**SMART FARMING USING IOT**

**IDEA-1**

**Abstract:**

**• Watering crops is the most important practice and one of the labor intensive tasks in daily farming operation.**

**• It is difficult for farmers to predict suitable quantity of water at the appropriate time**

**• Inefficient use of water leads to excessive water consumption dedicated to plants. Moreover, farmers sometimes cannot predict a suitable level of water consumption.**

**Advantages:**

**• System security is high as standard protocols are used to connect with IBM cloud.**

**• provides 2 options for the user to monitor a app and a web based panel.**

**Disadvantages:**

**• No manual Controll support for the irrigation pump.**

**• No centerallised monitoring system if multiple pumps were used.**

**IDEA -2**

**Abstract:**

**• This project proposes the development of IOT enabled smart farming capable of detecting loss of moisture in soil using the soil moisture sensor.**

**• The proposed model consists of three stages: Firstly, sensing the land’s moisture levels.**

**• Second stage is the determination of its status: dry or wet. The last and third stage is Motor control.**

**Advantages:**

**• Can be calibrated after deployment as it is incorporated by design.**

**• Multiple sites can be managed by a single user via a single control panel.**

**• Historic data is stored for future analyis.**

**Disadvantages:**

**• Due to very basic implementation of IOT security is at risk.**

**• No calibration once deployed.**

**IDEA - 3**

**Abstract:**

**• This system starts to check the humidity and moisture level.**

**• The sensors are used to sense the level of water and if the level is below the range then the system automatically stars watering.**

**Advantages:**

**• Smart farming systems reduce waste, improve productivity.**

**• Enable management of a greater number of resources through remote sensing.**

**Disadvantages:**

**• IoT – smart farming continually requires internet connectivity.**

**• Most of the farmers are not aware of the implementation of IoT in agriculture.**