

## News

### ITER Summer School in Tokamak physics to be held in July

In anticipation of the start of ITER operation, the Centre National de Recherche Scientifique (CNRS), Université de Provence and CEA are jointly launching a series of "ITER Physics Summer Schools". Their main goal is to offer advanced graduate students and recent PhDs a complete picture of both the theoretical and experimental aspects of tokamak physics.

The first Summer School will take place on July 16-20, 2007 at Aix-en-Provence, in parallel with the Fusion Theory Festival which is organised every odd year, and is devoted to the problems of turbulent transport in magnetic fusion devices. The emphasis of the first School will be on the physics of turbulent transport and its implications on confinement. Information about the content and registration can be found [here](#).

## On Site

### ITER Safety meetings

The ITER Organization, with the support of the EU and Agence ITER France, organizes monthly meetings with the French nuclear safety authority to present the safety features of the project. Topics under discussion are accident analysis, plasma control, confinement, radiological risk, risk of fire, etc.



From left to right Jean-Michel Bottereau AIF, Fabrice Dufour and Alain Thomassin IRSN, Dorothee Conte ASN, Jean-Philippe Girard ITER-IO, Virginie Wasselin IRSN, Laurence Tabard ASN and Didier Perrault IRSN. Click on the picture for high-res.

During the meeting held on Tuesday 20 February, representatives of the *Autorité de Sûreté Nucléaire* (ASN) and the *Institut de Radioprotection et de Sûreté Nucléaire* (IRSN, a support team of ASN), paid a visit to the ITER site to see the progress of the site preparation (see picture).

### Interview with Dr. Günter Janeschitz on the ITER Design Review

Dr. Günter Janeschitz, an Austrian physicist

## News

### ITER International School to start at Lycée Les Iscles

On the initiative of the PACA regional council, the Steering Group of the ITER International School has decided to open the International School in Manosque on the premises of the Lycée Les Iscles in September 2007. A new building for the International School will be constructed in 2009 very near the Lycée Les Iscles, so that the families will be able to familiarise themselves with their future environment.



View of the Lycée Iscles in Manosque

ITER Director-General Nominee, Kaname Ikeda, comments: "I attach great importance to the International School and believe a critical issue in attracting high-calibre personnel to ITER is that we ensure their children receive a good education. Therefore, I welcome this important step, and I am counting on the full support of the Region for the further development of the school"

### Pascal Garin nominated IFMIF-EVEDA Project Leader



Pascal Garin

The Deputy Director of the Agence ITER France and former leader of the European ITER Site Studies, Pascal Garin, has been nominated Leader of the IFMIF-EVEDA project. The Engineering Validation and Engineering Design Activities (EVEDA) of the International Fusion

Materials Irradiation Facility (IFMIF) is part of the Broader Approach Agreement between the EU and Japan. The EVEDA phase of IFMIF will be jointly conducted by Europe and Japan, the location of the Joint Team being Rokkasho, Japan.

[Read more>>>](#)

## People

## Directors' Corner

### In support of ITER

by Young-Hwan Kim, DDG Designate, Central Engineering and Plant Support Department (CEPS)

The CEPS department has the important task of interfacing with all of the systems in the ITER project, and to integrate the design of the plant with the necessary support infrastructure for the entire project. A recent decision to move the Design Office into the Department accentuates this mission. From a staff of five, the Department has increased to almost 50 in the past year, and should reach more than 60 in the next six months.



Young-Hwan Kim

In addition to the Design Office, the CEPS Department has responsibility for the pellet injector, the steady state electrical power network, the coil power supplies, the hot cell and radwaste services integration, the radwaste treatment and storage, the radiation monitoring, the vacuum systems, the tritium plant, the cooling water systems, and the cryogenics systems and distribution. So in many ways, the CEPS Department represents the life blood of the ITER project.

This year, the ITER Design Review is the highest priority. The list of actions resulting from the Review are used to generate a series of work plans, which detail what actions and resources are needed to finish the specifications of the Procurement Packages in time. Staffing and resource requests are then based on these estimates.

The input from the group working on the tritium plant issues (one of the eight Design Review working groups) has been given a more permanent character by the formation of a new *Tritium Plant Project Team*, including one member of each Participant Team, which will help steer the activities of the Tritium Plant Section and commit resources needed to generate detailed design packages in the tritium plant area. A similar team was formed by the Cryogenics Section.

The other sections in our Department are filling up quickly and starting their operation, on which we will report in a separate article on a later date.

## Domestic Agencies



Dr. Gunter Janeschitz

based at the Forschungszentrum Karlsruhe, took on the role of co-ordinator of the ITER Design Review from its inception last year. ITER Newsline reporter Sabina Griffith interviewed him on the progress he is making, and on the many challenges he faces. "Inside the ITER

Organization as well as in the Domestic Agencies many people will be involved with ITER for the first time. Therefore we need to broaden the knowledge base. And the best way to do so is to involve people in solving problems under the guidance of people who already know the details of the ITER design." [Read the full interview>>>](#).

### Image of the Week

#### Where we are



Sign and measurement stick in one of the exploratory ditches made for the archeological survey. Click on the picture for high-res.

### Calendar

#### Future meetings, conferences, workshops

**19-22 March**  
[15th International Conference on Atomic Processes in Plasmas](#)  
Gaithersburg, MD, USA

**26-28 March**  
[3rd IAEA Technical Meeting on Theory of Plasma Instabilities](#)  
York, UK

**26-30 March**  
12th Meeting of the ITPA Topical Group on Diagnostics  
Princeton, USA

**17-20 April**  
[12th US-EU Transport Taskforce Workshop](#)  
San Diego, USA

**2-4 May**  
8th International Reflectometry Workshop  
St Petersburg, Russia

**7-9 May**  
[17th Topical Conference on Radio Frequency Power in Plasmas](#)  
Clearwater, Florida, USA

**May 14-17, 2007**  
5th IAEA Technical Meeting on Steady State Operations of Magnetic Fusion Devices (IAEA TMSO)

### Introducing ... Dhiraj Bora, DDG Designate CODAC & IT, Heating and Current Drive, and Diagnostics (CHD) Department



Dhiraj Bora

Born in 1951 in Guwahati, India, Dr. Dhiraj Bora received his Masters Degree from the Peoples' Friendship University of Moscow in 1974, and his Doctorate in Physics from the Physical Research Laboratory in Ahmedabad.

For almost 25 years since then he has been active in plasma physics research, most recently at the Institute for Plasma Research (IPR) in Gandhinagar. Dr. Bora's primary interest has been radio frequency heating and current drive in tokamaks. He has been the project leader of the RF group in his institute since its inception. In the past fifteen years the group has developed heating and current drive systems based on high power commercial tubes at megawatt levels and different frequencies. In his earlier days Dr. Bora was involved in measurements using microwave diagnostics and bolometers in tokamak plasmas.

At ITER, he is responsible for diagnostics, CODAC, heating and current drive systems. He will have to make sure "that the plasma within the ITER device behaves the way we want it to", he said.

### Fusion World

#### Portuguese Student writes Master's Thesis on ITER



Nuno Brás Henriques holding his Master's Thesis on ITER.

Nuno Brás Henriques, a 29 year old student at the Technical University in Lissabon, Portugal, has finished his Master's Thesis on ITER. Asked about his subject, Nuno answered: "It is the evolution of the project and foremost its project management. The fact that different partners from all over the world will make their contributions to the ITER project.".

ITER Newsline would like to congratulate Nuno for being one of the first students to dedicate a Master's thesis to ITER.

### Newsline editors

The ITER Newsline is produced by Mark Tiele Westra and Sabina Griffith. Suggestions for future articles, comments and corrections, as well as items for the calendar are welcome, and can be sent to mark.westra@iter.org.

### ITER-India launches website

Recently, ITER-India has launched its project website. It is available at [www.iter-india.res.in](http://www.iter-india.res.in). Among others, it contains perhaps the first poem on ITER.

Website [Domestic Agency USA](#)

Website [Domestic Agency India](#)

Website [Domestic Agency Japan](#)

### Industry

#### Dutch company to build prototype for ITER Cryopump

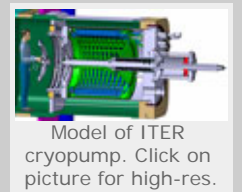
On 13 February the EU launched a contract to build a full size prototype ITER cryogenic vacuum pump through the European Fusion Development Agreement (EFDA). After a competitive tendering process the Dutch company DeMaCo was awarded the contract. DeMaCo's cooperation with EFDA and the Forschungszentrum Karlsruhe, Germany, is based on its long-lasting experience in Cryo and Vacuum Technology.



Contract launch meeting at DeMaCo, with from left to right: Robert Pearce (EFDA), Hans Jensen (FZK), Christian Day (FZK), and Ronald Dekker (DeMaCo). Click on the picture for high-res.

The ITER machine will contain ten such cryo-pumps that produce the vacuum necessary to operate the torus and the cryostat. The ITER torus pumps are unique in that they must function in a fast cyclic mode continuously pumping and regenerating the exhaust of the burning plasma, including the helium produced as a result of fusion.

The pump will take 18 months to build and will undergo a period of intensive testing at the TIMO-2 pump test facility at Forschungszentrum Karlsruhe. This prototype pump will enable validation of the design and fabrication methods prior to procuring the main batch of ten pumps for ITER.



Model of ITER cryopump. Click on picture for high-res.

### Announcements and Links

[ITER Management Chart](#)

#### EFDA Newsletter

The newsletter of the European Fusion Development Agreement can be found [here](#).

Riviera Hotel, Daejeon, Republic of Korea

For full agenda, click [here](#).

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