Project Objectives

Team ID	PNT2022TMID14459
Project Name	SmartFarmer – IoT Enabled Smart Farming Application

- To increase the quantity and quality of agricultural products.
- To provide information about nature of farming fields and then take action depending on the user's input.
- To give an IoT based advanced solution for monitoring the soil conditions and atmosphere for efficient crop growth.
- To monitor the temperature, humidity, soil moisture level, smart irrigation using NodeMCU and several sensors connected to it.
- To send a notification in the form of SMS to the user phone about environmental conditions of the field.
- To sustainably increase agricultural productivity and incomes.
- To design automated irrigation systems to ensure uninterrupted water supply even in the absence of farmers.
- To boost productivity by cultivating food more sustainably while also preserving the environment.
- To provide data to the farmers for rational farm management plans to save both time and money.
- To optimize the required human labor and to reduce the operational costs.
- To enable minimized or site-specific application of inputs,such as fertilizers and pesticides.
- To predict production rate of the crop artificial network use information collected by sensors from the farm.
- To enable precision agriculture systems that will mitigate leaching problems as well as the emission of greenhouse gas.
- To ensure increased reliability of spatially explicit data which helps in the reduction of risks.
- To apply dense networks of weather and climate data which allows the cultivation of crops in an optimal way.