Heliocity
ANALYTICS FOR SOLAR BUILDINGS

CSTB
le futur en construction

UNIVERSITÉ SAVOIE MONT BLANC / LOCIE

Operational research for urban solar development

"PV failure detection based on operational time series"

22/12/2023

Alexandre Mathieu

UNIVERSITÉ SAVOIE MONT BLANC

Curriculum
Plan

Day	Time	Duration	Content
Monday 27/11/2023	9h45-11h15 12h30-14h	1h30 + 1h30	50% Lecture / 50 % Hands-on
Tuesday 05/12/2023	8h-9h30 9h45-11h15	1h30 + 1h30	50% Lecture / 50 % Hands-on
Thursday 07/12/2023	8h-11h 12h45-15h45	6h	25% Lecture / 75 % Project
Monday 11/12/2023	8h-11h 12h30-15h30	6h	10% Lecture / 90 % Project
Today → **Friday 22/12/2023**	8h-9h30	1h30	100 % Project

Agenda

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Project – Outputs

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Project: some details

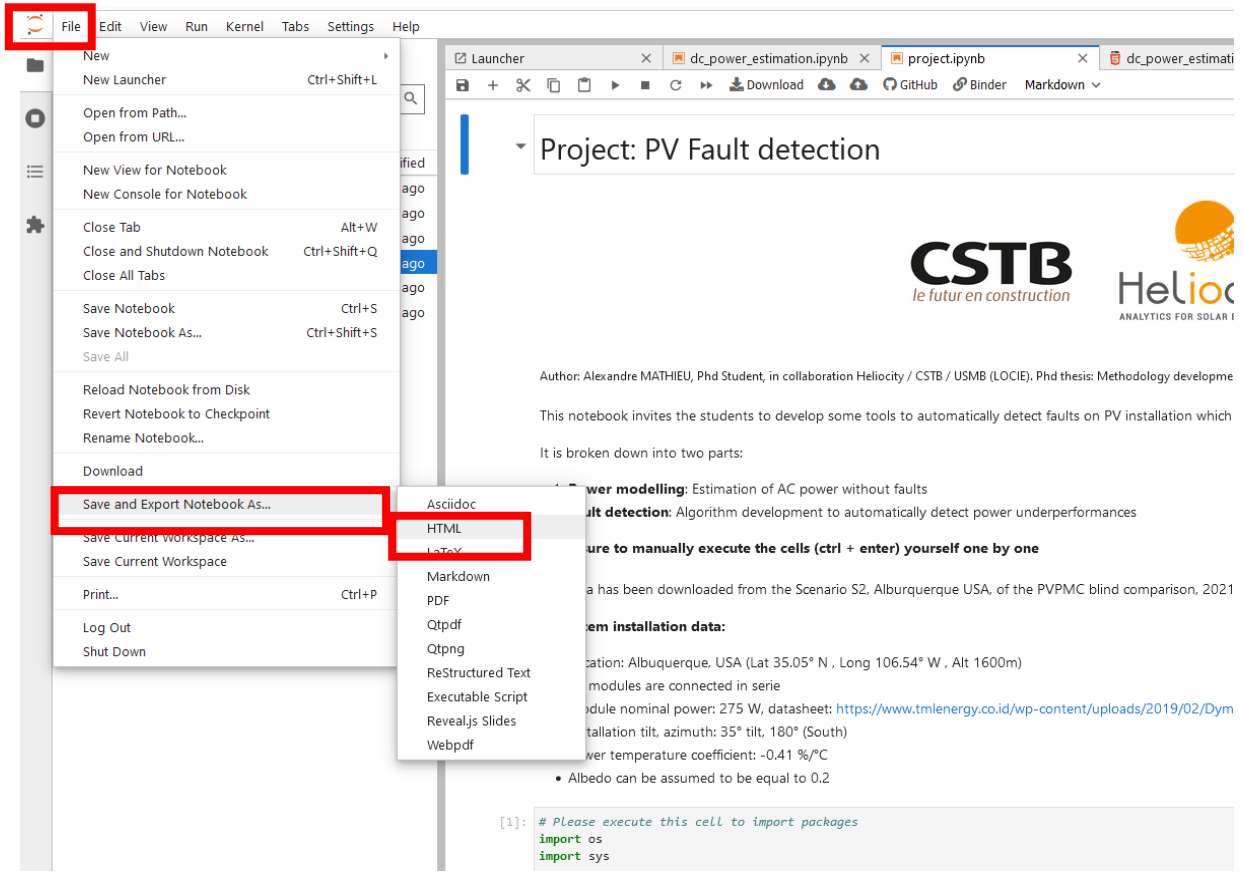
Only train your Machine Learning models on January and July

Installation date: Oct-2017

Project outputs

I. HTML export of your notebook: See example to the right

(Make sure to insert your name in it)



II. Four CSV files:

(Python command: dataframe.to_csv('initials_estimation.csv')

1. One collecting the AC estimation variables with those specific column names:
   - 4 columns ["gpoa_estimated", "t_mod_estimated", "dc_power_estimated", "ac_power_estimated"]

- 2. Three csv files (one for each failure) with energy loss as values and datetime as index:
  - Shading
  - Inverter clipping
  - Module short-circuit

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That's it