

PhD position – Industrial doctorate

Thermophotovoltaic batteries

[Thermophoton](http://www.thermophoton.com/), a spin-off company of the Solar Energy Institute ([IES-UPM](http://www.ies-upm.es/)), is looking for a candidate willing to follow the PhD to develop a **novel battery that stores surplus renewable generation and produces combined heat and electricity on demand**. This innovation has recently been awarded by the European Commission with the Innovation Radar Prize.

The PhD work will be aligned to a recently granted EU project (THERMOBAT) where a “latent heat thermophotovoltaic battery” will be co-developed by five companies and research institutions in the EU. The final goal of the project is to scale up the R&D findings of a recently finished EU project (AMADEUS) and build a 100-kWh demonstrator that will be tested in real conditions.

The candidate will contribute to the development of the battery prototype, in the activities related to the design and implementation of the control system to develop a fully operative prototype, as well in the instrumentation needed for the characterization of the system.

The activities will be carried out in a collaboration between Thermophoton and the Instrument and Systems Integration research group of the IES-UPM. The PhD candidate will have full access to the IES-UPM laboratories.

REQUIREMENTS

- ❑ Master’s degree in industrial electronics/ electrical / control and automation engineering or similar.
- ❑ Hands on experience on control systems and automation will be a plus.
- ❑ Knowledge of technical software and programming languages (CAD, Labview, Matlab, PLCs, etc.) will be a plus.

GENERAL CONDITIONS

- ❑ Gross salary equivalent to official Spanish PhD fellowships,
- ❑ Incorporation: April 2023 (could be flexible)

APPLICATIONS

Candidates should send his/her **resume** and **transcripts** to Ignacio Antón (i.anton@upm.es)

REFERENCES TO THE TEAM AND PROJECT

Thermophoton: <http://www.thermophoton.com/>

IES-UPM: <https://www.ies.upm.es/>

El sol en una caja (Telecinco News): <https://www.youtube.com/watch?v=lWHD-ZOIJ5M>

Thermobat (Antena 3 News): <https://www.youtube.com/watch?v=7Y5dDciwhe0>

Innovation Radar Prize: <https://www.innoradar.eu/innoradarprize>

