

## Industrial Day – Project Submission Form

Please complete this form to provide information about the projects your company will present during Industrial Day. This information will help us organize and communicate available Master's Thesis (TFM) opportunities to students.

<b>Company Name</b>
IKERLAN

<b>Project Title</b>
Electrical network simulation framework for active and reactive power plant requirement analysis.

<b>Project Description</b>
<p>Distributed power plants, such as wind and solar farms, can no longer produce a variable amount of active power with few restrictions and leave network frequency and/or voltage regulation to the big generators; they are increasingly required to participate in said regulation, both by network standards and market forces. This imposes new demands on power plant equipment, which are driven by how much and how quickly it is required to vary its power output. Accurate knowledge of these details is essential for power plant design, and simulation may be an effective and efficient way to obtain it.</p> <p>In this project, the candidate will be asked to research methods by which networks of varying topology and size, their frequency and voltage control and their power demands may be accurately and efficiently simulated to produce useful data for power plant design, and to implement said methods as piece of software (platform to be determined, but some options are: C, Matlab, Simulink, Simscape, OpenModelica).</p>

<b>Responsible Person</b>
Iker Elorza

<b>Contact email</b>
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**Is there financial support available? (Yes/No)**

☐ Yes

☒ No

Number of available positions
1

Thank you for your collaboration and participation in Industrial Day.