

# VAC-2022-04 – Severo Ochoa PostDoc Trainee Position in Industrial Manufacturing Processes Group

CIMNE 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 accredited 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:** Post Doc Trainee (PDOC2)

**Workplace:** Barcelona

**Yearly Salary (gross):** 32.202,88 EUR

**Weekly working hours:** Full time

**Duration:** 2 years

## Description of the research group

### Engineering Mechanics - Industrial Manufacturing Processes group

The research topics of the **Engineering Mechanics: Industrial Manufacturing Processes** group include:

- Manufacturing processes simulation: Additive Manufacturing, Welding and Casting processes
- Advanced mixed finite element technology
- Constitutive modeling for coupled thermos-mechanical analysis
- Multi-scale and multi-physics analysis

The research team is formed at present by:

- Prof. Miguel Cervera: <http://cervera.rmee.upc.edu/>
- Prof. Michele Chiumenti: <http://chiumenti.rmee.upc.edu/index.html>
- Dr. Narges Dialami
- As well as 1 associate professor and 7 PhD students.

The research team has published over 60 international journal contributions over past 5 years and participated in over 10 competitive projects (national, European and non-European international).

## ANNOUNCEMENT FOR THE PROVISION OF A WORKPLACE

### Functions to be developed:

CIMNE is looking for a **Postdoc Trainee** to be part of the Research and Technical Development (RTD) Group on **Engineering Mechanics: Industrial Manufacturing Processes**, in the topic of the **numerical simulation of Additive Manufacturing technology**

The functions assigned to the candidate will be:

- Plan and conduct high quality research under the supervision of Prof. **Miguel Cervera** and Prof. **Michele Chiumenti**
- Collaborate with various research groups across Europe and elsewhere
- Document and disseminate the research results within CIMNE and externally
- Publish in high impact journals (a minimum of 2 papers/year is envisaged)
- Participate in research projects and contracts with industry of interest to the RTD Group
- Collaborate in the preparation of competitive RTD research proposals

### Requirements

- Having obtained a PhD degree in **Computational Mechanics**, Structural Analysis, Civil Engineering
- Good publication record (a minimum of **4 papers published** in indexed journals)
- Advanced knowledge of **English**, both written and spoken (Minimum **B2**).
- Advanced knowledge of **Continuum** and **Computational Mechanics** (PhD level).
- Programming skills: **Fortran 2008 Object Oriented, Python**
- Windows and Linux OS

### Other valued skills

- Previous **research** and/or academic experience in the field of the position
- Good programming skills
- Language skills: **Spanish**
- Previous experience in Parallel Computing (HPC).
- Good communication/Teaching skills

### 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:

## ANNOUNCEMENT FOR THE PROVISION OF A WORKPLACE

- Publication and career track (30%)
- Programming skills (30%)
- Previous research and academic experience in the field of the position (20%)
- Language skills (10%)
- Communication/Teaching skills (10%)

### How to apply

Candidates must complete the "Application Form" on CIMNE website, indicating the reference of the vacancy and attaching the following documents:

- Curriculum vitae, including Researcher's ID or ORCID No.
- A motivation letter.
- Academic transcripts from all Undergraduate, MSc and PhD degrees.
- At least two reference letters.

The deadline for registration to the offer ends on **January 27, 2022 at 12:00 noon**.

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

*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.*