NEWSLETTER

HEBA – High level rEnewaBle and energy efficiency mAster courses

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"Train of the Trainers at the University of Cyprus", 08/07-12/07/2019

The first day included an introductory lesson to PV technology, along with the basics of solar energy, how PV cells produce electricity, and why semiconducting materials are important to achieve this photoelectric conversion. Some additional introductory modules like the PV potential in Cyprus and national legislations around PV technologies were briefly mentioned as well. A PV Laboratory tour has taken place early morning (in order to avoid the intense Cyprus sun in July), where the participants had the chance to meet the advanced in-door equipment we currently have at the laboratory, like the PASAN solar flasher, the electroluminescence technique, the environmental chamber (thermal cycling; Potential-Induced Degradation –PID- stressing), the UV chamber, and the out-door facilities as well like the PID stand, CPVs, CPTs, the inverters, fault detection etc.

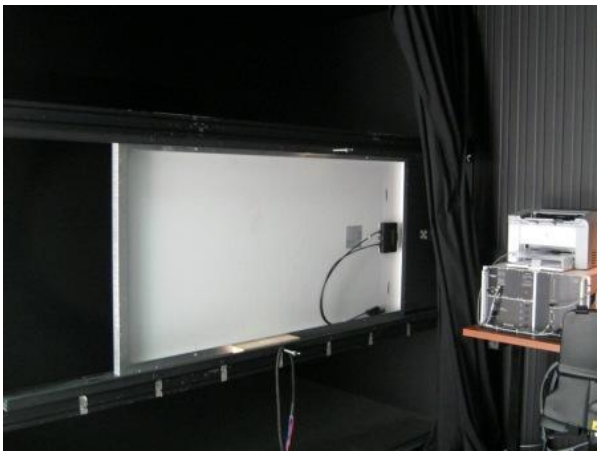
"ToT at the University of Cyprus": First day welcoming of the participants!

On the second day, the participants attended a theoretical training on PV Technical characteristics, (number of cells in a module, open circuit voltage, short circuit current, IV diagram, Standard Test Conditions, -STC-), different PV system types, Building – Integrated and Building – Applied Photovoltaic, and the correct system installation.

The third day was a seminar day! Three students presented their most recent work, including PV forecasting methodologies, DC and hybrid DC-AC distribution systems and a PV energy storage scenario with applications in 5 remote houses in Cyprus.

The 4th day was devoted to practical and experimental realizations of what the participants had learned so far. The training included a hands-on experiments series (Indoor PV characterization: Solar PV flasher, the environmental chamber, electroluminescence imaging, UltraViolet Chamber for stressing PV cell under deleterious solar irradiation). In addition, outdoor activities such as PV fault detecting, site survey, Potential Induced Degradation investigations, installing PV panels on an experimental roof, and interconnections, Thermal Camera imaging technique took place during the day. When the training at the PV laboratory finished, participants went to the computer room in the new Library building, where they had the chance to simulate a PV installation using the RETScreen software and PVSYST.

The environmental chamber at the PV technology laboratory



The sun simulator set-up at the PV lab!

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"ToT at the University of Cyprus": Technical training on PV degradation and fault detection at the PV technology laboratory of the University of Cyprus

"4th Steering Committee and Technical Meeting, 02/05-03/05/2019"

The 4th Steering Committee Meeting took place at Hamburg University of Technology on 2nd-3rd of May, 2019. After the welcome speech, given by the Dean of Faculty of Process Engineering, all partners presented a status update about their work-packages. Afterwards, a plan to develop the new Heba-courses was elaborated, taking into account the results of the questionnaires. Furthermore, it was discussed how the new EEREL-centers should be established and how the cooperation between them could be executed. Moreover, the external evaluation team introduced themselves via video conferencing and presented a first draft of their evaluation plan.

In the end, there was a short lab tour through the laboratories of the Institute of Environmental Technology and Energy Economics.

Group photo during the Steering Committee Meeting in Hamburg

"5th Steering Committee and Technical Meeting, 19/09-20/09/2019"

The 5th Heba STC meeting took place on 19/09-20/09/2019 at the University of Cyprus, New Campus, in Nicosia. All partners provided a short presentation regarding their WP performance, focusing on any emergent problems and necessary actions taken. In addition, the 8 developed Heba cources were the main point of discussion during the first day of the meeting, where the status of completion was given by each partner, as well as the implementation and integration of the modules into the existing university curricula. The second day of the meeting focused on the design and elaboration of the EEREL centres by prof. Yasser Gaber Dessouky, along with Quality control and monitoring by Martin Kaltschmitt. In the end of the day prof. Ahmed Al-Salaymeh underlined the importance of dissemination activities, and how they are connected with the future sustainability of the Heba project.

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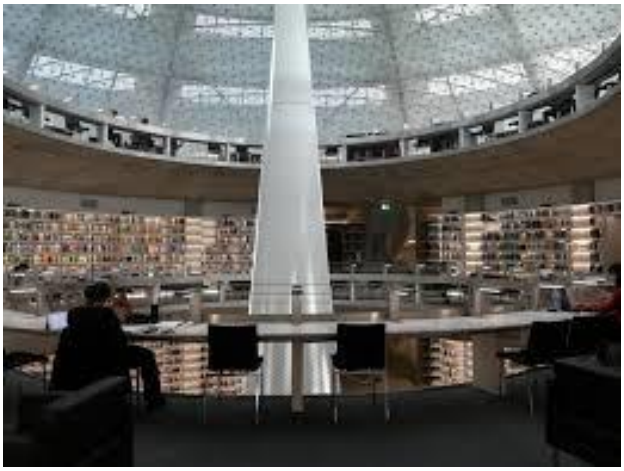
A last group photo before the end of the meeting

The meeting took place at the new library building, where the participants had the chance to learn about the building's bioclimatic capabilities, in addition to its smart design principles.


The insight of the bioclimatic library building in the University of Cyprus!

Events and Workshops

Dissemination activities

JUST 3/07/2019: Prof. Fahmi Abu Al-Rub, Coordinator of HEBA at JUST, presented and discussed the Erasmus+ projects at JUST, for EU professors during the international week collaboration of student/staff mobility and EU exchange to Jordan. HEBA project was among the projects that were introduced to the participants.


Prof. Fahmi Abu Al-Rub, presenting the HEBA project aims and goals among other Erasmus+ projects at JUST

UJ 04/04/2019: HEBA project was disseminated during the scientific day, which was held at The University of Jordan on April 4, 2019. A booth with rollup was placed in the exhibition area, staff members disseminated the project for the students and faculty members.

UJ 17/04/2019: The International Affairs Unit at the University of Jordan held Erasmus Plus Week in April, 2019. Dissemination activities for HEBA were conducted during Erasmus plus week which was held in The University of Jordan. A brief introduction about the project was presented by Prof. Ahmed Al-Salaymeh during one of

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the sessions. A booth with rollup was placed in the exhibition area, staff members disseminated the project for the students and faculty members.

Prof. Ahmed Al-Salaymeh introducing HEBA project at UJ

LU 30/04/2019: greenweek4 2019 – Academic background and learning opportunities in Sustainability. Participation of the Lebanese University in the greenweek4 2019, where HEBA project was disseminated amongst the participants.

A brief introduction in Heba project during the greenweek4 2019 at the Lebanese University

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