# AI/Machine Learning Examination

***Instructions**. The exam is to be coded in Python (preferred) but you can also use MATLAB. Remember to create the correct code structure, readable comments and code efficiency. Please send all your code and excel files, in a zipped folder and title it "First_Last Name". Submit to:* https://b24-im7h02.bitrix24.site/crm_form9/

**Input Data:** There are two files in this folder, *training_set and test_set*.

| Training Set | Test set |
|---|---|
| Contains almost one year of historical electricity price data presented through multiple features from column B:L. The target column contains electricity prices per hour. | Contains all features for four days and the target value is not given. |

Different features are given to you and some of them are given by an external source and some are artificially calculated by our data processing module.

The goal is designing two AI models, one deep model and one ensemble model, based on training data and predicting target values during the test set.

Feel free to:

1. Create new features and add it to the data set or remove existing ones from the data set.
2. Create the internal model architecture, parameters and fine-tuning process.

**What you need to deliver:**

1. In a word document, describe in your own words and in detail the data exploration and feature engineering steps and methods that you used.

2. In the same word document, describe in your own words and in detail the model selection, design, and fine-tuning process that you used.

3. Verify your data and submit an excel containing the forecasted values for the test data sets.

4. Submit one or more, .py/.m file(s), for each step.