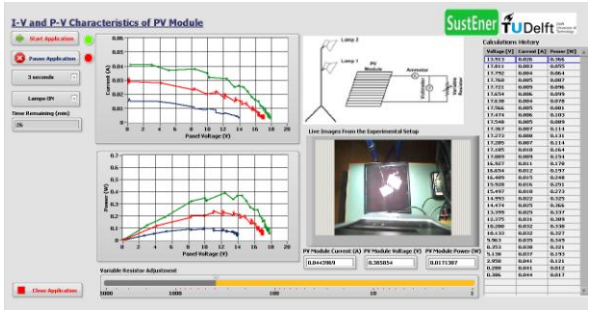
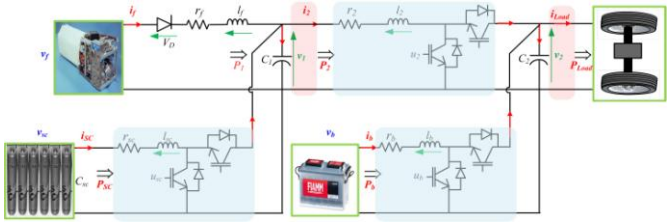
SUSTENER PROJECT DESCRIPTION

Interactive Animations, Distance and Virtual Laboratories

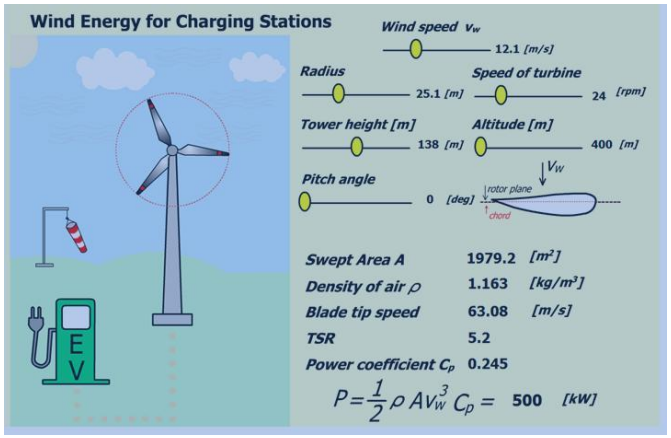
SustEner originates from the recognition of the enormous societal, economic and technological potential of a European sustainable, low-carbon economy, and from the range of scientific and non-technical challenges preventing the realization of this vision. The purpose of SustEner is to modernize Sustainable Electrical Energy vocational training by enhancing existing or establishing new training methods in enterprises and education. Up-to-date knowledge and educational methods developed in previous projects (interactive animations, virtual and distance laboratories) is brought directly from the educational institutions to industry and secondary schools.



A number of high quality learning modules delivering knowledge are prepared by partners from educational institutions. All modules address specific local knowledge and skills needs of industrial partners. Altogether 9 practically oriented modules with remote experiments and/or interactive animation material are offered in a modern learning portal. Provided contents and learning functionalities enable employees/apprentices/trainees to acquire new professional skills and enhance their job performance.

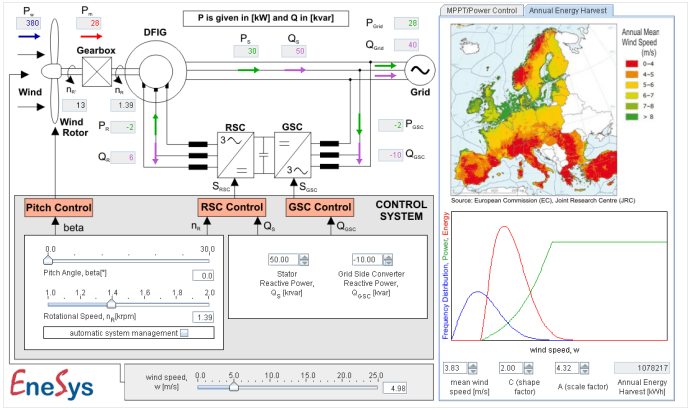


.



The project aims

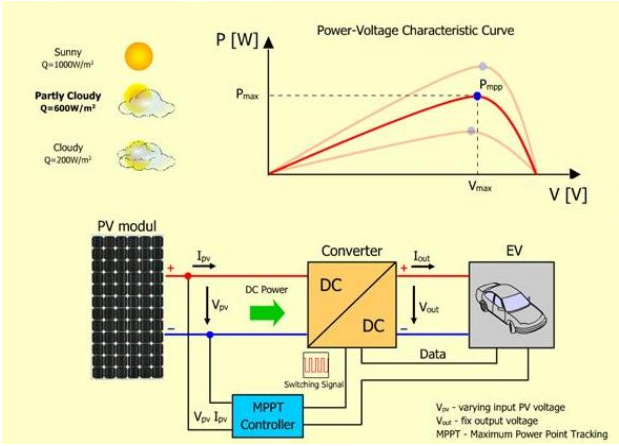
- to find out which are by industry required specialized knowledge and skills in Sustainable Energy/engineering
- to adapt practically oriented learning modules
- to enhance and modernize training methods by incorporation of content/functionalities available in advanced learning methods such as interactive animations or distance laboratories
- to adapt alternative energy sources learning modules and stimulate shift toward low-carbon industry
- to support community of professionals and strengthen links between educational institutions and industry.



.

List of Interactive Modules

- Solar Electricity - From Solar cell to system
- Photovoltaics - Optimization of Operation of Photovoltaic Systems Depending on Operating Conditions, Multivalent Heating Systems
- Renewable Energy – Wind energy conversion and control
- Drivetrain and combined energy storage system for electric hybrid vehicles
- Power management techniques for hybrid electric cars
- Power electronics for electric cars
- Solar Powered Electric Vehicles
- Power control and energy management in DC microgrids
- Luminous efficacy of modern light sources



All developed education resources are available in English and Czech language.

y

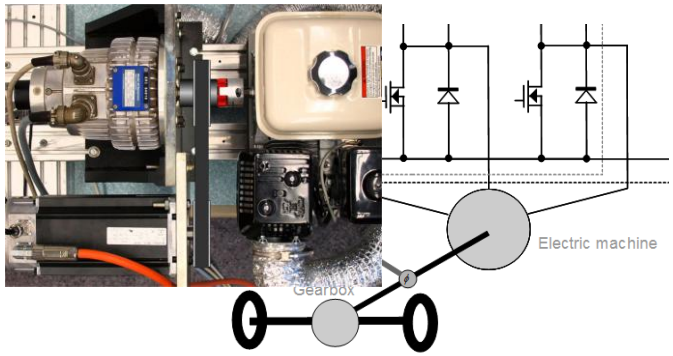
Disclaimer

This project (SustEner, 2011-1-CZ1-LEO05-07487) has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Whom are project results devoted to?

Target groups present:

- university and secondary school teachers and students
- mature engineers in electrical engineering wanting to adapt to continuous changes in technology and theory
- young engineers still profiling their specialisation
- those who graduated originally in EE but not working in their profession for a longer period
- those who need to get/refresh knowledge in electrical Sustainable engineering
- disabled people (having difficulties to attend regularly the courses and labs)



Project Committee Members

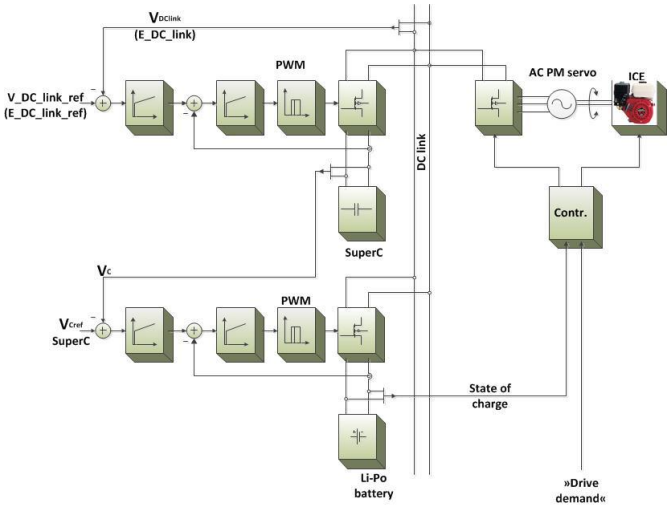
1. Prof. Pavol Bauer,Delft University of Technology, NL - Coordinator
2. prof.Vitezslav.Hajek Brno University of Technology, Faculty of El. Eng. and Communication Technology, CZ – contracting inst.
3. prof. Constantinos Sourkonis, Ruhr Universitat Bochum, DE
4. prof.Bernard. Davat, Institut National Polytechnique de Lorraine, Nancy, FR
5. prof. Istvan Nagy,Budapest University of Economics and Technology, Budapest, HU
6. prof.Thomas Wolbank, Technische Universitat Wien, AT
7. Ass.prof. Andreja Rojko, University, SI

Delft University of Technology,
Delft Netherlands
Brno University of Technology, Faculty of El. Engineering and Communication, Czech Republic
Ruhr Universitat Bochum
Bochum Germany
Institut National Polytechnique de Lorraine,
Nancy, France
Budapest University of Economics and Technology,
Budapest, Hungary
Technische Universitat Wien
Vienna, Austria
University of Maribor
Maribor Slovenia

Further Information

The developed modules:

- are used in undergraduate courses on EE
- are used in specialised courses for the target group members, post-graduate and re-qualification courses
- enrich an offer of life-long learning centres by modern courses on EE.



Availability of the modules

The full set of the modules is:

- offered via Internet (www.SustEner.eu)

Contact

In case of any additional information contact the project co-ordinator:

P.Bauer@TUDelft.nl ***www.SustEner.eu***

Lifelong Learning Programme

SustEner
Teaching Energy for Sustainable World

SUSTENER: TEACHING ENERGY FOR SUSTAINABLE WORLD

The project is carried out with support of the European Community in framework of the Leonardo da Vinci Programme (12/2011 - 11/2013).
Project No: 2011-1-CZ1-LEO05-07487