FEC 2010 TIMES



Today's Highlight

- + Opening Ceremony_Date&Time: October 11 08:30~10:15
- **◆ Fusion Tech Exhibition 2010**_ Date&Time : October 11(Mon)~14(Thu), 2010/ 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

- + Welcome Dinner_ Date&Time: October 11(Mon), 2010/ 19:00~21:30 Venue: Hanbat Arboretum Program: Seated Dinner/ Fusion Energy Awards Ceremony/Performance(Tacheonmun, Hanbok Fashion Show)
- * The Free Shuttle Bus will be provided for participant's convenience.
- ◆ Complimentary Luncheon will be offered for partici-pants from 12:30 to 14:00 at Room 109~112 on Oct. 11.

The End of the Fossil Fuel Era is Near, What is Next?



"Concerted efforts by leaders in nuclear energy will lead us to fusion energy that has infinite energy like the sun."

"There is no alternative to fossil fuel other than solar energy and fusion energy."

On the 10th, at three o'clock, Green Forum began.

About 400 participants, such as FEC 2010 attendees and experts in various energy fields, including fusion energy, have gathered under the theme of "The 21st Century's Environment and Knowledge-based Energy." The Forum served as a significant occasion for world-renowned scientists to share their in-depth and insightful opinions about the energy crisis as we face the end of the fossil fuel era. Also intensive discussions were made about challenges posed by the climate change.

In particular, speakers at the Forum reached an agreement that we need to focus on fusion energy as a new alternative in order to tackle the energy crisis.

Deputy Director General of International Atomic Energy Agency(IAEA), Werner Burkart, urged, "In order to ensure sustainable future energy for all of us, we need to pursue global partnerships for fusion energy development."

Sir Chris Llewellyn Smith, a professor at Oxford noted, "The governments in the world need to take the initiative by investing aggressively during the development process of sustainable future energy, in order for fusion energy to realize earlier and more effectively."

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ZOOM in

"International Youth Conference Witnesses the Dream of Future Fusion Energy"

On October 9th and 10th, the International Youth Conference(IYC) was held at the Daejeon Convention Center as an event prior to the 23rd IAEA Fusion Energy Conference. There were a total of 200 participants. They are college students majoring in fusion energy or plasma physics, and high school students who received a recommendation from their principles. Director of Culham Center for Fusion Energy Steven Cowley, Professor Sir Chris Llewellyn Smith at Oxford, and Chairman of the Alternative Energy and Atomic Energy Commission (CEA) Bernard Bigot participated in sharing their insights and knowledge with young adults and high school students.

Prof. Steven Cowley lectured about 'Building Better Bottles', Sir Chris Llewellyn Smith, 'Achieving the Millennium Development Goals: The Role of Sustainable Energy'and Chairman Bernard Bigot, 'Are the present worldwide research programs well fitted to recreate, for the whole Humanity, the fusion energy phenomena which works so well in Sun and stars for billions of years?'

In addition, side events like Oral Session I, II, III, Poster Session, and a Student Party took place. At the student party, the young adults from around the world enjoyed one another's company with great energy. They had an exciting time listening to music and dancing together with performances by a Korean B-Boy team.

Quotation Marks of the Day At Green Forum

Lee, Gyung-Su, chairman of IFRC

"If you are a pessimist, you can't pursu fusion energy."

"You should be able to measure the time required with an optimistic attitude. As scientists with a reasonable mind, we need



to make every effort in all areas that can be used as low-carbon energy source."

Sir Chris Llewellyn Smith, a professor at Oxford

"The government doesn't want to look beyond four years."

"When we ask the government for the budget for fusion energy development, it always asks the timeline. If scientists fail to come up



with the technology within the deadline, they become liars. Government investment needs to serve as a foundation for fusion energy development."

"To Become A Nuclear Leader, Korea Must Put Safety First."

I N T E R V I E W

Bernard Bigot Chairman of the CEA

"In order for Korea to become a leader in the world nuclear community, it has to establish clear policies for safety and nuclear waste."

Chairman of Alternatives Energies and Atomic Energy Commission Bernard Bigot, emphasized the role that Korea has to play as a powerhouse of nuclear energy by saying, "I could feel at the KSTAR site how fast Korean nuclear energy is developing." He also noted that, "Nuclear energy requires energy technologies that have global impact." In addition the chairman spoke highly about the Korean nuclear energy development, saying, "It is my pleasure to see Korea gradually taking an important position in the international nuclear community. Korea's long-term nuclear energy strategies and strong will to pursue are setting a good example for the world."

He added, "In order for Korea to become a global leader in the nuclear community, it has to put priority on policies dealing with safety and nuclear waste in the next-generation nuclear reactor development."

In addition, Chairman Bigot said, "Particularly, safety issues

have to be emphasized because safety is like insurance," and he also put an emphasis that, "As we've witnessed in the Chernobyl disaster and Three Mile Island nuclear meltdown, safety should come first and we need to gather every knowledge to improve safety."

He said that he expects Korea to become a good precedent by coming up with clear policies for safety and nuclear waste.





A vivid scene



"It was great to share the knowledge about fusion energy with people from around the world."







Students from Chung-Ang High School in Daejeon

- 1 Hyung-Lok Kim
- 2 Cho-Whan Oh
 3 Su-Ryong Kim

Four students from Chung-Ang High School in Daejeon volunteered participation in the International Youth Conference(IYC) with great interest in fusion energy. They said that their interest has grown through the event, and it helped them to have better understanding about fusion energy.

- Hyung-Lok Kim "I could learn a lot just by meeting renowned scholars from around the world. What IYC dealt with was a bit difficult for me, but I could do in-depth study in fusion energy."
- **Cho-Whan Oh** "There were many interesting fusion energy technologies, even for high school students. Science has been my favorite subject and the IYC was a great opportunity for me to develop further interest in fusion energy as one of the future energies."
- Su-Ryong Kim "I was lost in some parts because the conference was done in English. It made me realize about the importance of the language. I promised myself that I would work on my English to speak fluently. I hope Korea continues to carry the development of fusion energy study to the world."

Green Forum

Fusion Energy is Our Hope



"Do you know how much fusion energy you can generate with lithium from a laptop battery and 40 liters of water? Believe or not, you can produce the amount of electricity that an American can use for 15 years. No carbon emission, no waste. Fusion energy has good reasons why we continue to pursue."

Sir Chris Llewellyn Smith, a professor at Oxford said, "All people don't know how to use energy right. We need to come up with right energy policies at this point where oil is depleting," emphasizing the need for new green energy development.

According to Professor Smith, the current global energy consumption is on the increase as the list of the developing countries is longer.

The alternatives he focuses on are solar and nuclear energies. Except for the two, we don't have any alternatives to fossil fuels, he argues. He said, "whatever we do, what efforts we make, every situation point to that we need to be able to develop nuclear energy in various ways. Our Hope is Fusion Energy."

Werner Burkart, Deputy Director General of IAEA urged that, "energy is not a realm only for scientists. Nuclear energy renaissance entails various meanings. In order to secure sustainable future energy, we need to form a global partnership for energy development."

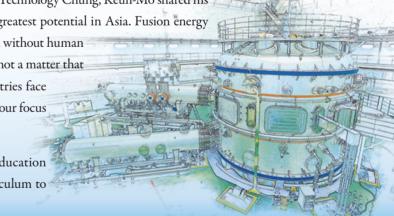
He also noted that, "in fact, it is impossible to see drastic reduction in green house gas without nuclear energy. We need a right approach to energy. Fission and fusion play a significant role in nuclear energy. It will secure sustainable energy supply."

Chairman of Alternatives Energies and Atomic Energy Commission Bernard Bigot explained that "as the resources originated from fossil fuels are depleting and energy supply is threatened, we are called to face challenges. France has confidence in fusion energy that it will play an important role to tackle these challenges."

He stressed that, "fusion energy, under development as a future energy source, is based on solar energy. As our new option, fusion energy is an attractive alternative for large-scale energy generation. Over the decades, the research on fusion energy has achieved the development of necessary equipment. Furthermore, it will take a leading role in improving energy efficiency.

Former minister of the Science and Technology Chung, Keun-Mo shared his insights by saying, "Korea has the greatest potential in Asia. Fusion energy renaissance cannot be accomplished without human resource, namely specialists. This is not a matter that applied to Korea only. Other countries face the same challenge. We need to put our focus on nurturing experts."

He added, "we need the on-site education based on the experiment-rich curriculum to build up hands-on experience."







Date&Time : October 11~13/ 13:30~17:40 Itinerary : DCC \rightarrow Eunhaeng-dong \rightarrow Traditional Market \rightarrow Underground Traditional Handicrafts Shops \rightarrow DCC

Exciting tour!!



 $\begin{tabular}{ll} \textbf{Date\&Time}: October 12~13/09:30~12:00 \\ \textbf{Itinerary}: DCC \rightarrow Daejeon Culture\&Arts \\ \textbf{Center} \rightarrow Daejeon Museum of Arts} \rightarrow \\ \textbf{Ungnolee Museum} \rightarrow \textbf{Hanbat Arboretum} \rightarrow \\ \textbf{DCC} \\ \end{tabular}$



Date&Time : October 12~13/ 13:00~18:30 Itinerary : DCC → Baekje Cultural Foundation → DCC



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