To
IITD-AIA Foundation of Smart Manufacturing

Subject : **Weekly Progress Report for Week 8**

Respected sir,
            This is my weekly report from 24 July to 30 July that will reflect my progress in the whole week.

What's happening this week:
- Feature extraction.
- CNN function.
- Compilation of the project.

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 24:

- performing data preprocessing on it.
- continue on pre-processing of the dataset.
- complete the feature detection .
- start working on RUL function and also perform Convolution Neural Network (CNN) on the provided dataset.
- Project is about to complete and study about the streamlit to make an interface using it.

July 25:
- Worked on the interface of the project using streamlit.
- So I opened the jupyter notebook in VS code and tried to work on it.

July 26:
- Worked on the interface or I can say somewhat like an interface . I faced problems too but I tried to do something.

July 27:
- On leave.

July 28:

- On leave.

July 29:

- Worked on the interface of the project using streamlit.
- So I opened the jupyter notebook in VS code and tried to work on it.

July 30:
- Project is completed from my side.