



JOURNAL OF KOREAN | November 2007 | ELECTRONICS

Published by KEA <http://www.gokea.org> / Edited & Designed by BCS.Com Tel: (82-2) 6258-7870

US\$1.6 Billion Project to Boost Next-Gen Growth Engine Korea to Build Robot Theme Parks

Korea will build two robot theme parks, the first of their kind in the world, as part of efforts to boost the competitiveness of the local robot industry, the government said on Nov. 13.

The robot theme parks will be built in Incheon, 40 kilometers west of Seoul, and Masan, a port city on the south coast, at the combined cost of 1.48 trillion won (US\$1.61 billion), the Ministry of Commerce, Industry and Energy said.

Construction will begin in 2009 for completion by 2013, with the government providing 50 billion won to each city, it said. "The two cities will be developed as meccas for the country's robot industry, while featuring amusement park areas, exhibition halls and stadiums where robots compete in various events," the ministry said. Korea considers robotics to be one of its key growth industries, emphasizing "service robots" that can clean homes and provide entertainment.

Korea's robotics industry ranks sixth in the world in terms of competitiveness and technology, according to the ministry. Its technology level stands at roughly 80% of that of Japan. The local market has expanded at an annual rate of 30 to 40% for the past several years, reaching 766 billion won in 2006.

Korea plans to boost smart robot technology



and production capabilities to create a 100 trillion won (US\$96.8 billion) industry by 2020.

In a three-stage action plan, companies will strive to make robots that people will want to buy, followed by machines that are helpful to humans and, finally, robot companions.

To support these goals, the government will aid the education and training of 20,000 experts and build a robot industry innovation cluster near Seoul.

'If all goes well, Korea may become one of the top-three smart robot manufacturers in the world,' a Science and Technology Ministry official said.

The plan also calls for the country to take 15% of the world's smart robot market by 2013, with total production amounting to 30 trillion won that year. Total exports would hit US\$20 billion and the sector would employ about 100,000 people.



Hynix Semiconductor Advances into CDM Business



On November 1, Hynix Semiconductor revealed that it will advance into the CDM (Clean Development Mechanism) business as the company signed a related consulting contract with domestic environmental specialist EcoEye.

CDM is a business that sells CER (Certified Emission Reduction), equivalent to one metric ton of CO₂ reduction, in the international market, which corresponds to reduced greenhouse gases with investment of technology and capital.

As an arrangement established through the Kyoto Protocol, CDM is in the spotlight as a business model responding actively to global warming as it pursues economic revenue while possibly accumulating carbon reduction technology.

The most vigorous CER market at present is the EU region. In that market, CO₂ is being traded at about 20

Euro per ton. In conjunction with the U.N. Convention, CO₂ emission right markets are spreading rapidly throughout the world, including China.

Managing Director Byun Soo for Environmental Safety at Hynix said, "In the semiconductor industry, Hynix has thus far established technological infrastructure to develop clean gases that cause less greenhouse effects. Based on this, we are able to launch into the CDM business that can obtain official recognition of reduction performance from the CDM Executive Board of the U.N. Framework Convention on Climate Change (UNFCCC)."

In fact, after organization of a T/F to reduce greenhouse gases (GHG), PFC, etc., Hynix is in the process of establishing a GHG emission volume monitoring system. Recognized for its efforts in 2006, Hynix was also successful in the official registration for the 'GHG Emission Reduction Business' of the Ministry of Commerce, Industry and Energy (MOCIE).

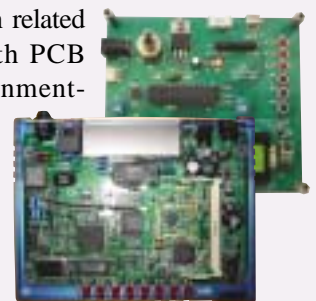
Strengthening Korean PCB Competitiveness

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 aimed 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.

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%.

Shinsung to Localize Solar Cell Mfg. Equipment

On October 11, Shinsung ENG announced that it has launched development of FA equipment for the solar cell manufacturing process to be used to move cell wafers from the clean room.

Through localization of the FA equipment utilizing its accumulated technologies, Shinsung ENG is expected to reduce investment expenses.

For this, Shinsung ENG decided to import all the

equipment required to manufacture solar cells from Centrotherm of Germany to begin operation of its unit 1 plant in the fourth quarter of 2008.

Shinsung ENG Chairman Lee Wan-Keun said, "We decided to import solar cell manufacturing equipment from Centrotherm for stable operation of the unit 1 plant scheduled to go into mass-production in the fourth quarter of next year. Starting with the unit 2 plant, however, we will localize the necessary equipment on a step-by-step basis."

2008 Digital Electronics Industry Prospects Seminar

On November 15, KEA held a seminar on the prospects of the digital electronics industry for 2008 at the Grand Conference Room on the 12th floor of the Electronics Building in DMC, Sangam-dong, Mapo-gu, Seoul.

The seminar was organized to forecast the prospects of the electronics industry market for 2008, pulling together related experts from the government, industries and KEA for analysis of major issues and recent trends.

The participating experts presented their prospects at the seminar, which proceeded in three parts with the titles and themes as follows:

- Part 1. Prospects for the Digital Electronics Market (themes: Future Vision & Development Strategy, Trends of Digital Electronics Industry in 2007 & Prospects for 2008, and Prospects for Global Digital Industry Market for 2008);

- Part 2. Prospects for Info-Communications & Home Electronics Market (themes: Prospects for Mobile Phone Industry Market for 2008, Prospects for Home Electronics Market for 2008 and Prospects for



Computer Market for 2008); and

- Part 3. Prospects for Electronic Parts Market (themes: Prospects for Semiconductor Market for 2008, Prospects for Display Market for 2008 and Prospects for Electronics Parts Market for 2008).

Publicity for Embedded System-Specialized Manpower

To resolve the quantitative and qualitative mismatch between the demand from industrial sites and the supply from science & technology education, KEA has conducted embedded system training for a total of 50 students who graduated from

science & technology colleges and nurtured them into specialized engineers.

Therefore, KEA urges member companies to actively recruit the trained manpower. For further

information, please contact the Human Resources Development Center at KEA

Tel: 02-6388-6042

Fax: 02-6388-6049

e-Mail: yj1709@gokea.org).

KEA Conducts IPR Education Tour for 2nd Half '07

For manpower responsible for patent affairs at SMEs and venture companies, the International Patent Assistance Center of KEA held IPR Education Tour October 17-30 for the second half of 2007.

The education tour was conducted on October 17 at the Electronics

Building in Seoul; October 23 at Gangwon Regional Small and Medium Business Administration; October 25 at LG's Learning Center in Gumi; October 26 at Jeonbuk TIC Center; and October 30 at Incheon Regional Small and Medium Business Administration.

The purposes of the education included enhancement of domestic enterprises' awareness of international patent disputes and prevention of disputes and the campaign to strengthen IPR protection for strategic regional industries.