

Three (3) Professorships in Nuclear Engineering at the Karlsruhe Institute of Technology (KIT)

The Karlsruhe Institute of Technology (KIT) incorporates several joint research activities of the Forschungszentrum Karlsruhe (FZK) and the Universität Karlsruhe (TH). A member of the Helmholtz Association of German research centers, the Forschungszentrum Karlsruhe (FZK) is one of Germany's largest multi-disciplinary research centers, emphasizing research in the fields of energy, atmospheric science, micro- and nanotechnologies, as well as the structure of matter. The Universität Karlsruhe (TH) is the oldest German technical university, founded in 1825. As one of the first three elite universities in Germany, the spectrum of scientific excellence of Universität Karlsruhe emphasizes teaching and research in the engineering and technological fields, natural sciences, architecture, and economics.

The Institute for Neutron Physics and Reactor Technology (INR), formerly the Institute for Reactor Safety (IRS), of the Forschungszentrum Karlsruhe, together with the future Institute for Fusion and Reactor Technology (IFR) of the Faculty (School) of Mechanical Engineering of Universität Karlsruhe (TH) invite applications for three (3) positions at the rank of Full Professor (W3) in nuclear engineering and fusion technology.

The mission of INR and IFR comprises research and teaching in fission and fusion reactor technology, design and safety. The theoretical and experimental research and development (R&D) tasks of INR will be conducted within the framework of the Helmholtz-Association's research programs „Nuclear Safety“ und „Fusion“, and are embedded in international Projects. The specialized areas of emphasis are neutron- and reactor physics, nuclear plant dynamics, fusion technology, thermal-hydraulics and fluid dynamics, as well as the construction and experimental validation of complex reactor components for high-temperature operation. The areas of emphasis of IFR at the Universität Karlsruhe encompasses the development of innovative reactor systems.

Professorship Nr.1:

Management of the Institute for Neutron Physics and Technology (INR)

at the Forschungszentrum Karlsruhe

and

Full Professor (W3) for Fusion and Reactor Technology (IFR)

at the Universität Karlsruhe (TH)

The successful candidate will be a scientifically established person, experienced in the areas of fission or fusion reactor technology. Prior experience in leading larger research teams is also required for managing the INR.

Professorship Nr. 2:

**Management of the Plant Dynamics and Reactor Safety Section
of the Institute for Neutron Physics and Technology (INR)
at the Forschungszentrum Karlsruhe
and
EnBW-Endowed Professorship (W3) for the Dynamics of Reactor Systems
at the Universität Karlsruhe (TH)**

The successful candidate will be a scientifically established person, experienced in areas such as multiscale analysis methods and safety concepts for nuclear plants and subcritical systems, emphasizing thermal-hydraulics and fluid dynamics, neutronics, fuel behaviour, and transmutation of highly radioactive waste.

Professorship Nr. 3:

**Full Professor (W3) for Innovative Reactor Systems
at the Universität Karlsruhe (TH)
and Management
of a new Design and Safety of Innovative Reactor Systems Group
of the Institute for Neutron Physics and Technology (INR)
at the Forschungszentrum Karlsruhe**

The successful candidate will be a scientifically established person, with engineering or equivalent qualifications, experienced in at least one of the following areas: development of advanced reactor systems, experimental fusion reactor (ITER) and fusion demonstration reactors (DEMO). Leadership qualifications are expected for building this new research group.

Requirements for the Full Professor Positions are:

- A university degree in engineering or natural sciences,
- Doctoral degree,
- Habilitation or equivalent scientific accomplishments.

Proven didactic abilities are expected in order to carry out the teaching activities at Universität Karlsruhe (TH), and to extend the nuclear engineering and fusion technology curriculum.

Readiness for interdisciplinary cooperation with industry and other research institutions is expected for the professors' positions. In particular, the existing national and international research cooperation programs should be further extended. Industrial experience or multi-year teamwork in an international project, as well as management experience in leading a larger research group will be valued.

The Forschungszentrum Karlsruhe and the Universität Karlsruhe conduct jointly the hiring process. Candidates can apply for either one or more of the above professorships.

The Forschungszentrum Karlsruhe and the Universität Karlsruhe are striving to increase significantly the number of women in management positions, and are therefore promoting especially qualified female applicants. Qualified applications should be sent in *writing* **and** per *e-mail*, no later than January 15, 2008, to the attention of Dr. Peter Fritz, Member of the Board, Forschungszentrum Karlsruhe (tel. +49 (0) 7247 / 82 2013 Email: peter.fritz@vorstand.fzk.de), as well as to the Dean, Fakultät für Maschinenbau, (Mechanical Engineering), Universität Karlsruhe (TH), Tel. +49 (0) 721 / 608 2320, Email: dekan@mach.uni-karlsruhe.de

Dr. Peter Fritz, Member of the Executive Board, Forschungszentrum Karlsruhe,
Postfach 3640,
D - 76021 Karlsruhe
(Tel. +49 (0) 7247 / 82 2013 Email: peter.fritz@vorstand.fzk.de),

and

Dekan der Fakultät für Maschinenbau
Fakultät für Maschinenbau
Universität Karlsruhe (TH)
Kaiserstr.12
76128 Karlsruhe

(Tel. +49 (0) 721 / 608 2320, Email: Dekan@mach.uni-karlsruhe.de

Internet: <http://www.fzk.de>

<http://www.kit.edu>

<http://www.uni-karlsruhe.de>