Project Design Phase-I
Proposed Solution Template

Date	17 September 2022
Team ID	PNT2022TMID26144
Project Name	Predicting energy output of wind turbine based on weather condition
Maximum Marks	2 Marks

Proposed Solution Template:

The project team shall fill in the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To predict the energy output of wind turbines.
2.	Idea / Solution description	In this project, a Machine learning approach is proposed for the power prediction of wind turbines based on wind flow and a prediction system is developed with a method of combining statistical models and physical models. In this system, the future prediction of wind farm is forecasted by the autoregressive model.
3.	Novelty / Uniqueness	➢ Finding weather conditions using city names can be performed on the same page. so that accurate prediction can be possible. ➢ Neat and clear GUI should be developed.
4.	Social Impact / Customer Satisfaction	➢ Energy suppliers are interested in accurate predictions, as they can avoid overproduction. ➢ Predicting wind energy will reduce the use of nuclear power sources and traditional sources of energy such as coal and oil. ➢ These will rapidly decrease the CO_2 emission.
5.	Business Model (Revenue Model)	➢ Cost-efficient. ➢ Time consumption is very low. ➢ Easily portable. ➢ Only internet is required. ➢ This application is reliable. ➢ Easy to use.
6.	Scalability of the Solution	This website can be accessed by everyone who needs information regarding this prediction.