Recruitment 2026 on job support

Etablissement : INSA de ROUEN	*Localisation : Saint Etienne du Rouvray*

Identification du poste		
	Nature: Associate professor Numéro : 0108 Disc. CNU : 60	Composante : Département : Mécanique Laboratoire : LMN

Etat du poste		
	■V : vacant □ S : susceptible d'être vacant	Date de la vacance : 01/09/2026

INSA Rouen Normandie is a public scientific, cultural, and professional institution under the authority of the French Ministry of Higher Education and Scientific Research. INSA Rouen's missions are: initial and continuing education for engineers, research excellence, and the dissemination of scientific culture.

The Mechanical Engineering Department offers training in Mechanical Engineering for students and Industrial Engineering for apprentices. The department has 18 permanent staff members, approximately 160 students, and 70 apprentices spread over three years. The Mechanical Engineering Department trains engineers over three years to work at all levels of the industrial process: design office, system design, production methods and industrialization, research and development. They master modeling, design methods, production line optimization, manufacturing processes, and the development of new materials. The department's teaching is supported by various cutting-edge educational and technical platforms: machining and robotics centers, laboratories for structural dynamics analysis, additive manufacturing, and materials characterization.

The Laboratory of Mechanics of Normandy (LMN) is physically located on the premises of INSA Rouen Normandy, on two sites in two Normandy cities: Rouen and Le Havre. The laboratory's activities are related to the quantification of uncertainties, risks, and the reliability of structures, but its scientific achievements can also be contextualized in other fields, such as logistics, industrial engineering, and telecommunications. Most of its activities concern structures in their environment, taking into account interactions with the ground, fluids, and surrounding fields.

The laboratory's scientific project focuses on taking into account uncertainties in solid mechanics and structures, considering their environment, with an emphasis on risk quantification and the integration of various multi-physical couplings into structural models. Some of the experimental activities focus on fatigue and random vibrations, while the theoretical and numerical activities focus in particular on modeling structures in their environment. The laboratory's work is of great interest to industry, as demonstrated by the involvement of industrialists in the laboratory's research projects.

The position open for competition is located in a restricted area, pursuant to Article R413-5-1 of the Penal Code. The successful candidate will be required to complete an application form to gain access to this area.

Short profile title (maximum 300 characters):
Mechanical engineering courses (License-Master) – research in LMN-INSA laboratory
Research fields EURAXESS :

- Engineering › Mechanical engineering
- Engineering › Materials engineering
- Natural sciences › Applied mathematics
- Information science › Modelling tools

TEACHING PROFILE:

The successful candidate will be based in the Mechanical Engineering Department at INSA Rouen Normandie. This person will be responsible for teaching engineering students, providing them with a solid grounding in structural mechanics, materials strength, general mechanics and continuous media, methods for simulating complex phenomena (in particular the finite element method), vibration analysis and mechanical design processes. The teaching may also cover the fields of uncertainty quantification, reliability, optimization, and data analysis. Additional skills in numerical computation, structural behavior simulation, optimization, or AI data processing will also be valued, in line with the department's evolving curriculum. These courses will thus be able to draw on the scientific expertise of the recruited person, particularly with regard to the use of artificial intelligence, deep learning, and optimization.

The successful candidate will teach in both specializations offered by the department: initial training in “Mechanics – MECA” and work-study training in “Industrial Performance and Innovation – PERF-II.” The teaching will need to raise awareness of sustainable development issues (eco-design, simple design, recyclability, etc.). The successful candidate must be able to teach in English at M2 level. It will also be required to teach first-year students (STPI) at INSA Rouen Normandie. This person will also be involved in collective responsibilities within the Mechanics department and may participate in project monitoring and internship tutoring for students in the Mechanics department. An involvement is also expected at the institutional level: open houses, promotion of the school's programs, recruitment panels, professional development committee, etc.

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RESEARCH PROFILE:

Context:
The successful candidate will join the Normandy Mechanics Laboratory (LMN, UR3828) and will conduct work related to the following main themes: modeling, dimensioning, and reliability of structures, with equal emphasis on numerical and experimental approaches. In particular, this position is in line with the institution's strategic priorities: analyzing the fatigue behavior of structures subjected to dynamic loads, as well as quantifying and propagating uncertainties in mechanical systems. It is consistent with the recent acquisition of an experimental means of three-dimensional electrodynamic loading and reinforces this theme.
The expected research activities are part of this dynamic and may involve theoretical, numerical, and experimental approaches applied to understanding the behavior and design of structures under complex stresses, particularly in the context of vibration fatigue and uncertainty propagation phenomena.

Profile/activity:
The successful candidate will focus on studying the behavior of structures subjected to dynamic and complex stresses with a view to dimensioning. The scope of the issues involves vibration-induced fatigue, taking into account uncertainties in structural behavior, as well as in loads and environmental conditions. The implementation will be based on modeling, simulation, experimentation, and data analysis. In this regard, the integration of artificial intelligence, considered as a tool, could contribute to the optimization of models, tests, and the analysis of mechanical responses, with a view to understanding and optimizing structural behavior.

Particular attention will therefore be paid to the candidate's integration project, demonstrating the ability to meet the set objectives and to fit into the laboratory, encompassing the available experimental resources. The successful candidate will also be able to propose directions that could contribute to the development of the laboratory's scientific axis. The development of collaborations with academic or industrial partners, the setting up of structuring projects, and involvement in the laboratory's scientific outreach will also be valued.

Contact:
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