

Registration

Regular: The Fee is 350,- € and covers lectures, class notes, coffee breaks and a social event.

Students: For a limited number of university and technical high school students' financial support through European Commission funds can be granted and in this case the attendance is **free**. (Eligible Students will be nationals of the Member States of the European Union).

Registration can be made by returning the application form which is available on our website

www.kit.edu/summerschool-fusion

The number of participants to the Karlsruhe International School on Fusion Technologies 2010 is limited. All applicants are therefore requested to provide a short curriculum vitae and a short resume of their interest in fusion.

Hotel reservation

A block of single apartments has been reserved in the ACORA Hotel in central Karlsruhe. This reservation has to be confirmed by 31th July 2010. The price is 60,- € per night excluding breakfast. For more information please check their website www.acora.de.

Alternatively, beds have been booked in the Karlsruhe Youth Hostel, also valid until 31th July. The price including breakfast is 21,- € for the first night and 17,90 € for the following nights. For more information please check www.jugendherberge-karlsruhe.de.

Please book your hotel room or the youth hostel exclusively through Mrs. S. Mann, see e-mail above.

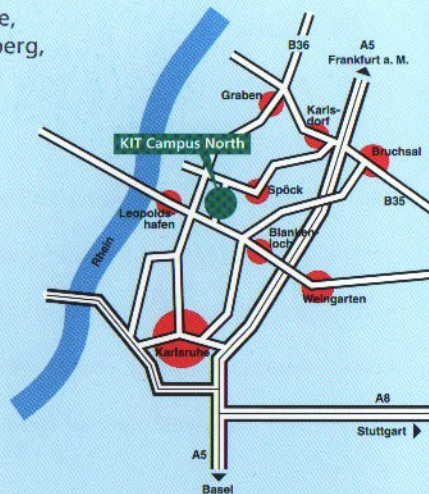
Contact

Please send your application form before 31th July 2010 to:

Mrs. S. Mann
Karlsruhe Institute of Technology/FTU
76344 Eggenstein-Leopoldshafen/Germany
Phone: +49 (0) 7247 82 3272
Fax: +49 (0) 7247 82 4857
email: sibylle.mann@kit.edu

Information

The School will be held at the KIT Campus North, about 10 km from the centre of Karlsruhe, Baden-Wuerttemberg, Germany.



Publisher

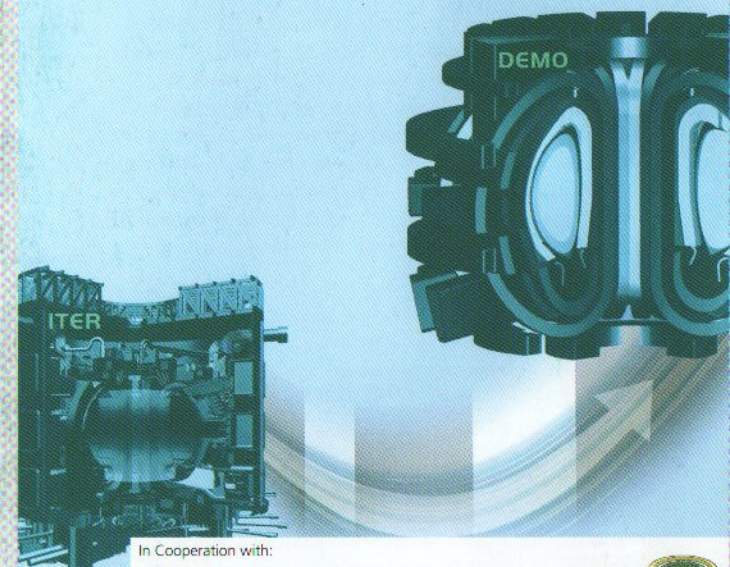
Karlsruhe Institute of Technology
Hermann-von-Helmholtz-Platz 1
76344 Eggenstein-Leopoldshafen, Germany

www.kit.edu

Karlsruhe Institute of Technology, Germany
September 06 – September 17, 2010



Fusion Technologies
Karlsruhe International School 2010



In Cooperation with:



www.kit.edu/summerschool-fusion

Profile

Nuclear Fusion offers a very promising future energy source with excellent safety features and almost unlimited fuel resources. The experimental fusion reactor ITER, which is being built in Cadarache, France in the framework of a worldwide project, constitutes an essential milestone on the way to the commercial use of fusion energy.

The Karlsruhe International School on Fusion Technologies 2010 is the fourth in a series of annual summer schools which will give an overview on key fusion technologies, their current status and on long term R & D, particularly in view of the next step beyond ITER, the demonstration power station DEMO.

This international course is intended for students of engineering and physics currently in technical high schools and universities, particularly after a successful intermediate diploma, and PhD students and post-docs in relevant subjects.

The construction and the operation of ITER requires hundreds of highly qualified engineers and physicists and thus offers excellent career opportunities in international teams. Therefore young engineers and natural scientists are encouraged to participate to the the Karlsruhe International school on Fusion Technologies 2010 and be introduced to highly challenging scientific and technical areas and the way they will be brought in to reality in a large international project.

Programme outline

The programme comprises lectures on the fundamentals of energy requirements and the key technologies required for the construction of future fusion reactors.

Topic 1 Introduction to fusion

Topic 2 Introduction to plasma physics

Topic 3 Plasma heating technology and plasma diagnostics

Topic 4 Materials development for fusion reactors

Topic 5 Neutronics and activation analysis

Topic 6 Divertor

Topic 7 Blanket

Topic 8 Safety analysis

Topic 9 Socioeconomics, safety and waste

Topic 10 The fuel cycle of a fusion reactor

Topic 11 Technology of magnetic confinement

Topic 12 Remote handling, maintenance scheme

Topic 13 Operating and planned facilities

Organization

The Karlsruhe International Summer School on Fusion Technologies 2010 is funded by the European Commission and jointly organized by

- Karlsruhe Institute of Technology (KIT), Germany
- The Commissariat à l'Energie Atomique (CEA), France
- CCFE Culham Centre for Fusion Energy
- Ente per le Nuove tecnologie, l'Energia e l'Ambiente (ENEA), Italy
- Österreichische Akademie der Wissenschaften (ÖAW)
- AREVA NP, France

The Executive Board takes care of the scientific organization and consists of

Dr. Dirk Radloff KIT

Dr. Philippe Magaud CEA

Dr. Derek Stork CCFE

Dr. Aldo Pizzuto ENEA

Prof. Harald Weber ÖAW

Dipl.-Ing Edgar Bogusch AREVA NP, France

Lecturers from European fusion laboratories, from the ITER International Team and from industrial companies specialising in fusion technologies will present lectures in their particular speciality.

