IRRIGATEX

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The Food and Agriculture Organization (FAO) predicts the world's population will increase from 7.3 billion to 9.7 billion people by 2050 The demand for food is expected to continue to grow as a result both of population growth and rising incomes. Which will require global crop yields to increase by %70 to meet rising agricultural demand, The in-preciseness, and high expenses are delaying the development in agriculture. The demand for cereals is projected to reach some 3 billion tons by 2050. IRRIGATEX is a new smart solution not just to decrease the amount of unusable and damaged crops It occurs from the wrong cultivation methods, but also to increase the quality and the quantity of these crops, which is going to cause a new generation of agricultural. IRRIGATEX is a fully computerized automated system: Agriball, which is a small data collector, a small ball with a diameter of 15 cm, it's made up of 2 sensors: a) Soil moisture sensor b) Temperature sensor and ESP microcontroller for positioning and communication with the server for data delivery. Depending on the initial data (about the ideal condition for the plants to be planted on), and the previous orders taken by the system itself, it suggests action to improve the quantity and the quality. It uses Artificial Intelligence (AI) to predict the orders, actions, and suggestions are given as notifications in the mobile application to the farmers, workers, and these readings can be modified by decision-makers. Notifications will be sent to a mobile application, the application also contains User Interface (UI) for each sector in the farm and the current condition of the plants and the soil.

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