France Takes Solar to University

France's Solar Academy Graduate School is on course to become an international scientific reference on the integration of solar energy. Central to its work is integrating solar energy in the built environment by combining training and research at the highest level.

The Solar Academy Graduate School is located at the INES (National Institute of Solar Energy) campus in Savoie, France. The ambition of the Solar Academy is to become a national and international leader in academic research, engineering, business, economy and law for a model of low-carbon distributed generation and consumption. The core of its organization is a multidisciplinary approach to enable the large-scale use of the solar energy resource. The Solar Academy combines practice and theory in the areas of solar and building physics, scientific computing, material science, business, law, sociology, architecture and urban planning.

The Solar Academy relies on a joint "Graduate Program" and "Research Center" between University Savoie Mont Blanc (USMB), CNRS and CEA.



The Research Center draws on the skills of seven USMB scientific laboratories, joint CNRS (French National Centre for Scientific Research) units and CEA (French Alternative Energies and Atomic Energy Commission) laboratories grouped into three scientific poles: Solar resources for multi-scale energy needs (Engineering skills), Solar energy digitalization for better reliability (Data sciences and Mathematics skills) and Diffusion of solar energy use (Busines and Sociology skills). The research and training of master's students and researchers are reinforced by the chair CITEE -cross-border innovation chair on energy efficiency, a joint venture between USMB, the University of Geneva and HES- hepia), the partnerships and relationships developed since the launch of INES, and a strong international network of research centers, laboratories and universities.

Solar Academy Graduate Program

This high-level training program, through research and for research, will be composed of a 2-year master's and a 3-year Ph.D. program (with subjects in materials, mathematics, numerics and law). The Master's Program offers two courses. The first one is about engineering (solar resource exploitation, solar energy integration at building and city scales, digitalization and data sciences). The second is on economic, legal and social issues. The two master's programs share a common core – for every student shall be aware of and trained in the other course's themes (economic models and policies to encourage the spread of solar energy for some, and technological drivers and barriers for others). Solar Academy labels are also proposed within other USMB master's programs if students follow certain graduate program modules. A Scientific Solar Summer School is organized each year around these multidisciplinary themes. The master's program will open at the start of the 2021 academic year, and the application process is to come (the academy will post information on the website, https:// www.univ-smb.fr/solaracademy/).

International Connections

Through INES, partners of the Solar Academy enjoy access to first-class international networks, including with the International Solar Alliance (ISA), which was launched during COP 21 as a





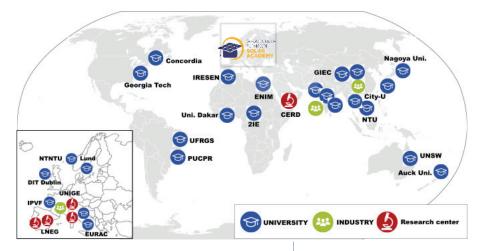


continued on page 17

Member News from page 16

coalition of 121 solar-rich countries between the two Tropics to scale up the large-scale roll-out of solar energy and with SoMed!, a network of information and exchanges on solar energy in the Mediterranean region. The Solar Academy is positioned within a strong international network, including renowned universities and research centers in Africa, Asia, the Americas, Europe and Oceania.

The Solar Academy is directly connected to IEA SHC Task 63 on Solar Neighborhood Planning. As Maria Wall, the SHC Task 63 Operating Agent, notes, "experts and organizations participating in both SHC Task



63 and the academy will help to increase the dissemination of the work in Task 63, and hopefully develop an even stronger collaboration in the future. A real bonus is that the leading university of the Solar Academy, University Savoie Mont-Blanc, is also the co-leader of SHC Task 63 Subtask C on Solar Planning Tools."











This article was contributed by Prof. Monika Woloszyn, Director & Prof Christophe Ménézo, Deputy Director in charge of scientific and international partnerships. For more information please visit the website https://www.univ-smb.fr/solaracademy/ or email Prof. Ménézo, christophe.menezo@univ-smb. fr. For more information on SHC Task 63: Solar Neighborhood Planning visit the Task webpage, https://task63.iea-shc.org/ or contact the Task 63 Operating Agent, Maria Wall, maria.wall@ebd.lth.se.