



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	Physics, materials
Requested job profile	Professor
Ministerial reference for the position	28 PR 8043
CNU section	28
Job Location	Grenoble (Phelma - LMGP)
Hiring date	01/09/2024 (DD/MM/YY)
keywords	Physics, materials

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.

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 1,300 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:

Physics and materials are two of the main disciplines taught at Grenoble-INP - Phelma. This position involves teaching physics with applications to materials. The Professor will be expected to take part in the physics and/or materials courses in the first year of the school's core curriculum or in one of the programmes concerned by these disciplines, i.e. the Iphy (Physical Engineering for Photonics and Microelectronics), SIM (Materials Science and Engineering) or AM (Advanced Materials) programmes.

The school's ambition is to train engineers to become players in the ecological transition. As such, he or she should be in a position to suggest ways in which the school's physics courses for materials could evolve as part of this transition.

The Professor should also be able to make a significant investment in terms of taking on responsibilities within the school (responsibility for the field, steering the skills project) or at Grenoble INP level.

Research

Host laboratory: Laboratoire des Matériaux et du Génie Physique (LMGP)

Laboratory website: <http://www.lmgp.grenoble-inp.fr/>

Contact : carmen.jimenez@grenoble-inp.fr

Research Profile:

The LMGP is a joint UGA and CNRS research unit, under the joint supervision of Grenoble INP-UGA. The laboratory is organised into three teams: Nanomaterials and Advanced Heterostructures (Nanomat), Functional Thin Films and Surface Functionalisation (Funsurf) and Interface between Materials and Biological Matter (IMBM).

LMGP is a multidisciplinary laboratory with teacher-researchers from sections 28, 33 and 64. Its main section is attached to section 15 of the INC of the CNRS, and its secondary section is attached to section 8 of the INSIS.

The LMGP synthesises materials by chemical means in the gas phase (Metalorganic Chemical Vapour Deposition, Atomic Layer Deposition) or in the liquid phase (Chemical Bath Deposition, sol-gel) and characterises materials, often nanostructured or in the form of thin films, for various applications in microelectronics, energy conversion, biomedical applications, etc.

LMGP has a wide range of its own analysis techniques and also hosts the characterisation techniques of the Consortium des Moyens Technologiques Communs (CMTC) platform, such as SEM, TEM, DRX and Raman. It also has access to other platforms in Grenoble (OPE)N(RA or PTA) and benefits from the proximity of major instruments (ESRF, ILL). This strength in analysis, coupled with the ability to modulate the properties of materials by mastering synthesis methods, has led to numerous technological breakthroughs in response to the challenges of innovation.

The LMGP is particularly interested in the relationships between synthesis and structure, and between structure/shaping and the functional properties of these materials. The shaping of materials makes it possible to adjust or enhance functional properties, for example by increasing the surface-to-volume ratio in nanostructured thin films or nanowires, or by controlling defects through doping. Electronic and structural properties are also strongly influenced by nanoscale shaping. Analysis of these properties at different scales is fundamental to understanding the parameters that govern these phenomena.

The Professor will have to propose a project in synergy with the current research themes, favouring the development of skills specific to the LMGP.

He or she will be expected to take on responsibilities within the laboratory and its representation on local and/or national governing bodies.

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 Professor will be expected to take on either teaching or research responsibilities from those listed in the job description.

Special features of the post

Teaching may take place at 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 considered.

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.