Kennziffer (vorläufig): ETN_PFM-1/2007

Development of plasma-facing components

A large international research and development project has been initiated with the aim of building the first experimental fusion reactor, ITER (http://www.iter.org). The goal of this facility, now under construction in Cadarache, France, is to demonstrate the scientific and technical feasibility of thermonuclear fusion. Besides the European Union, Japan, USA, Russia, China, India and South Korea are contributing to the project.

In order to secure the engineering capabilities needed for ITER construction, EURATOM has implemented a European Fusion Training Scheme (EFTS), covering areas that are especially critical for the construction of ITER components. One of the most challenging topics is the provision of reliable plasma-facing materials (PFM) and components.

For our Institute of Energy Research (IEF-4 /Plasma Physics) we are seeking

A Mechanical Engineer

- code: pending/007 -

Within the framework of this EFTS-PFM training programme, FZJ is offering one position for a trainee (mechanical engineer), who will work on various issues related to the characterisation, design and testing of plasma-facing materials and related components for ITER. The training elements will be special training courses on general techniques related to tokamaks, as well as on-the-job training activities, and involvement in ITER wall component development projects. Subsequent to the training period, based on a two-year fixed-term contract, job opportunities both in the ITER team and the local research and development teams (e.g. Forschungszentrum Jülich) are envisaged.

Responsibilities:

Development, improvement and characterisation of plasma-facing materials and components subject to ITER-relevant loading scenarios, with special emphasis on electromagnetic and/or thermo-mechanical properties for exposure to high heat fluxes.

Experience:

Experience (4 to 5 years) in mechanical engineering and/or materials science; knowledge of structural mechanics, materials modelling and finite element methods. Experience in project planning and/or basic knowledge in plasma physics or electromagnetics would be an advantage.

Qualifications:

University degree in mechanical or nuclear engineering (applied physics) or equivalent; Good knowledge of the English language, both written and spoken.

Location of work:

Jülich (Germany). Opportunities will arise for exchange visits to other partner laboratories in Europe.

Dates and duration of contract:

Starting date 1 July 2007 or later; duration 2 years.

Further information:

Please contact:

Dr. Ph. Mertens, ph.mertens@fz-juelich.de, phone: +49 2461 61 -5780 /-5720

The guidelines for the EFTS training programme do not permit anyone who currently has a contract with Research Centre Jülich, or any other cooperation partner, to apply for these posts. This applies to employees, PhD students and undergraduates.

(Die Richtlinien des EFTS-Trainigsprogramms lassen Bewerber/innen, die derzeit einen Vertrag mit dem Forschungszentrum Jülich oder einem anderen Kooperationspartner haben, nicht zu. Dies gilt gleichermaßen für Angestellte, Doktoranden und Diplomanden.)

Equal opportunities is a cornerstone of our staff policy. Applications from disabled persons are welcomed.

The salary will be based on the Collective Agreement for the Civil Service (TVöD).

Applicants from non-EU countries may be eligible for alternative forms of remuneration (e.g. fellowship).

Please send your application with the relevant documentation (CV, diploma, certificates, etc.) to:

Forschungszentrum Jülich GmbH
Geschäftsbereich Personal
- Personalentwicklung -
52425 Jülich, Germany