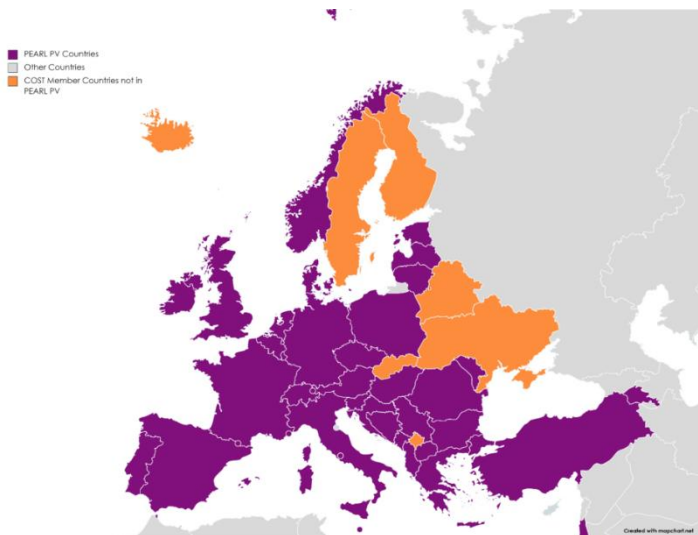


COST Action Pearl PV, WG4 Workshop: Photovoltaic Systems in the Built Environment

19th January 2022, 12:00-16:00 (CET)



Chair:

Assoc. Prof. Dr. Bogdan-Gabriel Burduhos
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Transilvania
University
of Brasov

The EU COST Action PEARL PV is an inclusive network of PV system researchers focused on “Performance and Reliability of Photovoltaic Systems: Evaluations of Large-Scale Monitoring Data”.

The aim of PEARL PV is to improve the energy performance and reliability of photovoltaic (PV) solar energy systems in Europe leading to lower costs of electricity produced by PV systems by a higher energy yield, a longer lifetime eventually beyond the guaranteed 20 years as specified by manufacturers, and a reduction in the perceived risk in investments in PV projects. This will be achieved by analysing data of the actual monitored long-term performance, defects and failures in PV systems installed all over Europe to quantitatively determine the absolute influences of components rated performance, key design of systems, installation, operation, maintenance practice, geographic location and weather factors on the performance, performance degradation over time and failure modes of these PV systems.

This online workshop is focused on different aspects related to the installation of PV systems in the built environment and brings together leading early career researchers from Europe. In this online event, we will have to opportunity to hear speakers involved in PV electricity estimation, urban solar energy assessment, PV solar tracking systems, PV roads, charging stations and estimation of PV temperature variations.

The event is free to attend!

Website COST Action PEARL PV: <https://www.pearlpv-cost.eu/>

Programme outline

12:00 ... 12:10h

Introduction of WG4 and opening of the workshop

Bogdan-Gabriel Burduhos

UniTBv, Transilvania University of Braşov, Romania

12:10 ... 12:30h

Urban solar potential assessment for onboard solar in electric vehicles

David Pera

ULisboa, University of Lisbon, Portugal

12:30 ... 12:50h

Innovative microgrid control based on 1s-resolution PV information

Radu Plămănescu

UPB, Politehnica University of Bucharest, Romania

12:50 ... 13:10h

Outdoor performance analysis of five photovoltaic modules of different technologies in Palaiseau, France

Moira I. Torres Aguilar

I'X, École Polytechnique, France

13:10 ... 13:30h

Solar tracking systems for strings of photovoltaic modules

Macedon-Dumitru Moldovan

UniTBv, Transilvania University of Braşov, Romania

13:30 ... 13:50h

Solar energy in Nordic built environments: Opportunities, challenges and barriers

Gabriele Lobacarro

NTNU, Norwegian University of Science and Technology, Norway

13:50 ... 14:00h

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14:00 ... 14:20h

Application of thin-film Cu(In,Ga)Se₂ modules in PV roads. Feasibility testing and pilot production within

Rolling Solar

Aldo Kingma

TNO Innovation for Life, Netherlands

14:20 ... 14:40h

Estimating clear-sky PV electricity production without exogenous data

Stefani Peratikou

CUT, Cyprus University of Technology, Cyprus

14:40 ... 15:00h

Electricity-powered charging stations with renewable energy

Filip Cârlea

CPEREE, Center for the Promotion of Renewable Energy and Energy Efficiency, Romania

15:00 ... 15:20h

Effect of the environment on the PV performance

João-Gabriel Bessa

UJaen, University of Jaén, Spain

15:20 ... 15:40h

The impact of urban aerosols on the collectable solar energy

Robert Blaga

UVT, West University of Timișoara, Romania

15:40 ... 16:00h

Operating temperature and diurnal temperature variations of modules in open-rack and typical BIPV mounting configurations

Ebrar Özkalay

SUPSI, University of Applied Sciences and Arts of Southern Switzerland,
Switzerland

16:00 ... 16:05h

Summary and closing

Bogdan-Gabriel Burduhos

Transilvania University of Brașov,
Romania