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| **Project Name:** Smart Agriculture using Iot enabled  **Date of Submission: 18/09/2022** | | | **Team Members**   1. Lokeshvar RG Lead 2. Poornisha CS 3. Priyanka S 4. Thanish S |
| **Problem Statement:**   * IoT-based agriculture system helps the farmer in monitoring different parameters of his field like soil moisture, temperature, and humidity using some sensors. * Farmers can monitor all the sensor parameters by using a web or mobile application even if the farmer is not near his field. Watering the crop is one of the important tasks for the farmers. * They can make the decision whether to water the crop or postpone it by monitoring the sensor parameters and controlling the motor pumps from the mobile application itself. | | | |
| Building IoT based Intelligent Farming Smart Farming has enabled farmers to reduce waste and enhance productivity with the help of sensors (light, humidity, temperature, soil moisture, etc.) and automation of irrigation systems. Further with the help of these sensors, farmers can monitor the field conditions from anywhere. Internet of Things based Advanced Farming is highly efficient when compared with the conventional approach. The applications of intelligent Agriculture solutions not only targets conventional, large farming. With operations, but could also be new levers to uplift other growing or common trends in agricultural like organic farming, family farming (complex or small spaces, particular cattle and/or cultures, preservation of specific or high-quality varieties, etc.), and enhance highly transparent Farming. | **Precision Livestock Farming:**  Cattle ranching can also be optimized with IoT technologies. Internet of Things devices allow each animal to be monitored and tracked individually, for health conditions as well as location.  To optimize beef production, the farmer can adjust the nutrition of each animal individually, as well as monitor the well-being of the animals and identify potential disease outbreaks.  This will help by allowing sick animals to be separated from the herd before the problem has a chance to spread, so as to treat the animal before its condition worsens. This helps farmers cut expenses on vets and regular checkups. | Agriculture Monitoring System  Real time health updates of livestock results in saving a huge sum as profit for the farmer. With the help of Livestock wearables, close monitoring of the respiratory rate, heart rate, blood pressure, temperature, reproductive cycles and other vitals can be monitored. At the first sign of illness or feeding problems, they can be segregated from the herd and start on the path to recovery.With the help of smart farming system, moisture and fertility of soil along with crops growth rate can be monitored remotely through real time animation and graphics via a smartphones. This helps the farmer make environmental variables and informed decisions for the farm.IoT in smart farming is not restricted to a particular section. Smart farming sensors can be placed right in the ground. There, it shall read and analysis the derived data and help improve farming practices. Primarily, the leaf to soil ratio and soil humidity help increase quantity and quality of the produce. Wearables for cattle are the best bet against poaching and cattle napping. | |