**Project Documentation**

In this project, the datasets used are stored in a folder named "Datasets". The primary dataset, named household\_data, has been sourced from the Open Power System Data (OPSD) platform, a reliable repository for energy-related datasets. This dataset contains information recorded through measurement meters, and for more precise analysis, it has been disaggregated based on hourly photovoltaic production and other related variables. The processed version of this dataset is available in the file household\_data\_60min\_singleindex\_diff.

Subsequently, by adding temporal parameters to the dataset, a specialized version for Building No. 2 was prepared, which is saved in the file ind2\_with\_time.

Additionally, weather-related information is included in the file information\_weather\_data\_konstanz. This file contains meteorological data for the relevant region, which has been utilized in the associated analyses.

Finally, the accessible parameters for further analysis are provided in the file paper\_data.

**Models**

The implemented models, along with their details, are presented in the "Models" section. These models can be executed and examined in the Google Colab Notebook environment.

**Additional Notes**

All datasets used are located in the "Datasets" folder, and the corresponding code is designed to ensure easy access to these datasets. This research has been conducted as part of the development of a scientific paper titled "AI-Based Short-Term Forecasting of Photovoltaic Energy Production: A Comparison of Inputs", focusing on energy management and prediction in related systems.

The original data is available on this site

Link: https://data.open-power-system-data.org/household\_data/