

RECRUITMENT

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Karlsruhe Institute of Technology (KIT) is the result of the merger of university Karlsruhe and research center Karlsruhe. It is a unique institution in Germany, which combines the mission of a university with that of a large-scale research center of the Helmholtz Association. With 8000 employees and an annual budget of EUR 650 millions, KIT is one of the largest research and education institutions worldwide.

We wish to employ a

Scientist (f/m)

for our Institute for Data Processing and Electronics (IPE) under a permanent employment contract beginning immediately.

Your work will focus on setting up the project "Pixel Detectors for Synchrotron Radiation" at KIT/IPE. This includes:

- Specification, design, assembly, and commissioning of pixel detectors
- Project coordination
- Supervision of young scientists
- Preparation of funding proposals
- Preparation of publications and starting of patenting procedures

Your work is associated with business travels within Germany and abroad and, hence, suited for part-time employment with certain limitations only.

Applicants should have studied physics or electrical engineering, completed by a PhD, and at least three years of professional experience. In addition, candidates are required to have:

- Good knowledge of the design or characterization of semiconductor detectors and their read-out electronics
- Good knowledge of analog electronics
- Interest in assembly and bonding technology
- Fluency in written and spoken English
- Target- and team-oriented approach to working, high level of self-motivation
- Willingness to travel

Candidates are desired to have experience in working abroad and experience in:

- Synchrotron radiation experiments or in the instrumentation of large-scale particle physics experiments
- Project management
- Simulation/characterization of radiation-induced damage
- Specific software (Spice simulation, LabView, T-ISECAD)
- Programming languages C/C++

We offer a challenging scientific task with a high degree of autonomy, a variety of training options, and the use of latest technical equipment.

We prefer to balance the number of female and male employees in our company. In this case, we therefore kindly ask female applicants to apply to this job. If qualified, handicapped applicants will be preferred.

Kindly send your application online or write to Mrs Hase, Personnel Management, phone 0049 7247 82 5011 indicating the vacancy No. 538/2009 and the ID number 20. For technical information, please contact Prof. Dr. Marc Weber, phone 0049 7247 82 5612.

Karlsruhe Institute of Technology
Personnel Management, North Campus
P.O. Box 36 40 – 76021 Karlsruhe, Germany – www.kit.edu

KIT – University of the State of Baden-Württemberg and
National Laboratory of the Helmholtz Association



The Paul Scherrer Institute is a centre for multi-disciplinary research and one of the world's leading user laboratories. With its 1300 employees it belongs as an autonomous institution to the Swiss ETH domain and concentrates its activities on solid-state research and materials sciences, elementary particle physics, energy and environmental research as well as biology and medicine.

The Accelerator Concepts Division of the Large Research Facilities Department at PSI supports the development of new accelerators and the consolidation and improvement of existing machines, contributing in the fields of beam dynamics, radio-frequency systems, beam diagnostics, accelerator design, controls and commissioning.

For the next major project at PSI we are looking for an

Accelerator Physicist

For the PSI X-ray free electron laser (SwissFEL) project

Your tasks

- To contribute to beam dynamics studies related to the conceptual design and optimization of the SwissFEL linac
- To optimise the design of the high brightness injector for the SwissFEL linac
- To assume responsibility for beam dynamics issues concerning the 250 MeV injector
- To participate in the commissioning and characterisation of the 250 MeV injector test facility

Your profile

The candidate should hold a Ph.D. in accelerator physics and should have a sound understanding of beam dynamics as well as previous experience of working with particle accelerators. Previous experience in the simulation and calculation of high brightness electron beams and knowledge of computer simulation codes used for calculating beam transport in the presence of strong space charge are highly desirable.

The candidate is expected to work as a member of the SwissFEL development team and should be ready to document his work and communicate with colleagues working on the project, particularly those groups with strong interfaces to beam dynamics (radio-frequency, diagnostics, magnets etc.).

For further information please contact: Dr Terence Garvey,
Phone +41 (0)56 310 46 37, terence.garvey@psi.ch
Please submit your application to: Paul Scherrer Institut, Human Resources,
ref. code 8401, Thomas Erb, 5232 Villigen PSI,
Switzerland, thomas.erb@psi.ch
Further job opportunities: www.psi.ch



EUROMAGNET CALL FOR PROPOSALS FOR MAGNET TIME

The next deadline for applications for magnet time at
the **LABORATOIRE NATIONAL DES CHAMPS MAGNETIQUES INTENSES**
(ex GHMLF & LNCMP / www.lncmi.cnrs.fr)
the **HIGH FIELD MAGNET LABORATORY** (www.ru.nl/hfml/)
and the **HOCHFELD LABOR DRESDEN** (www.fzd.de/hld)
is May 15th, 2010.

Applications can be done through an on-line application form on the website:
<http://www.euromagnet.org> from April 15th, 2010.

Scientists of EU countries and Associates States* are entitled to apply under FP7 for financial support according to the rules defined by the EC.

*listed on [ftp://ftp.cordis.europa.eu/pub/fp7/docs/third_country_agreements_en.pdf](http://ftp.cordis.europa.eu/pub/fp7/docs/third_country_agreements_en.pdf)

For further information concerning feasibility and planning,
please contact the facility of your choice.



Karlsruhe Institute of Technology (KIT) invites applications for the position of

Head of the Institute for Pulsed Power and Microwave Technology (IHM, succession of Professor Thumm)

in association with the position of a

Professor (W3) of High-Power Microwave Technology

in the university sector of KIT, Faculty of Electrical Engineering and Information Technology, for employment as of next possible date.

The IHM is concentrating on the application-oriented investigation and further development of pulsed power and microwave technology and assumes a top position worldwide in the development of major components for ITER and future transmutation systems as well as in the fields of microwave materials processing technology and pulsed biomass processing technology. IHM has reached worldwide excellence in the development of high-power gyrotrons and transmission components for plasma heating.

Applicants should be internationally renowned researchers having several years of experience in research and development in at least one, but preferably several of the following areas of high-power microwave technology in industry or large-scale research:

- Micro- and millimeter-wave sources for various applications
- Oversized waveguides and quasi-optical transmission components
- Microwave applicators / resonators for various applications

Additional experience in the fields of "High-power vacuum electron sources and electron beam transport" and "Pulsed power technology" is desired. Candidates should have an excellent scientific qualification as well as experience in management tasks and the capability of heading a large institute.

Future research work of the person to be appointed under the research programs of KIT shall focus on the development of millimeter-wave power generators (gyrotrons) and transmission components for plasma heating. Candidates are expected to strengthen the institute in the fields mentioned both within the KIT and in the European and worldwide research community.

In teaching (2 hours per week per semester), the candidates are expected to represent the field of high-power microwave technology, in addition also fusion technology. They should have a professorial or equivalent scientific degree which also may have been acquired in the course of non-university employment.

Karlsruhe Institute of Technology strongly encourages applications of qualified women, as we wish to increase the proportion of females on the management level. Handicapped applicants having the same qualification will be preferred. Kindly send your application documents, including a description of previous industry, research, and teaching activities, as well as copies of the most important publications to

**Dr. P. Fritz, Vice President Research and Innovation, Karlsruhe Institute of Technology (KIT) Campus North,
Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany**

by May 15, 2010.

KIT – University of the State of Baden-Württemberg and
National Laboratory of the Helmholtz Association



Leading the way in magnet technology



NMR Magnet - Project Engineer/Designer

Magnetex, a wholly owned subsidiary of Varian, Inc. is a successful, high technology company, involved in the design and manufacture of superconducting magnet systems for Magnetic Resonance and other scientific applications.

The advertised position is a technical role, involving extensive interaction with many parts of the company and some with suppliers and customers. The applicant should be trained to at least degree level in a relevant (scientific or engineering) discipline. A PhD and/or industrial experience would be advantageous. Some experience of magnet design, superconductors, cryogenics or NMR would be of particular benefit.

The applicant will be expected to demonstrate proven ability for

innovation and/or product design and development, desire to work within an existing strong team, ability to handle projects from conception to install, to work to deadlines and to manage a number of projects concurrently.

To be considered for this opportunity, please send an up-to-date CV with a covering letter to either emma.reed@varianinc.com, or for the attention of the Human Resources Department at the address below.

magnetex scientific ltd – the magnet technology centre: 6 Mead Road, Oxford Industrial Park, Yarnton OX5 1QU, Tel: 01865 853800

www.magnetex.com www.varianinc.com



The Abdus Salam
International Centre for Theoretical Physics



DEPUTY DIRECTOR POSITION (D-2 level)

The Abdus Salam International Centre for Theoretical Physics (ICTP) is a world-class institution focused on research in basic sciences with the responsibility for the promotion, dissemination and support of science, especially in developing countries. It operates under the aegis of UNESCO and IAEA.

The successful candidate is expected, upon delegation from the ICTP Director, to act on his behalf on all matters concerning the Centre, both Scientific and Administrative. In particular:

- To determine and oversee the coordination, preparation and finalization of the Calendar of Scientific Activities of the Centre;
- To provide leadership to and to supervise the activities and staff of Scientific Services of the Centre;
- To serve as a direct link between the Director and the Centre's Senior Administrative Officer and the scientific Groups.
- To collaborate in the preparation of the annual budget of the Centre;
- To ensure the coherency and efficiency of administrative services;
- To guide the development and modification of new and existing policies for the Centre;
- To actively mobilize resources and to assist in fundraising activities.

All candidates must possess:

- PhD or equivalent doctoral degree and strong research record in one of the major areas of research of the Centre.
- At least 15 years of experience in an international organization and in a leading scientific and administrative position with experience in organization, personnel policies and budgetary control.
- Experience gained in environments supporting science on developing countries and knowledge of their needs in the areas of basic sciences required.
- Familiarity with standard scientific computing systems.
- Excellent knowledge of written and spoken English and good knowledge of French. Knowledge of Italian will be an asset.

For further information: www.unesco.org/employment

Applications should reach UNESCO before 26 May 2010. Please quote post number "EU/TP/ITA/SC/0801".



Heating and Current Drive Division Head

ITER will be the world's largest experimental fusion facility and is designed to demonstrate the scientific and technological feasibility of fusion power. As an international organization, ITER offers challenging assignments in a stimulating multi-cultural workplace sited at Cadarache in Southern France.

ITER's Heating and Current Drive systems provide the means to operate the plasma. They are a central part of the tokamak core and consist of various radio frequency systems as well as neutral beams and diagnostic neutral beam accelerators.

ITER is currently seeking an experienced manager with strong scientific and technical background in relevant fields to lead its Heating and Current Drive Division. This position is responsible for the design, research and development, procurement, installation and commissioning of the Heating and Current Drive systems within the planned schedule and budget.

For details of application procedure please go to:

<http://www.iter.org/Pages/Jobs.aspx>

Direct link to this job: <http://iter.profiles.org/Pages/Utils/RouterMenu.aspx?MenuID=5&OfferID=71&LCID=1033&OriginID=1436>



As CERN's Large Hadron Collider opens up a new high energy frontier, the Organization is pursuing advanced research and development for an electron-positron linear collider to exploit the anticipated discoveries and further the understanding of the underlying physics.

In order to lead, coordinate, and liaise the studies of both accelerator and detectors, the linear collider community at CERN is looking for a

Linear Collider Studies Leader

Your main responsibility will be to lead the linear collider work at CERN in a new project phase. You will also have a strategic international role to participate in shaping the linear collider and detector landscape beyond the host Organization. Reporting directly to the CERN Directorate and the CLIC/CTF3 collaboration board, you will engage with other laboratories to strengthen the current collaboration. Within this framework you will drive the R&D and prototyping work with a view to the production of a Technical Design Report.

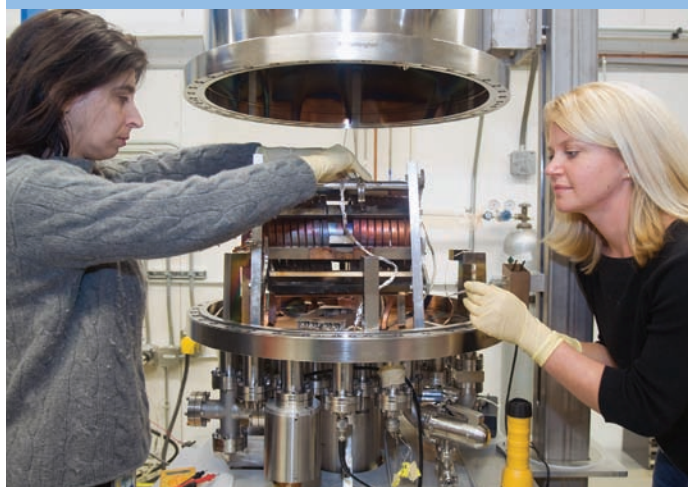
Already having extensive leadership and project management experience with international renown in the field of particle physics, you will have successfully led large collaborations requiring interactions with both research and industry.

Details of the vacancy, application process and employment conditions can be found at:

www.cern.ch/lcsi

Career videos on **cerncourier.com**

cerncourier.com's brand-new career video section showcases career opportunities at key research institutions around the world.



View *Working at Jefferson Lab* today at
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The Neutron Sciences Directorate at Oak Ridge National Laboratory (ORNL) invites applications for an Accelerator Operations Manager.

With the United States' highest flux reactor-based neutron source for condensed matter research (the High Flux Isotope Reactor) and the world's most intense pulsed, accelerator-based neutron source (the Spallation Neutron Source), ORNL is becoming the world's foremost center for neutron science. Research at these facilities encompasses the physical, chemical, materials, biological, and medical sciences and will provide opportunities for up to 2000 researchers each year from industry, research facilities, and universities all over the world. To learn more about Neutron Sciences at ORNL go to: <http://neutrons.ornl.gov>.

PURPOSE: This position will provide oversight of accelerator operations and the accelerator operations team during shutdowns, upgrades and production running of SNS accelerator systems. Provide technical and administrative expertise during accelerator operations and coordinate development activities.

MAJOR DUTIES/RESPONSIBILITIES:

- Responsible for the overall safe, efficient, effective operation of SNS Particle Accelerator Systems
- Maintain operation of the SNS Particle Accelerator Systems within the established Accelerator Operations Envelope (OE) and Accelerator Safety Envelope (ASE).
- Develop and execute operations, maintenance and commissioning plans for accelerator systems.
- Provide technical oversight during operations, maintenance and commissioning of all SNS accelerator systems.
- Provide administrative oversight of Accelerator Operations Coordinators, Accelerator Control Room Shift Supervisors and Control Room Accelerator Specialists as required.
- Update and add to the SNS Accelerator Systems Operations Procedures Manual as required.
- Participate in documenting and implementing the development plans within budgetary and schedule constraints.
- Analyze data and prepare reports on the performance metrics for SNS accelerator systems.
- Assist in developing and execute plans for improving the performance of SNS accelerator systems.
- Manage the hiring of the Accelerator Operations Group staff.
- Comply with environmental, safety, health and quality program requirements, including ISMS and SBMS.
- Maintain a strong commitment to the implementation and perpetuation of values and ethics.

QUALIFICATIONS REQUIRED:

At least 10 years experience in design, construction or operation of a particle accelerator and related control systems or an equivalent combination of education and experience. Prior experience in managing or directing physicists, engineers, technicians and accelerator operators desired. A BS degree in physics, engineering or a related field is required and MS degree preferred. Must have excellent written and verbal communications skills. Must be detail oriented.

To learn more and apply for this position, go to: <http://jobs.ornl.gov>



Postdoctoral Research Associate - Experimental Particle or Nuclear Physics (5320)

The Physics Department at Brookhaven National Laboratory seeks to fill a Postdoctoral Research Associate position in Physics. Requires a Ph.D. in physics with emphasis on experimental particle or nuclear physics.

The candidate will participate in the activities of the group including the design of the Long Baseline Neutrino Experiment, especially the large water Cherenkov detector planned for DUSEL in South Dakota. There will be opportunity to participate in the Daya Bay reactor neutrino experiment in China that will have superb sensitivity to $\sin^2 2\theta_{13}$ and will begin data-taking soon. Participation in the MINOS experiment (Fermilab-Soudan) may also be possible. Travel to DUSEL, Fermilab, Minnesota and/or China should be expected. The candidate will work within the electronic detector group and will have broad associations with other groups in the laboratory and throughout the world to carry out his/her function.

The Electronic Detector Group in the Physics Department currently has ten physicists at various career levels with major current responsibilities in neutrino physics and a long history of research in fundamental particle physics. Under the direction of S. Kettell, Physics Department.

Please go to <http://www.bnl.gov/hr/careers/> and click on Search Job List to apply for this position. Please apply to Job ID # 14944.

BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years.

Brookhaven National Laboratory is an equal opportunity employer committed to building and maintaining a diverse workforce.

Accelerator | Photon Science | Particle Physics

Deutsches Elektronen-Synchrotron
A Research Centre of the Helmholtz Association



SUPERCONDUCTING ACCELERATORS.

For the Hamburg site we are seeking a:
Leading Scientist (m/f) Accelerator Division
Salary group W3

DESY

DESY is one of the world leading accelerator centers for research on the structure of matter. DESY develops, builds and operates accelerators and detectors for the research with photons and for particle physics.

Superconducting RF technology is one of the key competences of DESY's accelerator division. In addition to operating and further developing the FLASH facility, DESY is a partner in the European XFEL project, contributing major parts of the accelerator components and leading the international consortium in charge of constructing the accelerator complex.

DESY is seeking a leading senior scientist in the accelerator division with the following responsibilities:

- Project leader of DESY's contributions to the construction and commissioning of the XFEL accelerator complex
- Coordination of international contributions within the XFEL accelerator consortium
- Coordination of further developments at DESY in physics and technology for superconducting accelerators
- Liaison with worldwide ongoing R&D programmes in the field of superconducting RF technology, e. g. in the TESLA technology collaboration and the ILC global design effort

Requirements

- PhD in physics or engineering
- Several years experience in construction and operation of accelerators based on superconducting RF technology
- Several years experience in planning and organizing complex, large scale projects
- Excellent communication and leadership skills

For further information, please contact Prof. Dr. Helmut Dosch (desy-director@desy.de, phone +49 40 8998-3000) or Dr. Reinhard Brinkmann (Reinhard.brinkmann@desy.de, phone +49 40 8998-3197).

Salary and benefits are commensurate with those of public service organisations in Germany. DESY operates flexible work schemes. Handicapped persons will be given preference to other equally qualified applicants. DESY is an equal opportunity, affirmative action employer and encourages applications from women. There is an English-speaking Kinder-garten on the DESY site.

Please send your application quoting the reference code, also by e-mail to:

Deutsches Elektronen-Synchrotron DESY

Human Resources Department | Code: 30/2010

Notkestraße 85 | 22607 Hamburg | Germany

Phone: +49 40 8998-3392 | E-mail: personal.abteilung@desy.de

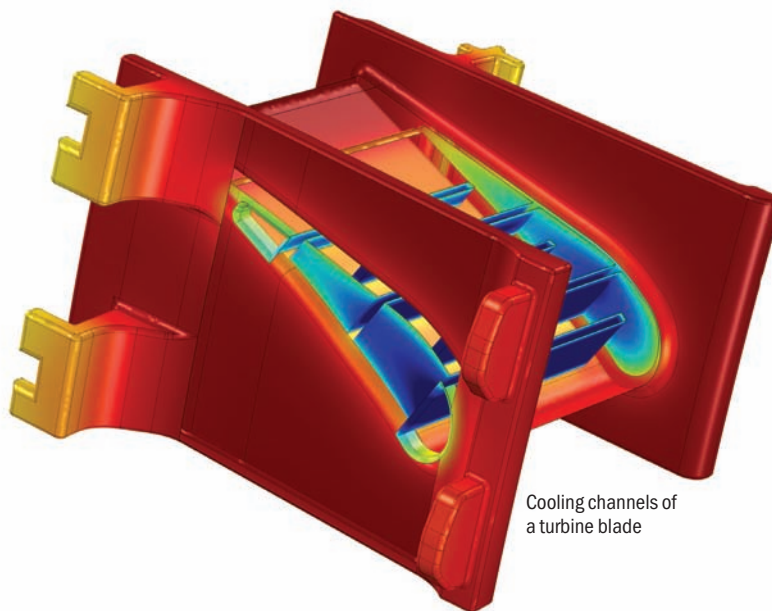
Deadline for applications: 16 May 2010

www.desy.de

The Helmholtz Association is Germany's
largest scientific organisation.
www.helmholtz.de



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E-mail chris.thomas@iop.org www.brightrecruits.com



Cooling channels of
a turbine blade

physicsworld.com

WEBINAR SERIES

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Thursday 29 April 2010

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It starts with an idea. Perhaps the first concept is a rough sketch in a notebook. Bringing your idea to life, however, requires that you know how your designs will hold up in real-world conditions. COMSOL Multiphysics® gives you tools that deliver the power to capture the concept – that is, to analyse all relevant aspects of your design, and to do it quickly and efficiently.

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