

VACANCY

The Institut Laue-Langevin (ILL), situated in Grenoble, France, is Europe's leading research facility for fundamental research using neutrons. Every year, the Institute hosts over 2000 visits by scientists, who come to carry out world-class research in solid-state physics, crystallography, soft matter, biology, chemistry and fundamental physics. The Projects and Techniques Division, which is responsible for the development of the ILL's instruments and for technical support, currently has a vacancy for a:

Research engineer (F/M) in Radiation Detector Physics

The accuracy of the data provided by neutron detectors determines the quality of neutron diffraction experiments. The intensity of the neutron beams delivered to the ILL's instruments has increased thanks to a number of modernisation programmes conducted at the Institute. Moreover, the neutron flux anticipated on the instruments of the future European Spallation Source, ESS, requires the use of detectors with a counting rate that is sometimes considerably higher than that of current detectors. The aim of the DENS project (Detectors for European Neutron Sources) is to improve the performance of beam monitors and high spatial resolution detectors by taking advantage of recent developments at the ILL and ESS.

Two priority developments are planned:

- Monitors using thin-film neutron converters, in particular based on boron-10
- Multi-wire proportional chambers using cathode blades (trench MWPC).

Duties:

You will have the following duties:

- Performing the mechanical assembly of detectors
- Involvement in the production of thin films for beam monitors
- Performing studies on the gas circulation system for beam monitors
- Installing experimental set-ups
- Conducting measurements on neutron beams and with radioactive neutron or gamma sources
- Developing data acquisition systems and analysing experimental results
- Drafting regular progress reports and giving oral presentations of results.

You will work in collaboration with the other members of the Neutron Detector Service, and under the responsibility of the Head of Service, to whom you will report regularly on the progress of your work.

Qualifications and experience:

You have a Master's degree in engineering or equivalent or a PhD in physics with an expert knowledge of radiation detector physics.

You also have extensive experience in one or more of the following areas:

- mechanics,
- gas and vacuum systems
- programming and data analysis
- analogue electronics and data acquisition systems.

You have a proven ability to analyse situations, identify problems and suggest an action plan. You enjoy teamwork in an international environment.

Language skills:

As an international research centre, we are particularly keen to ensure that we also attract applicants from outside France. You must speak fluent English and be willing to learn French (a language course will be paid for by the ILL). Knowledge of German would be an advantage.

Notes:

Specified-purpose 2-year fixed-term contract

You should expect to spend one month a year in Sweden.

Further information can be obtained by contacting the Head of the Detector Laboratory: Dr Bruno Guérard: tel.: +33(0)4.76.20.72.77, email: guerard@ill.eu (please do not send your application to this address).

Benefits:

Generous company benefits (expatriation allowance), relocation assistance and language courses may be offered (for more information, please consult our [employment conditions](#)).

How to apply:

Please submit your application on line with a list of publications and the **names of 3 references, including one from your present work place**, no later than **16.06.2016**, via our website: www.ill.eu/careers (Vacancy reference: 19/26).

We are committed to equal opportunity and diversity; we therefore encourage anyone with relevant qualifications to apply.