

## Expression of Interest-UPM Supervisor

### *Marie Skłodowska Curie Action–Postdoctoral Fellowship 2026 (MSCA-PF-2026)*

<b>Supervisor Name</b>	Luis F. González-Portillo	
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<b>Department /Institute / Centre Name/Location</b>	Department of Energy Engineering / Universidad Politécnica de Madrid	
<b>Research Area</b>	Information Science and Engineering (ENG)	Physics (PHY)
<b>Research team/group</b>	<p>The Thermal Energy for Sustainability (TE4S) research group focuses on applied thermal engineering, spanning component and system design, numerical analysis, and experimental validation. Its core areas include concentrating solar technologies, hydrogen production, thermal energy storage, turbomachinery, advanced power cycles, and energy system modelling. TE4S demonstrates strong innovation leadership with over 50 patents, more than 300 peer-reviewed publications, and nearly 50 PhD theses in under 20 years. These results stem from projects funded by Spanish and regional governments, the European Commission, and the U.S. Department of Energy, alongside close collaborations with institutions such as MIT, IASS-Potsdam, Sandia National Laboratories, and industrial partners.</p> <p>More information: <a href="https://short.upm.es/8a3zb">https://short.upm.es/8a3zb</a></p>	
<b>Keywords</b>	Solar, CSP, heliostat	
<b>Research Focus</b>	<p><b>Mobile Heliostats for Concentrating Solar Power Systems</b></p> <p>This project focuses on the design, construction, and testing of a mobile heliostat concept patented by the TE4S group. The prototype will first be evaluated under controlled conditions in TE4S laboratory facilities and, in a later stage, tested in a solar tower environment to assess its real operating performance.</p> <p>Numerical and optical models will be developed to characterize the performance, control strategies, and field integration potential of these novel heliostats. The modeling results will be systematically validated using experimental measurements, enabling a reliable assessment of their technical capabilities and supporting the optimization of future large-scale implementations.</p>	
<b>Applications: documents to be submitted and deadlines</b>	<p>CV, motivation letter, 2 recommendation letters</p> <p>Submit to the supervisor before 24/04/2026</p>	