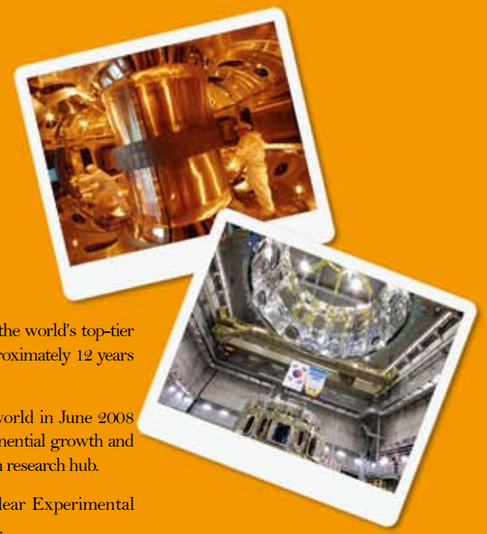
We were one step behind.

When many advanced countries saw the potentials in fusion energy and conducted researches in full swing by constructing fusion devices, Korea had only few small-scale fusion labs in some universities.
We were way behind others, when we started the construction of the Korea Superconducting Tokamak Advanced Research(KSTAR), in 1995 and the world even doubted if the KSTAR could bear fruit.



We amazed the world.

As we completed KSTAR, the so-called 'sun of Korea' as well as the world's top-tier superconducting fusion device in September 2007, which was approximately 12 years after the start, the world changed its view on Korea.

The successful occurrence of plasma for the first time in the world in June 2008 showcased our fusion technological prowess, which achieved exponential growth and exerted the potentials of KSTAR to grow into a world-class fusion research hub.

We even play a leading role in the International Thermonuclear Experimental Reactor (ITER) where we take part along with advanced countries.

We will take a step ahead.

Many countries around the world are taken aback and admire our technological prowess. The 23rd FEC will be an occasion to reaffirm the higher prestige of Korea.

It would be the 2040s when we will be the first country to open the chapter of the fusion energy era as a global fusion hub. We will make our long cherished dream of becoming an energy-sufficient country by developing the fusion energy.

IAEA FEC 2010
23rd IAEA Fusion Energy Conference

The Local Organizing Committee for the 23rd IAEA FEC
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IAEA FEC 2010
23rd IAEA Fusion Energy Conference

The 23rd IAEA Fusion Energy Conference

October 9 (Sat) ~ 16 (Sat), 2010
Daejeon Convention Center (DCC)

Organized by IAEA International Atomic Energy Agency, 교육과학기술부 Ministry of Education, Science and Technology

Hosted by NFRI 국가핵융합연구소 National Fusion Research Institute, 대전광역시 Daejeon Metropolitan City

Sponsored by 외교통상부 Ministry of Foreign Affairs and Trade, 문화체육관광부 Ministry of Culture, Sports and Tourism, mke 지식경제부 Ministry of Knowledge Economy, 국토해양부 Ministry of Land, Transport and Maritime Affairs, 미래기획위원회 Presidential Council for Future & Vision, GREEN GROWTH KOREA 대통령직속 녹색성장위원회

IAEA FEC 2010
23rd IAEA Fusion Energy Conference

The 23rd IAEA Fusion Energy Conference(IAEA FEC)!
Encounter the energy of hope in Daejeon in 2010

The IAEA FEC as some call it the "Olympics of Fusion Energy"
is the most renowned international conference on every fusion scientist's agenda.

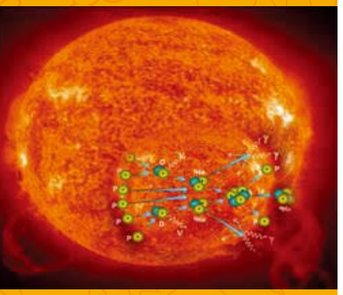
With the presence of 1,500 fusion experts and policymakers from all across the globe, knowledge and future steps on fusion energy as the ultimate green energy will be shared.

Latest research achievements and technical information on fusion energy will be available.

The IAEA FEC is to provide opportunities of exchanges and cooperation among fusion researchers in advanced countries including the U.S., the EU and Japan, etc. and to promote Korea's excellence in fusion technologies including KSTAR (Korea Superconducting Tokamak Advanced Research), dubbed as 'the Sun of Korea.'

The IAEA FEC will raise the public's understanding of the fusion energy
and facilitate the growth of the industry.

The IAEA FEC will offer opportunities for the public to learn about fusion energy as the major driver of the era of the knowledge-based energy and pave the way for the fusion industry to flourish as a cluster of ultra-advanced technologies.



What is nuclear fusion?

Nuclear fusion is the source of all living beings on the earth as the mechanism for the sun and stars to generate energy. The nuclear fusion energy that is generated when light atomic particles combine is an environmentally-friendly and safe green energy, which could hopefully generate massive power to resolve problems facing mankind. – depletion of fossil fuels and the global warming.

The fusion energy that is to promise an abundant future for the mankind
is the ultimate green energy that will change the energy paradigm of the 21st century.

What is KSTAR?

'KSTART' dubbed as 'the Sun of Korea' is an acronym for Korea Superconducting Tokamak Advanced Research, a domestically developed renowned technology. Its top-notch was globally recognized when it reached full scale operation last year, after it has successfully achieved plasma for the first time in 2008. As Korea operates KSTAR as an international nuclear fusion joint research tool, it is firming its presence as a leader in the fusion research field.

Welcome Message

"We invite you to the Fusion Energy Conference,
where you can encounter the hopeful energy for prosperity
and harmonious living of the mankind."

I would like to welcome all of you on behalf of the Republic of Korea, and it is my great pleasure to invite you to the 23rd IAEA Fusion Energy Conference (FEC 2010), the most highly recognized international conference on fusion energy.

These days the Korean government is especially focusing on fusion R&D under the national initiative of "Low Carbon Green Growth" and is also pouring unceasing support to share and spread their knowledge and research achievements therein with advanced countries in fusion energy including the U.S., EU and Japan, etc.

The "FEC 2010" along with the "G-20 Summit" to be held in Korea in 2010 will serve as a special occasion to seek for cooperation for stable and sustainable development for the world, while gearing up against the pending economic and climate change crises. In addition, the research achievement of fusion technologies showcased through KSTAR in June 2008 implies that the fusion energy will serve as the key energy source for the mankind in the near future. I am very confident that scientists' constant endeavors for the exponential development of the fusion energy will bear much fruit down the road.

I pin my hope that the "FEC 2010" could serve as the ground for exchange and cooperation for green growth along with the fusion energy as the hopeful energy for the mankind. The event will undoubtedly become a significant occasion to share the advances and achievements of Korea's science and technologies with the world.

Thank you.

Byong Man Ahn
Minister of Education, Science and Technology
Republic of Korea

안 병 만

Welcome Message

"We invite you to the fusion energy olympics to encounter the future of green energy."

"Come to Daejeon, a leading science city with low carbon and green growth."

Fusion research to lead the era of knowledge-based energy

Korea was a late comer in the fusion energy research field only 15 years ago. But now, Korea has grown into a major player in the fusion research by constructing and developing KSTAR, the superconducting fusion research system, with domestic technologies.

In particular, as KSTAR was in full operation, showcasing to the world its better-than-expected performances, fusion energy scientists throughout the world pay a greater attention on its role as the international joint fusion research device.

The 23rd IAEA FEC will be the timely opportunity to reaffirm Korea's globally recognized fusion research field which has grown exponentially over the years and to promote Korea's vision to the world to commercialize the fusion energy.

Not only that, this event will truly become a more significant green energy festival than any others, since it will be held along with not only academic conferences but also the Green Forum to share views on the energy outlook with global leaders, the International Fusion Energy Technology Exhibition and the International Youth Conference (IYC) to foster promising researchers.

With successful hosting of the fusion olympic FEC, where global dreams and joint efforts for the development of fusion energy come together and promise an enriching future for the mankind, Korea will, no doubt, be a leader of the green energy development.

In this regard, I would like to invite you to this significant event, where you can encounter the world leading fusion technologies of Korea and relish the esteemed prestige of Korea.

Thank you.

Gyung-Su Lee
Chairperson of the 23rd IAEA FEC Organizing Committee
President of the National Fusion Research Institute

이 경 수

I invite you to the 23rd IAEA Fusion Energy Conference to be held in Daejeon, the mecca of science, culture and the future energy.

It was the norm that one plus one was two. However, fusion energy transformed our stereotyped thinking.

Depletion of oil and fossil fuels that led the development of transport and indus tries desperately requires the utilization of new technology-based alternative energies.

Just like living beings coexist on the earth with the exposure to light and heat from the Sun, KSTAR-the man-made artificial sun-is emerging as a new energy source.

The 23rd Fusion Energy Conference will offer you the precious opportunity to witness the dreams and the future of the mankind. It will be showcased that science would turn the impossible into reality, and that Korea will become the first country to develop and implement the nuclear fusion energy.

In particular, I am confident that this event will not only raise the national prestige of Korea but also enable cross-national exchanges of latest technologies and information on the fusion energy.

Moreover, I will ensure that the event could be a special festival so that Daejeon could be long cherished by fusion scientists and participants from all over the globe as a low carbon and green growth city and the mecca of science.

I would like to pin high hopes to meet with you at the 23rd IAEA Fusion Energy Conference in October 2010, the year to visit Chungcheong Province.

Thank you.

Seoung-Hyo Park
Chairperson of the 23rd IAEA FEC Organizing Committee
Mayor of Daejeon Metropolitan City

박 성 효

Conference Overview

The 23rd IAEA Fusion Energy Conference

Date	October 9 (Sat) ~ 16 (Sat), 2010
Venue	Daejeon Convention Center (DCC)
Participants	Approx. 1,500 (fusion experts, government officials and heads of fusion research labs from IAEA member countries)
Organizers	International Atomic Energy Agency (IAEA), Ministry of Education, Science and Technology (MEST)
Hosts	National Fusion Research Institute (NFRI), Daejeon Metropolitan City

Program Schedule

The ground of communication and harmony will offer great opportunities for experts and the general public to experience and discuss on fusion energy.

Oct. 9(Sat) ~ Oct. 10(Sun)	Oct. 11(Mon) ~ Oct. 16(Sat)
International Youth Conference (IYC)	IAEA Fusion Energy Conference
Green Forum	
Green Festival (10.9~10.16)	
	Fusion Tech Exhibition 2010 (10.11 ~ 10.14)

[Conference]
- Fusion Energy Conference (Technical Session)
- Green Forum
- International Youth Conference (IYC)

[Exhibition]
- FEC 2010 Main Booth
- KSTAR Zone
- Industrial Zone
- Promotion Zone

[Social Events]
- Opening ceremony
- Welcome dinner, Special performance
- Traditional and cultural experiences

[Green Festival]
- Fusion and green energy experience event
- Exhibitions and promotion on nuclear technologies e.g. KSTAR
- Programs aligned to Daejeon Metropolitan City
  : Science Festival, hot air balloon rides etc.

Program Details

Fusion Energy Conference (Technical Session)

Date·Venue October 11 (Mon) ~ 16 (Sat), 2010 / Daejeon Convention Center (DCC)

Objectives
- Oral & Poster presentations of invited speakers on latest achievements(research papers) on fusion energy R&D
- Self-sealing theories and modeling, device experiment, inertial fusion devices and theories
- Latest developments of construction and operation of KSTAR and the International Thermonuclear Experimental Reactor (ITER) in Korea
- Latest developments of advanced fusion technologies and R&D and global fusion devices
- Safety, environmental and economic aspects of nuclear fusion

Participants
- Fusion experts, government officials and heads of fusion research labs from IAEA member countries

Green Forum (GF)

Date·Venue October 10 (Sun), 2010 / Daejeon Convention Center (DCC)

Objectives
- To exchange ideas and thoughts of globally recognized VIPs (including Nobel Laureates, representatives from International Organizations, political leaders and government officials etc.) on the development of "Environment and Knowledge-based Energy of the 21st century"

Invited Speakers
- John Holdren(OSTP Director), Bernard Bigot(CEA Chairman), Rajendra Pachauri(IPCC Chairman), Yukiya Amano(IAEA DG), Nobuo Tanaka(IEA ED), Steven Chu(US Secretary of Energy), Vladimir Putin(Prime Minister of the Russian Federation), Kun Mo Jung(Former Minister of MEST), Seung Jun Kwak(PCFV Chairman), etc.

※ The Invited Speakers are subject to change.

Participants – Policymakers on fusion energy / FEC, IYC participants / Domestic and Overseas media, etc.

International Youth Conference (IYC)

Date·Venue October 9 (Sat) ~ 10 (Sun), 2010 / Daejeon Convention Center (DCC)

Objectives
- To provide an educational setting for university/graduate school students from all over the world through oral & poster presentation and free discussions in a bid to imbue their dreams about 'nuclear fusion'
- To raise understanding about green energy and build cross-generational consensus on green energy, including nuclear fusion, among teens and youths with invited lectures of renowned scientists in nuclear fusion and green energy

Participants
- University/graduate school students majoring in nuclear fusion, and students from selected high schools (upon their principals' recommendation)

Application Online application (FEC2010 website: www.fec2010.kr)

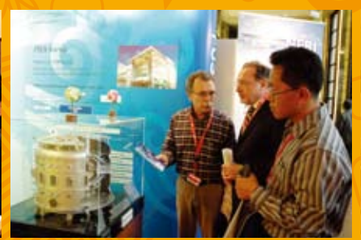
Fusion Tech Exhibition 2010

Date·Venue October 11 (Mon) ~ 14 (Thu), 2010 / Daejeon Convention Center (DCC)

Objectives
- To promote companies therein and facilitate technological exchanges through exhibitions of products and technologies of relevant organizations in fusion energy from participating countries
- To offer to the public grounds for promotion and exhibition of fusion energy and a need to develop it, and propose visions for the R&D of the national fusion energy
- To expand the participation of relevant companies including those involved in KSTAR, thus raising competitiveness of the fusion industry of Korea

Arrangement of Exhibits
- FEC 2010 Main Booth : National Fusion Research Institute (NFRI), Daejeon Metropolitan City
- Industrial Zone : Companies participating in KSTAR, energy-related companies and organizations, fusion derivative technology companies
- Promotion Zone : Local governments, research institutions and university promotion halls

For inquiries on participation Contact manager : Cha, Tae-gyeong (+82-70-8280-6340)



Green Festival

Date·Venue October 9 (Sat) ~ 16 (Sat), 2010 / EXPO Park

Objective
- To raise the public awareness about the national energy policies and green energy by holding experience events and side events on nuclear fusion and green energy
- To convey the vision and green commitment of FEC through Daejeon Metropolitan City's 'Tashu' event of riding bikes, green ribbon/balloon hanging events
- To serve as an event for the public aligned with the Science Festival and local festivals organized by Daejeon Metropolitan City

Participants Experts and the general public interested in nuclear fusion and clean energy