Job title: Post-doctoral researcher in characterization of polymer materials deposited in additive manufacturing

Function level: Post-doctoral researcher

Department : GeM

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Centrale Nantes is a leading engineering school that graduates engineers, masters students and doctoral candidates from academic programs based on the most up-to-date developments in science and technology and on best management practices.

As a member of the Écoles Centrales Group (Lille, Lyon, Marseille, Nantes and Paris), our school provides top-quality teaching for highly selected students.

A public institution under the supervision of the French Ministry of Higher Education, Research and Innovation, Centrale Nantes has over 2,250 students, 500 employees and 600 part-time staff.

Within the Ecole Centrale de Nantes, the Civil and Mechanical Engineering Laboratory (GeM) is a joint research unit of Nantes University, Centrale Nantes and the CNRS. Its aim is to bring together in a single laboratory all the skills of the Nantes-Saint-Nazaire metropolis, in the fields of civil engineering, mechanics of materials and processes, modeling and simulation in structural mechanics.

Project description:

As part of the Additive4Rail Programme d'Investissements d'Avenir project, we are looking for a post-doctoral fellow specializing in materials characterization. Attached to the Rapid Manufacturing group of the GeM laboratory at Centrale Nantes, within a team of 15 people and in an international environment, you will be responsible for advancing on tasks linked to the characterization of additive manufacturing deposited polymer materials applied to the rail sector.

Main tasks:

- Develop the use of additive manufacturing in the rail sector

- Develop knowledge of polymeric materials deposited in additive manufacturing

- Develop processes for depositing polymer materials

- Conduct bibliographical research, monitor and analyze the state of the art

- Characterize the properties of materials deposited by additive manufacturing of polymers or composites

- Carry out experimental studies on the RMP platform's manufacturing resources (FDM, SLA, machining)

- Conduct multiphysics simulation studies

- Analyze the results obtained and write the associated reports

- Contribute to the Group's research activities: partnership projects, reporting.

Profile required:

Skills :

- Fluency in English
- Use of experimental resources
- Polymer materials: use of equipment and data analysis
- Synthesis and rigor Interpersonal skills :
- Ability to interact with students and companies in a variety of ways
- Teamwork (workspace)

Level required: PhD

Conditions of employment :

• 12-month fixed-term contract - open to contract staff • Full-time position - based in Nantes • Flexible working hours • Flexible work cycles (possibility of working 4.5 days) • RTT + additional vacations • Telecommuting possible • Teleworking allowance • Free parking • 75% transport reimbursement • Sustainable mobility bonus (if cycling or car-pooling)	Remuneration: in line with civil service pay scales Position to be filled : As soon as possible

HR contact: Lhéa FERELLEC
Manager contact: Matthieu RAUCH
To apply: please send your CV and covering letter to: candidatures@ec-nantes.fr

This advert refers to the terms 'candidate', 'engineer', 'manager', etc. These designations are to be considered beyond gender, and are to be used in both the masculine and feminine genders.

Centrale de Nantes s'engage pour l'égalité et la diversité. Conformément aux engagements RSE pris par notre établissement, cet emploi est ouvert à toutes et à tous.