



JOB DESCRIPTION

1 GENERAL DESCRIPTION

Published : 03/06/2024

Deadline: 16/06/2024

Reference: G2416

Research Activities: Green buildings, Passive and active building design, Composite materials, Energy efficiency, Phase change materials (PCM).

Position: Post-doc in Novel Materials and Energy Systems

Location: Benguerir, Morocco

Contract type: CDI

The Green Energy Park is an experimentation, research and training platform in renewable energies based in the green city of Benguerir and built in collaboration between the Institute for Research in Solar Energy and New Energies (IRESEN) and Mohamed University VI Polytechnic (UM6P). This unique platform, the first in Africa, allows on the one hand to create synergies and coalitions between several Moroccan research institutions to achieve excellence, and on the other hand to acquire knowledge and know-how through to partnerships with other universities and Moroccan industries.

2 RESPONSABILITIES

As part of the EESEPS R&D program (2024-2029), the Postdoctoral researcher will:

- Develop numerical methodologies for modelling passive and active cooling and heating solutions focusing on thermal regulation and energy efficiency.
- Collaborate with peers and external partners on interdisciplinary projects.
- Establish research projects for national and international funding opportunities.
- Supervise and support for a research team involving doctoral students and engineers.
- Utilize of advanced characterization techniques to analyze properties of building materials.
- Apply of building energy modeling to predict novel materials and energy systems behavior under various conditions for optimized building design.
- Develop and implement of adaptive control systems for building energy management.
- Publication of research findings in leading journals and/or contribute to the dissemination at national/international conferences, workshops and meetings.
- Assist in the supervision of junior researchers in project planning, design, and manuscript writing.
- Procure assistance including redacting specifications and contacting international suppliers for appropriate equipment acquisition.
- Organize and implement training modules.
- Participate actively in professional development activities for career advancement



within the organization.

- Contribute to the development of a thermal laboratory for building thermal performance analysis of materials and energy systems.

3 REQUIRED SKILLS

- Solid experience in construction materials and energy systems for buildings;
- Solid research skills;
- Experience in characterization techniques specific to phase change materials;
- Doctoral degree in energy and thermal science, or a related field focusing on energy efficiency;
- Excellent level of English as working language, in spoken and written;
- Programming language proficiency: Python, R language.
- Experience in building energy modelling or analytical software;
- Strong motivation for academic activities, such as scientific publications, thesis supervision, etc.

How to apply:

Interested candidates are requested to submit their application, including a detailed curriculum vitae and a research proposal linked to the position description and to one of the issue areas of the call (5 pages, containing an explanation of topic, Scientific background of candidate, Methodology for completion of research proposal).

Applications should be emailed to recrutement@greenenergypark.ma by specifying the offer Ref in the email subject.