TENURE TRACK POSITION MECHANICS, INNOVATION, AND INTERFACES AT THE INSTITUTE OF "MECHANICS AND ENGINEERING" OF AIX-MARSEILLE

## UNIVERSITY

Supporting establishment : Aix-Marseille University<br>President : Eric Berton<br>Site concerned : Marseille<br>Envisaged partner institution : CNRS<br>Date of publication : 26 February 2024<br>Type of Contract : Tenure Track Position<br>Contract Period : 4 years<br>Proportion of work : Full time<br>Remuneration : Annual salary from 54600 Euros to 57800 Euros depending on professionnal experience.<br>Scientific theme : Mechanical engineering

Host Laboratories at IMI : M2P2 (UMR7340), IRPHE (UMR7342), LMA (UMR7031), IUSTI (UMR7343)

## PROFILE REQUIRED

Holders of a PhD with high scientific qualifications. There is no restriction on the age or nationality of applicants.

## INSTITUTION STRATEGY

Aix-Marseille Université (AMU) has built its strategy around a number of priorities, including interdisciplinarity, the link between education and research, innovation, Europe and the Mediterranean area. The implementation of this strategy has led AMU to create 20 institutional institutes which represent vectors of innovation between education and research, on interdisciplinary themes of excellence. This Junior Professorship aims at recruiting a high-level scientist on the theme of the institute. It is open to four host laboratories in order to strength the ability of candidates to conduct interdisciplinary research.

This Chair in Mechanics, Innovation and Interfaces is part of this strategy. Its main aim will be to strengthen interactions between mechanics and the fields of health, energy and the environment.

## HOST LAB STRATEGY

Aix-Marseille University's mechanical engineering laboratories have developed new skills to meet current societal challenges, particularly in the fields of health, biology, environment and energy. Several of these laboratories have included hospital staff, and there are numerous partnerships with the socio-economic world. This dynamic has recently been strengthened by the creation of the Institute 'Mechanics and Engineering' to promote interdisciplinarity in research and training. This Chair is fully in line with this strategy. It will enable us to recruit a young, high-quality scientist to develop a new line of research built around strong skills in Mechanics and Engineering and with a societal focus.

## SUMMARY OF THE SCIENTIFIC PROJECT

Understanding the mechanisms of deformation, movement and transfer in fluids and solids is just as important for designing an aircraft as it is for analyzing the atmosphere or the movement of a bacterium. Current
scientific questions require the development of new knowledge, models and associated resolution methods, as well as innovative diagnostics that will enable us to tackle the complex, multidisciplinary problems posed by industry and related scientific fields (geosciences, life sciences, environment, health, energy, etc.). The person recruited will lead a scientific project in which he/she will develop new skills in mechanics and engineering to overcome scientific and/or technological barriers in fields such as biology-health, the environment or energy. This research will be carried out in an interdisciplinary context.

## SUMMARY OF THE TEACHING PROJECT

The proposed teaching project will be part of the different training offers of the site in mechanics (fluid, solid) and engineering at bachelor's, master's and/or engineering school level. In line with AMU's strategy of strengthening the link between training and research, he/she will develop teaching methods based on his/her experience of research. He/she will offer courses in English and innovative, interdisciplinary teaching initiatives, using technological platforms that may be financed by the TFR 2020-2029 programme (Transformation of Training through Research). He/she will illustrate the importance of knowledge in mechanics and engineering in meeting the various societal challenges mentioned above.

## FINANCIAL ENVIRONMENT

- Package ANR : $200 \mathrm{k} €$
- Package AMIDEX: $50 \mathrm{k} €$
- Total : $250 \mathrm{k} €$


## METHODS OF ORGANIZATION OF THE INTERVIEWS

Only the candidates selected on file by the selection committee will be invited to the auditions.

## CONTACT PERSON

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