Course offered for the PhD program
in Civil, Chemical and Environmental Engineering
Curriculum in Chemical, Material and Process Engineering –
a.a. 2022/2023 (cycles XXXVIII, XXXVII and XXXVI)

(possibility of participation for students in other PhD cycles or other PhD courses)

1. Title

Green Hydrogen and Process Engineering

2. Course Description

The course aims at providing notions to the future PhD students on the opportunities and challenges of green hydrogen and how process engineers (chemical, energy, environmental) can contribute to this field.
The course will include the following topics:

- green vs renewable hydrogen;
- uses of green hydrogen (opportunities);
- transformation of the industry (challenges);
- case studies: integrating green hydrogen into oil refineries; hydrogen in the power system.

3. Course Organization

The course, organized in a single module, will consist of classroom lessons and practical computer laboratory training.

4. Teacher

The course teacher will be Dr. Pedro Haro

5. Duration and credits

The course (10 hours) will consist of 2 lessons, 5 hours each, including 3 hours of project development, for a total of 2 credits.

6. Activation mode and teaching period

The course will be held once in February 2023.

7. Deadline for registration

Registration to the course must be made before 21st February, 2023. Students are asked to inform teachers by e-mail (pedrogh@us.es) about their registration.

8. Final exam

The final exam will consist in a presentation on the project developed during the sessions and will be held on the last day of the course.