MIMOS Smart Control Panel (Mi-SCP)

A control and measuring system to track and manage plants health and needs in greenhouse, nursery or even open field, designed in such a way to ease the installation and integration into existing or new environments. The integration of wireless technology in a smart environment becomes beneficial when cost and maintenance are the main concern among operators.

Overview

MIMOS Mi-SCP is an intuitive menu driven touch screen control panel lets you easily program, remote controls, adjust settings/threshold as well as sensors monitoring that can turn a greenhouse, nursery or open field into a smart Internet of Things (IoT) self-regulating system equipped with micro-climate-controlled environment for optimal plant growth. It is designed to meet the demand of fully automated greenhouse for researcher or commercial use regardless of greenhouse sizes and locations. Mi-SCP is a reliable system at a fraction of the cost towards IR4.0.

Features

Mi-SCP comprises the following features:

- **Real-Time Data Acquisition**
  Real-time sensor data acquisition and data graph plot for up to nine sensor parameters. Currently supports four-parameter graph plot, ambient temperature, ambient humidity, light intensity and CO2 gas sensor.

- **Automated Threshold Adjusts and Scheduling**
  Four greenhouse parameters can be controlled according to sensor readings. Misting control is based on ambient humidity sensor, thermal screen is based on light intensity sensor, circulation fan and ventilation fan are based on ambient temperature sensor.

- **Touch Screen Display**
  10.1-inch capacitive touch screen display with USB interface for data retrieval.

- **Easy Interface**
  Easy interface to greenhouse AC distribution box (DB).

Technology Benefits

The main impacts of Mi-SCP are:

- **Automated Environment**
  The variables important for crops success such as, temperature, humidity, light, soil moisture is continuously monitored. The automated actions evaluate change and take corrective action thus maintaining optimal conditions for plant growth.

- **Integration to Mobile Application for Remote Monitoring**
  A visual administrator dashboard mapped to mobile phone for ease of use and ability to manage and monitor the sensors and devices.

Technology Summary

Mi-SCP

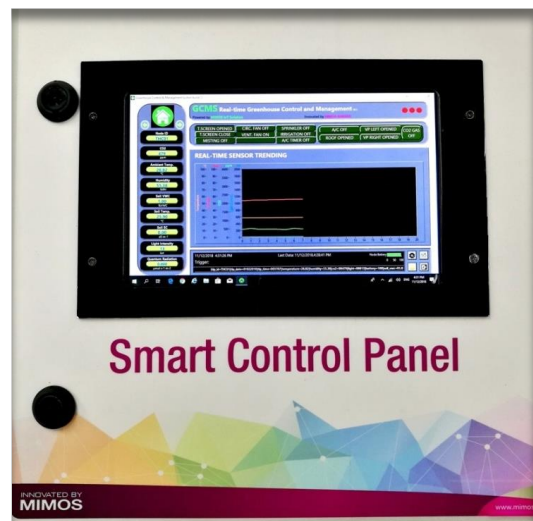A control and measuring system for tracking and managing plant health.
Industries: Agriculture, Aquaculture

Features

- Real time data acquisition
- Automated threshold adjusts and scheduling
- Touch screen display
- Easy interface

Technology Benefits

- Automated environment
- Integration to mobile application

MIMOS Mi-SCP dashboard

Specifications

Mi-SCP	
Product Specifications	
Processor	Intel Celeron J3455 (2M Cache, 2.3GHz)
Memory	4GB DDR3 RAM 256GB SSD Drive
WiFi Wireless Communication	Intel Wireless-AC 3168 802.11b/g/n, 100Mbps, 2.400GHz~ 2.835GHz, WP/WPA2 security, WEP/TKIP/AES
Network Protocol	HTTP Json, Proprietary MSCAN frame
Wired Communication	USB-RS485 3-wire internal, surge protected
Control Parameter	Schedule/automated
Operating Temperature	0 to 55°C
Operating Humidity	0 to 90%RH (non-condensing)
Output Control	16-channel, Configurable via text file
Output Rating	Dry Contact, Normally Open, 30V 5A max
Power Requirement	240VAC,50Hz, 50W
Overall Dimensions (WxHxD)	400x400x200 (mm)

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