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**Area:** Energy Efficiency in Systems, Buildings and Communities  
**Area leader:**  
**Group:** Thermal Energy and Building Performance  
**Head of Group:** Jaume Salom Tormo

**Position:** R1 Project Engineer Position – Energy Modelling

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### **Description**

The Thermal Energy and Building Performance Group announces a permanent position of Research Engineer (R1), specialized in Energy Modelling. The research will be embedded in the Thermal Energy and Building Performance Group which main research subject is the integrated and systemic approach towards positive energy buildings and communities. The group's vision is to investigate in solutions and strategies that accelerates the reduction of greenhouse gas emissions in the building sector through human-centred design, energy efficiency measures, integration and management of energy systems, particularly distributed renewable sources in the built environment as part of urban communities.

The candidate will participate as research engineer in technical work of research projects in fields related with different levels of energy models (white-box models and reduced-order / grey-box models), calibration of models and integration in computational tools. Activities where he/she will be involved are dynamic simulation of buildings and energy systems integrated in energy supply infrastructures. We are looking for a methodical, excellent team-player and results-oriented candidate with good communication skills. Mastery of English on all levels will be essential. Knowledge of Spanish will be desirable.

### **Requirements**

We are looking for a methodical, excellent team-player and results-oriented candidate with good communication skills.

#### Essential:

- Master Sciences Degree in Mechanical / Energy Engineering
- 3 years of experience in Energy Modelling
- Knowledge in heat and mass transfer phenomena and energy in buildings
- Knowledge of HVAC systems
- Experience in computational energy systems simulation tools
- Experience in TRNSYS
- Knowledge in time-series data analysis methods and tools
- Fluent English and Spanish are essential

Preferred:

- Experience in energy modelling tools for Buildings and Systems: Energy Plus, Modelica
- Experience in 3D GUI: Scketch Up, Rhino
- Experience in data science tools: R, Python (NumPy, SciPy)
- Experience in use and management of a revision control system: Git, SVN.
- Experience in experimental work with HVAC systems, particularly with the Hardware-in-the-loop concept
- Experience in modelling related with District Heating and Cooling and Heat Reuse
- Knowledge of Indoor Environmental Quality assessment methods
- Initiative in Research and Innovation
- Synthesis and Scientific Reporting capabilities

**Proposed Jury**

Presidència	Titular	Jaume Salom
Vocal 1	Titular	Joan Grau
Vocal 2	Titular	José Luis Domínguez

More information about the selection process in:

**CALL AND REGULATORY BASES OF THE SELECTION PROCESS BY COMPETITION FOR THE RECRUITMENT OF LABOR PERSONNEL 2021/ CONVOCATÒRIA I BASES REGULADORES DEL PROCÉS DE SELECCIÓ PER A LA CONTRACTACIÓ DE PERSONAL LABORAL 2021**