

# Programme Intensif Hybride UNITA Erasmus+ : Solar energy for buildings: from components to cities

Université Savoie Mont Blanc



## General information

<b>Dates for physical activity</b>	19-24 November 2023
<b>Proposed period for virtual component</b>	<ul style="list-style-type: none"><li>• October – Beginning of November 2023 (asynchronous activity)<ul style="list-style-type: none"><li>○ Session #1 (1h30 hours) / October (TBC)</li><li>○ Session #2 (1h30 hours) / November (TBC)</li></ul></li><li>• Fall semester 2023 – participation to UNITA Weekly Talks on Renewables Energies</li></ul>
<b>Location of physical activity</b>	Le Bourget-du-Lac (France) & Yenne in the pre-Alps
<b>Target audience / Participant profile</b>	Master students, PhD students, with background in engineering or physical sciences...  Interest in solar energy
<b>No. of ECTS issued</b>	3 ECTS
<b>Language of instruction and requirements</b>	English (B2)
<b>Organizing board</b>	Host university : USMB Open to all UNITA universities

## Program

### Short description

The SUN2C scientific school addresses solar energy applications from a technical point of view. A massive deployment of the use of solar energy is inevitable in order to decarbonate the energy sector. This implies to multiply by 5 to 10 the actual capacity in coming years. This can only be achieved through a holistic planning of the deployment of the solar energy.

SUN2C aims to participate both in the dissemination of knowledge and the state of the art, but also in the popularization of advances in the following themes:

- Development of materials, components and systems for capturing and converting solar energy (Photovoltaic, Solar Thermal, etc.)
- Innovative technologies for the integration of clean energy in existing or new buildings
- Analysis and design of integrated solar buildings in cities (solar urban development)

All these themes will be addressed in the form of educational and accessible presentations to all up to more advanced presentations, through lectures. Workshops will be spread over the week, encompassing the different scales covered and the associated scientific themes, to allow the participants to apply their knowledge to specific case studies.

## Proposed schedule

### 20/M- Monday

Time	Activity
8h - 12h30	<b>Visits</b> INES LOCIE LEPMI
12h30 - 14h	<i>Lunch</i>
14h - 16h	<b>Lecture - Ressource solaire</b> Characterization
16h - 16h30	<i>Coffee break</i>
16h30 - 18h30	<b>Lecture - Ressource solaire</b> Variability
18h30 - 19h30	Posters
19h30 - 21h	<i>Dinner</i>

### 21/11- Tuesday

Time	Activity
8h - 10h	<b>Lecture - Material</b> Material and architecture
10h - 10h30	<i>Coffee break</i>
10h30 - 12h30	<b>Lecture - Material</b> Durability, aging
12h30 - 14h	<i>Lunch</i>
14h - 16h	<b>Workshop</b> Rotating workshop
16h - 16h30	<i>Coffee break</i>
16h30 - 18h30	<b>Workshop</b> Rotating workshop
18h30 - 19h30	Posters
19h30 - 21h	<i>Dinner</i>

### 22/11- Wednesday

Time	Activity
8h - 10h	<b>Lecture - Solar technologies</b> PV & ST
10h - 10h30	<i>Coffee break</i>
10h30 - 12h30	<b>Lecture - Solar technologies</b> Hybridization
12h30 - 14h	<i>Lunch</i>
14h - 16h	<b>Workshop</b> Rotating workshop
16h - 16h30	<i>Coffee break</i>

16h30 - 18h30	<b>Workshop</b> Rotating workshop
18h30 - 19h30	Posters
19h30 - 21h	<i>Dinner</i>

### 23/11- Thursday

Time	Activity
8h - 10h	<b>Lecture - Building integration</b> BIPV
10h - 10h30	<i>Coffee break</i>
10h30 - 12h30	<b>Lecture - Building integration</b> Intermittency management
12h30 - 14h	<i>Lunch</i>
14h - 16h	<b>Workshop</b> Rotating workshop
16h - 16h30	<i>Coffee break</i>
16h30 - 18h30	<b>Workshop</b> Rotating workshop
18h30 - 19h30	Closing cocktail
19h30 - 21h	<i>Dinner</i>

### 24/11- Friday

Time	Activity
8h - 10h	<b>Lecture - Solar cities</b> Solar cadaster
10h - 10h30	<i>Coffee break</i>
	<b>Lecture - Solar cities</b>

10h30 - 12h30	Energy networks
12h30 - 14h	<i>Lunch</i>
14h - 16h	<b>Lecture - Prospectives</b> Métabolisme urbain
16h -16h30	<i>Coffee break</i>
16h30	Return

*This schedule might be subject to minor changes.*

## Application procedure

### Requirements

Master students, PhD students, with background in engineering or physical sciences...

Interest in solar energy

Equivalent B2 level in English

### How to apply

Application via Unita Offices at each university.

Deadline : September 30th, 2023

1. Email your UNITA Office or International relations office at your home university before September 30th. In your e-mail, mention :

- your name (First name, SURNAME)
- your academic field (eg: Egyptian History, European Studies, Business Management...)
- your level of studies (Bachelor, Master, PhD)
- the name of the BIP in which you want to take part (Solar energy for buildings: from components to cities)

2. Additionally, complete this survey

<https://usmb.moveonfr.com/form/64804ea58a9415c0bf041dea/eng> before September 30th.

***Once accepted by the USMB, you must apply via your Erasmus + office.***