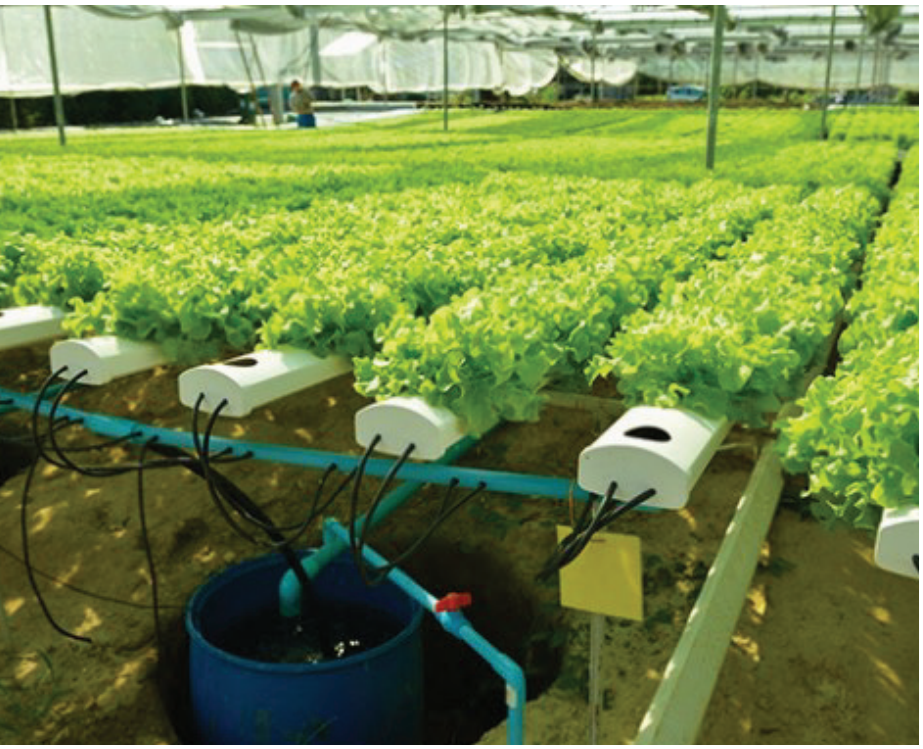
Krish Compusoft Services

IoT Integrated Mobile App Solution for Remote Irrigation in Israel

Case Study



Industry:	Agriculture
Deliverables:	Android & iOS App
Technology:	Android & iOS
Country:	Israel

Project Goal:

The following were the main project goals:

- To build a highly – efficient Water Management System for the Agricultural Process.
- Setup an automatic irrigation program to simplify the operations of water and fertilizer supply in the field from anywhere.
- To integrate the Mobile App with the IoT device present on the field.
- To create a remote solution to simplify the process of irrigation while reducing labour and time consumed while delivering accuracy.

Challenges:

- Manual process of irrigation was labour intensive.
- The client had to physically visit the field to carry out the process of water and fertilizer supply.
- Traditional method of irrigation was time-consuming.
- Conventional method was not that reliable to optimally use the resources.

> “Leveraged an IoT integrated automatic water and fertilizer management mobile app to simply create water distribution program. Our solution helped the client to manage their irrigation system remotely while meeting accuracy on their fingertips.”

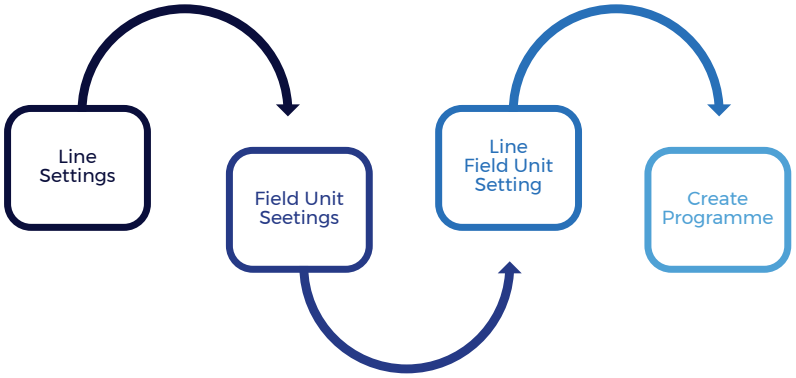
Features

- Line Creation
- IoT Device Settings
- Line Configuration with Field Units
- Map view
- Program Creation
- Program cycle with Weekly/Daily Repeats
- Automatic Leak Detection
- User Preferences
- Running Cycle Analytics
- iOT Device Connection with Wifi, Bluetooth & Cable
- Availability of Nearby Connections
- Program setting according to weather
- Multiple Line Support
- Alerts & Notifications

Solution

The client wanted an automation solution for the entire irrigation process. Our professionals delivered a stellar IOT integrated mobile app to the client in order to fulfill their requirements optimally. The app offered:

Field View: It allows the user to view the physical infrastructure of their water pipelines across their field along with the map view. It also allows them to view the progress of sufficiency level for particular lines.



Status: It shows the overview of the process cycle set by the user. It shows the status of water meter including current flow and overall flow.

Valve & Meters Setup: It helps in integrating the physical infrastructure of the farm with the IoT device.

Field Settings: It allows the user to define the physical infrastructure of their farm. It is highly customizable as per the user preferences. It includes number of lines and number of valves such as main valve, water meter, fertilizer pump, wind flag & water Flag. It also allows the user to set their irrigation preference as per time or volume, pulse value, high/low flow, flow stability, uncontrolled pulse detection, no pulse timeout as well as gallons/cubic meter units

Controller Setup: It allows the user to select the field unit, model and connection type as per the available devices in their field. It also allows the user to attach extensions.

Irrigation Program: The user can create the water and fertilizer distribution program according to their field defining the start time, end time, expected flow as well as weekly/interval repeats.

Other than this the app sends regular irrigation alerts and notifications to the users.

Result:

Our solution enabled the client with automatic irrigation while reducing labour. It resulted in more timely irrigation, assistance in the management of higher flow rates, and more accurate cut-off. It also reduced the runoff of water and nutrients. The user had the benefit of staying anywhere while controlling the field through the medium of an app.

At KCS, we tackle every project with passion as well as determination and strive hard to come up with innovative solutions to turn heads for our partners. We worked with the client to create a solution that was bold, bright, simple, and user-friendly. We partner with the leading technology providers in the world to offer the best solution to our clients.

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