MSCA Postdoctoral Fellowships

HORIZON MSCA 2024 PF

Expression of interest

instituto IMdea energía

EXCELENCIA MARÍA DE MAEZTU

HR EXCELENCE IN RESEARCH

5th of July 2024

Deadline for submission of documents

Contact Person/ Scientist in charge

Javier Dufour, Head of Unit javier.dufour@imdea.org

Brief description of the Research Group

The Systems Analysis Unit of IMDEA Energy, http://www.energy.imdea.org, specializes in assessing the technical, economic, environmental and social performance of energy systems. To that end, the unit has developed strong capabilities and has a sound expertise in (i) modelling, simulation and exergy and economic analysis of energy production systems on biofuels, renewables, hydrogen, etc., and analysis of their integration into circular economy strategies and policies, (ii) life cycle sustainabilityassessment, multicriteria decision analysis and eco-design of energy systems, and (iii) prospective analysis through energy systems modelling and scenario analysis for sustainability-oriented energy planning, having developed a regional model for Madrid and a Spanish national model for power generation and road transportation fuel production.

Applications

If interested, please, send an e-mail to javier.dufour@imdea.org, indicating your main research interests and attaching a CV and two reference letters, before 5th of July 2024.

Project description

Our unit is seeking a candidate to join a multidisciplinary team for the development and application of new frameworks for modeling and optimization of energy systems. The specific objectives of the project are:

- Research and development in the field of Energy Systems Analysis.
- R&D on hydrogen systems modeling and sustainability assessment.

The candidate should have a strong knowledge of hydrogen production (alkaline, PEM, AEM, SO electrolysers) and use (fuel cells) systems, and understanding of sustainability problems associated with hydrogen systems, and a good overview of energy policies at the European level. The ideal candidate would have a PhD degree in engineering disciplines. Proficiency in life cycle thinking tools and eco-design is an asset.

Research Area

- Information Science and Engineering (ENG)
- Environmental and Geosciences (ENV)