

FEC 2010 TIMES

The last edition will be published on October 16th, Saturday.



Today's Highlight

- + Fusion Tech Exhibition 2010** _ Date&Time : October 11(Mon)-14(Thu)/ 10:00-17:00
 Venue : Daejeon Convention Center(1F Lobby) Overview : Theme Zone/ITER Business Zone/Green Business Zone/Public Sector Business Zone/Special Exhibition
- + Green Festival** _ Date&Time : October 11(Mon)-16(Sat), 12:00-17:00 Venue : Around Daejeon Convention Center Overview : Display[Science&Technology, Green Energy]/Korean Traditional and Fusion Performance/ Experience in Korean Traditional Culture

Announcement

- + Gala Dinner** _ Date&Time : October 14(Thu)/ 19:00-21:30 Venue : Yurim Park Participants : Paid attendees among FEC Participants Program : Seated Buffet/ Performance(Hwasunmoo, Nanta)
- + Green Festival Special Event _ 1. Festival of Light** Date&Time : October 13(Wed)/ 18:00-21:00 Venue : Gab-River Program : Laser Show/ Music Arrangement/ Fireworks/ United Games
- 2. Night Glow** Date&Time : October 15(Fri)/ 18:00-21:00 Venue : Gab-River Overview : Night Glow and Spark Ignition Ceremony of the Daejeon International Balloon Fiesta

“Fusion Energy is the Future of Humankind” ‘Fusion Olympics’ Opened in Success



The knowledge festival of fusion energy brains. IAEA FEC 2010 participants shared the latest achievements on fusion energy.

A seed of hope for future energy for humankind has been planted in Daejeon, the center of science and technology in Korea. At the Daejeon Convention Center (DCC), on the morning of October 11, 2010, a festival of world-renowned intellectuals was held. The 23rd IAEA Fusion Energy Conference (IAEA FEC 2010) has begun in a great success. At the opening ceremony, 1,500 fusion energy specialists participated from all around world. From the host country, Korean dignitaries, including Prime Minister Hwang-Sik Kim, Minister of Education, Science and Technology Ju-Ho Lee, Mayor of Daejeon Metropolitan City Hong-Cheol Yum, President of National Fusion Research Institute (NFRI) Gyung-Su Lee attended. Also, distinguished guests from international organizations, government officials, entrepreneurs, and scientists visiting from 39 countries were at the ceremony. In the opening speech, Deputy Director General of IAEA, Werner

Burkart said, “While the world is still dreaming about fusion energy, Daejeon made a significant progress to make the dream come true. Taking pride in the achievement in plasma physics and nuclear energy, Korea needs to start persuading the public for further development of fusion energy.” In his first official presence after taking office, Prime Minister of Korea, Hwang-Sik Kim noted that, “The biggest challenge that the world faces is climate change and energy

crisis. Nevertheless, it is the potential of fusion energy that we can still have a hope for the future, and he defines that, “Fusion energy into which you pour your passion is a ‘green energy’, free from burden on the environment and a ‘dream energy’ carrying the hope of humankind.” The Prime Minister added that, “It is meaningful that the IAEA FEC 2010 is held in Daejeon, the heart of science and technology in Korea. We are willing to pursue international

cooperation and passionately support your efforts in fusion energy R&D.” Minister of Education, Science and Technology Ju-Ho Lee expressed the willingness on the government side to nurture fusion energy in his welcoming message by saying, “For commercialization of fusion energy, the Korean government promises every possible support and cooperation to contribute to common prosperity of humankind.” On the other hand, a beautiful

drawing performance was held using sand before starting the opening ceremony. Dreaming of a new era of green energy, away from the destruction of nature by humans, inspired the participants and gave the message of hope. The international audience said that the performance was very touching and that they want to view the images once again. The participants did not hesitate to praise that the event was beyond expectation.

Real-time Coverage on Twitter

@042news

I hope that the Fusion Olympics would be an occasion for Daejeon to become the center of ‘Dream Energy.’



@gyunglee

October 10, 2010 is a perfect, impeccably lucky day that contains three 10s. It’s the day that Chinese people rushed to pick as their wedding day, because it is the most auspicious day in a hundred years. The Fusion Olympics is officially open today, on 10.10.10 at nine in the morning!



@hyoung01

Fusion energy is the future. I particularly have a high hope for sea, water, and energy in 2040. Go KSTAR!



INTERVIEW Werner Burkart Deputy Director General of IAEA

“Commercialization of Fusion Energy, Salvation for the Humanity”

“It is important to move up the timeline of Commercialization of Fusion Energy. It can be called Salvation for the Humankind.”

Deputy Director General of IAEA Werner Burkart, participating in IAEA FEC 2010 said, “It is predicted that the world population will reach 10 billion by 2010. Fusion energy will offer a solution for humankind, by then when fossil fuel is not guaranteed to exist.” He also noted that, “Europe is conducting many experiments to put commercialization forward. Korea also has a favorable environment for fusion energy

development.” The important question regarding commercialization of fusion energy is ‘when.’ Deputy Director General Burkart said, “Thanks to hard work, the world successfully reached the experiment level, however, we need to go beyond what we have achieved. I expect that we would be able to secure the commercial validity by 2040s-2050s. I believe that it would happen.”



He also added that, “We have a long way to go to develop a material that can stand high temperature at which nuclear fusion will be sparked to generate energy. Besides, there is a need to understand better about plasma physics. Fusion energy, so called the hope of humankind and dream energy, is very important to improve the quality of life.” During the conference, Deputy Director General Burkart is experiencing a lot. He shared his feelings by saying, “IAEA FEC 2010 is the biggest event ever. I was happy to see fusion energy regain attention from the world. As a member of ITER, an elite club, Korea has a potential to become the first country to accomplish fusion energy commercialization.” “Korea is the smallest nation among ITER participants, but not the weakest, he stressed. “Having said that, what I mean is that Korea has the powerful influence on fusion energy research in the world.”

A vivid scene



Participants toasting in the welcoming reception at the 23rd IAEA FEC 2010. Their smiles reflect the future of fusion energy.

The Advance In Realization Of Fusion Energy Brains From The World Share The Fusion Energy Knowledge

At IAEA FEC 2010, the scientists will present accomplishments in fusion energy research that made major progresses. Starting with the opening ceremony on the 11th at 9am, IAEA FEC 2010 has launched the presentations of 596 theses on the latest trends and achievements in nuclear fusion R&D for the next six days, until the 16th. The first session after the opening ceremony was a lecture by Dr. Ksenya Razumova of Russian Research Centre Kurchatov Institute. Dr. Razumova spoke about the history of fusion energy over the last fifty years as a Fusion Pioneer Memorial. The following session had overviews of how major fusion device has developed for the last two years, since the 22nd IAEA FEC 2008, held in Geneva. Fusion scientists from all around the world showed a great interest in the recent R&D result of ITER, KSTAR by Korea, EAST by China, JET by the U.K., new fusion device NIF by the U.S and so on. Also they were encouraged by the continuous development and new research achievements in the fusion technology.

In particular, KSTAR developed by Korea garnered much attention due to the achievement in capability improvement, pursued after Korea announced the research accomplishment including most recent plasma campaign result. As for ITER that receives attention from the world, ITER IO and domestic agencies have made a significant progress in the ITER design since the ITER Agreement went into effect in October 2007. The ITER baseline has been decided through active communication with domestic agencies. In today's presentation, the major functional elements of ITER and the first plasma operation for the construction in the later 2019 where discussed. It is expected that during the rest of IAEA FEC 2010, the outstanding accomplishments will be continuously presented the fruits of the scientists' efforts over the last two years in the areas of Magnetic Confinement Experiments, Magnetic Confinement Theory, Modeling ITER Activities, Inertial Fusion Experiments, and Theory etc.



Look Beyond the Next Half Century 'Fusion Tech Exhibition 2010'



The achievement by institutions and companies that have the latest nuclear fusion technologies are on display at IAEA FEC 2010. Fusion Tech Exhibition 2010 is open at Daejeon Convention Center on the 11th. Around 40 exhibitors are institutions and companies that possess fusion energy related or green energy technologies. The booths are divided into four, depending on the theme; Theme Zone, ITER Business Zone(Companies from home and abroad participating

in ITER construction) Green Business Zone(plasma application, companies participating in KSTAR and IASP, etc.) and Public Sector Business Zone(nuclear energy-related exporting companies, general companies, research institutions, universities). The exhibitors are Dawonsys, Daebong Acrotec, VMT, Vitzrotech, 3R Lab, SFA, HMT, ATC, Wonil, Iljin Energy, KAT, Toyotanso Korea, Korea Hydro & Nuclear Power Corporation and Korea Atomic

Energy Research Institute. The dignitaries, who participated in the opening ceremony, including Korean Prime Minister Hwang-Sik Kim and Deputy Director General of IAEA, Werner Burkart, toured the FEC 2010 main booth that shows 50-year history of research on nuclear fusion and the future of fusion energy and other booths that present companies, working on fusion energy technologies. The exhibition is scheduled until the 14th.

When Science Meets Art; Fusion Energy Renaissance In The 21st century

There is a special encounter between science and art at IAEA FEC 2010. As part of the Fusion Tech Exhibition 2010, the exhibition 'When Science Meets Art', is being held at the Daejeon Convention Center lobby on the first floor and in room 101.

of science. The pieces of work on display are by twelve Korean artists, Ju-Yong Lee, Il-Hea Kim, Woo-Bum Chung, Ei-Kyu Jang, Kook-Hyun Ga, Young-Do Ryu, Yung Park, Woo-Song Bang, Lee-Nam Lee, Siyon Jin, Eel-Gwon Kim, Jeong-Ju Jeong. It is open free to the IAEA FEC 2010 participants until the 16th. The head of the operating committee of the exhibition Il-Hea Kim said, "During the Renaissance era, not only artists but also scientists had extraordinary skills in the visual art and music. The distance between science and art is far, but the environment is being created for the composite to blossom. This is why we have a good reason to have a high expectation for the 21st renaissance."



The purpose of exhibition is to relive the time when science and art harmoniously mingled during the Renaissance, and to offer the chance to experience a world of imagination that is broad and flexible beyond a rigid 'calculation' and 'experiment'



Exciting tour!!

- KSTAR Tour(30 minutes)**
 Date : October 12-14
 Time : 12(Tue) Four times at 13:00, 13:30, 18:30, 19:00/ 13(Wed) Two times at 18:30, 19:00/ 14(Thu) Two times at 13:00, 13:30
 *Participants wishing to apply for the KSTAR Tour should bring the passport.
- Culture Experience**
 Date&Time : October 12-13/ 09:30-12:00
 Itinerary : DCC → Daejeon Culture&Arts Center → Daejeon Museum of Arts → Ungnolee Museum → Hanbat Arboretum → DCC
 *Transportation : Ta-shu(rental bike) will be provided by the Daejeon City.
- Technical Tour(Ulsan&Busan)**
 Date&Time : October 15/ 08:30-18:30
 Itinerary : DCC → Hyundai Heavy Industries (Ulsan) → Kori Nuclear Power Plant(Busan) → DCC
 Lunch is not included(cost will be 20,000KRW)



+ Contact Information

- The local Organizing Committee for the 23rd IAEA FEC Tel (+82 42)862-0161/ Fax (+82 42)862-0260
- IAEA Office Tel (+82 42)862-0285/ Fax (+82 42)862-0289
- Daejeon Convention Center(DCC) Tel (+82 42)811-0114/ Fax (+82 42)821-0109
- Information Desk(DCC) Tel (+82 42)862-0281/0270
- Tour/Accommodation Desk(DCC) Tel (+82 42)862-0276

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