Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID33022
Project Name	Predicting the energy output of wind turbine based on weather condition
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The example used here will be an industrialist who's having a trouble in operating high voltage machines as there is a power fluctuations caused by weather condition which leads to machine failure.
2.	Idea / Solution description	❖ According to the place (location) the parameters like temperature, air flow, pressure, etc… can be obtained. By this the energy produced from the wind turbines can be updated. ❖ From this information, the user (industrialist) Will get the notification on his/her connected device with the complete details of the energy produced.
3.	Novelty / Uniqueness	❖ Let it be the natural calamities like thunderstorm or rainfall, the information will reach the user by application. ❖ As the prior information about the weather reaching the user may reduce severe damages like turbine engines and machines

4.	Social Impact / Customer Satisfaction	❖ By this solution method, the customer will be aware of operating high voltage machines. ❖ The persons who are using this application via smart watches will be given Alert if something went wrong.
5.	Business Model (Revenue Model)	This business model will increase the accuracy of predicted weather. ❖ Renewable energy sources, such as wind energy, are more volatile than traditional energy sources since they are weather-dependent. ❖ The natural calamities like rainfall , thunderstorm & some other weather related disasters will be predicted for next 48 hours. ❖ This Prediction update will receive the user by application before 48 hours in order to tackle the damages. ❖ By using Upwind turbine (models), the rotors will be fixed in front of the nacelle will cause less harm when compared to the downwind turbine.
6.	Scalability of the Solution	The Scalability on this model is high as there involves no energy wastage and the weather application can be managed efficiency & since the natural calamities can be predicted, the percentage of failures is very less compared to other models and it is user friendly.