

VAC-2019-63 – Severo Ochoa PhD Position in Soft and Living Material Interfaces Group

The International Centre for Numerical Methods in Engineering (CIMNE, www.cimne.com) is a research centre, created in 1987 by consortium between the Catalan Government and the Technical University of Catalunya, devoted to the development and application of numerical methods to a wide range of areas in engineering. CIMNE has been selected as a Severo Ochoa Centre of Excellence for the period 2019-2023. This is the highest level of recognition of excellence and leadership awarded to a research centre in Spain.

CIMNE is offering a research position that will be funded by the Severo Ochoa Programme.

Position details

Number of vacancies: 1

Category: PhD (PHD3)

Workplace: Barcelona

Salary (gross): 16.167,91 EUR

Weekly working hours: Full time

Duration: 3 years

Functions to be developed by the applicant

CIMNE is looking for a **PhD Researcher** to be part of the Research and Technical Development (RTD) Group on “Soft and living materials”. The group develops theories and computations to understand, quantify, and rationally manipulate living matter and biomimetic soft materials. The offered position aims at studying and simulating worm locomotion on soft substrates. The candidate will implement solid on substrate interaction and apply optimisation techniques on the discrete system. The PhD thesis will be supervised by José J Muñoz (j.muñoz@upc.edu) and close interaction and periodic meetings with experimentalists at Institute of Photonic Sciences (ICFO) is also expected.

The functions assigned to the candidate will be:

- Complete a PhD on computational mechanics. The candidate is expected to complete the PhD thesis in a maximum of three years.
- Collaborate with various research groups within CIMNE and worldwide.
- To publish a minimum of two papers in JCR journals during the PhD period.

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Requirements

1. The position is aimed at students (Spanish nationals, EU and non EU citizens) who have completed one of the following options:
 - a) The studies that lead to an official Spanish, or European Higher Education Area, 1st cycle university degree (BSc) in Engineering, Physics, Mathematics or Applied Sciences and that have 180 credits (ECTS) of an official university degree.
 - b) A degree from a non-European Higher Education Area university that gives access to MSc studies in Engineering, Physics, Mathematics or Applied Sciences.To be eligible for the scholarship grant the applicants have to be formally enrolled to a doctoral program or meet the conditions to be enrolled to a doctoral program at the moment of the recruiting.
2. Excellent academic record.
3. High working knowledge of English.
4. Candidates who have already been awarded a PhD are not eligible to apply.
5. Experience in modelling, numerical analysis and Matlab programming.

Other valued skills

- Previous research or academic experience in the field of the position
- Programming skills
- Language skills
- Experience in modelling, computational mechanics and image processing.

Evaluation procedure

The requirements and merits will be evaluated with a maximum mark of 100 points. Such maximum mark will be obtained by summing up the points obtained in the following items:

- Academic record (60%)
- Previous research and academic experience in the field of the position (20%)
- Programming skills (10%)
- Language skills (10%)

How to apply

Candidates must complete the "[Application Form](#)" on our website, indicating the reference of the vacancy and attaching the following documents:

- A curriculum vitae
- A motivation letter
- At least one reference letter
- Certified academic record (both Undergraduate and the MSc degrees)

The deadline for registration to the offer ends on **January 31, 2020 at 12:00 noon**.

Application will be reviewed by CIMNE Severo Ochoa selection committee. The shortlisted candidates may be called for an interview and must send to seleccio@cimne.upc.edu all the proving documentation of the requirements and merits, if not already submitted during the application phase.

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CIMNE is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, colour, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

CIMNE has been awarded the HRS4R label.