

IDENTIFICATION

Course code : ESI-SPI-CI-BE4-S7-UE4-EC2
ECTS : 2.5

DURATION

Lectures : 4
Tutorial classes : 8
Labs : 0
Total : 12

Project :
Personnal work :

ASSESSMENT

1 continuous assessment grade

TEACHING MATERIALS

Course and TD booklet, Jupyter notebooks

LANGUAGE

English

CONTACT

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UE : UE7-PROEN

COURSE : Photovoltaics 2 : Modelling and Performance Indicators

SCOPE OF THE COURSE

OBJECTIVES

Model and simulate the energy production of a PV installation. Estimate performance indicators. Understand the contribution of parameters influencing performance.

COMPETENCE AND SKILLS

- Adapt to technical constraints related to the site (ZNI, etc.)
- Design a hybrid production system

PROGRAM

Modelling of POA irradiance Modelling of PV array Modelling of inverters Modelling of PV systems with the PVWatts model

BIBLIOGRAPHY

<https://pvlib-python.readthedocs.io/en/stable/>

REQUIREMENTS

Photovoltaics 1 : technology and sizing Electrical conversion Solar resource