



JOB DESCRIPTION

1 GENERAL DESCRIPTION

Published : 03/06/2024

Deadline: 16/06/2024

Reference: G2415

Research Activities: Green buildings, HVAC fault detection and diagnostics, Genetic algorithm optimization, Advanced building energy simulation, Energy-efficient and zero-energy buildings.

Position: Post-doc in Energy Efficiency, Optimization, and AI Applications in Buildings

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:

- Conduct pioneering research in energy modeling, simulation, and data analytics for building energy systems.
- 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.
- Explore innovative solutions for integrating renewable energy sources into building designs to promote sustainability.
- Apply AI and genetic algorithms for optimized building control.
- Advanced HVAC modeling and simulation to enhance energy efficiency.
- Develop and implement daylight control strategies and study occupant behavior impacts on energy use.
- 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 in professional development activities for career advancement within the organization.



3 REQUIRED SKILLS

- Solid experience in building energy systems and AI integration;
- Solid research skills;
- Experience in energy simulation software and data analysis tools;
- Doctoral degree in mechanical engineering, energy and thermal building science, or a related field focusing on building energy systems and artificial intelligence;
- 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.