

BIP General presentation
Data science for solar energy

General Information
<p>Dates for physical activity: From the 14th of November at 03:00 pm to 18th of November at 05:00 pm 2022</p>
<p>Proposed period for virtual component:</p> <p>VIRTUAL COMPONENT</p> <ul style="list-style-type: none"> ▪ October – Beginning of November 2022 (asynchronous activity) ▪ Fall semester 2022 – participation to UNITA Weekly Talks on Renewables Energies ▪ 2 synchronous meetings 1.5 hours during the month of October (dates to be confirmed in September) <p>INTENSIVE WEEK AT USMB</p> <ul style="list-style-type: none"> ▪ From 13th to 19th of November 2022, this includes ▪ Arrival on the 13th of November to Chambéry ▪ 14th – 18th : week at Le Grand Bornand, shared with organisers and lecturers– accommodation and transportation provided by organisers ▪ 18th coming back to Chambéry from Le Grand Bornand
<p>Location of physical activity: France, Le Bourget-Du-Lac (close to Chambéry), followed by Le Grand Bornand in the Alps</p>
<p>Target audience / Participant profile: Master students, PhD students</p>
<p>No. of ECTS issued: 3 ECTS</p>
<p>Language of instruction and requirements : English</p>
<p>Requirements/Prerequisites:</p> <ul style="list-style-type: none"> - Basic numerical and simulation background in engineering and/or physical sciences, - General knowledge about solar energy, - Basic knowledge on data and information science



Organizing board : All UNITA universities can send students

Host university :

USMB

Prof. Monika woloszyn
(monika.woloszyn@univ-smb.fr)

UNITA partner 1

UNITO

Prof. Nadia Barbero
(nadia.barbero@unito.it)

UNITA partner 2

UniTBv

Prof. Macedon Moldovan
(macedon.moldovan@unitbv.ro)

UNITA partner 3

UVT

Prof. Nicoleta Stefu
(nicoleta.stefu@e-uvt.ro)

UNITA partner 4

UNIZAR

Prof. Julio J. Melero Estela
(melero@unizar.es)

Program

Title :

DataSUN

Data science for solar energy

Short description: The DataSUN scientific school addresses data sciences and their applications to solar energy. 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.

DATASun will be about data, its use, analysis and handling for solar energy related studies. The aim is to cover a wide range of scales: Spatial scales, from the territory to the system, but also temporal scales, from yearly prediction (including climate changes forecasting) to short term predictions. Particular focus on the methods used to deal with data : clustering ; bayesian approaches ; machine learning, data mining, neural networks, statistical learning, principal component analysis ; uncertainty analysis etc etc.

Proposed schedule:

Sunday 13th of November 03:00 – 05:00 pm: meeting in Chambéry

Friday 18th evening – coming back to Chambéry

Saturday 19th Morning : end of activities – you can travel back



Date	Monday 14 Nov.	Tuesday 15	Wednesday 16	Thursday 17	Friday 18
Place	Le Bourget du Lac and Departure for Le Grand Bornand	Le Grand Bornand	Le Grand Bornand	Le Grand Bornand	Le Grand Bornand, Travel back to Chambéry/Le Bourget du Lac
9 to 10h30	Matthieu David	Alexandre Benoit	Roberto Castello	Heliocity	Marion Perrin
10h30-11h	Break	Break	Break	Break	Break
11h-12h30	Robert Blaga	Evelina Trutnevyte	Gilles Desthieux	Demba Dialo	François Maréchal
12h30 to 14	Lunch				
14h to 16h	Visit of INES and INCAS Platform, Travel to Le Grand Bornand	Workshop 1	Workshop 3	Activities	End and travel back to Le Bourget du lac/ Chambéry
16h to 16h30		Break	Break		
16h30 to 18h30		Workshop 2	Session Poster+ Présentation Flash		
18 to 19		End of the day	Evenement Grand Public	Gala dinner	

Invited guests/speakers/experts (if any):

Alain Dubois (HES-SO), Mathieu David (Université la Réunion), Marion Perrin (Oscar Power), Robert Blaga (Univ. West Timisoara), Demba Diallo (Univ. Paris Saclay), Roberto Castello (EPFL), François Marechal (EPFL), etc

What is paid by the host university:

Accommodation from the 14th to the 18th of November (the nights of the 13th and 18th are paid and book by the student.)

Lunch and diner during the intensive week (14th of November – 18th of November at 05:00)

Activities

Transportation from Le Bourget-du-Lac to Le Grand Bornant

Application procedure

Requirements:

Each International office is in charge of selecting the students but the selection must be made with the Professor in charge of the programme in each university:

UNITO / Prof. Nadia Barbero

UNIZAR / Prof. Julio J. Melero Estela

UVT / Prof. Nicoleta Stefu

UniTBv / Prof. Macedon Moldovan



How to apply :

Application via international offices at each university.

Deadline: September 30th, 2022

