Global Standards Frontier KATS: Be The First

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Marine Energy Standardization Drive Gaining Steam

On August this year, IEC established a new committee TC 114 (Marine Energy - Wave and Tidal Energy Converters) amid growing international interest in the development of marine energy in line with the emergence of environmental problems such as the drain of fossil fuels and global warming.

In this regard, to prepare a foothold for international standardization in the marine energy field, KATS held 'International Workshop on Marine Energy Technology and Standardization in Industrial Fluid Machinery' October 17-19 at the Ramada Plaza Jeju Hotel.

A total of about 200 industry-academia-research institute officials participated in the workshop, where 31 foreign and domestic experts from the U.K. and Japan as well as Korea were invited as presenters. The workshop was co-organized by KATS and KFMA and supported by the British Embassy in Korea and Korean Register of Shipping.

The experts presented 31 themes, such as technology development and standardization status of marine energy in the U.K., Japan and Korea. At the workshop, particularly, Korean and U.K. experts had a meeting to identify ways to cooperate in standardization between the two countries.

Meanwhile, the workshop was also held simultaneously with the KFMA-organized 'Asian International Conference on Fluid Machinery' on October 17. At this workshop, British delegation and key domestic officials are attended to pursue future cooperation, establishment human networks.

Compared with other new and renewable energies, marine energy has the potential to enable large-scale power generation, and globally, those nations with long coastlines like the U.K., Japan, Canada, France, etc., as well as Korea, have greater interest.

A total reserve of 14 million kW of marine energy is estimated to exist on the west and east coasts of Korea where the difference between the rise and fall of the tide is large. At present, Korea is constructing the world's largest tidal power plant with a generation capacity of 254,000kW at Sihwa Lake in Gyeonggi-do.





Safer Medical Devices via Standardization

Hosted by KATS, the 20th plenary meeting of ISO/TC194 (Biological evaluation of medical devices) and parallel working group meetings were held October 1-5 at Jeju ShineVille Luxury Resort on Jeju Island.

ISO/TC194 is a technical committee dealing with the establishment of international standards for safety assessment of medical devices and materials. Korea joined this committee in 2001 as p-member.

About 150 experts on medical devices from 23 countries, including the United States, Japan and China, attended the

five-day meeting and discussed ways to assess various newlydeveloped biological materials like cell therapies, which are forming a large market, as well as assessment methods of toxicity, irritation, etc. for existing medical devices and materials.

At the meeting, Korea introduced a safety assessment method for cell therapies, which the nation previously suggested to ISO/TC150 (Implants for surgery). According to Jain Pharma Biotech's 2005 data, meanwhile, the global cell therapy market is expected to grow from US\$26.6 billion in 2005 to US\$56.2 billion in 2010 and US\$96.3 billion in 2015.



PM Emphasizes Global Standards 'World Standards Day' Celebrated in Korea

On the occasion of 'World Standards Day,' commemorated by about 150 countries around the world, KATS held a ceremony on October 16 at COEX in Seoul with about 500 standards experts and officials at home and abroad including Prime Minister Han Duck-Soo.

World Standards Day is celebrated each year on October 14 to pay tribute to the efforts of experts worldwide who collaborate within IEC, ISO and ITU to develop voluntary International Standards that facilitate trade, disseminate knowledge and share technological advances.

In 2007, all participating countries recognized World Standards Day under the theme "Standards and the Citizen: Contributing to Society" in light of the paradigm change in standards policy from the industrial standards focused on efficiency and productivity to human

rights, labor, anti-corruption and environment.

With recent changes in economic and social environments, the standards environment is also changing. As a result, utilization of standards in the fields of social responsibility, sustainable development and energy efficiency is being highlighted.

In particular, there was a congratulatory message from IEC General Secretary, Ahron Amit, to celebrate World Standards Day and promote standardization activities in Korea.

At the ceremony, the government also presented a total of 42 awards to individuals and groups that have contributed to the development of national standards.

In Prime Minister Han's commemorative speech, he





emphasized the need for introduction of global standards management to strengthen the competitiveness of the nation and enterprises along with the role of standards as a means of social integration.

The Prime Minister also called on the attendants at the ceremony to pay attention to international standardization activities for natural disasters and global warming and to contribute to public welfare through development of standards for society's most vulnerable, including the elderly and children.

To further celebrate World Standards Day, KATS designated 'Standards Week' at the end October, organizing various international standardization meetings and seminars.



Real-Time Search of KS Terms in Service

KATS launched a service enabling the search of 110,000 kinds of standard terms by industrial field that are defined in the Korean Industrial Standards (KS).

After establishing KS terminology database, which began on July this year, the search service would be available at the homepage of the Korean Standards Information Center (www.standard.go.kr) from October 1 in order to facilitate the use of KS terms in the industry.

112,000 kinds of terms described in 764 types out of total of 22,190 types of KS standards have been classified by the titles, definition, related drawings(8,000 items), standard numbers, standard fields etc. in the newly-launched KS terminology DB.

KATS initially prepared a database encompassing about

59,000 kinds of terms for some 300 types of KS and provided search service via the Internet in 2002. Since then, however, the database has not been updated with the newly-established or revised terms, which made the use of this database limit.

By enabling anyone to conveniently access the latest standard terms associated with industrial standards defined in the KS standards, the updated database is expected to prevent confusion at industries caused by different expressions of identical terms on one hand and to accelerate use of KS through expanded dissemination of correct standard terms to general public as well as to industry and academy.

To stimulate the supply and use of standard terms, KATS also plans to update databases with newly established or revised KS terms continuously in the future.

KS Standards Now Searchable on KISTI

On October 5, KATS signed an MoU with Korea Institute of Science and Technology Information (KISTI) for the common utilization of national standards data. Under the MoU, perusal of 22,244 KS standards was made available via KISTI's website (www.yeskisti.net) on the Internet.

The number of sites where KS standards can now be searched, accordingly, increased to six, including 'Naver' (January 2006), 'Empas' (August 2006), 'Nate' and 'Cyworld' (June 2007), since launch of the service on the Korea Standards Information Center (KSIC) website (www.standard.go.kr) in June 2003.

KISTI is Korea's largest information-specialized portal site, securing about 7.31 million cases of information on science and technology theses, reports, patents, etc. If searched with specific keywords, the site will return results of KS standards together with science and technology information that enhances the utilization level of the information significantly.

Searches of KS standards via the Internet, which was made available for the first time in June 2003, have steadily increased to 1.99 million cases in 2006 and to 1.7 million cases for the first eight months of 2007.

KS Reading Results by Year

(Unit: No. of Searches, Year-on-Year Change: %)

June-Dec. '03	2004	2005	2006	JanAug. '07
258,739	578,387	1,038,930	1,988,603	1,700,394
	(49.5)	(79.6)	(91.4)	(57.0)



In accordance with the MoU, industry-academia-research institute experts interested in science and technology as well as the general public can find standards data easily via the Internet. Therefore, the KISTI service is expected to contribute significantly to raising public interest in the standards and also to accelerating the spread of the standards. Furthermore, as search results of standards information, science and technology theses, reports and patents will be available simultaneously, the national knowledge infrastructure is expected to expand as well.

To invigorate supply of national standards and their utilization, KATS also plans to expand its free-of-charge KS database service to the portal sites of standardization-related agencies and public organizations in the future.



Deepening Cooperation between KATS and DIN

On October 4, Dr. Torsten Bahke, Director of DIN (German Institute for Standardization), presented lecture at the '16th Standards and Future Forum' of KATS. The aim of this lecture was to provide an overview of German standardization strategy.

In addition to the lecture, KATS and DIN shared a longstanding history of bilateral cooperation and partnership in the development of international standards as follows:

KATS-DIN Cooperation Status

- Sept. 29, '00: MOU signed for cooperation in the standardization field
- June 15, '01: 1st Korea-Germany Standard Meeting in Berlin
- Dec. 3, '01: Participate in 1st Education Program at DIN
- July 9, '02: 2nd Korea-Germany Standard Meeting in Seoul
- Aug. '02-Apr. '07: Services by exchanged experts



- Oct. 14-18, '02: Participate in 2nd Education Program at DIN
- June 17, '03: 3rd Korea-Germany Working-Level Standard Meeting in Berlin
- Dec. 8-12, '03: Participate in 3rd Education Program at DIN
- Aug. 16-20, '04: Participate in 4th Education Program at DIN
- Mar. 13, '06: 4th Korea-Germany Standard Meeting in Berlin

Kim Jae-Ok, Reelected COPOLCO Chairperson

President Kim Jae-Ok of the Consumers Korea was reelected chairperson of COPOLCO (Committee on Consumer Policy) after receiving unanimous support from 18 council members of ISO directors meeting held on September 22 in Geneva, Switzerland. Kim will perform as COPOLCO chairman for two more years, by 2009, beginning next year.

COPOLCO is one of three policy committees(conformity assessment, developing countries and consumers) with participation of 99 national standard bodies, including the U.S.A., U.K. and Germany, etc. This committee has the role in facilitating consumer participation in the development of standards and also influencing ISO's program of work by proposing issues for consumer safety and protection

Meanwhile, Kaphong Choi, Administrator of KATS signed MOUs regarding cooperation in the fields of standardization and certification with The State Committee of Ukraine (DSSU) and Institute of Standards and Industrial Research of Iran(ISIRI) respectively during the ISO General Assembly meeting.

Korea's Suggestion for Safety of Elevators

KATS announced that Korea's suggestion for 'Lift Door Impact Test' will be reflected in international standards, gaining positive responses from the world's representatives at the Plenary Meeting of ISO/TC178 (Lifts, escalators and moving walks) held October 1-3 in France.

The suggestion includes the testing method which apply the kinetic energy of objects in motion to the lift door most similar to an action collision as well as the method to confirm the deformation of doors where the 30kg of load is statically applied to the lift door as specified in the EN standards.

The breakaway strength of lift door will be set at an

impact energy of 450 joules, strengthened to the extent that the lift door can withstand the impact which two middle school students (weight: 120kg) rush to crash against the door at the speed of about 10km/h.

With the adoption of agenda and successful presentation at the meeting, KATS plans to contribute to the development of international standards for the safety of elevators as well as to enhance the capability of domestic industry in the field of elevators, by developing the safety criteria in order to resolve the problems that threatening safety of elevators and secure the user's safety.

Safety/Standard Prism

With International Standardization Cross the Hurdle of Environmental Restrictions

On September 13, KATS held an international seminar jointly with Korea Electronics Association (KEA) on the standardization trend of international environmental restrictions with invited IEC/TC111 Chairman Koichi Mori at the Diamond Hall of the Korea Federation of Textile Industries(KOFOTI).

IEC/TC111 is one of the IEC's Technical Committees, establishing 'Environmental Standardization for Electrical and Electronic Products and Systems'.

Environmental restrictions initiated by the EU are spreading throughout the world, the United States, Japan, China, etc. With enforcement of REACH in June this year, Korean export companies are experiencing difficulties.

At this seminar attended by about 200 officials-in charge of environmental affairs at enterprises and organizations including Koichi Mori, Chairman of IEC/TC111. A seminar was aimed at introducing the newest trend and trying to find a countermeasure against the environmental restrictions.

The Chairman of IEC/TC111 Koichi Mori gave a presentation concerning the trend and issues of international environmental standardization on the electrical and electronic products, drawing a keen interest.

And Fuji Film's chemical substance management program, JAMP(Japanese Article Management Promotion-consortium) of about 130 Japanese firms launched in September last year to correspond to the EU's REACH. Additionally, Dr. Park Jong-Seop of KATS presented the Korean government policy of introducing environmental aspects to KS. While Kang Hong-Shik, KEA's team leader, briefed on the project to establish a foundation for environmental standardization of KS in IT industries.



Cho Duk-Ho, Director of Biotechnology and Environment Standards team, KATS, said, "Keeping pace with a new economic growth paradigm called 'sustainable development' consideration of environmental aspects is necessary in overall industries as well as in the field of electrical & electronics and automobile." Director Cho also stated that for this, KATS will establish detailed plans to introduce environmental aspects to KS and launch into related business from the end of this year.

"The standards to date have played a role of enhancing the convenience of the people's life by raising quality and safety of goods and services as well confidence in health." Director Cho said. "Future standards which added environmental aspects will induce enterprises, standards demanders, to produce environment-friendly goods and furthermore, it will be a foundation to form industrial structure based on environmentfriendly." He forecasted.

ISO Meeting on Sustainability in Building Construction

KATS held ISO TC59/SC17(Sustainability in building construction) October 8-12 at the Renaissance Hotel in Seoul with standardization experts from 13 countries, including France, the U.K. and Germany, which are very interested in the global environmental changes.

The five-day Seoul meeting proceeded with basic work to standardize general rules, terminologies, indicators on social, economic and environmental perspectives and assessment methods for environmental performance regarding sustainability in building construction. In particular they decided to mandatorily include climate change (CO₂) and ozone depletion in environmental issues at different life cycle stages. And they decided to review proposals from Germany about that.

And also Korea's research results on sustainability in building construction were presented. Under such themes as sustainable building technology and status of national LCI(Life Cycle Inventory) DB of Building products, Korea explained the nation's research capability to the participating countries as well.

ISO/TC Meeting on Contraceptive Devices Held in Jeju

KATS held ISO/TC157 (Mechanical Contraceptives) International Standardization Plenary Meeting October 8-12 in Jeju Island as the importance of utilizing condoms, the safest contraceptive device, is being stressed further.

Composed of 49 member countries, 5 international organizations and 14 WGs, this technical committee published 6 new standards and is currently working to register 7 additional standards.

A total of about 100 experts on condom standards and officials from WHO, UNFPA, PSI, Korea Center for Disease Control and Prevention (KCDC), Korea Federation for HIV/AIDS Prevention (KFHAP), and other organizations participated in the five-day meeting.

The main issue of the meeting was the discussion of draft

enactment and revision standards regarding the quality criteria for condoms for males and females, testing methods and requirements, with contraception and prevention of AIDS as its main purpose.

The participants also discussed the standards for female contraceptive devices such as loops, female condoms, the use of which are increasing rapidly, and the standards for condoms made of synthetic polymers in addition to traditional rubber condoms.

Korea has more than 30% of the global market share (8 billion pieces, 1.1 trillion won), selling 2.5 billion pieces annually. Most of the products are manufactured at overseas plants, mainly in Malaysia, and more than 95% of the total production is exported.

Int'l Open Mobile 3D API Standards Technology Seminar

On October 15, KATS hosted an international seminar on open mobile 3D API standards at the KOFST (Korean Federation of Science and Technology Societies) building in Seoul.

The seminar was timed with the materialization of cooperation between ISO JTC1/SC24 (Computer graphics, image processing and environmental data representation) and Khronos Group, which is taking the lead in standards for the world's mobile 3D graphics market.

About 100 domestic and foreign standards experts on mobile industry participated in the seminar, supported by Korean Standards Association (KSA), Special Interest Group on Computer Graphics (SIGCG), Mirror Committee of JTC1/SC24 and HUONE Inc.

Following a welcome speech by KATS Director General Kim Hyun-II on Department of Advanced Technology and Standards, Khronos WG and corporate representatives made presentations.

The Khronos Group is a non-profit industry consortium with the mission to develop, publish and promote open standard, royalty-free media authoring and acceleration standards for desktop, mobile and embedded devices. Since the Group ratified OpenGL ES Ver 1.0, the world's major chipset and software developers have become engaged in member activities. In Korea, Samsung Electronics, LG Electronics, SKT, ETRI, HUONE, etc. are members of the Group.



At present, Khronos Group establishes and manages de facto standards for OpenGL ES, etc., which are emerging as key issues for mobile 3D-related companies. In the Group, most domestic



and foreign mobile communication firms, terminal/chip makers and 3D engine developers are developing products after accommodation of related standards.

As Korea has a high supply rate of mobile phones and the capability to produce high-performance terminals, it is an area that can be nurtured into a promising industry in the future for the nation to lead diverse 3D mobile applications and the content markets, such as games, images and virtual reality.

The world's game industry market, which was US\$40 billion in 2005, is growing 13.2% on annual average and expected to reach US\$80 billion in 2010. Among others, the market size of online games and mobile games, in particular, are projected to reach US\$34 billion by that year, with annual growth of 33%.



Strengthening Korean PCB Competitiveness

KATS, jointly with Korea Printed Circuit Association (KPCA), organized an IEC/TC91 (Electronics assembly technology) Standardization Meeting from October 16 to 19 at Seoul Olympic Parktel with the participation of about 50 standards experts from five countries, including Germany and Japan.

Through this four-day meeting, KATS aims to disseminate the latest international technology standards domestically and also to build a foundation to spearhead international standardization activities through expansion of its standardization manpower pool.

At the meeting, the participants worked on standardization of the content and testing method of solder materials for development and production of environment-friendly PCBs and also discussed a wide variety of standards for surface mount technology (SMT), mechanical impact test method, friction test method, etc. in order to secure higher reliability of electronic products.

International standardization related to PCBs is proceeding with PCB materials, SMT and environment-friendliness as major issues. To date, 76 standards have been established and standardization work is presently underway on 35 others including revisions. In the PCB field, meanwhile, Korea has already established a total of 66 KS standards, while working on four KS standards for PCB materials.

With the event as momentum, KATS plans to promote strategic standardization to preoccupy international standards based on the PCB Industry Development Strategy established by the Ministry of Commerce, Industry and Energy (MOCIE) to strengthen the future competitiveness of the domestic industry, which ranks the fourth in global market share.

Also to resolve the technology gap and price competition problem and sharpen the competitiveness of next-generation products, such as environment-friendly PCB,

flexible PCB and optical PCB, KATS intends to actively push ahead with the suggestion of Korean technologies as international standards and reinforcement of cooperation with the



international standardization leader group.

The Korean PCB industry has 11.1% of the global market following China at 27.6%, Japan at 22.2% and Taiwan at 16.5% (world market: US\$50 billion), ranking fourth. Meanwhile, the domestic production scale exceeded 5 trillion won in 2006. Due to intensifying competition, however, there is a growing need for the nation to prepare a new breakthrough.

In order for Korea to ascend to the first or second place globally under current circumstances, it is prerequisite to respond to the geometrically increasing PCB demand and prepare strategies to lead international standards as well as to secure efficiency and compatibility based on the comparative advantage of technological power.

Korea Proposes 2 Nano-Related Techs at ISO/TC & SC

KATS hosted an ISO/TC24/SC4 meeting October 19-20 at the Seoul Plaza Hotel. SC4 is the ISO subcommittee that enacts and manages international standards for sizing methods other than sieving, such as nano particles and pores, core materials required to manufacture next-generation fuel cells or secondary batteries.

Until now, advanced countries like the U.S.A. and Germany have reflected their own nano particle and pore sizing technologies and led standards technologies in the global arena in this field. With the meeting as momentum, Korea has achieved a turning point that will enable the reflection of domestic nano-related technologies in international standards. technologies as NWIPs: Sizing method of PSL particles using TEM and Pore size distribution and porosity of thin porous films. The suggested standards are new technologies for measuring the size, shape, etc. of nano particles more simply and precisely than existing technologies and which can be utilized in high-tech industry fields, including new materials.

The suggested technologies, if adopted as draft international standards, are expected to lay a foundation for the future development and commercialization of state-of-the-art domestic technologies, such as semiconductors, displays, nextgeneration automobiles, and environmental catalysts.