Project Design Phase-I
Solution Architecture

Date	07-10-2022
Team ID	PNT2022TMID33245
Project Name	Predicting the energy output of the wind turbine based on the Weather conditions
Maximum Marks	4 marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions.

Our Solution are;

- To provide a communication network architecture for the smart.WPF with three networks namley turbine area networks,farm area network and control area network.

- This is a hirachieal architecture where level 1 is a sensor network in a single wind turbine,level 2 is a wind turbine-to-wind turbine intraction in WPF,level 3 is a local control center for wind turbine intraction,level 4 is a farm-to-farm intraction grid operation.

- Hybrid communication solution is considered to implement hireachieal network architecture.

- EPDU-based architecture represents a wired solution and zigbee is used for wireless solution.

- In order to monitor the operation of wind turbine many measurmen devices are indtalled inside the wind turbine.

Solution Architecture Diagram: