



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 + 39 laboratories

8 300 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.

University Lecturer Position

Short profile	Mechanical Technology
Body	University Lecturer
Position number	60 MCF 0689
CNU Section	60
Location	Grenoble INP - School of Industrial Engineering, G-SCOP Laboratory
Date of recruitment	01/09/2023
Key words	Mechanical Engineering; Product Design; Design for Additive Manufacturing; Manufacturing Technologies

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 8300 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 39 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 - Industrial Engineering

School website : <https://genie-industriel.grenoble-inp.fr/>

Contact : marie-laure.perenon@grenoble-inp.fr

Grenoble INP-Industrial Engineering trains engineers and managers in industrial engineering for the design and management of supply chains and products for all sectors of the economy. By combining skills in engineering sciences, data sciences, and human and social sciences, the School of Industrial Engineering provides learning to talented individuals who can master the fundamentals of science for industry, with general skills that enable them to transform industry for the good of society.

Teaching Profile:

The candidate will teach systems design and mechanical engineering as part of undergraduate and graduate courses in Industrial Engineering, as well as continuing education. The aim is to teach the fundamental disciplines of mechanical engineering and system design and to link these courses to the school's pedagogical project: training for the industry of the future, a systemic and multidisciplinary vision of the company and of training, as well as a pedagogy in which students are active participants. The candidate is also expected to demonstrate a strong environmental awareness and the ability to come up with new ideas in order to train engineers capable of innovating for a sustainable and user-friendly technology in their future profession, and therefore capable of helping companies evolve towards a real commitment to society and the environment.

The candidate will mainly teach Mechanical Technology and Product Design. He/she may also teach other subjects such as Structural design or Manufacturing. The lessons provided will be in the form of lectures, tutorials and practical work, as well as in the form of project activities and problem-based learning. He/she will be part of the teaching team of the Product Engineering course. He/she will teach the fundamental courses of the industrial engineering curriculum, with colleagues from all the disciplines taught, Engineering Sciences, Numerics and Human and Social Sciences.

The candidate will also participate in the supervision of engineering students, apprentices and masters, as well as in the supervision of internships. Some of these courses may be taught in English.

Research

Team : G-SCOP Laboratory (UMR 5272 Grenoble-INP, UGA and CNRS)

CiPP team

Laboratory website : <https://g-scop.grenoble-inp.fr/>

Contact : francois.villeneuve@univ-grenoble-alpes.fr

The G-SCOP laboratory (UMR 5272) is a multidisciplinary research laboratory that deals with the issues of design, optimization and management of products and production systems. The G-SCOP laboratory aims at developing research to meet the societal challenges of the four transitions: energy, environment, digital and industrial. The mutation of the industrial world linked to the concepts of the industry of the future (personalization, connectivity,

agility, sustainability...) calls for the evolution of the methods of design and management of production systems. In such a context, production systems, thought for mass production, are moving towards an agile production, sometimes circular, adapted to the demand and available resources.

Research profile:

The research carried out within the CIPP team of the laboratory focuses on the challenges related to product and shape design methodologies integrating manufacturing knowledge and constraints (Design for Manufacturing, DFM). One of the technologies under consideration for these design methodologies could be additive manufacturing (Design For Additive Manufacturing, DFAM) which is currently the subject of many projects within the team.

The methods of DFAM have yet to be invented. It is clear today that the freedom of form brought by the new manufacturing technologies requires a rethinking of the design process. In the face of these new freedoms, it is necessary to guide the designers' choices and to integrate the constraints and opportunities of the manufacturing technology. This can be done through topological or shape optimization tools or decision support tools. Other methods are also possible. Whatever the method, the designer is responsible for making the final decision, and it is important to guide him in his choices. This implies being able to quantitatively evaluate the solutions offered on the basis of criteria that have to be expressed by the users and mathematized. This also implies exploring ways of representing these evaluations in a way that is understandable to the designer. Finally, it is necessary to integrate the modelled knowledge of the envisaged process into these design methods.

The newly hired lecturer will have to be part of a team working in collaboration on these subjects. A good knowledge of the CAD/CAM digital chain tools is expected. Knowledge of additive manufacturing methods and the ability to implement at least one metal additive manufacturing method will be considered a plus.

Position assigned in a restricted area: YES/NO

(Protection of the nation's scientific and technical potential, conditioning the appointment of the lecturer-researcher on the authorization of the Defense Security Officer).

Specific requirements or conditions

None.

How to apply

Applicants must submit their applications on the Galaxie Platform of the French Ministry of Higher Education and Research from the 23rd of February 2023, 10 a.m. (Paris time) to the 30th of March 2023, 4 p.m. (Paris time), 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 conducted in English.