

To
IITD-AIA Foundation of Smart Manufacturing

Subject : **Weekly Progress Report for Week 6**

Respected sir,

This is my weekly report from 03 July to 09 July that will reflect my progress in the whole week.

What's happening this week:

- Work on the dataset
- Data pre-processing
- Feature extraction.

My Understanding on my project

An important concern in predictive maintenance is the prediction of remaining useful life (RUL), which is an estimate of the number of remaining years that a component in a production line is estimated to be able to function in accordance with its intended purpose before warranting replacement.

Remaining useful life (RUL) is the length of time a machine will operate before it requires repair or replacement. By estimating RUL, engineers can schedule maintenance, optimize operating efficiency, and avoid unplanned downtime. For this reason, estimating RUL is a top priority in predictive maintenance programs

Weekly Progress:

July 10:

- Continue on data preprocessing.
- Started feature extraction of the dataset.
- Faced many problems and tried to solve them.

July 11:

- Continue to study about the project and explore the ways to complete it.
- Feature extraction of the dataset.
- About streamlit and how to use it.

July 12:

- Pre-processing the data which is most imp
- Faced the problem while performing.
- Feature extraction at final stage.

July 13:

- Continue to preprocess the data.
- Study the dataset.
- Study how to analyze spectrum.
- Feature extraction completed.

July 14:

- Continue to learn how to analyze spectrum.
- Start writing the function of RUL of the project.

- Study the dataset.

July 15:

On leave.

July 16:

On leave.