africa Evah Oduor and another about Costa Rica by IEC Affiliate Country Programme Leader Carlos E. Rodríguez.

At the top of the agenda was a discussion of the Fifth Triennial Review of the TBT Agreement and an examination of its current implementation. This meeting was the last opportunity for the TBT Committee to convene before the fifth revision of the TBT Agreement at the meeting scheduled for November 5–6. The Fifth Triennial Review covers good regulatory practice, conformity assessment (CA) procedures, the legitimacy of private standards versus international standards, definition and use of international standards, transparency, technical assistance to developing countries, and operation of the TBT Committee.

The work program on technical regulations included a proposal that the WTO Secretariat undertakes a comprehensive analysis on the current status and cause of increased technical regulations and their trade effects.

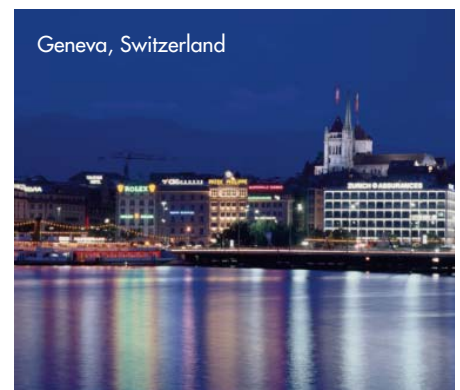
Over 50 trade concerns were discussed, many of which referred to electrical and electronic products. IEC conformity assessment systems and International Standards were mentioned several times.

The IEC report included information on its new Technical Committee (TC) 115, *High Voltage Direct Current (HVDC) Transmission for DC voltages above 100 kV*, and its work. Standards in this field will facilitate the more efficient transmission of greater quantities of electrical energy. IEC recommendations on electrical energy efficiency are now being implemented, including the development of new performance standards. Work on Smart Grids is now moving forward with the matrix analysis of the relevant TCs providing details of IEC standards that can be used as part of national and regional initiatives.

The IEC also reported that membership and participation in the IEC Affiliate Country Programme has grown from 155 to 159 countries. The report lists the benefits to developing countries of the IEC Affiliate Country Programme in the field of electrical safety, giving examples of relevant IEC standards being used on national levels.

Finally, the IEC report informed the WTO that it has developed guidelines in cooperation with the Affiliate Leader to establish a National Electrotechnical Committee (NEC). These guidelines are to help developing countries involve as many stakeholders as possible, in particular in the selection of free IEC standards for national adoption. This structure allows IEC Affiliates to represent all national interests when making comments on IEC International Standards, as the TBT Committee recommends. ■

Geneva, Switzerland



LATEST FROM THE IEC

First Plenary Meeting of IEC TC 115 Takes Place in Beijing

Scheduled to immediately follow the 2009 International Conference on Ultra High Voltage (UHV) Transmission, the first plenary meeting of IEC Technical Committee (TC) 115, *High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV (provisional)*, was held May 22–23 in Beijing. Thirty delegates from eight Participating (P-) member countries (China, Germany, France, Japan, Malaysia, Netherlands, Sweden, and Russia) and one Observer (O-) member country (Ukraine) attended, and seven P-member countries gave presentations on the state of HVDC transmission for DC voltages above 100 kilovolts (kV) in their countries.

Attendees discussed propositions for TC 115's title, scope, and Strategic Business Plan (SBP). No objections were made to the title, "High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV." However, it was not possible to reach a consensus on the scope and the SBP. Provisionally, the scope is as follows: "Standardization in the field of HVDC transmission technology above 100 kV. The contents encompass general standards, design, technical requirements in the field of HVDC equipment, construction, and commissioning for acceptance, operation and maintenance, system control, and protection." An ad hoc group has been established to work on these issues.

The 2009 International Conference on UHV Transmission was held earlier in the week, May 21–22. It was attended by representatives from governments, industry, power utilities, research-and-development institutes, academia, and financial organizations from 21 countries and regions, and was

intended to promote wider communication, cooperation, and sharing of experience and progress in the field of UHV power transmission and smart grid technologies across the global energy community.

Among the attendees were Chinese vice premier Zhang Dejiang; Liu Zhenya, president of the State Grid of China Corporation (SGCC); and SGCC executive vice president Shu

Yinbiao. Speakers included Enno Liess, IEC vice president; Jean Kowal, secretary general of the Council on Large Electric Systems (CIGRE); Dusan Povh, chairman of IEC TC 115; and Hisatoshi Ikeda, co-chairman of the

Joint IEC-CIGRE Coordinating Group (JICCG).

Mr. Liess congratulated China on its key efforts in transmitting more electrical energy with greater efficiency, minimal impact on the environment, and the use of fewer resources. He pointed out that the IEC National Committee of China, through the Standardization Administration of China (SAC), participates in all 174 IEC TCs and Subcommittees (SCs), with approximately 400 experts from China actively engaged in the detailed standardization work.

Mr. Liess provided background information on the development of IEC International Standards. He stressed the full life-cycle philosophy that looks at the environmental, energy, and efficiency impact of systems and products from their design through to their decommissioning and disposal. He mentioned the cooperation of the IEC with its sister organizations, such as the International Telecommunication Union (ITU) and the International Organization for Standardization (ISO), and other international partners, such as the International Energy Agency, the World Energy Council, and CIGRE. ■



Three Gorges Dam Project, China

LATEST FROM THE IEC

MSB Special Working Group on EEE Meets in Tokyo

Members of the IEC Market Strategy Board's (MSB) Special Working Group (SWG) on Electrical Energy Efficiency (EEE) met



June 29–30 in Tokyo for a gathering hosted by the IEC Activities Promotion Committee (APC) of Japan. The agenda of this working group was to look to the future and assess overall market needs.

Last year the MSB SWG EEE asked all members to carry out research on electrical energy efficiency and renewable energies in their respective countries. The resulting information was compiled into a draft document, which was discussed at the Tokyo meeting. Among the topics covered were:

- CO2 emissions in terms of energy used
- energy use per person
- cost-effective CO2 reduction, with strategies devised for each country
- energy-related investment possibilities for individuals and governments
- central versus decentralized electricity generation
- electricity load levelling
- low-voltage DC distribution and installation in the home and the office
- energy efficiency measures
- the Smart Grid
- electric energy storage using hydrogen fuel cells for local storage, and cable for transferring bulk energy from remote sites such as offshore wind farms
- electric and hybrid vehicles
- possible future technologies such as power generation from space
- technology transfer aspects to allow developing countries to keep abreast of activities in developed countries

Attendees also decided on work to be carried out for future meetings. ■

USNC NEWS

USNC Presents at NEMA Outreach Seminar in Bogota



Bogota, Colombia

The USNC was among the presenters at the seminar *Standards Systems and Certification of Electrical Installations and Electrical Products - Experiences in Development and Implementation in the USA and Mexico* held by the National Electrical Manufacturers Association (NEMA) in association with L'Instituto Colombiano de Normas Técnicas y Certificación (ICONTEC) on July 22 in Bogota, Colombia.

Opening remarks were given by Andres Taboada V, Colombia's director of energy, followed by panelist presentations. NEMA Mexico's Gustavo Dominguez spoke on why the Latin American nations should become active participants in standardization. Marco Antonio Macias from the National Fire Protection Association (NFPA) stressed the importance of electrical installation codes and standards and conformity assessment.

USNC/IEC deputy general secretary Tony Zertuche's presentation outlined the history and structure of the USNC and the IEC. He talked about how the adage "safety in numbers" is also true for strength, and that you can't win unless you play the game.

Edwin Hernandez of P&G/Duracell spoke on electrical product piracy and its danger to consumers. And Jennifer Boger of the U.S. Department of Commerce described the hazards of all pirated products and reported that international pirating accounts for about \$200 billion in lost revenue.

The seminar was a great opportunity for the USNC, NEMA, and other standards bodies to present not only the advantages of active participation but also the dangers of non-involvement. ■

USNC NEWS

The USNC's John Rennie Receives ANSI Award

John Rennie, longtime USNC leader and retired vice president and manager at FM Global Technologies, has been awarded the American National Standards Institute's (ANSI's) Elihu Thomson Electrotechnology Medal for exceptional contributions to the field of electrotechnology standardization, conformity assessment, and related activities. He was among the fifteen individuals honored at the 2009 ANSI Leadership and Service Awards held on October 6 in Bethesda, Maryland, as part of the World Standards Week series of events.

Mr. Rennie has had, for many years, a major leadership role in the USNC and its predecessor organization, serving as one of the architects of the current organizational structure. He held the office of USNC vice president and was chairman of its Nominations Committee. He has served on the USNC Technical Advisory Committee and as the Technical Advisor to IEC Technical Committee (TC) 31, *Electrical Apparatus for Explosive Atmospheres*, taking an active role in the development of the IECEx system. He has been awarded the USNC's Honorary Life Membership. The USNC congratulates Mr. Rennie on his latest achievement. ■

John Rennie (right) receives the Elihu Thomson Electrotechnology Medal from Art Cote, Chairman of the ANSI Board of Directors



USNC NEWS

Former USNC President Donald Fleckenstein Passes Away at 83

The USNC mourns the loss of Donald C.



Fleckenstein, a valued longtime member of Committee and the standards and conformity assessment community. Mr. Fleckenstein died on September 7, 2009. He was 83 years old.

Mr. Fleckenstein served as president of the USNC from 1982 to 1989, and as a member of the Committee for over two decades. His service promoted the adoption and use of voluntary standards and in improving U.S. relationships with other nations' delegations to the IEC. He also held various leadership positions with American National Standards Institute (ANSI), including vice chairman for the Board of Directors.

Over his decades of service, Mr. Fleckenstein is credited for concluding an agreement on the exchange of technical information between the IEC and the European Committee for Electrotechnical Standardization (CENELEC), revising IEC operating procedures, and strengthening the U.S. position of influence in the IEC process. He received many honors for his work, including the ANSI Astin-Polk Award in 1991 and the IEEE Standards Board Distinguished Service Award in 1997.

Mr. Fleckenstein spent his 39 year professional career at General Electric, most recently as the company's manager of industry standards, providing leadership in maintaining an effective interface with associations, standards organizations, and regulating and legislative bodies.

Mr. Fleckenstein is survived by his wife, Margaret Rickey Fleckenstein, two children, three grandchildren, two great-grandchildren, his brother, and many nieces and nephews. Friends, members, staff, and colleagues of the USNC and ANSI send their thoughts and wishes to Mr. Fleckenstein's family. ■

CONFORMITY ASSESSMENT

IECQ Activities Continue to Expand in Asia-Pacific Region

On October 8–11, IEC Quality Assessment System for Electronic Components (IECQ) participated in a week of meetings, promotion, and outreach in Chinese Taipei (Taiwan) at the annual Taipei International Electronics Show (TAITRONICS) trade show. IECQ enjoyed a highly visible presence on the exhibition floor, as it has done for some years through the efforts of the US Electronic Components Certification Board (ECCB), its Chinese Taipei representative, CTECCB, and a number of ECCB-sponsored certification bodies.

The convener of IECQ Working Group (WG) 6: *Product Approval*, Stanley H. Salot, Jr., and the convener of IECQ WG 8:

Automotive Electronic Components, Joseph Cheng, held meetings at the event, with opening keynote addresses provided by IECQ chairman David Smith.

This year's TAITRONICS, jointly hosted by the Taiwan External Trade Development Council (TAITRA)

and TEEMA, focused on energy efficiency. The show featured a vast collection of electronics components and instruments, light emitting diode (LED) and lighting equipment, wirings, cables, and safety and security monitoring equipment from the region.

Following the rapid growth of the LED market, the LED and lighting section of the exhibition was expanded this year. The Industrial Technology Research Institute (ITRI) organized an LED lighting forum and exhibit area to demonstrate developments at the forefront of the industry and to meet the interests of professionals worldwide. The primary goal was to allow participants to share experiences in the testing technology of LED lighting modules and fixtures, and to

discuss future developments in the standardization of LED lighting elements and devices. Both the forum and the exhibition are supported by the Asia-Pacific Economic Cooperation (APEC) as part of its efforts on energy efficiency. In addition, a renewable energy exhibit area showcased the trends in environmental protection and energy conservation.

A variety of new products were announced at the trade show, focused on green Information Technology, electronics components, security monitoring, Radio Frequency Identification (RFID), metering/electromechanical products, and LED and lighting.

Over the past four decades, IECQ certifications have become an integral part of the whole process for environmentally conscious manufacturers in the Asia-Pacific region. IECQ component certification started in Chinese Taipei in 1982, and over the years has become widely accepted by international component manufacturing companies competing in the global market.

Since the launch of the IECQ Hazardous Substances Process Management (HSPM) Scheme in 2005 at the Taiwan Electrical and Electronic Manufacturers' Association (TEEMA), manufacturers in the Asia-Pacific region, the primary source of electrical and electronic components worldwide, have embraced IECQ HSPM, as well as other IECQ certifications, to demonstrate their commitment to the restriction of hazardous substances in consumer products.

Further information

For more details on the TAITRONICS show, [click here](#). ■



CONFORMITY ASSESSMENT

IECEX Prepares for Launch of Certified Persons Scheme

The IEC System for Certification

to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX) is making rapid progress in

setting up its Certified Persons Scheme. The new scheme is expected to be operational later this year with the issuing of the first certificate planned for early 2010. The program will offer the world's first certifications for persons associated with equipment, installations, and servicing used by Ex industries such as oil and gas, coal mining, and chemical plants.

IECEX Working Group (WG) 12, which is in charge of setting up the new scheme, met in Singapore in June to refine the series of rules and procedures documents developed earlier this year in Frankfurt, Germany. In addition to the main document establishing the program – IECEx 05, *Rules and Procedures for the IECEx Certified Persons Scheme* – several draft operational documents were finalized. They cover the assessment qualification process of certifiers to issue IECEx Certified Persons Certificates, the standard procedures to be adopted by IECEx certifiers, and the detailed list of “Competency Outcomes” for the 10 Competency Units that make up the IECEx Certified Persons Scheme.

To date, IECEx has received numerous requests for IECEx Certificates of Personal Competency from industries ranging from oil and gas producers to equipment manufacturers, consultants, and installation inspectors, all seeking access to the IECEx Certified Persons Scheme.

Further information

Find out more at www.iecex.com. ■



SAVE THE DATES

Save the Dates for Upcoming Events of Interest



DECEMBER 2009

International Organization for Standardization (ISO) and IEC Marketing and Communications Forum
Thursday–Friday, December 3–4, 2009
Geneva, Switzerland

JANUARY 2010

Technical Management Committee (TMC)/Council – Trial Webinar
Tuesday–Wednesday, January 12–13, 2010

FEBRUARY 2010

Standardization Management Board (SMB)
Wednesday, February 10, 2010
Geneva, Switzerland

MAY 2010

TMC/Council Meeting
Tuesday–Wednesday, May 11–12, 2010
Washington, DC

JUNE 2010

Conformity Assessment Board (CAB)
Monday, June 7, 2010
Geneva, Switzerland

Standardization Management Board (SMB)

Tuesday, June 8, 2010
Geneva, Switzerland

SEPTEMBER 2010

TMC/Council Meeting
Wednesday–Thursday, September 8–9, 2010
UL Office, Research Triangle Park, NC

OCTOBER 2010

74th IEC General Meeting
Wednesday–Friday, October 6–15, 2010
Seattle, WA

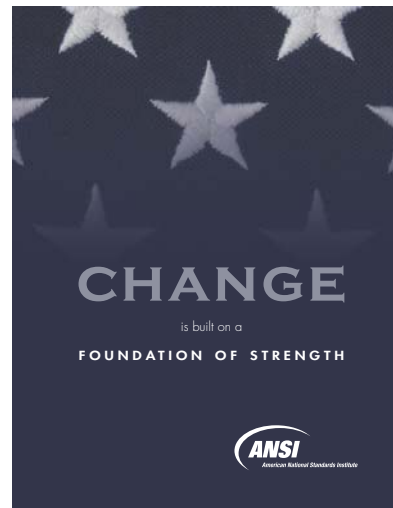
October 11	Standardization Management Board (SMB)
October 12	Conformity Assessment Board (CAB)
October 14	Council Board (CB)
October 15	Council

For a complete schedule of upcoming meetings, or for more information on any of the events listed above, visit www.ansi.org/calendar. Enter "USNC" or "IEC" in the key word search field to narrow the list of results.

ITEM OF GENERAL INTEREST

New ANSI Brochure Outlines Institute's Work on Key Issues through Public-Private Partnerships

A new brochure developed by the American National Standards Institute (ANSI) is now available online and in hard copy. *Change Is Built on a Foundation of Strength* is a brochure targeting members of the new administration that outlines the benefits and contributions of the U.S. standards and conformance system and its use of a consensus-based, public-private partnership model.



The brochure highlights efforts by ANSI and its Federation of members in several critical areas:

- Import safety
- Protecting the nation's water supply
- Sustainability and the environment
- Alternative energies
- More effective energy management practices
- Health information technology
- Homeland security
- Trade and development

In each section, readers can learn about efforts to bring government and industry together to identify consensus-based solutions to the issues facing Americans nationwide.

From ANSI's collaboration with the U.S. Environmental Protection Agency (EPA) on encouraging the production and use of water-efficient products with the WaterSense program, to the Institute's administration of the Healthcare Information Technology Standards Panel (HITSP) under contract to the U.S. Department of Health and Human Services (HHS), public-private partnerships are a critical element of these efforts.

The brochure also outlines a number of

emerging issues and priorities, including:

- Safety and security of the national transportation infrastructure, including bridges, tunnels, roadways, railways, and airports
- Smart Grid technology for the national power delivery system, affording more efficient, economical,

and safe energy

- Education and qualification of the global workforce
- Emerging issues and new developments in nanotechnology and biotechnology
- Intelligent and sustainable design for the next generation of green buildings
- Environmental labeling requirements and guidelines
- Oversight of the global supply chain – from toys and tires to toothpaste and tuna

"No matter the challenge, solutions cannot be developed in a vacuum," explained S. Joe Bhatia, ANSI president and CEO. "The public-private partnership must become stronger so that we achieve results and identify viable, effective solutions through collaboration.

"As coordinator of the U.S. standards and conformity assessment system, ANSI facilitates this partnership between stakeholders from government and industry. We are dedicated to the continued growth of our collaboration, and to the identification of consensus-based solutions that respond to national priorities and emerging technologies."

Further information

To access an electronic version of this brochure, [click here](#). ■

United States to Host IEC 2010 General Meeting in Seattle



The United States is hosting the General Meeting of the International Electrotechnical Commission for only the sixth time

since 1904. The events will be held in Seattle, Washington, during the period of October 6–15, 2010.

More than 2,400 delegates and 750 accompanying persons from around the globe are expected to attend. Pending sponsor support, more than 90 IEC Technical Committees and Subcommittees will be invited to the event.

Sponsorship opportunities are still available for IEC 2010. To learn more, visit www.ansi.org/usnc.



General Sponsors by Category as of October 2009

The USNC/IEC gratefully acknowledges the 55 General Sponsors that have already stepped forward to commit financial resources in support of IEC 2010:

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USNC/IECEX

Thanks are also due to the 62 Technical Sponsors that have committed their support to specific Technical Committee and Subcommittee meetings.



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The USNC *News and Notes* newsletter is distributed to the constituency of the United States National Committee (USNC) of the International Electrotechnical Commission (IEC). Its purpose is to provide news, information, and updates on TC/SC activities among

other items that may be of interest to members of the electrotechnical community.

HOW TO CONTRIBUTE

Submit proposed news items to Tony Zertuche, USNC/IEC Deputy General Secretary, American National Standards Institute.
Tel: 212.642.4961; tzertuche@ansi.org