

ATHENS PROGRAM
19th – 23rd March 2018

Module ESPCI1:
“Energy”

Module Main Location: ESPCI Paris, 10, rue Vauquelin, 75005 Paris

Teaching Team:

BOCQUET Lyderic, Research Director, ENS [*Sessions #1*]

HADZIIOANNOU Georges, Professor University of Bordeaux [*Session #2*]

STEVENS Philippe, Industrial Speaker EDF [*Session #3*]

CASSIR Michel, Professor ENSCP [*Session #4*]

SERRE Christian, Professor ESPCI-ENS. [*Session #5*]

COLIN Annie, Professor ESPCI [*Session #6*]

LARCHER Dominique, Professor LRCS, Amiens. [*Session #7*]

Pre requisites:

The prerequisites of the courses are notions of solid physics, electrochemistry and basic mechanics.

Objectives:

The competences acquired during the lectures are: in-depth knowledge of the orders of magnitude on energy, basics on photovoltaics and wind, knowledge of photovoltaic-hydrogen conversion processes, knowledge of hydrogen storage materials, electrostrictive materials, piezoelectric devices, and energy storage.

The Course Notes will be made available to students on the ESPCI website one week before the beginning of the lectures.

It is strongly recommended to download them.

For environmental reasons, no paper documents will be provided.

The classes will last 1H20 and will be separated by 20 minutes breaks.

Agenda:

Monday, March 19

09:00am – 09:30am: Presentation of ESPCI Paris

(Amphitheater HOLWECK – building C – ground floor)

(Amphitheater BOREAU – building C – 1st floor)

10:00 am – 12:00 am: Session #1 “Energy, Orders of Magnitude Quizz”

2:00 pm – 5:00 pm: Session #2 “Photovoltaics”

Tuesday, March 20 *(Amphitheater BOREAU – building C – 1st floor)*

9:30 am – 12:30 am: Session #3 “Eolian Energy”

2:00 pm – 5:00 pm: Session #4 “Hydrogen”

Wednesday, March 21 *(Amphitheater BOREAU – building C – 1st floor)*

9:00 am – 12:00am: Session #5 “Porous Materials (M.O.F) for Energy”

2:00 pm – 5:00 pm: Session #6: “Conversion of Mechanical Vibration into Energy”

Thursday, March 22 *(Amphitheater BOREAU – building C – 1st floor)*

9:00 am – 11:30 am: Session #7 “Energy Storage”

2:30 pm – 5:00 pm: “Energy Storage”

Friday, March 23 *(Amphitheater BOREAU – building C – 1st floor)*

9:00 am – 10:00 am: Final examination session in the form of quizzes on the sessions

10:00 am – 11:00 am: Answers to the quizzes and concluding remarks

Thank you for your attendance to the sessions!

Annie Colin, Professor, International Relations Director

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