

IE 48B Time Series Analytics

Project Phase 2 - Submissions

Data

Google Drive folder on

https://drive.google.com/drive/folders/1jDD7uOHDGNXdirZyv_ZwQAgJDp-FYis9?usp=sharing

has the information on the imbalance and the weather. The information is updated every hour with the most recent available data. The contents of the folder is:

- **bulk_imbalance.csv:** This file has the hourly information of the net imbalance and details of the imbalance as in the form of “Up Regulation Instructions” and “Down Regulation Instructions”. This covers the data from 2019-01-01 to today. The column names are:

- date
- hour
- net
- upRegulationZeroCoded
- upRegulationOneCoded
- upRegulationTwoCoded
- downRegulationZeroCoded
- downRegulationOneCoded
- downRegulationTwoCoded
- upRegulationDelivered
- downRegulationDelivered
- system_direction

Provided information for each column can be understood from the column names. Note that system_direction information is the target and target assignment is performed based on the net value as:

- if $\text{net} \geq 50$ then $\text{system_direction} = \text{'Positive'}$
- if $\text{net} \leq -50$ then $\text{system_direction} = \text{'Negative'}$
- otherwise $\text{system_direction} = \text{'Neutral'}$

This assignment is done till today. This is due to the fact that imbalance information may not be reliable for recent hours. Therefore, today’s imbalance information is provided as NA.

- ***date_weather.zip:** This is weather information for selected coordinates (7 big cities) in Turkey in long data format.

- DSWRF_surface: downward shortwave radiation at the surface
- RH_2.m.above.ground: relative humidity at 2m above ground
- TMP_2.m.above.ground: temperature at 2m above ground
- TCDC_low.cloud.layer: total cloud cover at the low cloud layer
- ws_10m: wind speed at 10 meters height
- wdir_10m : wind direction in degrees at 10 meters height

This information is updated every time weather forecasts are updated (4 time a day), separate zip files for each day’s weather information in a cumulative manner is provided for each date.

Submissions

You can submit your results using this Google Form: <https://forms.gle/Z8h5SJpxVguEsUXF6>

Your submissions will be visible in your group's link provided in the e-mail sent.

The leaderboard will be updated every day around 12 pm for your submissions provided for the previous day.

<https://docs.google.com/spreadsheets/d/1wEZjAZrtналu4Y7ct2vutBU8HMAy0EQ93cZgRoWDrs>

You are expected to provide your submissions for the class label of each hour as a comma-separated string in the "Submission" field of the form as:

Positive,Positive,Neutral,...,Negative,Positive

Remember from the phase 1 document that as an analyst you are responsible for prediction of the system imbalance (defined in a custom way above for this project) for the hours 12, 13, 14, ..., 22 and 23 of the same day before 12 pm. You may make multiple submissions. Your latest submission before 12 pm will be considered as your final submission.

Timeline

You are given your passwords and usernames for access to the system. We will have a trial period for the system. Use the trial period to ask your questions, play around with the system and build your prediction pipeline until **January 8th, 2022**. It will also be a chance for us to fix any unforeseen issues. We will proceed with the evaluations as usual, however we will restart all of the scores on **January 8th, 2022**. Then, the actual project phase will begin. The submission system will be closed after **January 22th, 2022**. In other words, you are expected to provide submission for the dates between **January 9th, 2022 and January 22th, 2022**.