

P  A R L P V

Databank

Workshop, 3 November 2020

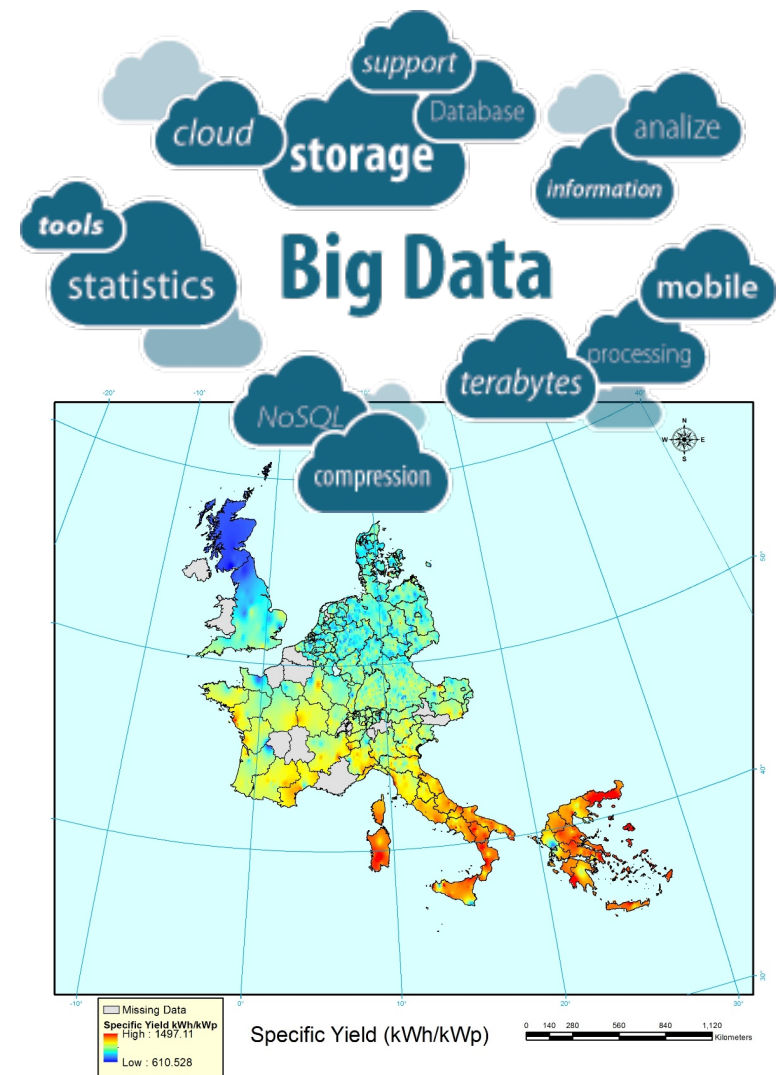
Wilfried van Sark (UU)

Utrecht University, the Netherlands



WG1: PV Monitoring

- Objectives
 - Identification of relevant data to be collected to properly assess PV *performance* of installed PV systems in the field and on rooftops
 - Design guidelines for data collection and analysis
 - Set-up a database and design guidelines for database access
- WG leader: Wilfried van Sark
 - ~30 members



Annual yield map (UU)

https://ckan.pearl-pv-cost.eu

Mail UU OSIRISDocent TweetAnalytics Pure EU partPortal Library Declaraties SolisVPN IEC Col tools Factuur UUmail RefWorks Apple eBay Yahoo! News MyPhD

Welcome - Pearl PV CKAN Repository

Log inRegister

PPEARLPV

DatasetsOrganizationsGroupsAbout

Search

Search data

E.g. environment

Popular tags

Pearl PV CKAN Repository statistics

0 datasets1 organization0 groups

Welcome to the Pearl PV CKAN Repository

This website is currently in development. For details contact [Fjodor van Slooten](#)

A quick start guide for PearlPV members is here available. [User Manual](#).

We strongly urge you to read the [CKAN User guide](#) before using this site. Also reading the [API Guide](#) might be a good idea if you want to

Quicklinks to help:

- Add a dataset
- Edit a dataset

More in the User Guide

PPEARLPV

User Manual of the CKAN Data Server of PEARL PV

Introduction

This user guide contains instructions for the use of the web interface of the CKAN data server of COST Action PEARL PV. This data server has been established to publish and upload data of monitored installed PV systems and to quantitatively evaluate the long-term performance and reliability of these PV systems in Europe and elsewhere.

First and foremost, we thank you for uploading and providing access to your collected data. Once your data is published, other users can use CKAN's search features to browse and find the data they need, and preview it using maps, graphs and tables.

Datasets and resources

On the CKAN-based site, data is published in units called "datasets". A dataset is a parcel of data and has two different elements: metadata and resources:

- "metadata" cover information about the data. For example, the title and publisher, date, what formats it is available in, what license it is released under, etc.
- "resources" hold the data itself. A resource can be a CSV or Excel spreadsheet, XML file, PDF document, image file, linked data in RDF format, etc. A dataset can contain any number of resources. For example, different resources might contain the data for different years, or they might contain the same data in different formats.

Registering and logging in

Registration is needed for most publishing features and for personalization features, such as "following" datasets.

To create a user ID, use the "Register" link at the top of any page. CKAN will ask for the following:

- Username - choose a username using only letters, numbers, - and _ characters. For example, "jbloggs" or "joe_blogger".
- Full name - to be displayed on your user profile
- E-mail address - this will not be visible to other users
- Password - enter the same password in both boxes

Instruction video

- ◄ Made by Carolin Ulbrich and Judit Süveges (Helmholtz Zentrum Berlin)

Search data



Popular tags

Pearl PV CKAN Repository statistics

0 datasets

1 organization

0 groups

Welcome to the Pearl PV CKAN Repository

This website is currently in development. For details contact Fjodor van Slooten

A quick start guide for PearlPV members will be available in the near future.

We strongly urge you to read the CKAN User guide before using this site. Also reading the API Guide might be a good idea if you want to use the API.

Quicklinks to help:

- [Add a dataset](#)
- [Edit a dataset](#)

[More in the User Guide](#)

**pearl-pv**

Umbrella organization for non-affiliated data

❖ Data access

❖ T1.4: data access

❖ Task leader: Cihan Gerçek

❖ Implicitly (partly) done in design of databank

❖ Only registered persons can use the data

❖ Registration only possible after accepting conditions described in Non-Disclosure Agreement

❖ Uni Twente will check registration details and will arrange access to databank

❖ Input required on data sharing options of provided data sets (see user manual)

TERMS OF SERVICE AND NON-DISCLOSURE AND DATA SHARING DECLARATION

The acceptant hereinafter referred to as "Researcher" is employed/appointed at an institution, hereinafter referred to as Institution

whereas:

- Researcher participates in the COST Action "Performance and Reliability of Photovoltaic Systems: Evaluations of Large-Scale Monitoring Data", hereinafter referred to as "PEARL PV";
- 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 life time eventually beyond the guaranteed 20 years as specified by manufacturers, and a reduction in the perceived risk in investments in PV projects;
- the aim will be achieved by analyzing data of the actual monitored long-term performance, defects and failures in PV systems installed all over Europe, hereinafter referred to as "the Data", 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, hereinafter referred to as "the Aim";
- datasets containing the Data, hereinafter referred to as "Datasets", will be made available by researchers, institutions and other stakeholders to PEARL PV for the Aim, hereinafter individually referred to as "Owner";
- therefor a databank for PEARL PV, containing the Datasets, will be created and stored on one of University of Twente's server, hereinafter referred to as "the Databank";
- all parties and persons that participate in PEARL PV have to sign this Non-Disclosure and Data sharing Declaration, hereinafter referred to as "Declaration", and will be bound by this Declaration before they are granted access to the Databank for the Aim;
- Researcher may make available certain of its Datasets to PEARL PV for the Aim.

requests access to the Data and Datasets collected in the Databank for the Aim and declares the following:

1. Confidentiality:

Researcher agrees, as recipient of Data and/or Datasets, that it will not disclose any Data and/or Datasets received without the prior written permission of the Owner and will not use the Data and/or Datasets for any purpose other than for the Aim.

2. Surviving Obligation:

Researcher's obligation to maintain the confidentiality of the Data and/or Datasets received shall survive termination of the Agreement for an indefinite period of time.

❖ Data collection for databank

- ❖ Data required ideally should come from research questions:
research-driven data collection
e.g., mapping of PV performance in Europe
- ❖ Cross fertilization workshops
 - ❖ 10 topical workshops
 - ❖ Discussion on ~3 presentations per workshop should lead to research question, and required data to address that question

Databank registration

PEARL PV

[Datasets](#)
[Organizations](#)
[Groups](#)
[About](#)

[Log in](#)
[Register](#)

[Home](#) / Registration

Why Sign Up?

Create datasets, groups and other exciting things

Register for an Account

* Username:

Full Name:

* Email:

* Password:

* Confirm:

Please read the [NDA](#) and check if agree:

☐ I Accept

* Required field

Create Account

TERMS OF SERVICE AND NON-DISCLOSURE AND DATA SHARING DECLARATION

The acceptant hereinafter referred to as "Researcher" is employed/appointed at an institution, hereinafter referred to as Institution

whereas:

- Researcher participates in the COST Action "Performance and Reliability of Photovoltaic Systems: Evaluations of Large-Scale Monitoring Data", hereinafter referred to as "PEARL PV".
- 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 life time eventually beyond the guaranteed 20 years as specified by manufacturers, and a reduction in the perceived risk in investments in PV projects;
- the aim will be achieved by analyzing data of the actual monitored long-term performance, defects and failures in PV systems installed all over Europe, hereinafter referred to as "The Data", 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, hereinafter referred to as "The Aim".
- datasets containing the Data, hereinafter referred to as "Datasets", will be made available by researchers, institutions and other stakeholders to PEARL PV for the Aim, hereinafter individually referred to as "Owner".
- herefor a databank for PEARL PV, containing the Datasets, will be created and stored on one of University of Twente's server, hereinafter referred to as "the Databank".
- all parties and persons that participate in PEARL PV have to sign this Non-Disclosure and Data sharing Declaration, hereinafter referred to as "Declaration", and will be bound by this Declaration before they are granted access to the Databank for the Aim;
- Researcher may make available certain of its Datasets to PEARL PV for the Aim.

requests access to the Data and Datasets collected in the Databank for the Aim and declares the following:

- Confidentiality**
Researcher agrees, as recipient of Data and/or Datasets, that it will not disclose any Data and/or Datasets received without the prior written permission of the Owner and will not use the Data and/or Datasets for any purpose other than for the Aim.
- Surviving Obligation**
Researcher's obligation to maintain the confidentiality of the Data and/or Datasets received shall survive termination of the Agreement for an indefinite period of time.

❖ Dataset definition

- ❖ parcel of data and has two different elements: **metadata** and **resources**:
 - ❖ “**metadata**” that covers information about the data. For example, the title and publisher, date, what formats it is available in, what license it is released under, etc.
 - ❖ “**resources**” hold the data itself. A resource can be a CSV or Excel spreadsheet, XML file, PDF document, image file, linked data in RDF format, etc. A dataset can contain any number of resources. For example, different resources might contain the data for different years, or they might contain the same data in different formats.

PEARL PV

Datasets

Organizations

Groups

About

Search

Home

Organizations

pearl-pv

Berlin outdoor lab results ...

Berlin outdoor lab results 2018-2019

Followers

0

Follow

Organization

pearl-pv

Umbrella organization for non-affiliated data [read more](#)

Social

Twitter

Facebook

License

[Open Data Commons Attribution License](#)

Dataset

Groups

Activity Stream

Manage

Berlin outdoor lab results 2018-2019

PRIVATE

PV data from the outdoor measurement system in Berlin

Data and Resources

Dataset CIGS Berlin outdoor lab 2017

data measured continuously, samples 1-3 have AR coating, 4-6 no AR c

Explore

Dataset CIGS Berlin outdoor lab 2017 ...

additional information that belongs to Berlin_outdoor_lab_resu...

Explore

Berlin

PV data

glass cracks

no faults

outdoor

Additional Info

Field	Value
Location name	Berlin outdoor lab
GPS Coordinates	53.43N, 13.53E
Restriction to publication	no restriction on publication
Author	Person Example
Author Email	Person Example
Maintainer	Second PersonExample
Maintainer Email	Second PersonExample
Keywords	glass cracks,no faults

Resources

Metadata

❖ Thank you for your attention

❖ Any questions?