



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.

Associate Professor

Research profile field	Design and management of the workshops of the future
Requested job profile	Associate Professor
Ministerial reference for the position	61 MCF 0643
CNU Section	61
Job Location	Grenoble (Ecole de Génie Industriel, G-SCOP laboratory)
Hiring date	01/09/2024 (DD/MM/YY)
keywords	Industrialization, Industrial Engineering and Production Engineering

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 – Génie industriel

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

Contact: pierre.david@grenoble-inp.fr

School presentation:

Grenoble INP-Industrial Engineering trains industrial engineering engineers and executives 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 trains talents who master the fundamentals of sciences for industry, with general skills allowing them to transform industry in the interest of society.

Teaching Profile:

In the era of Industry 4.0 and the digital transformation of businesses, the ability for industrial engineers to seamlessly assimilate and leverage the wealth of information within available datasets is imperative. This skill is crucial for making informed decisions in the face of ever-growing complexity of industrial systems. The fourth industrial revolution is also based on many smart and connected technologies. A major challenge is to successfully integrate them into industrial workshops, taking into consideration the humans who will be in permanent contact with these technologies. Related societal issues shall also be considered for sustainable development.

In this context, we wish to strengthen our training offer around the design and management of the workshops of the future, where humans collaborate with machines. These new workshops and their workstations must be more efficient, agile, robust, sustainable and resilient.

The associate professor must have expertise in production management, industrialization, workshop sizing, by mobilizing new technologies making equipment more flexible and communicative. He or she will get involved in the "Operations Management" technological platforms to develop new courses aligned with the expectations of this position. He or she will strengthen the lecturers team involved in the areas of physical flow management, the design and management of production workshops, and the deployment of industrial information systems. He or she will be able to intervene in basic courses in industrial engineering (production management, system design, discrete event models, automatics, information systems, etc.). A part of these lessons is expected to be taught in English.

Research

Laboratory: Laboratoire G-SCOP (UMR 5272 Grenoble-INP, UGA et CNRS)

Teams: DOME2S (Design, Operations Management & Engineering of Systems & Services)

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

Contact: Pierre.David@grenoble-inp.fr

G-SCOP is a multidisciplinary laboratory designed to address the scientific challenges posed by the ongoing and future transformations of the industrial world. The scope of the laboratory ranges from product design to the management of production systems, leveraging strong expertise in optimisation. G-SCOP is a leading laboratory in France in the field of production systems (the only CNRS UMR focused on production systems; tasked by the ANR to lead the

discussion on future production systems...), and it also holds international recognition through its research networks (CIRP, Design Society...) and research projects related to Industry 5.0 and industrial renewal at the European level.

The DOME2S team develops methods and decision-support tools for the production systems management for goods and services. Its members work on new modeling paradigms, analysis, and decision-making support. These new concepts are used for system design, planning, and operational management. These may include production workshops, logistics chains, housing, energy, or healthcare production systems. Team members are committed to analyzing dynamic, distributed intelligence systems that make the most of available technologies to serve humans and sustainable industry. The proposed position is part of the design and management of the production workshops.

Research Profil:

Industry 4.0 introduces new elements to consider in the design and management of production workshops, in order to envision new production systems that are more flexible, reconfigurable, and scalable. It is crucial to harness the communication capabilities among system components, involving both humans and the decentralization of decision-making. The overall performance of these socio-technical systems heavily relies on the behavior of human actors and cannot be conceived without them.

The continuous evolution of means for producing goods and services has primarily been driven by the arrival of various waves of technological solutions. However, these strong technological trends have prompted a reevaluation of the role of humans in sustainable, ethical, and resilient production workshops. We are seeking a candidate capable of proposing methods and tools for the design and management of future production workshops.

To achieve this, new paradigms for modeling, analysis, and decision-making must be envisioned. These innovative concepts will be employed for the design or operational management of production systems, aiming to analyze more dynamic systems with distributed intelligence and leveraging the best available technologies in service of humans and sustainable industry.

The candidate should have expertise in the challenges of future production systems and be interested in the design and management of workshops for goods or services incorporating technologies such as the Internet of Things, digital twins, Artificial Intelligence, or advanced robotics. An interest in conducting physical experiments will be appreciated. He or she is expected to be involved in the implementation of physical demonstrators for the developed concepts on the 'Operations Management' technological platform. This platform is dedicated to simulating full scale production systems.

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

Specific requirements

Candidates recruited as Associate professors are likely to take on collective responsibilities such as being in charge of a teaching unit, a teaching programme or an entire year of study.

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.