EE 474 Term Project

Phase-1

Fall 2023

Due Date: 05.12.2023

Objective: Implement a function in **Python 3.11.X** environment that can forecast power generation of a given PV array with the horizon of one day. The resolution of forecast should be one hour. Use given files for model deriving/training process.

- You **DO NOT HAVE TO** use all available data in the given files.
- Your functions should be generic. It should be able to read other input files with the same format.
- You can use any method to form the forecast model (ANN, Deep-Learning, Kalman Filter, etc.)

You must upload your .py files and present your projects in class on 05.12.2023 Tuesday. The presentation should **NOT** include long explanations of your code; rather it should include the following:

- The employed method, why and how you used it,
- Selected features and reasoning,
- Test results,
- Any method/assumptions/etc. you used to improve the accuracy performance of the model.
- Brief explanation of how your code works.

- The PYTHON function should take some arguments as inputs and returns results as outputs. Function name should be in the following format:

  e123456_surname_GF(argin1, argin2, …)

- Submit your .py file via the ODTUClass link “Project – Phase 1 code”.

Inputs: input file paths, input file names, and any other parameter, information etc.

Outputs: Hourly power generation forecast of a given day (assuming required input is available)

P.S. Data may be missing for some dates.