

PREDOCTORAL POSITION TO WORK ON ADVANCED NON-INTRUSIVE OPTICAL TECHNIQUES IN HIGH-CONCENTRATION SOLAR THERMAL SYSTEMS

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APPLICATION FORM

Deadline: Dec 17th, 2023



IMDEA Energy Institute is a María de Maeztu Center of Excellence whose objective is to develop R&D activities in the fields of renewable energies and clean energy technologies by establishing strong links with leading companies in the energy sector. (www.energy.imdea.org).

DESCRIPTION

IMDEA Energy is opening a predoctoral researcher position for the High-Temperature Processes Unit looking for talented and motivated candidates to work on advanced non-intrusive optical techniques for control and monitoring high-concentration solar thermal systems.

Tasks Description:

- R&D on optical sensor-based instrumentation applied to monitoring heliostat and solar receiver performance in high-concentration solar energy technologies.
- Development and testing of optical techniques in high-flux solar simulators and in relevant environment (“on-sun” testing).
- Develop numerical models for dynamic simulation of physical phenomena in device operation and validation of these models using experimental data.
- Critical analysis of the results and writing of reports.
- Dissemination and publication of research results in scientific journals and conferences.

REQUIREMENTS

Compulsory Requirements:

- Bachelor's/Degree in Applied Physics, Energy, Telecommunications, Electronics Engineering or similar.
- M.Sc. degree in (applied) physics, energy, telecommunications or electronic engineering or similar.
- Solid background on optics.

Other merits to value:

- Knowledge or experience with thermal or solar thermal technologies.
- Demonstrated experience in optics.
- Accredited knowledge on computational tools.
- Proficient oral and written communication skills in English.

SELECTION CRITERIA

- Adequacy of the candidate's training to the requested profile.
- Work experience related to the profile of the job position.
- Motivation for accomplishing high-quality research.
- Knowledge of English.

CONDITIONS

- **Remuneration:** Between 20.900 € – 23.300 € per year, depending upon qualification and expertise.

*The contract includes all the benefits of the Spanish Public Health and Social Security System.

- **Duration of the contract:** 1 year, possibility of renewal depending on performance.



- Motivation Letter

Final decisions will be personally communicated by e-mail to all candidates.

Equal opportunities are guaranteed in the selection process, without any forms of discrimination. Female applicants are encouraged to apply to favor parity in employment.

IMDEA Energy commitment is to guarantee equality in measures to balance personal, family and working life and to promote gender equality.

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