Institute of Engineering and Management of Grenoble Alpes University

Grenoble INP - UGA is a member of **international** engineering and management education and research **networks.** It is widely recognized in national and international rankings**.**

8 schools + **38** laboratories

8 350 students

1 300 teaching, research, administrative and technical staff

Grenoble INP-UGA is a renowned public institution of higher education and research, and a major player in the Grenoble ecosystem. It is the engineering and management institute of Grenoble Alpes University, and plays a leading role in the scientific and industrial community.

Professor

Research profile field	Nuclear reactor physics
Requested job profile	Professor
Ministerial reference for the position	29/62 PR 0512
CNU Section	29/62
Job Location	Grenoble and Saint Martin d'Hères campus (PHELMA - LPSC laboratory)
Hiring date	01/09/2024 (DD/MM/YY)
keywords	reactor physics, fluid mechanics, thermal and neutron transfers, nuclear physics, medical applications of nuclear energy

Grenoble INP - UGA is a leading public institution accredited with the French label "Initiative d'excellence". It offers innovative engineering and management programs, with an increasing internationalization of its course offers. The courses are grounded in sound scientific knowledge and linked to digital, industrial, organizational, environmental and energy transitions. The Engineering and Management Institute of Grenoble Alpes brings together more than 1300 staff members (teacher-researchers, lecturers, administrative and technical staff) and 8 350 students, located on 8 sites (Grenoble INP - Ense3, Grenoble INP - Ensimag, Grenoble INP - Esisar, Grenoble INP - Génie industriel GI, Grenoble INP - Pagora, Grenoble INP - Phelma, Polytech Grenoble, Grenoble IAE and the INP Prepa). Grenoble INP is also a highly-ranked institution of higher education and research, leading the way in the fields of engineering and management on an international scale. It is a member of a large number of international academic and research networks. It is part of the European University UNITE!.

As part of Grenoble Alpes University, Grenoble INP has associated guardianship of 38 national and international research laboratories and of technological platforms. The research conducted there benefits both its socio-economic partners and its students. Grenoble INP is at the heart of the following scientific fields: physics, energy, mechanics and materials; digital; micronanoelectronics, embedded systems; industry of the future, production systems, environment; management and business sciences.

Grenoble INP - UGA is an equal opportunity employer committed to sustainability. Grenoble INP-UGA celebrates diversity and equity and is committed to creating an inclusive environment for all employees. All qualified applications will be considered without discrimination of any kind.

Teaching

School: Grenoble INP - Phelma

School website: https//phelma.grenoble-inp.fr/

Contact: alice.caplier@grenoble-inp.fr

School presentation:

Grenoble INP Phelma is an engineering school of the Grenoble Polytechnic Institute. It offers students a wide choice of courses at the cutting edge of scientific and technological progress: micro & nanotechnologies, instrumentation, energy, innovative materials, information technologies, biomedical engineering, process engineering and the environment. It welcomes more than 1,400 students in 11 engineering courses, including one apprenticeship, and a dozen masters courses. The teaching staff is made up of around one hundred full professors and over 300 part-time lecturers. The administrative and technical staff numbers around fifty. The school has two sites: the Minatec site in Grenoble and the university campus in Saint-Martin d'Hères. While reaffirming its three main pillars of physics, electronics and materials, Phelma is ensuring that the training of its engineering students and masters students evolves in line with changes in careers, linked primarily to the energy transition and the digital transition.

Teaching Profile:

This PR position involves teaching nuclear reactor physics in the broadest sense (fluid mechanics, heat transfer and neutronics), nuclear physics and energy-related subjects in general (CNU Sections 29 and 62) in the Phelma GEN (Energetic and Nuclear Engineering), MANUEN (Materials for Nuclear Energy), Bachelor in Nuclear Engineering and the future sandwich course MEP (Materials, Energy and Processes). He or she should be able to teach nuclear physics, nuclear instrumentation, thermal hydraulics, heat transfer, neutronics, numerical methods and associated projects. The teacher-researcher will also be expected to set up teaching projects in partnership with industrialists in the nuclear sector and to participate in the LPSC's TPs platforms (Platine, MARGUERITE-FEST). The ability to teach in English will be essential in order to be able to participate in the courses concerned.

The PR will be expected to take charge of one of the school's nuclear programmes and to participate in the construction and development of new teaching initiatives in the field (international masters programmes, links with the Compétences et Métiers d'Avenir and France 2030 projects in which the school is involved).

Research

Host laboratory: LPSC

Laboratory website: https://lpsc.in2p3.fr/
Contact: laurent.derome@lpsc.in2p3.fr

Research Profile:

This profile is part of the research activities in the field of nuclear reactor physics (fluid mechanics, heat transfer and neutronics) or applications of nuclear physics in response to current issues linked to the energy transition and societal applications.

The research themes that are particularly targeted in this post include:

- Participation in reactor physics experiments linked to nuclear data measurements and assimilation of these data into nuclear physics models

- Numerical thermal-hydraulic modelling (Computational Fluid Dynamics type) for innovative nuclear reactors and participation in thermal-hydraulic experiments carried out in the FEST (Fluids Experiments and Simulations in Temperature) facility

- Studies and optimisation of innovative Generation III or IV reactors, such as molten salt reactors, Small Modular Reactor (SMR) and Micro Modular Reactor (MMR).

- As part of innovative radiotherapy (flash hadrontherapy, synchrotron radiation therapy and BNCT), participation in the development of associated instrumentation such as diamond detectors, imaging techniques using secondary particle detection (gamma prompt), simulation and modelling.

The research activity presented in the application must be proven, in particular by international publications.

Specific requirements

The ability to teach in English is imperative, as a number of the school's courses are given strictly in English but the majority will be in french. International experience would also be an asset.

Administrative activities:

The candidate will have to take on one of the responsibilities mentioned in the profile.

Special features of the post:

Teaching may be given on either of the school's two sites: Grenoble (Polygone scientifique) and Saint Martin-d'Hères (campus est).

How to apply

Applicants must submit their applications on the Galaxie Platform of the French Ministry of Higher Education and Research from the 22nd of February 2024, 10 a.m. (Paris time zone) to the 29th of March 2024, 4 p.m. (Paris time zone), deadline.

Any document sent outside the Galaxie procedure will not be taken into account.

The interview will include simulation/situational exercises.

The details will be communicated when the invitation is sent out. In addition, part of the interview may be carried out in English.