To
IITD-AIA Foundation of Smart Manufacturing

Subject : **Weekly Progress Report for Week 3**

Respected sir,

This is my weekly report from 19 June to 25 June that will reflect my progress in the whole week.

What's happening this week:

- Building base for our project
- Deep learning
- Dash Framework

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:

June 19:

Deep learning as a foundation for our projects.

- Introduction to deep learning
- Convolution neural network
- Reinforcement learning

June 20:

Continue the learning process on deep learning.

- Deep learning new frontier
- Started to learn about dash framework.

June 21:

- Start to learn streamlit and dash framework
- Learn about how to use

June 22:

- Implementation of code for deep learning.
- Faced problems while implementing
- Tried to overcome it by using various resources available on google and youtube.

June 23:

- Continue to learn dash framework.
- How to make an interface using it.
- It's applications.

June 24:

- Study more about dataset
- Machine learning code used in project
- Implementation of algorithms

June 25:

- Continue to study about the project and explore the ways to complete it.
- Implementation of dash framework for interface.
- About streamlit and how to use it.