ABSTRACT

Agriculture is an ancient culture which is in practice from many years and is known to be one of the most significant economic activity, so it is considered as the backbone of India. Agriculture involves hard work and conscious efforts of a human being to modify a part of the earth's surface by cultivating crops. Irrigation is the main feature of agriculture for over 5,000 years and it is the product of many cultures that's why it is the "Heart of Agriculture". Irrigation means providing controlled amount of water to the plants at needed intervals. Since a little less than 2% of water exists as groundwater, wetlands, lakes, rivers and water found in the soil which is the key source of the water that we use for consumption as well as for irrigation. Irrigation not only helps to grow but also maintains the agricultural crops and soils in dry areas during the period of drought. In order to conserve water, we are using IOT, Machine Learning and Cloud Computing. Our intension behind this project is to grow a greater number of crops using less amount of water and a pledge to support our farmers. In order to fulfil these requirements, we are making use of two techniques namely, Drip and Sprinkler Irrigation. Our goal is to apply the water to the plants as uniformly as possible so that each plant has the amount of water it needs, neither too much nor too little. IOT has made everyone's life easy these days, so we want our farmers to utilize the emerging technologies of IOT for the betterment of their own as well as for our country. Trending technologies such as Cloud Computing, Android Application, OpenCV etc. are involved and the field activities will be handled by our robot, who is the "Heart of IrriServe".