# MAWARID INTELLIGENT IRRIGATION TECHNOLOGY COMPANY PROFILE

2024 009-P-EYE-PRE-MIIT\_VISION-A



PROTECTING THE ENVIRONMENT SHOULD NOT BE SEEN ONLY AS AN ISSUE FOR THE GOVERNMENT AND OFFICIAL AUTHORITIES, BUT AS A CONCERN TO ALL OF US.

H.H. SHEIKH ZAYED BIN SULTAN AL NAHYAN, FOUNDING FATHER OF UNITED ARAB EMIRATES (MAY GOD HAVE MERCY UPON HIM)





# **WHO WE ARE**

Mawarid Intelligent Irrigation Technology (MIIT) is a leading company in the field of Smart Irrigation System Technology.

We're here to help farmers save water on a global scale while boosting their productivity and yields. Our clients get access to a unique Artificial Intelligence (AI) technology that analyzes plant needs in real-time. Using an advanced algorithm, we process live data from plant, soil and weather sensors, turning it into practical irrigation advice and actionable agronomic insights.

## VISION

+ Digital solutions to help improve every irrigation decision made in the GCC.

## **MISSION**

+ To improve water use efficiency on a regional level in the GCC by optimizing water usage and improving yields.

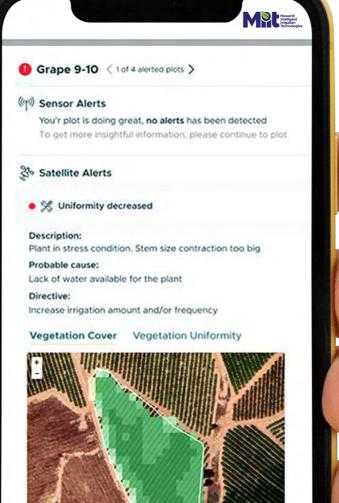
# **AI DRIVEN IRRIGATION IN THE PALM OF YOUR HAND**

UP TO **50%** WATER SAVING

•••

# UP TO **35%** HIGHER YIELDS

## **REDUCED LABOUR** COST (\$)





Find out more Vegetation cover map displays the spatial distribution





**OF YOUR HANDS** 









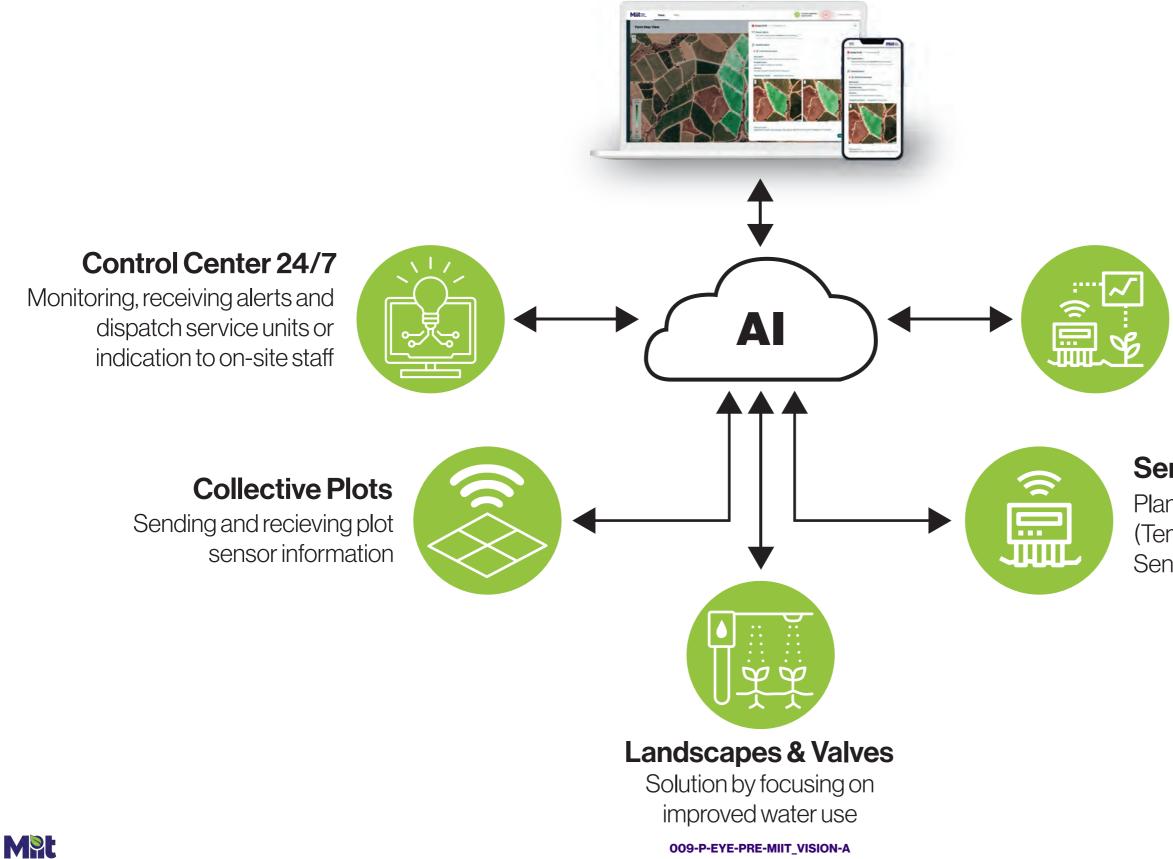
# **INNOVATION IN THE PALM**

4

# **HOW DOES IT WORK?**

#### Growth-Based Irrigation (GBI) means autonomous Irrigation.

Data from the soil, climate and plant sensors are analyzed by MIIT's cloud-based algorithms to provide smart irrigation decisions.



## **GBI System:**

AI & Alogrithms for precise irrigation

#### **Sensors:**

Plant & Fruit Sensors, Air (Temperature and Humidity) Sensors and Soil Sensors



## **HOW IT WORKS**

Artificial Intelligence (AI) analyzes live data and translates it into irrigation recommendations and actionable insights. It is also able to predict plant behavior by analyzing real life data.



#### **PLANT GROWTH SENSORS** Plant sensors precise incremental monitoring of fruit growth in three diameter ranges.



## **SOIL MOISTURE**

Measure a constant dielectric medium using capacitance and frequency domain technology



## **CLIMATIC CONDITIONS**

Weather staions measure temperature, humidity, radiation, wind, and precipitation



## **ARTIFICIAL INTELLIGENCE**

Data from the soil, climate, and plant sensors are analyzed by MIIT's cloud-based algorithms to provide smart irrigation decisions.





## WHAT IT DOES FOR YOU







**REDUCED CARBON FOOTPRINT** Efficient water management leading to reduced carbon footprint



**IMPROVED YIELD & CROP QUALITY** 30% increased yields and improved quality of crops from the first season



Controlled plots with real time data User-friendly dashboards and weekly preview charts



prevention, detection and fixing.



#### **EXTREME WEATHER PROTECTION** Protected crops from extreme weather

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#### **REALTIME DATA & CONTROL CENTER**

#### **OPERATIONAL COST REDUCTION**

Labor, management and consultancy cost saving, leaks



## **SENSOR TYPES**



#### **Fruit Sensor**

- + Precise incremental LVDT-based sensors
- + It monitors fruit growth
- + Oblong fruits in three diameter ranges



### **Dendrometer for Trunk Radius**

- + Measures changes in trunk diameter
- + Dendrometers track how plants respond to their environment

## **Leaf Temperature Sensor**

- + Measures the absolute temperature of a leaf
- + The lightweight stainless steel wire clip holds a

## **Soil Sensor**

- + Measures a constant dielectric medium using
- clay soils) and substrates

## **Weather Station**

- and Precipitation Sensors
- without feature calibration

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high-precision glass encapsulated thermistor

capacitance and frequency domain technology + Suitable both for mineral soils (sandy, loamy, and

+ Measures temperature, Humidity, Radiation, Wind, + Plug-and-log capabilities, simple, and ready to use



# Immediate warning on any equipment issues

# Real time easy to read metrics



## **MIIT's CONTROL CENTER**







## **AGRICULTURE & IRRIGATION ALERTS**

Real time alerts generated from plants, weather or irrigation equipment/system

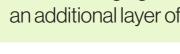


#### **DISPATCHING RESPONSE UNITS** Professional teams in mobile units will respond to the

system alerts.



#### **SATELLITE VISUAL MONITORING** Satellite imaging of the sites on a daily base provides an additional layer of monitoring







24/7 real time site and system monitoring service

Upon Client request we can offer access and

# PORTFOLIO







## **Project Spotlight 1: SEH AL SHARQIYA DATE PALM FARM**

This project had underwent rigorous scientific testing at Seh Al Sharqiya date palm farm, with remarkable results. Water use efficiency was improved by more than **85%**, which lead to higher yields and less water consumption.

LOCATION Al Ain, United Arab Emirates

**CLASSIFICATION** Pilot Project

**STATUS** System Installed Successfully Monitoring & Maintenance Ongoing

ROLE Intelligent Irrigation System Installation

PARTNER Mawarid Services Company LLC

BUDGET Confidential





## **Project Spotlight 2: AL SALAMAT FOREST AREA**

Al Salamat Forest irrigation system was successfully transitioned from a traditional manual system to a complete fully automated Intelligent Irrigation Technologies system in line with advanced precision agriculture.

LOCATION Al Ain, United Arab Emirates

**CLASSIFICATION** Pilot Project

**STATUS** System Installed Successfully Monitoring & Maintenance Ongoing

ROLE Intelligent Irrigation System Installation

PARTNER Barari Natural Resources LLC

BUDGET Confidential



## Project Spotlight 3: BIDA SAIF FOREST & DATE PALM FARM

The forest and date palm farm integrated the advanced precision agriculture system to allow decreased irrigation water consumption and higher yields. The intelligent Irrigation System installed at Bida Saif has proven effective results on fruit and non fruit trees alike.

#### LOCATION

Madinat Zayed, Abu Dhabi-Western Region, United Arab Emirates

CLASSIFICATION

Pilot Project

STATUS

System Installed Successfully Monitoring & Maintenance Ongoing

**ROLE** Intelligent Irrigation System Installation

**PARTNER** Barari Natural Resources LLC

**BUDGET** Confidential

# Thank you.



#### **Mawarid Intelligent Irrigation Technologies**

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بــراري لــلــمــوارد الــطــبــيــعــيــة BARARI NATURAL RESOURCES

