PROJECT OBJECTIVES

TEAM ID	PNT2022TMID33440
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PROJECT TITLE	SMART FARMER - IOT ENABLED SMART FARMING APPLICATION

- Agriculture is an integral part of the Indian economy. Over 60% of Indian population based upon agriculture and one third of the income of nation arises from agricultural practices. Hence it plays a vital role in the development of the country. One of the most important factors that affect the production of the crops is the controlled management of water, also known as irrigation.

- The traditional methods which were used for irrigation are not very efficient and thus can't cope up with the needs and demands of the farmers. Secondly, the other problem which farmers mainly deal with is the different types of diseases that infect the crops.

- The objective of this project is to offer assistance to farmers in getting Live Data (Temperature, Humidity, Soil Moisture, Soil Temperature) for efficient environment monitoring which will enable them to increase their overall yield and quality of products.

- This smart agriculture using IoT system powered by NodeMCU consists of a DHT11 sensor, Moisture sensor, DS18B20 Sensor Probe, LDR, Water Pump, and 12V led strip. When the IoT-based agriculture monitoring system starts, it checks the Soil moisture, temperature, humidity, and soil temperature. It then sends this data to the IoT cloud for live monitoring.

- If the soil moisture goes below a certain level, it automatically starts the water pump.IoT in agriculture uses robots, drones, remote sensors, and computer imaging combined with continuously progressing machine

learning and analytical tools for monitoring crops, surveying, and mapping the fields, and providing data to farmers for rational farm management plans to save both time and money.

- The main aims of investing in IoT are to improve operations efficiency, improve product quality, and reduce the costs of production. The Agricultural industry is among the industries seeking to reap the benefits of IoT.

SMART FARMS
IOT APPLICATIONS IN AGRICULTURE