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As the nanotechnology industry continues its rapid evolution, the need for globally relevant standards – from particle properties and terminology to health, safety, and the environment – is becoming increasingly apparent. In this issue’s featured article, Dr. Brent Segal of Nantero, Inc. discusses the work currently underway within the International Electrotechnical Commission to develop nanotechnology-related standards for the electrotechnology community.

The International Electrotechnical Commission: Setting Global Standards for Nanotechnology

*by Dr. Brent Segal
Co-Founder and Chief Operating Officer
Nantero, Inc.*

As the end of the first decade of this century rapidly comes to a close, critical challenges such as security, alternative energy, health-care, and global warming are facing nations around the globe. In the search for solutions, stakeholders worldwide turn their attention to advances in science and technology, and few areas of research have seen more growth and widespread recognition than nanotechnology.

Indeed, nanotechnology has been on the lips of many policy makers, executives, and even journalists. But few of these stakeholders fully understand what is meant by the term and the many applications of this new technology.

Nanotechnology is the ability to discern, manipulate, and maneuver atoms and surfaces below 100 nanometers in size (a single nanometer is equal to one billionth of a meter). To put this in context, a strand of DNA is about two nanometers in diameter and a small protein is about ten nanometers.

Through recent research, scientists have discovered ways to control these small particles and manipulate them into useful forms. Imagine a particle that has the ability

to sense dangerous chemicals and send a rapid electronic warning signal. It may sound like science fiction, but just such a device is well on its way to being market-ready.

Government and industry alike are paying attention and investing. For example, in 2007 the United States government spent over \$1 billion USD on nanotechnology research and development. On a global scale, the R&D estimates are on the order of \$10 billion USD.

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The burgeoning nanotechnology industry has created a critical need for standards to support the cross-border trade of nano-related goods and services while also protecting the environment and the health and safety of consumers.

while also protecting the environment and the health and safety of consumers. These standards can only be set if there is active engagement by the same individuals and organizations that are working to advance the technology. Stakeholder insights and knowledge help to identify the priorities for standard-setting that will impact the widespread commercialization of nanotechnology and its influence in areas ranging from medicine to energy conservation.

In response to the need for collaboration across national borders in nanotechnology standardization, the International Electrotechnical Commission (IEC) has



LATEST FROM THE IEC

IEC Welcomes the Republic of the Philippines

The IEC is pleased to welcome the

Republic of the Philippines as its

72nd Member. This

brings the total number of countries in the IEC Family to 154 – 72 Members and 82 Affiliates from developing countries – comprising more than 95 percent of the world’s population.

Philippines joins as a Full Member. Full membership, as opposed to Associate membership, grants countries the right to participate in all IEC standardization activities, including the right to vote on all technical and management matters. It also gives them access to all IEC International Standards and documents.

Philippines has a population of 92.7 million and an estimated electricity production of some 53.67 billion kWh (based on 2005 estimates). The Philippine archipelago, composed of 7,107 islands, measures 300,000 square kilometers. Its principal exports are semiconductors and electronic products, transport equipment, garments, copper products, petroleum products, coconut oil, and fruits.

The president of the IEC National Committee of Philippines is Roberto C. Cristobal, from Philips Electronics & Lighting Inc, and the secretary is Jesus L. Motoomull from the Bureau of Product Standards.

Contact information

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FEATURED ARTICLE (continued)

The International Electrotechnical Commission: Setting Global Standards for Nanotechnology

formed Technical Committee (TC) 113, *Nanotechnology standardization for electrical and electronic products and systems*. TC 113 focuses on relevant nanotechnological aspects in developing generic standards for electrical and electronic products and systems.

This includes electronics, optics, magnetics and electromagnetics, electroacoustics, multimedia, telecommunication, and energy production.

Dr. Thomas Chapin of Underwriters Laboratories represents the U.S. as chairman of TC 113, and the USNC-approved U.S. Technical Advisory Group (TAG) to TC 113 is administered by the National Electrical Manufacturers Association (NEMA).

A TAG works to develop national input on technical issues, submitting contributions on behalf of its constituents and responding to the contributions of other nations that participate on the committee. Accordingly, delegations comprised of TAG members present these positions to IEC, where consensus agreements are reached.

Every member of a TAG has an equal voice, from the biggest players in industry to smaller organizations and institutions that focus specifically on the development of nanoscale materials.

The TC 113 TAG is the vehicle by which all U.S. manufacturers of nano-enabled electrotechnical products create a favorable international business model for their companies and their industry.

Historically, standards have driven the commercial landscape and have accelerated the commercialization and mass production of new technologies. Nanotechnology for the electrical and electronic sectors will be no different.

According to Lux Research, the U.S. has the largest nanotechnology manufacturing base in the world. This strong presence in the global marketplace presents us with countless opportunities for breakthroughs from industry and the scientific community that will lead to safer and more functional products, including renewable sources of electricity for home and transportation needs, flexible video displays, and compact electronic devices.

But if the United States is not proactive in standardization work for this emerging field, other countries and regions around the world will prevail in setting those standards for us, putting U.S. industry at a competitive

disadvantage as mass production expands.

Nanomaterial suppliers and product development experts in nano-electrotechnical measurements and performance assessments are urged to join the TC 113 TAG and help the U.S. lead in this vital work. By soliciting participation from nanotechnology-related sectors and academia that have not traditionally participated in the voluntary standards system, we will work together to influence how nanotechnology standards will shape the future of multiple industries. ■

The IEC TC 113 TAG is the vehicle by which U.S. manufacturers of nano-enabled electrotechnical products create a favorable international business model for their companies and their industry. Nanomaterial suppliers and product development experts in nano-electrotechnical measurements and performance assessments are urged to join the TAG and help the U.S. lead in this vital work.



LATEST FROM THE IEC

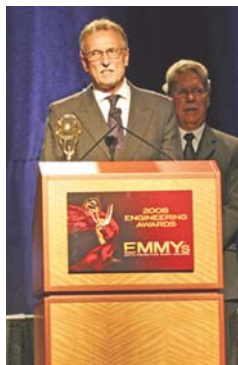
IEC, ISO and ITU Awarded Emmy for Work on High-Definition MPEG-4

The U.S. Academy of Television Arts & Sciences awarded a prestigious Emmy Award for engineering excellence to the International Electrotechnical Commission (IEC), International Telecommunication Union (ITU), and the International Organization of Standardization (ISO) for their work in producing the advanced video coding standard known as ITU-T H.264 or ISO/IEC 14496-10, *Advanced Video Coding (AVC)*.

The JVT (Joint Video Team), composed of experts from the three organizations, was recognized for its landmark achievement in developing the High Profile (HiP) that extends the reach of high-quality video in mobile telephones right through to HDTV (High Definition Television). HiP is also adopted into HD DVD and Blue-ray Disc technologies. The JVT was formed in 2001 by the ITU's VCEG (Video Coding Experts Group) and the ISO/IEC MPEG (Moving Picture Experts Group).

The AVC format defined by Recommendation ITU-T H.264, or the International Standard ISO/IEC 14496 MPEG-4 Part 10, is a highly efficient video compression method that substantially reduces the bandwidth needed to deliver high-quality video and the space required to store it. Seven sets of capabilities, referred to as "profiles," have been created for use in specific applications. It is a combination of the great efficiency of the codec as well as its scalability in delivering excellent quality across the entire bandwidth spectrum – from HDTV to video-conferencing and 3G-mobile multimedia – that has led to its increasing popularity.

Malcolm Johnson, director of the ITU's standardization bureau, and Scott Jameson, chair of ISO/IEC Joint Technical Committee (JTC) 1, *Information Technology Standards*,



Malcolm Johnson, Director of the ITU's standardization bureau (left) with Scott Jameson, Chair of ISO/IEC JTC 1 (behind)

and director of standards strategy at Hewlett-Packard, received the award on behalf of the three organizations at a ceremony in Hollywood on August 23, 2008.

"AVC is a jewel in the crown of International Standards collaboration," said Johnson. "This standard's versatility has been recognized and applauded across an amazing spectrum of industry. Its widespread adoption is testament to the flexibility and efficiency that has been engineered by a group of people that have dedicated themselves to achieving this goal. It also

demonstrates a sincere and strong belief in the power of International Standards."

Also attending the ceremony were JVT co-chairs Gary Sullivan of Microsoft, Ajay Luthra of Motorola, and Thomas Wiegand of the Fraunhofer Heinrich-Hertz-Institut, as well as representatives of Thomson, Panasonic, DOCOMO, and Dolby.

Said IEC General Secretary Aharon Amit, "I would like to pay tribute to the experts from the industry who have made the work of the JVT so relevant and timely. Their leadership, energy and inspiration shows what truly International Standards can bring in terms of interoperability and benefits, and how they can touch the lives of billions of people around the world."

The Technology & Engineering Emmy Awards are presented annually "for developments in engineering that are either so extensive an improvement on existing methods or so innovative in nature that they materially affect the transmission, recording or reception of television."

This award marks the second time that ISO and IEC have been honored by the Academy. In 1996, JTC 1/SC 29 received an Emmy for International Standardization of JPEG, MPEG-1 and MPEG-2. ■

LATEST FROM THE IEC

India to Host Next IEC-CIGRE UHV International Symposium



With today's energy shortages, one of the challenges facing governments and utilities is to supply large amounts of electrical energy for

growing populations in the most efficient way with minimal impact on the environment.

In such countries as Brazil, China and India where there are huge land masses, the challenge lies in getting the electricity from the power generating stations thousands of kilometres away to the urban populations. UHV (Ultra High Voltage) offers the potential to meet this challenge.

The world's experts on UHV will convene in New Delhi, India, on January 29-30, 2009, at a joint symposium of the IEC and CIGRE (International Council on Large Electric Systems). The symposium will follow on the highly successful joint event organized in July 2007 in Beijing, China, which gathered together many of the world's most eminent specialists on the subject, some of whom met for the first time.

UHV is defined as voltages of 1,000 kV alternating current, or higher, and 800 kV direct current, or higher. It is needed both to deliver large quantities of power over very long distances with the least loss of power and to deliver large quantities of power to cities using a minimum of transmission lines.

International Standards for UHV do not yet exist. IEC has announced the establishment of a new Technical Committee, TC 115, *High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV*. Participants in the TC will work to establish strategy and develop general standards, design, and technical requirements in the field of HVDC equipment, construction and commissioning for acceptance, operation and maintenance, system control and protection. ■

LATEST FROM THE IEC

IEEE and IEC Expand Co-Development Agreement

The IEEE and the IEC have agreed to extend their existing cooperation agreement, which describes a procedure for submitting and approving existing IEEE standards to IEC, to include a procedure permitting joint, parallel development of a project in both organizations leading to an IEC/IEEE International Standard.



The agreement is an addendum to the original IEC-IEEE Dual Logo Agreement, signed in October 2002. It establishes procedures for IEC and IEEE to jointly consult to establish the need for new projects, initiate a joint development project, prepare and circulate draft standards, and vote to approve those standards. It also includes processes for maintenance of approved standards to keep them up to date, as well as details on publication, copyright and sales.

“We are extremely pleased to extend our agreement with IEC,” said Terry deCourcelle, Director, IEEE-SA Governance & International Standards Programs. “This new procedure will allow IEEE working groups and IEC Technical Committees to jointly develop standards while sharing information from all parties. This type of international cooperation is critical for the development of standards that will be accepted by the worldwide technical community.”

“With this new agreement, IEC and IEEE continue their commitment to respond to the needs of the marketplace,” said Aharon Amit, General Secretary & CEO, IEC. “We are reducing the resource burden on industry by rationalizing the work of the experts participating in the standards development process.”

The first standard completed under the IEC/IEEE dual logo agreement was published in May 2004. ■

This article has been reprinted from a joint IEC/IEEE press release.

CONFORMITY ASSESSMENT

State-backed GICSE Conference to Take Place in the Gulf

A major international conference involving the IEC, the IEC Worldwide System for Conformity Testing and Certification of Electrotechnical Equipment and Components (IECEE), government officials, and industry is to take place in early November in Bahrain. Some 300 delegates from the Persian Gulf area are expected to attend.

The Gulf IEC – IECEE International Conference for Standardization and Conformity Assessment in Electrotechnology (GICSE) will be held in the Crowne Plaza Hotel in Manama, Bahrain on November 2-3, 2008. It is being organized by the IEC and the IECEE in collaboration with the Gulf Cooperation Council Standardization Organization (GSO) and the Ministry of Industry and Commerce, Kingdom of Bahrain.

The conference aims to demonstrate some of the benefits that can be realized through electrotechnical standardization and to enable Gulf countries to become more deeply involved in health and safety issues.

The GCC (Gulf Cooperation Council) Standardization Organization (GSO) is a financially and administratively independent entity that addresses standardization, conformity verification procedures, accreditation and measurements among the GCC states:

- The United Arab Emirates
- The State of Bahrain
- The Kingdom of Saudi Arabia
- The Sultanate of Oman
- The State of Qatar, and
- The State of Kuwait.

The conference will begin with opening remarks from His Excellency Dr. Hasan Abdulla Fakhro, the Bahrain Minister of Industry and Commerce.

Presentations will follow on the status of international standardization and conformity assessment activities by IEC Vice President Enno Liess, Jonathan Buck, director of IEC marketing and communications, and H.E. Dr. Rashid A. Bin-Fahad, UAE Minister of Environment and Water.

The next set of speakers are slated to address the prevention of hazards, with presentations on the role and advantages of being an IEC Member particularly in relation to safety regulations, by Jack Sheldon, IEC standards strategy manager, and the reasons for and various means of reducing electrical hazards in household appliances, by Derek Johns, chairman of IEC Technical Committee 61, *Safety of household and similar electrical appliances*.

The final part of the first day will cover the role of national certification bodies and testing laboratories. Speakers will include Gösta Fredriksson, Chairman of IECEE, and Joe Gryn, Chairman of the IECEE-CTL (Committee of Testing Laboratories). They will be followed by a panel discussion to be chaired by the General Secretary of GSO.

The second day will cover the IECEE in more detail with an introduction to the Schemes for worldwide conformity testing and certification of electrotechnical equipment and components. Finally, representatives from international conglomerates specialized in corporate quality and product safety and certification will share industry case studies and best practices with participants.

Further information

To learn more about the Gulf IEC – IECEE International Conference for Standardization and Conformity Assessment in Electrotechnology, view the final program agenda, or register as an attendee, visit www.gicse.com/useren. ■



CONFORMITY ASSESSMENT

Australia Requires Solar Panel Testing and Certification to IEC Standards

Photovoltaic (PV) modules sold in Australia must now be tested and certified to IEC Standards by a laboratory accepted by IECEE, the IEC worldwide system for conformity testing and certification of electrotechnical equipment and components.

The Solar Homes and Communities Plan of the Australian Government Department of the Environment, Water, Heritage and the Arts is a new program that encourages the long-term use of PV technology to generate electricity from sunlight and to increase the use of renewable energies in Australia.

The key objectives of the program are to reduce greenhouse gas emissions, to help develop the Australian PV industry and to increase public awareness of renewable energies.

The Department of the Environment, Water, Heritage and the Arts issued guidelines for residential applicants outlining under what conditions homeowners can receive cash rebates for the installation of PV systems on their residences.

To be eligible, applicants must have a family taxable income of less than AUS \$100,000, be connected or close to a main-grid, install at their principal place of residence and hire a contractor accredited for the design and installation of the PV system, among other requirements. All equipment in the PV system must be new and meet the relevant Australian standards, or, where they don't exist, the relevant international standards.

In order to receive cash rebates for the installation of residential PV systems, Australians must ensure that their PV modules have been tested and certified to IEC 61215 or to IEC 61646 by a laboratory registered under the IECEE CB Scheme and CB-FCS Scheme.



In addition – and this is of particular interest to the IEC and the IECEE – all PV modules must be tested and certified to IEC 61215, *Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval*, or to IEC 61646, *Thin-film terrestrial photovoltaic (PV) modules - Design qualification and type approval*, by a laboratory registered under the IECEE CB Scheme and CB-FCS Scheme.

A similar program is in place for schools and educational buildings. Here again, all installations must conform with the relevant Australian or international standards and be certified to IEC 61215 or equivalent.

IECEE Executive Secretary Pierre de Ruvo said, “This is a significant step for IECEE and the CB Scheme and we are extremely pleased to have a government place its trust in our system.”

The IECEE PV sector of activity dates from 2003. Under the agreement signed earlier this year between IECEE and PV GAP (the Global Approval Program for Photovoltaics),

IECEE is now the exclusive provider of the PV Mark through its NCBS (National Certification Bodies). For a transition period until the end of 2008, PV GAP retains overall responsibility before transferring full ownership of the Mark to the IECEE.

Further information
The Solar Homes and Communities Plan – Guidelines for Residential Applicants was released in May 2008. To learn more about the plan visit environment.gov.au. ■

CONFORMITY ASSESSMENT

IECEX Service Certification Program Continues Growth

The IECEX Certified Service Facility Programme for Repair and Overhaul of Ex Equipment, launched in late 2007, continues to attract more and more companies that want to take full advantage of the program's benefits, including safety, reliability, and industry trust and confidence.



One of latest companies to be certified is Siemens Industrial Workshop Sdn Bhd in Malaysia, part of Siemens Industry Sector.

Andreas Stoegner, senior vice president of Siemens Industrial Solutions, said: “For a company like Siemens Industrial Workshop, where innovation is our core business, the IECEX certification was just what we needed to help strengthen our name as the leaders in the industry.”

The certificate was issued by Sira Test & Certification Ltd for the repair and overhaul of rotating machines and enclosures, according to IEC 60079-19, *Explosive atmospheres – Part 19: Equipment repair, overhaul and reclamation*. Apart from Siemens Industrial Workshop, Sira has certified two other companies in the IECEX Service Facility Programme, namely Detectronic Ltd in the United Kingdom and MARC Thailand Co Ltd.

Sira is just one of seven organizations who have successfully completed the assessment process, and are now approved to operate within the IECEX Certified Equipment Programme. Approved bodies include: SIMTARS and TestSafe (Australia), KEMA (The Netherlands), NEMKO (Norway), TÜV SÜD PSB (Singapore), and BASEEFA and Sira (United Kingdom).

Sira managing director Mike Shearman said, “The IECEX Service Facilities Programme is rapidly gaining momentum, and I am pleased that Sira continues to be at the forefront of this initiative.” ■

USNC NEWS

USNC Holds its Third TAG Administrator Workshop

In keeping with tradition, the USNC has held another successful workshop for Technical Advisory Group (TAG) Administrators.

The full-day event, hosted by the Consumer Electronics Association (CEA) on September 18, 2008, was attended by twenty eight participants representing eighteen of the key stakeholders in the U.S. standardization arena.

The Workshop addressed some of the main challenges faced by TAG Administrators when carrying out their work, including recruitment of new TAG members, funding IEC TC/SC meetings in the U.S., navigating the IEC website, and many other related issues.

Among several presenters, the event featured IEC Central Office staff and a member of its Officers' Corp. Frank Kitzantides, IEC vice president and chair of the Standardization Management Board (SMB) gave a presentation on the IEC Management Bodies and their functions within the organization. And Azar Tahbazian, IEC's coordination manager, technical information support and services, presented on the newly established IEC Collaboration Tools.

The USNC TAG Administrator Workshop was first held in 2006, as an initiative led by CEA's Megan Hayes, TAG Administrator for USNC Technical Committee (TC) 100. Ms. Hayes has been chairing the Workshop since its first meeting.

Further information

For more information about TAG Administrator workshops, please contact Rafael Lourenço at rlourenco@ansi.org. ■



USNC NEWS

Forum of the IEC National Committees of the Americas Officially Established

The USNC hosted the annual meeting of the IEC National Committees of the Americas in Atlanta, Georgia on October 6-7, 2008.

Over the past six years the IEC National Committees in the Western Hemisphere – Argentina, Brazil, Canada, Mexico, and the United States – have been meeting on a regular basis to exchange information and best practices on standardization issues.

During last year's meeting in Ottawa, the five countries agreed to develop terms of reference for the group, which up until then was rather informal. A draft document was produced after the meeting and the five countries provided input throughout 2007.

At this year's Atlanta meeting, the countries agreed on the final terms of reference, and the document was officially signed by the presidents of each National Committee.

The terms of reference established the official name of the group: Forum of the IEC National Committees of the Americas (FINCA), formerly referred to as the "Multi-National Group."

The document also defines the objectives of the group and other important aspects of its operations.

On the first day of meetings in Atlanta, the National Committees discussed a number of topics including the latest conformity assessment developments in their countries and in the IEC schemes; the 72nd IEC General Meeting to be held in São Paulo, Brazil on November 17-21; IEC management issues; and how the five countries can further cooperate in the future.



Over the past six years the IEC National Committees in the Western Hemisphere – Argentina, Brazil, Canada, Mexico, and the United States – have been meeting on a regular basis to exchange information and best practices on standardization issues.

On the second day of the Forum, a Workshop was held to exchange ideas on how to further engage Associate Members and Affiliate Countries in the Americas and expand the work of the IEC in the region.

The workshop featured IEC's Regional Manager for Latin America, Amaury Santos. Mr. Santos provided a detailed presentation on the activities of the Affiliate Program and shared his thoughts on how to promote participation.

The next meeting of the FINCA in 2009 will be held in Argentina.

Further information

For more information about the Forum of the IEC National Committees of the Americas (FINCA) and participation by the U.S. National Committee in the Forum, please contact Rafael Lourenço at rlourenco@ansi.org.

Additional details about the 2009 FINCA meeting in Argentina will be made available soon on the USNC website, www.ansi.org/usnc. ■

USNC NEWS

Two Americans Chosen to Receive 2008 IEC Lord Kelvin Award

The International Electrotechnical Commission (IEC)

has chosen two Americans to receive the 2008 IEC Lord Kelvin Award: Mr. Donald Heirman and Mr. Scott Jameson.

This distinct honor is given annually to members of the IEC community for their outstanding contributions to global electrotechnical standardization efforts.

Donald Heirman has played a major role in electromagnetic compatibility standardization worldwide for over 20 years. He is currently the chairman of the IEC Special International Committee on Radio Interference (CISPR), heading its Steering Committee and chairman's advisory committee (CAG).

Heirman has served as head of the U.S. National Committee (USNC) delegation to various CISPR subcommittees. He is an active member of several USNC mirror committees of CISPR activities, as well as a long time member of the IEC Advisory Committee on Electromagnetic Compatibility (ACEC). He is also a member of the USNC's Technical Management Committee.

For the past 23 years, Heirman has been a member and officer in the American National Standards Institute (ANSI) Accredited Standards Committee C63® (EMC), and has served as its chairman since 2006.



Mr. Heirman is currently president of Don HEIRMAN Consultants, a training, standards, and educational electromagnetic compatibility (EMC) consultation corporation.

He was with Bell Laboratories for more than 30 years in many EMC roles including manager of the Lucent Technologies (Bell



Labs) Global Product Compliance Laboratory.

Scott Jameson has been instrumental in the leadership and progress of ISO/IEC Joint Technical Committee (JTC) 1, *Information technology*, and has served as the chairman of the Committee since 2001.

Previously, he was the U.S. head of delegation, and

he has participated in every JTC 1 Plenary since 1991. Mr. Jameson was at the helm for a number of JTC 1 activities prior to his appointment as chair, including the JTC 1 Special Group on Strategic Planning and the JTC 1 Procedures Group.

Mr. Jameson is currently the director of standards strategy in the Strategy and Technology Office of Hewlett-Packard's software business.



Created in 1995, the Lord Kelvin Award is granted to individuals who have contributed in an exceptional, dedicated way to the technical work of the IEC in the field of electrotechnology standardization and related activities, for a significant period of time (five years at least).

The award is named in honor of the first president of the IEC, The Right Honorable Lord Kelvin.

Mr. Heirman and Mr. Jameson will be honored for their achievements in a ceremony to be held during the IEC São Paulo General Meeting on November 17-21, 2008.

The U.S. National Committee extends its congratulations to both of the winners for this well-deserved honor.

Further information

Visit www.iec.ch/about/awards to learn more about the history and criteria of the Lord Kelvin Award. ■

USNC NEWS

ANSI Leadership and Service Awards Honor USNC Members

On October 22, 2008, the American National Standards Institute honored leaders of the U.S. and global standardization community during the 2008 ANSI Awards Banquet and Ceremony. Several participants in the U.S. National Committee to the IEC were recognized for their contributions.

The Elihu Thomson Electrotechnology Medal went to **Joseph L. Koepfinger**, principal of Koepfinger Consulting. The medal honors an individual who has contributed in an exceptional, dedicated way to the field of electrotechnology standardization, conformity assessment, and related activities via the IEC, the USNC, or other such regional and international bodies.

Mr. Koepfinger is USNC technical advisor for IEC TC 8, *Systems aspects for electrical energy supply*, and TC 37, *Surge arresters*. He is also the USNC representative to IEC Sector Board 1, *Electricity Transmission and Distribution*.

The Finegan Standards Medal, which honors an individual who has shown extraordinary leadership in the development and application of voluntary standards, was presented to **Alexander McMillan**, director for global standards and trade at Rockwell Automation.

Mr. McMillan has served as vice president of finance for the USNC since 2006. He also sits on the IEC Finance Committee, and is the USNC's representative to the IEC Asia Pacific Steering Group.

The Howard Coonley Medal went to **Belinda L. Collins**, director of technology services at the National Institute of Standards and Technology, in recognition of her work to benefit the national economy and support standardization as a management tool.

As chair of the ANSI ISO Council, Ms. Collins has developed mechanisms for effective cooperation and collaboration between the ANSI ISO Council and the USNC, as well as between ISO and IEC. ■

ITEM OF GENERAL INTEREST

“Standards That Make a Difference” Survey Results

In commemoration of the 90th Anniversary of the American National Standards Institute, ANSI relaunched its popular 2002 survey to learn which standards are “making a difference” in today’s ever-changing global marketplace. More than 200 entries were submitted in total.

Participants in the “Standards That Make a Difference” survey were asked to identify the standards considered to be most valuable by the members of the standardization community, and offer a brief explanation highlighting the benefits for consumers, government or industry.

Entries ran the gamut, including American National Standards, standards developed by ISO or IEC, and documents developed by other domestic, regional or international bodies, including consortia.

Each submission qualified for entry into a random drawing for three \$100 American Express Gift Cards. Joe Bhatia, ANSI president and CEO, selected the winners:

- Philip G. Hannigan, executive secretary of the Conveyor Equipment Manufacturers Association, identified CEMA 102-2006, *Conveyor Terms and Definitions*.
- Igor Boiko, a senior engineer with Honeywell, identified ISA-5.1-1984 (R1992) *Instrumentation Symbols and Identification*.
- C. Clair Claiborne, principal consulting and R&D scientist with ABB Inc., identified IEEE C57.147, *the IEEE Guide for Acceptance and Maintenance of Natural Ester Fluids in Transformers*.

“Once again, this survey has illuminated the vital work being carried in the standards community, providing further examples of the importance of standards in the lives of millions of people around the world,” said Bhatia. “We thank everyone who participated and express our congratulations to the three winners.” ■

SAVE THE DATES

Save the Dates for Upcoming Events of Interest

NOVEMBER 2008

72nd IEC General Meeting

Monday–Friday, November 17–21
Sao Paulo, Brazil

2009

USNC Technical Management Committee

Wednesday, January 28
Location to be determined

USNC Council

Thursday, January 29
Location to be determined

73rd IEC General Meeting

Sunday–Friday, October 18–23
Tel Aviv, Israel



2010

74th IEC General Meeting

Wednesday–Friday, October 6–15
Seattle, WA

For a complete schedule of upcoming meetings, or for more information on the events listed above, visit www.ansi.org/calendar.

Enter either “USNC” or “IEC” in the key word search field to narrow the list of results.



The United States is planning to host the General Meeting of the International Electrotechnical Commission (IEC) 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 1,500 delegates and 750 accompanying persons from around the globe are expected to attend. Pending sponsor support, more than sixty IEC TCs and SCs will be invited to the event.

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



ITEM OF GENERAL INTEREST

Optical Fibres Bend Over Backwards to Revolutionize Telecommunications

Independent writer Julia King talked to Dr. Michael Komfort of Corning Cable Systems, the world's leading producer of optical fibre for the telecommunications industry
Excerpted from the IEC website

As one of the world's leading manufacturers of fibre optic cables, where does Corning see the marketplace going?

As a result of a convergence of technologies, adjacent areas like industrial controls and other applications are beginning to use fibre optics. Network applications that historically have used copper are now using fibre optics because of the increase in speed and data-carrying capabilities that they offer. Fibre optic solutions are bringing data, telephony and communications to the residence and are also starting to be used for connecting services inside it, as well as for applications in rugged or hostile environments, or where size is an issue.

Has the announcement of your bendable fibre optics line changed the way in which the company views its marketplace or opened up new marketplaces for you? If so, how?

The ClearCurve™ suite of products allows fibre optic cables and assemblies to bend and be stapled, opening up new possibilities for use in building complexes and multi-dwelling units. At the same time our ClearCurve™ bendable fibre optic cable is fully

backwards compatible to existing single-mode applications, which means it can be used on an installed base.

How do you define standardization?

When you are defining standardization for products, it means that you have to understand the basic requirements of the market and

express them in a way that facilitates the dialogue between buyers and sellers. An applications standard describes the basic functionality of a product. From it, implementers should be enabled to adopt new technologies and select capable suppliers.

How does Corning approach the issue of standardization? And does standardization compromise the company's approach to IP? Does standardization form any part of your product development cycle?

Corning takes a strategic perspective on standardization. It's something that should combine the consensus of the market with reflecting the voice of users. Good standards will still leave developers some choice in terms of their product innovation. But standardization also needs to respect the investment that companies make in terms of innovation. The joint effort recently by IEC, ISO, and ITU that resulted in the Common Patent Policy was great work.

Standardization is always a key part of our business, helping us to understand the real need of the market and bear in mind the end target of what the customer needs. In turn, this enables you to limit your risks when you're developing something. However developers need to remember that products and standards are both dynamic. So standards developers need to follow and to keep track of technological developments and adjust their specifications frequently.



What about your company culture? How do you train people to "think standards?"

At Corning, we make sure that people who work on product development understand the value of standards and also the risk if they don't follow them. There needs to be a basic understanding of the importance of standards in all parts of the organization. Even more, as a market leader, you need to ensure you're driving standardization.

How have standards helped to move technological development forward at Corning?

Good standards should be able to provide help with functional requirements. But they're not there to specify product design. With 10% of our revenue invested in R&D, it's important to Corning to provide differential in the market.

How have standards helped to open up markets?

Standards help support the market's acceptance of new technologies and products. They also help customers to know that what they are buying is worthwhile. For instance, IEC 61754, the standard for optical connectors, helps the user be confident about what he selects and buys, even though the products themselves may look completely different.

Where do you see standardization going in the future?

As application spaces converge or overlap, and new technologies are developed, standards should continue to be flexible, fast and forward-facing. They should express basic requirements, but not be a barrier to innovation. ■



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