

URV 2020 PhD STUDENTSHIPS @ LIFE group

<http://labfsi.com/>

Grant reference: **2020MFP-COFUND-8** - Dept. Mechanical Engineering

The Laboratory for **Fluid-Structure Interaction (LIFE)** (<http://labfsi.com/>) of the Department of Mechanical Engineering at the **Universitat Rovira i Virgili (URV)** (www.urv.cat) in Tarragona (Spain), is looking for an enthusiastic research student with a strong interest in fluid dynamics and fluid-structure interaction. Successful candidates will join a small but very active multidisciplinary team, working in several fluid-structure interaction (FSI) problems. The research will be mainly experimental and focused FSI with application to several engineering problems. The main topic that will be considered during the research include but are not limited to "**energy harvesting systems using cross-flow turbines or other novel concepts**".

The research will be carried out at the LIFE group facilities, including wind tunnels, a towing tank and a large free surface water channel. There is also the possibility to use and develop CFD and FEM prediction tools.

Applicants will enroll in the **Inter-University PhD Programme in Fluid Mechanics** (<http://www.doctor.urv.cat/en/prospective-students/courses/7720/index/>) in which the URV participates together with other Spanish Universities: U. Jaén, U. Politécnica de Madrid, U. Zaragoza, U. Carlos III Madrid y UNED.

CANDIDATES: Successful applicants must hold a **Master degree in Engineering** (at least equivalent to a 5 years course in Engineering) **at the time of the application**, in the areas of **Mechanical, Industrial, Aeronautical, Naval or Civil Engineering (note that other backgrounds might not be considered)**. Preference will be given to candidates able to demonstrate the following desired skills:

- Matlab / Octave / Python or another scientific programming language.
- LabVIEW or other instrumentation-oriented programming language.
- Mechanical engineering design tools such as Creo, Inventor, Solid Works, ...
- Simulation tools such as OpenFOAM, ANSYS,...
- Experience with the use of optical measurement techniques, with emphasis in PIV.

APPLICATION PROCEDURE:

All details on how to apply appear in:

<https://www.urv.cat/en/research/support/programmes/marti-franques/cofund/>

More details about the project appear in:

<https://www.sqr.urv.cat/cgi-bin/programes/mfpcofund/detalles.cgi?conv=2020MFP-COFUND-&ordre=8&idioma=ENG>

The reference for the grant is **2020MFP-COFUND-8**.

You can contact any of the two PhD supervisors for questions or for an online meeting:

- **Prof. Francisco J Huera-Huarte** (francisco.huera@urv.cat)
- **Prof. Albert Fabregat** (a.fabregat@urv.cat)