Development of BIPV courseware for students and professionals

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Introduction
Currently a gap exists in the knowledge and skills of graduate architects, engineers, planners and designers etc. in relation to BIPV system installation. The Dem4BiPV project addresses this gap by developing educational material on BIPV for a broad group of stakeholders.

The project runs from September 2015 to August 2018.

Project objectives
The project’s specific objective is to develop innovative educational material for higher education on the important topic of BIPV while its ultimate aim is to improve the quality and relevance of higher education to the labor market needs, since there is currently a gap in the knowledge and skills of graduate architects, engineers, planners and designers etc. in relation to BIPV system installation.

Moreover, the intellectual outputs and outcomes of the project including the development of a Virtual Learning Environment (VLE), the design and deployment of remote labs, will enhance digital integration in learning.

Through the project the offering of high quality learning opportunities for students in higher education will be enhanced, particularly on an energy-related topic.

Activities

- Framework and Requirements’ Analysis of BIPV
- Didactic content for Students
- Manual for Academics on BIPV subject
- Development of Virtual Learning Environment (VLE) & Course adaptation
- Deployment of remote labs

Education for the BIPV sector

Knowledge gaps
A questionnaire among ~100 stakeholders showed that knowledge gaps exist in electrical integration, constructional integration, design, performance, environmental impact, market/economics, incentive schemes.

Target group
Main group for educational need is identified as professionals (architects, engineers, planners), building contractors, post and under graduate students.

Course set-up
Modular with building blocks:
- BIPV intro
- BIPV design and engineering
- BIPV performance
- BIPV and its environmental footprint
- BIPV market, barriers, incentive schemes

Modules can be combined and customized to design a BIPV course for different target groups. Hands-on work included.

Example: BIPV intro module set-up

Example: BIPV performance module set-up

www.dem4bipv.eu

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