Co-funded by the European Union

Project funded by
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Federal Department of Economic Affairs, Education and Research EAER
State Secretariat for Education, Research and Innovation SERI

SUPSI

Seamless-PV

SOL(AR)CHITECTURE

Essentials

Get inspired
by our course
to make solar buildings!

DAY 1
Introduction to Solar Architecture
Universidad Politécnica de Madrid

DAY 2
Case Study Building tour
Campus Acciona and Castellana 66

DAY 3
Company Atelier
Onyx Solar

MADRID_April 2025

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SPEAKERS:

Day 1: Introduction to Solar Architecture
Pierluigi Bonomo (SUPSI)
Greta Battaglia (SUPSI)
Lena Kern (Swissolar)
Paolo Corti (SUPSI)
Fabio Parolini (SUPSI)
Alberto Follo (SUPSI)

Day 2: Building tour to two Case Studies
Pierluigi Bonomo (SUPSI)
Greta Battaglia (SUPSI)
Acciona/Castellana 66 architects

Day 3: Workshop at Onyx Solar
Pierluigi Bonomo (SUPSI)
Greta Battaglia (SUPSI)
Araceli Sánchez (Onyx Solar)
Ismael Antoñanzas (Onyx Solar)
María Jiménez (Onyx Solar)
Angel Gallego (Onyx Solar)

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University of Applied Sciences and Arts of Southern Switzerland
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POLITECNICA
UNIVERSIDAD POLITÉCNICA DE MADRID
onyx

09
10
11/04
2025

WHERE?

DAY 1-2
"Sala de Conferencias", 3rd floor of the main building of the Escuela Técnica Superior de Arquitectura de Madrid
Av. de Juan de Herrera, 4, Moncloa - Aravaca, 28040 Madrid

DAY 3
ONYX SOLAR ENERGY S.L.
C/Palma de Mallorca, Parcela nº8, Poligono Vicolozano, 05194, Ávila

9,10,11
APRIL

AGENDA

DAY 1

09:00 – 9:30
Welcome, course introduction
09:15 – 09:45
Photovoltaics:
from function to beauty
09:45 – 10:30
Sun as a building material:
case studies of solar architecture

Break

10:50 – 11:20
BIPV and Architecture Solar Technology Fundamentals: principles of photovoltaics, solar cell & modules, BIPV design essentials
11:20 – 11:50
Simulation and modeling: processes and workflows for solar potential analysis and BIM-based modelling
11:50 – 12:15
Market Drivers and businesses to promote the transition to solar buildings in Spain
12:15 – 13:00
BIPV experimental showroom tour: developed as part of the ongoing research project RINGS-BIPV

Lunch

14:00 – 14:45
Activity! Strengths and Challenges of BIPV
14:45 – 15:00
BIPV & innovation: advanced manufacturing for the real market in SEAMLESS-PV: product innovations
15:00 – 15:30
Business models for BIPV: is there a value of beauty? Vision from 20 years of solar buildings

Break

15:45 – 16:15
BIPV performance: The energy-related behavior -thermal, solar, optical and electrical aspects.
15:15 –16:45
Hints on quality and product certifications: technical requirements and current regulations
16:45 –17:15
Cost-effectiveness: competitiveness of investments and life-cycle costs

DAY 2

09:00 – 09:15
Welcome and brief introduction to the day
09:15 – 10:30
Case study 1
Break

11:15 - 11:30
Case study 2
11:30 – 12:30
Activity! Case Study Mapping her materials, challenge in building process
13:00 - 13:30
Case Study/introduction INCREASE project: innovations in photovoltaic urban furniture

Lunch

14:00 – 16:30
Building tour visits: Castellana 66 and Campus Acciona

DAY 3

10:00 - 10:15
Welcome and brief introduction to the day
10:15 - 11:15
Onyx: factory visit
11:15 - 11:30
Transfer to Catholic University of Ávila (UCAV)
11:30 - 12:00
Building tour: UCAV project
12:00 - 13:00
Case Study: UCAV project: building intro, concept, overview, design and site, relevance to BIPV, importance of seamless integration, benchmark with other materials, challenge in building process
13:00 - 13:30
Case Study/introduction INCREASE project: innovations in photovoltaic urban furniture

Lunch