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| GROUP D – 6th Meeting minutes | |
| Location: | Virtual (Zoom) |
| Date: | 31/05/2021 |
| Time: | 7:30pm – 8:30pm |
| Facilitator: | Bahee Gnanasundram |

# Agenda Items

1. Discuss the progress of the MLP model
2. Discuss the progress of LSTM
3. Working out action plan.

# Meeting Minutes

Start Time: 7:30pm

Finish Time: 8:30pm

Attendees: Bahee Gnanasundram, Maththew Seery, Rahul Lobo, Mohammad Ahsan Ullah

**Outcome:**

* 1. Bahee presented that MLP model takes temperature and the timeslot, month and day of the week treated as categorical variable and implemented with one hot encoding and fine tuning the model. Could not improve any better than RMSE of about 485-500MW. It was clear by analyzing the data that the model is predicting higher forecast in the morning session. Most likely reason is that actual demand on grid must have been compensated by the Solar PV. This feature input should be sourced. It is very unlikely to get this information against the time slot and limited to a particular region.
  2. Matt presented early version of LSTM. Without any feature inputs, and just relaying on the timeseries, LSTM was able to produce a good forecast, with RMSE of 85-100MW. Further refinement to be explored taking temperature and other inputs to the model.
  3. Ahsan to explore the Solar PV data.
  4. Rahul to refine the model parameters and validate the models

# Action Items

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| Task | Name | Completion Date | Current Status |
| Meeting Minutes | Bahee | 16/05/2021 | Completed |
| Git Repository Setup | Matt | 16/05/2021 | Completed |
| Group Project Plan & | All | 18/05/2021 | Core work completed. Matt will make the submission on the 18th.  Completed on the 18th May |
| Check list | All | 18/05/2021 | All will respond individually based on the group decision.  Completed on the 18th May |
| Booking with a lecturer | Bahee | 14/05/2021 | Booking made with Gustavo Batista for 1PM-2PM, 18/05/2021 |
| Review Data | All | 24/05/2021 | Completed |
| Booking with a lecturer | Bahee | 24/05/2021 | Booking made with Michele for 3PM-4PM, 27/05/2021 |
| Preprocess Data | Matt, Bahee | 31/05/2021 | 80% completed |
| Document Data Visualization | Ahsan | 27/05/2021 | Completed on time |
| Statistical Analysis of data | Rahul | 31/05/2021 | On going |
| LSTM | Matt | 8/06/2021 | Refine the model with feature input |
| Solar PV | Ahsan | 3/6/2021 | Initiate the work |
| Review Model | Bahee, Rahul | 3/6/2021 | Review both MLP and LSTM |