



# YUKTIX TECHNOLOGIES

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IoT for Agriculture



# ABOUT YUKTIX

Yuktix is a DIPP (Department of Industrial promotion and Policy) recognized startup and a registered MSME working to create indigenous remote monitoring and sensor analytic solutions for agriculture.

## OUR MISSION

WEATHER  
PREDICTION



DISEASE  
PREDICTION



SAVE WATER  
IN IRRIGATION



INCREASE  
PRODUCTION



REDUCE  
LOSSES

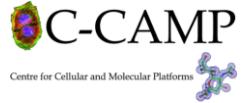




# ACHIEVEMENTS SO FAR



Yuktix was among the 11 startups which were selected by **BRINC Poland Prize** (Hardware & IoT) & Scale-Up (Industrial IoT) accelerator programs.



Yuktix is part of **second cohort of 14 Centre for Cellular and Molecular Platforms (C-CAMP)** Bio-startups under the Karnataka Bio-Startup Advancement Program (K-SAP BIO 50).



Yuktix was part of a **top 10 IoT startups delegation participating in CEATEC 2016**, the largest exhibition and trade fair for advanced electronics and IT in Japan. The trip was organized by METI (Ministry of Economy, Trade and Industry in Japan).



Yuktix was **runner up of India-Israel Innovation Bridge 2018** under the Agriculture Challenge 1: Solution for reducing post harvest loss and improving market linkage.



The Idea2PoC is a scheme of Dept. of IT, BT and S&T, Govt. of Karnataka. Yuktix **received a grant for developing wireless sensor network for agriculture monitoring** idea into a viable PoC (proof of concept)



Yuktix was **selected as one of the top 50 start-ups by NASSCOM under Emerge 50 2015** for Agriculture disease prediction system using IoT devices.



Yuktix **was part of the first cohort of Marico Innovation foundation** first agriculture focused program - #Innovate2Cultivate. Via the program, start-ups got access to farmers and their farms, business and investment opportunities.

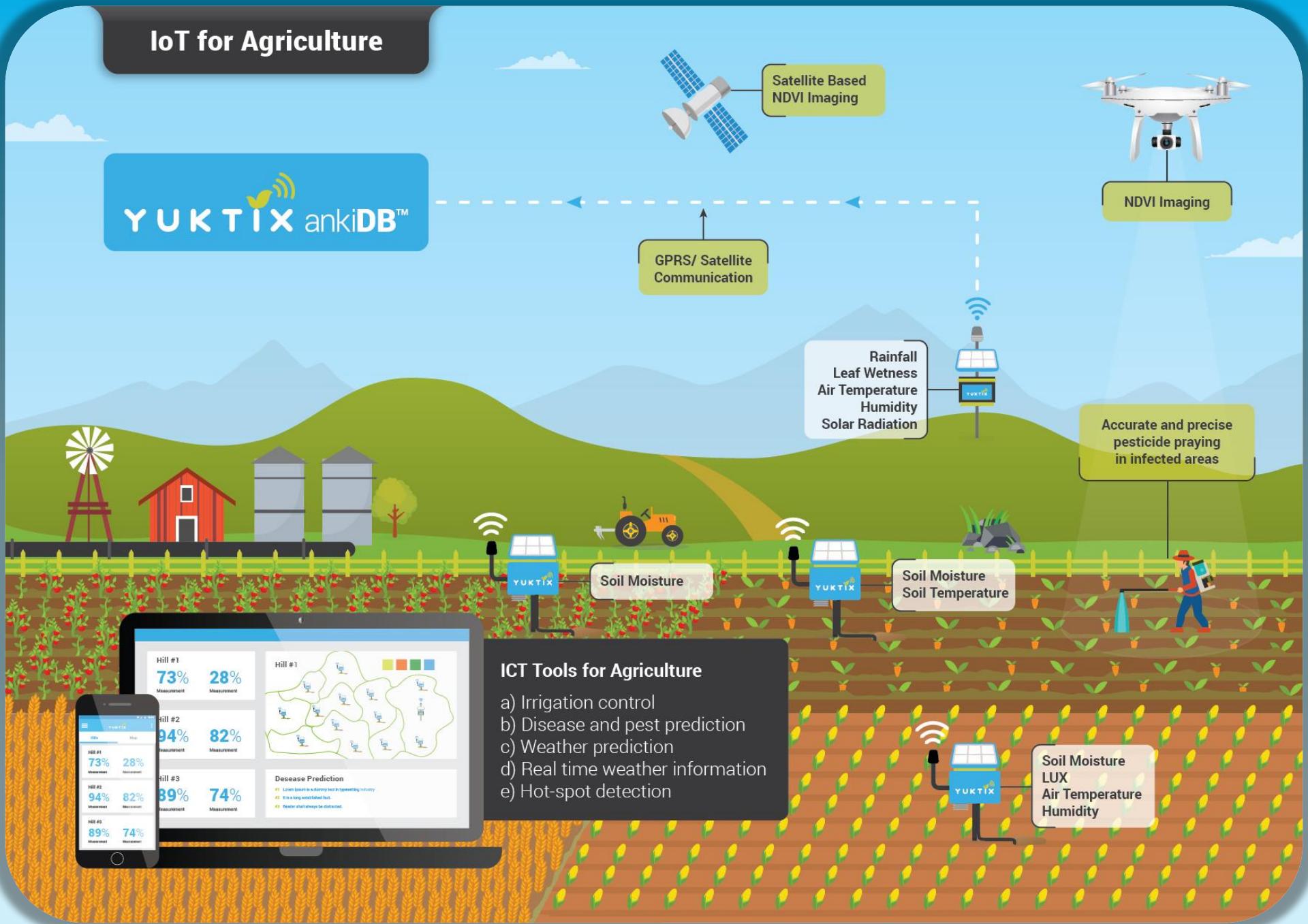


Yuktix was **runner up of India-Israel Innovation Bridge 2018** under the Agriculture Challenge 1: Solution for reducing post harvest loss and improving market linkage.

# MEDIA HIGHLIGHTS



# IoT for Agriculture





# WHAT WE DO?

We are creating sensors based Agri-intelligence systems to assist growers in increasing productivity and reducing resources to create a sustainable and food secure world.

- ▶ Creating Next Generation infrastructure to collect and analyse data from agriculture based sensors.
- ▶ Make Ubiquitous computing using sensors easy.
- ▶ IoT & Cloud based solutions.
- ▶ Low power hardware with provide modern networking and smart sensing.

## ❖ GreenSense Digital Assistant for farm Productivity and Risk Management.

- ▶ Next Generation Sensor platform – Proprietary IOT Hardware (ankiDB™ micro) & Software (ankiDB™ cloud).
- ▶ Devices and Sensors provide crop specific AI generating insights to reduce agriculture risks such as disease forecasting, watering forecasting, fertilizer requirement forecasting, plant water stress.



## Our Products

- Yuktix Solar powered Automatic Weather Station
- Yuktix GreenSense – for open field, Greenhouse and Smart irrigation
- Yuktix GreenSense dashboard for farms

# AUTOMATIC WEATHER STATION

YUKTIX TECHNOLOGIES PVT. LTD.

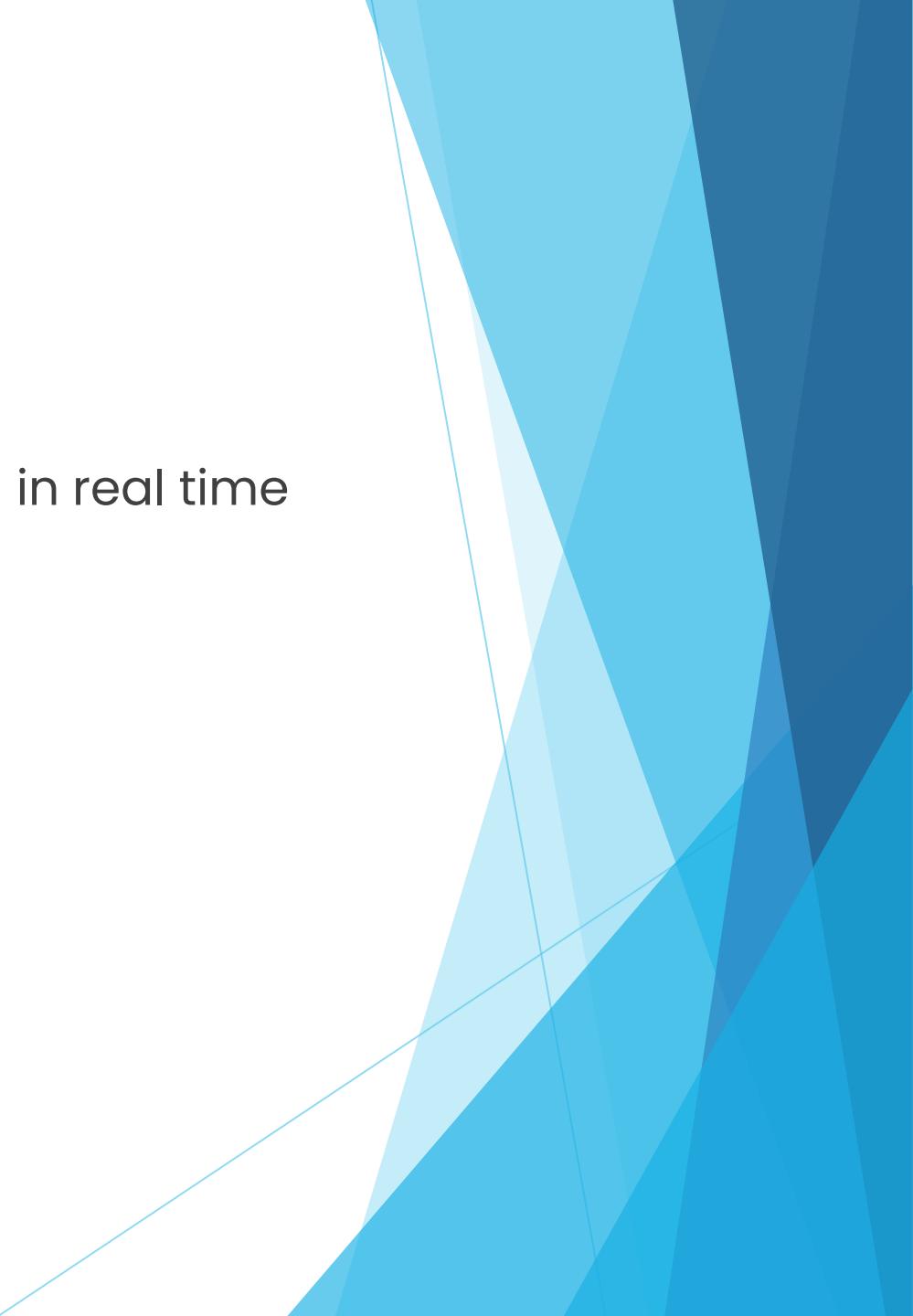




# DEVICE FEATURES

## AUTOMATIC WEATHER STATION

- ▶ Solar powered automatic weather station.
- ▶ Battery backup of up to 7 days.
- ▶ Best price reliability ratio.
- ▶ Easy to install and maintain.
- ▶ Best in class software with data, visualizations, reports, alerts.
- ▶ Create custom apps using REST API and Yuktix SDK.
- ▶ Sensors with calibration certificates



## ❖ DEVICE FEATURES

- ▶ Hourly, daily and weekly trends
- ▶ Daily, weekly reports and raw data download
- ▶ Dashboard access for multiple users to get data in real time
- ▶ See multiple stations on one dashboard
- ▶ Email and SMS alerts
- ▶ Disease prediction models
- ▶ Irrigation and crop advisory
- ▶ REST API for custom app development

## ❖ EQUIPPED SENSORS



Rainfall



Temperature



Pressure



Solar Radiation and Lux



Leaf Wetness



Soil Moisture and Soil  
Temperature



Relative  
Humidity



Wind Speed and Wind  
Direction





## AUTOMATIC WEATHER STATION





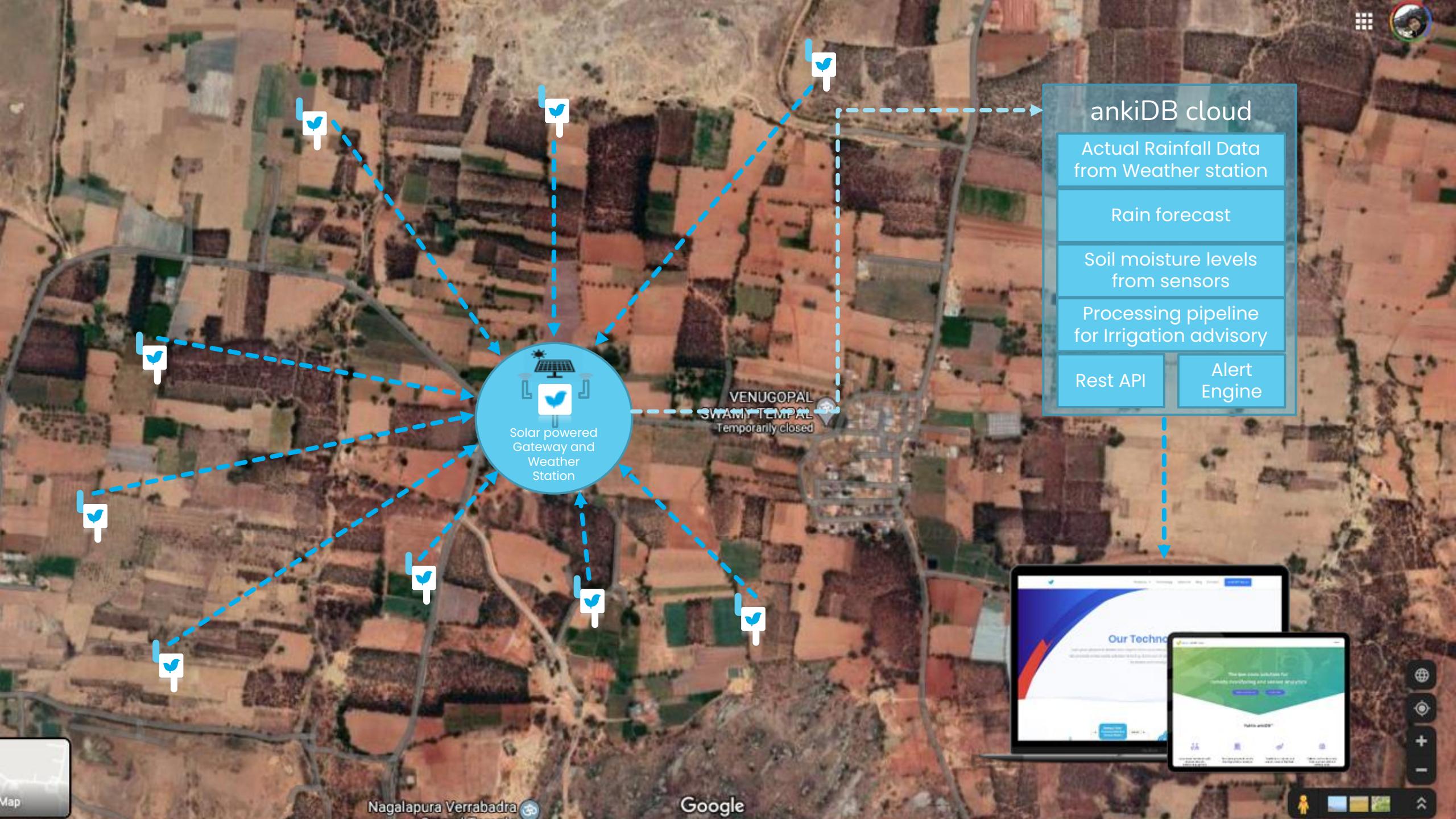
**YUKTIX GREENSENSE**  
**OPEN FIELD MONITORING**  
**& SMART IRRIGATION**



## FEATURES

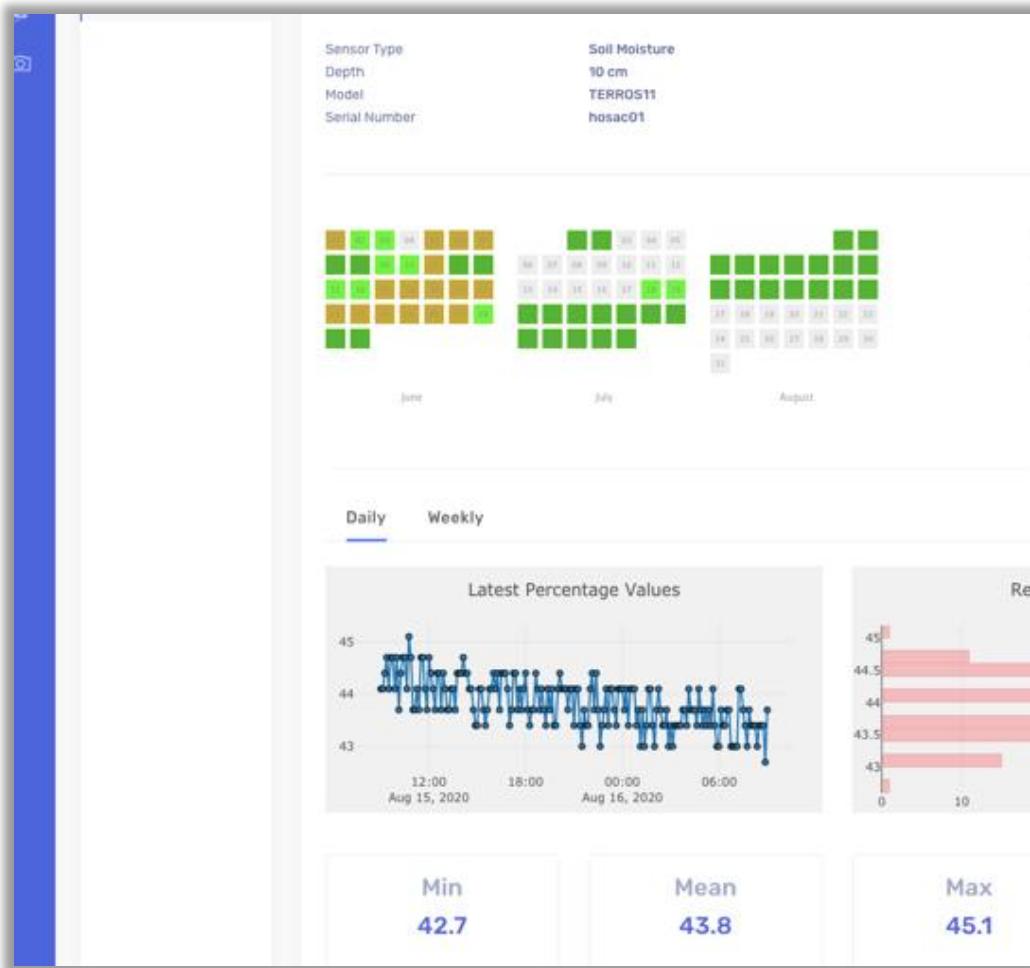
- ▶ Solar powered wireless device with battery back-up.
- ▶ Easy to install, maintain and operate.
- ▶ Weather Forecast (Next 5 days, 3 hour)
- ▶ Crops – Horticulture Crops, Orchards and Plantations
- ▶ Sensor (Temperature, Humidity, Soil Moisture Sensor)
- ▶ Disease forecast (ex – Powdery, downy mildew, leaf spot, anthracnose and development of new models, add indigenous knowledge)
- ▶ Irrigation advisory and planning.
- ▶ Image capture and Analysis
- ▶ GreenSense – Wireless sensor network – deploy multiple with Yuktix solar powered wireless gateway (LoRa).



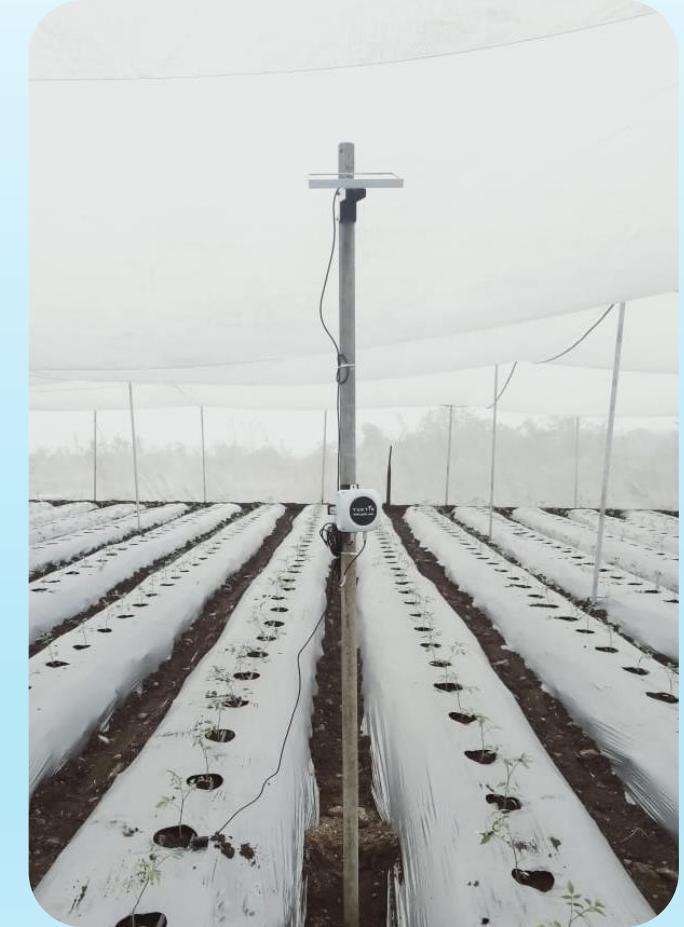




# IRRIGATION ADVISORY



# Yuktix GreenSense for Green House







# FEATURES

- ▶ Weather Forecast ( Next 5 days, 3 hour )
- ▶ Crops - Capsicum, Cucumber, Tomato, Flowers Disease forecast
- ▶ Sensor - Temperature, Humidity, Soil moisture and Lux.
- ▶ Irrigation advisory
- ▶ Image capture and Analysis
- ▶ Data analytics, reporting and notification over SMS and email
- ▶ Data download



# YUKTIX GREENSENSE - DASHBOARD

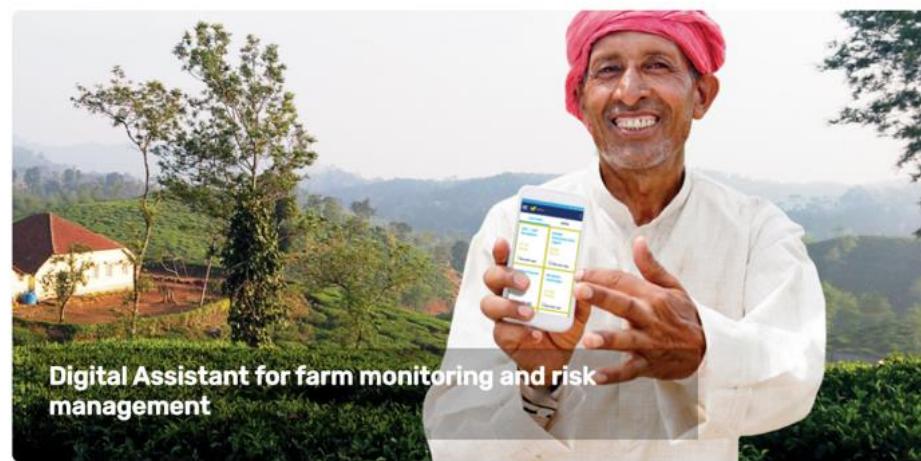
**Yuktix GreenSense™ Sign In**

Email

Password

**Sign In**

**Sign in with Google**



**Digital Assistant for farm monitoring and risk management**

Yuktix GreenSense is an off grid remote monitoring and analytics solution for agriculture. GreenSense nodes with dashboard provide an effective tool for monitoring and DPI (Disease, pest, and irrigation) management.

24x7 Monitoring of critical variables at your farm using Yuktix next generation wireless sensor devices.

Reduce losses, increase productivity and manage risks using GreenSense platform.

ankiDB™ cloud © Yuktix Technologies

 ankiDB™ cloud

hosachiguru MV

[Home](#) [Hosachigru Bristlecone](#)



**Hosachigru Bristlecone**  
Bristle Cone, Teak Plantation

Penukonda, Hindupur, Andhra Pradesh  
📍 14.049694, 77.453426  
2020-08-12 04:54:56



weather forecast



irrigation advisory



soil health



kamera app

**Farm Sensors**

Hosachiguru Bristlecone Project

**28.0** Celsius

13-Aug-2020 04:54:56, maxtemp

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**Hosachigru Bristlecone**  
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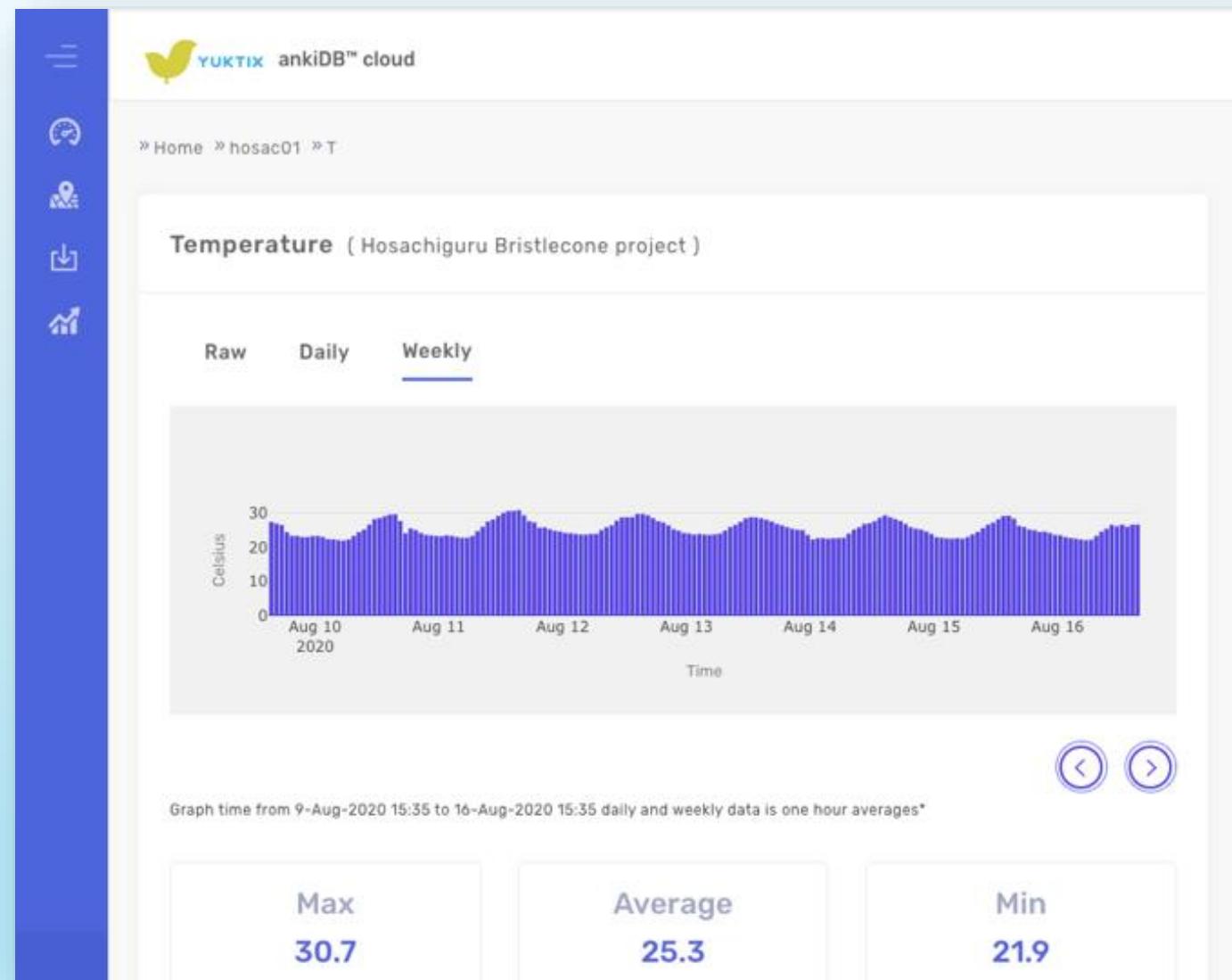
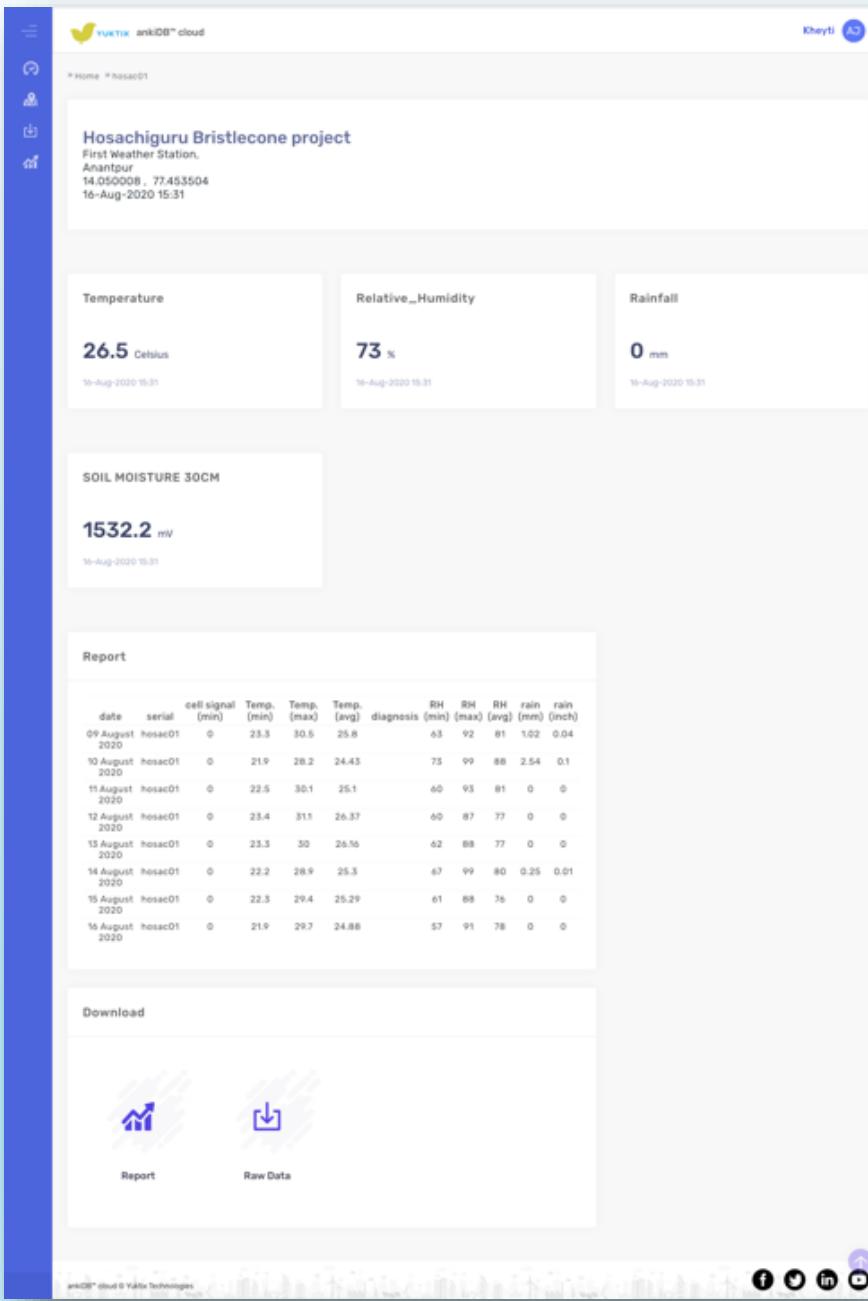
**Hosachiguru Eco Habitat**  
Eco-Habitat Project, Kadri Hindupur Road

Nandamuri Nagar, Chalivendala, Andhra Pradesh, 515331  
📍 13.887798, 77.588247  
2020-08-12 04:54:37

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ankiDB™ cloud © Kultix Technologies



# 🐦 RAW DATA DOWNLOAD

The screenshot shows a user interface for downloading raw data from a weather station. At the top, there's a yellow bird icon and the text "YUKTIX ankiDB™ cloud". Below that, a breadcrumb navigation shows "» Home » gvaws03 » raw download". On the left, there's a vertical sidebar with icons for a menu, profile, location, download, chart, and user.

The main area displays information for "GV Weather Station 03" located at "Bafta campus AWS, 10-Aug-2020 5:48". A large blue circular button with a white downward arrow icon is positioned next to the station name. To the right is a calendar for August 2020, showing dates from 26 to 31. The date "9" is highlighted in blue, indicating it is selected as the start date. The end date is set to "2020-08-16".

Below the calendar, there are input fields for "Start Date" (containing "2020-08-09") and "End Date" (containing "2020-08-16"). There are also "Get download link" and "Cancel" buttons. A note below the dates provides instructions:

- Click 📅 icon to select a date.
- The start of a day is assumed to be from 9 am.
- End date cannot exceed 30 days from start date
- The browser time is August 16th 5:25 PM

At the bottom, a footer reads "ankiDB™ cloud © Yuktix Technologies".

# IRRIGATION ADVISORY

Sensor Type  
Depth  
Model  
Serial Number

Soil Moisture  
10 cm  
TERROS11  
hosac01

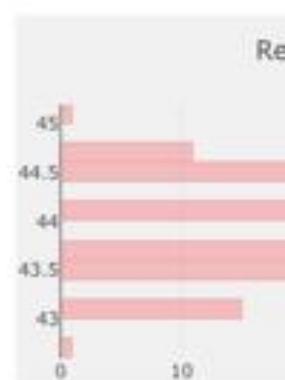
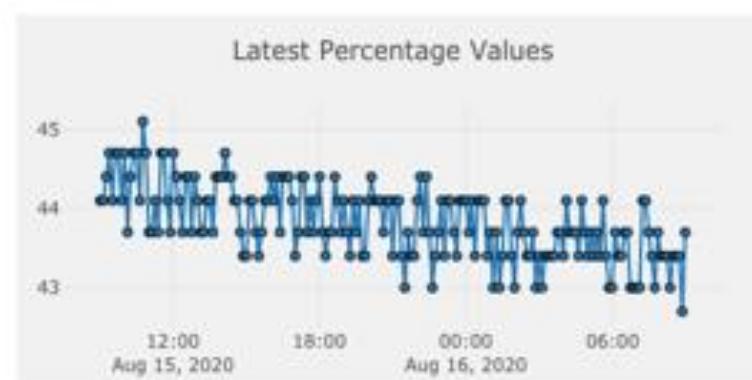


June

July

August

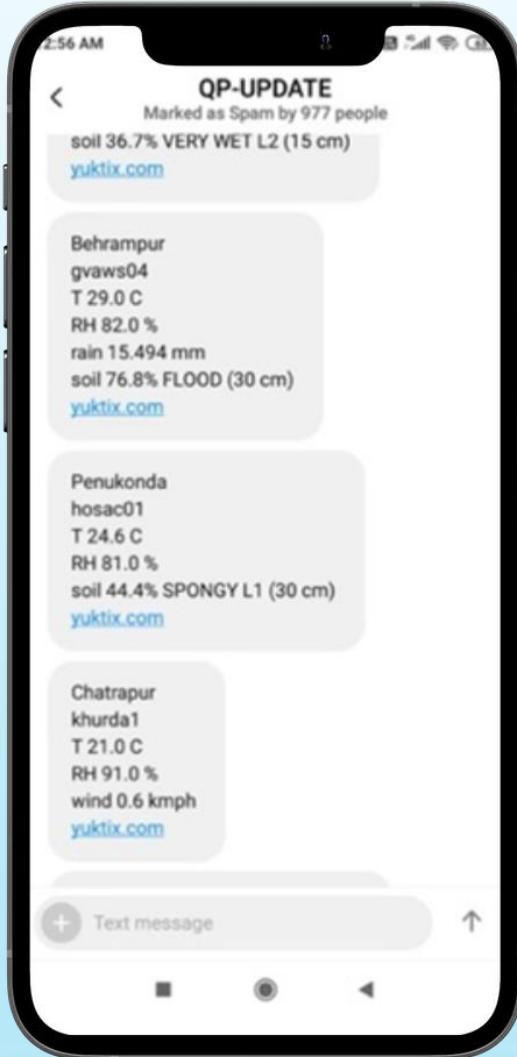
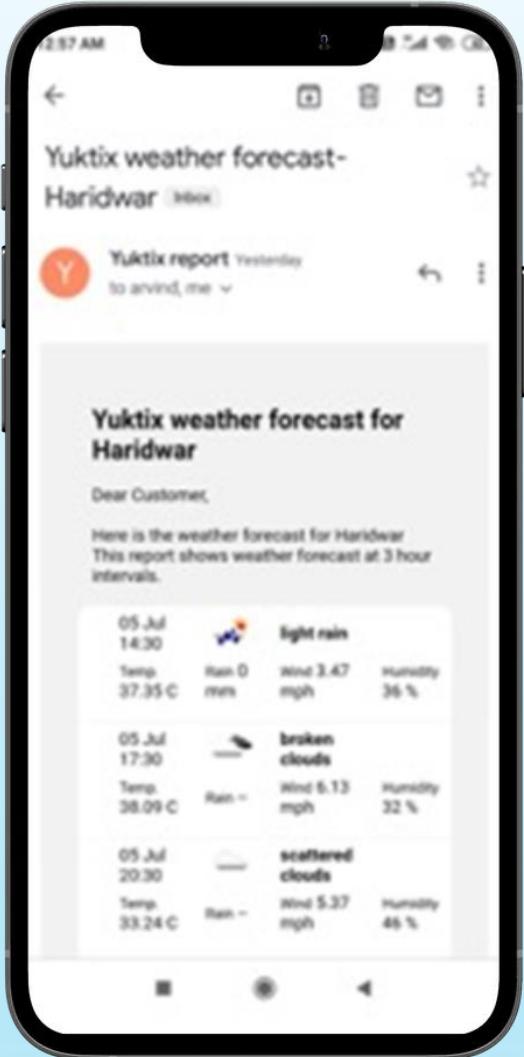
Daily   Weekly



Min  
**42.7**

Mean  
**43.8**

Max  
**45.1**



## ❖ Irrigation advisory for Cotton farmers co-operative

- Problem – Cotton is a water intensive plant. Water stress can lead to low produce output. In a drought prone region like Kadapa, there was no way to measure the soil moisture and provide irrigation advisory in real time to a cotton farmers.
- Solution – Yukti deployed GreenSense nodes with soil VWC ( Volumetric Water content ) sensor and micro-weather station in individual plots of farmers. Based upon the current moisture in soil and weather forecast, advisory was delivered to farmers on their phone. The same data was also made available to the organization we were working with
- Location – Kadapa, Andhra Pradesh



## 🐦 Digital Agronomist for Tribal Grower Productivity

- ▶ **Problem** – With changing climate, there is no digital input for tribal farmers to use climate smart agriculture practices. Farmers produce is effected by changing land patterns, rainfall and excessive use of pesticide and insecticide.
- ▶ **Solution** – Deployment of a network of Yuktix micro-weather station to collect data from different remote location, use existing indigenous knowledge, combine it with research and provide a digital tool which can distribute crop specific advisory to a group of farmers and NGO working with farmers.
- ▶ **Location** – Odisha
- ▶ **Installations** – 10





# OUR TEAM



**Rajeev Jha**

**Founder**  
IIT Kanpur, IIM  
Bangalore

19+ experience in  
software domain  
Ex-Oracle, Citrix,  
AOL and couple  
of other startups



**Shailendra Singh**

**Co- Founder**  
UPTU

8+ experience in  
embedded domain  
Previously worked in  
Thinvent, Silverline  
design



**Dr. BNS Murthy**

**Advisor**  
National  
Horticulture  
Mission of India  
Principle Scientist  
at Indian council of  
Agriculture  
research



**Dr. Sridhar**

**Advisor**  
Indian council of  
Agriculture  
research,  
Bangalore.



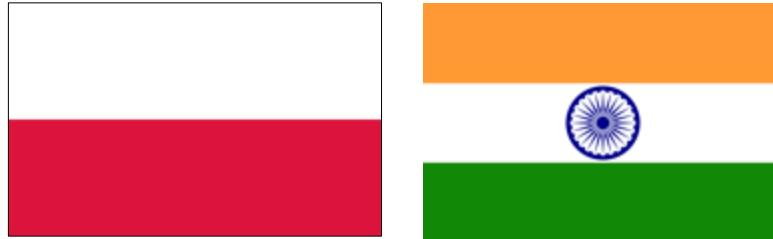
**Girish Kshrisagar**

**Advisor**

Ex-Bayer. Agriculture  
Industry Expert with  
30+ years of  
experience.

# 🐦 CONTACT US

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