



## Real-time environmental information



Air



Water



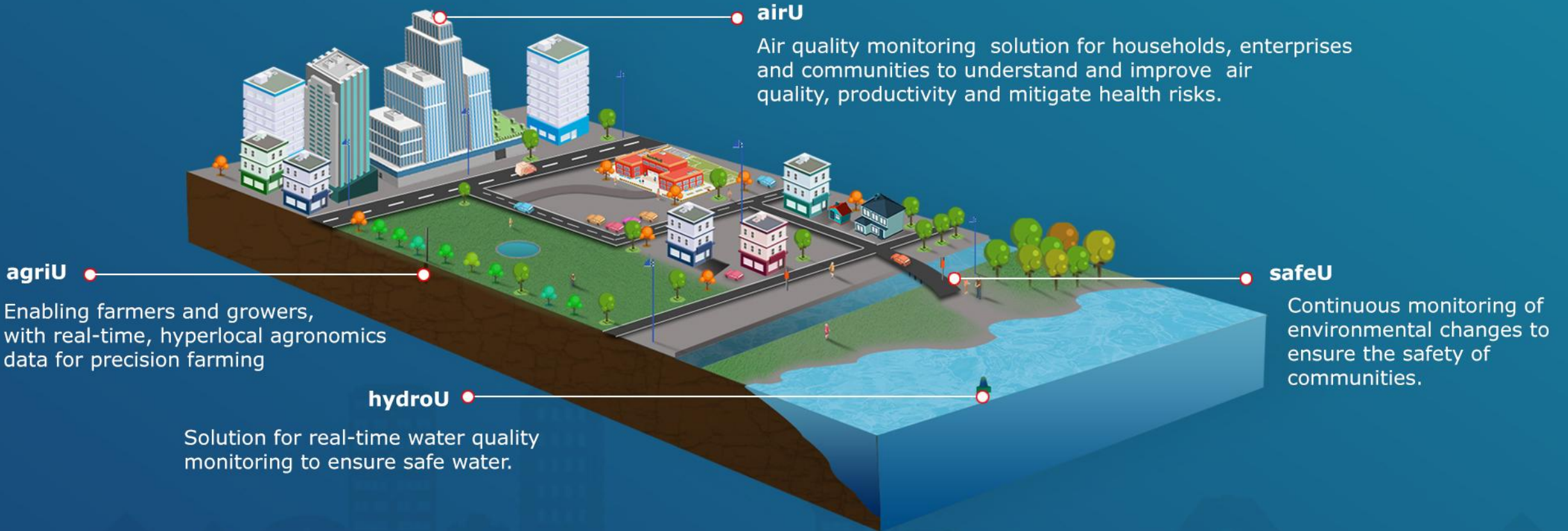
Soil



Habitat

# IOT BASED ENVIRONMENTAL MONITORING SOLUTIONS

Ergonomically designed IoT solutions to remotely and continuously monitor various environmental parameters on a real-time basis



# SOLUTIONS OVERVIEW

Solutions catering to Air, Water, Soil and Habitat

Air

airU



Water

hydroU



Habitat

safeU



Soil

agriU

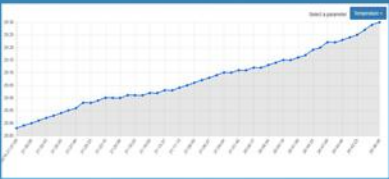


ACQUIRE

An intuitive IoT software platform to analyse data and view real-time information



Dashboard



Analytics

IoT Suite

ANALYSE

Enabling stakeholders to take actions based on artificial intelligence



Cognitive Decision Making

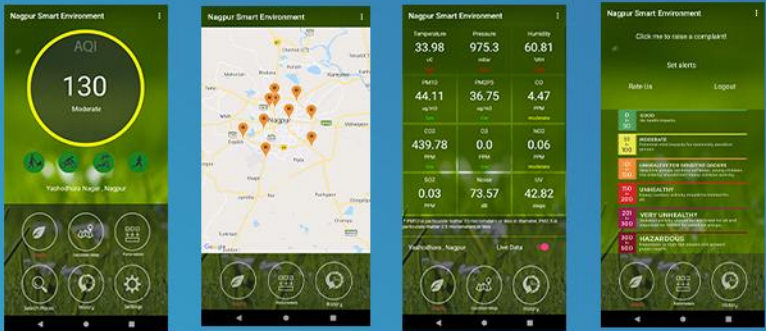


Health Risk assessment

ACTIONABLE INTELLIGENCE

Instant hyperlocal information and alerts for quick actions

AWARE

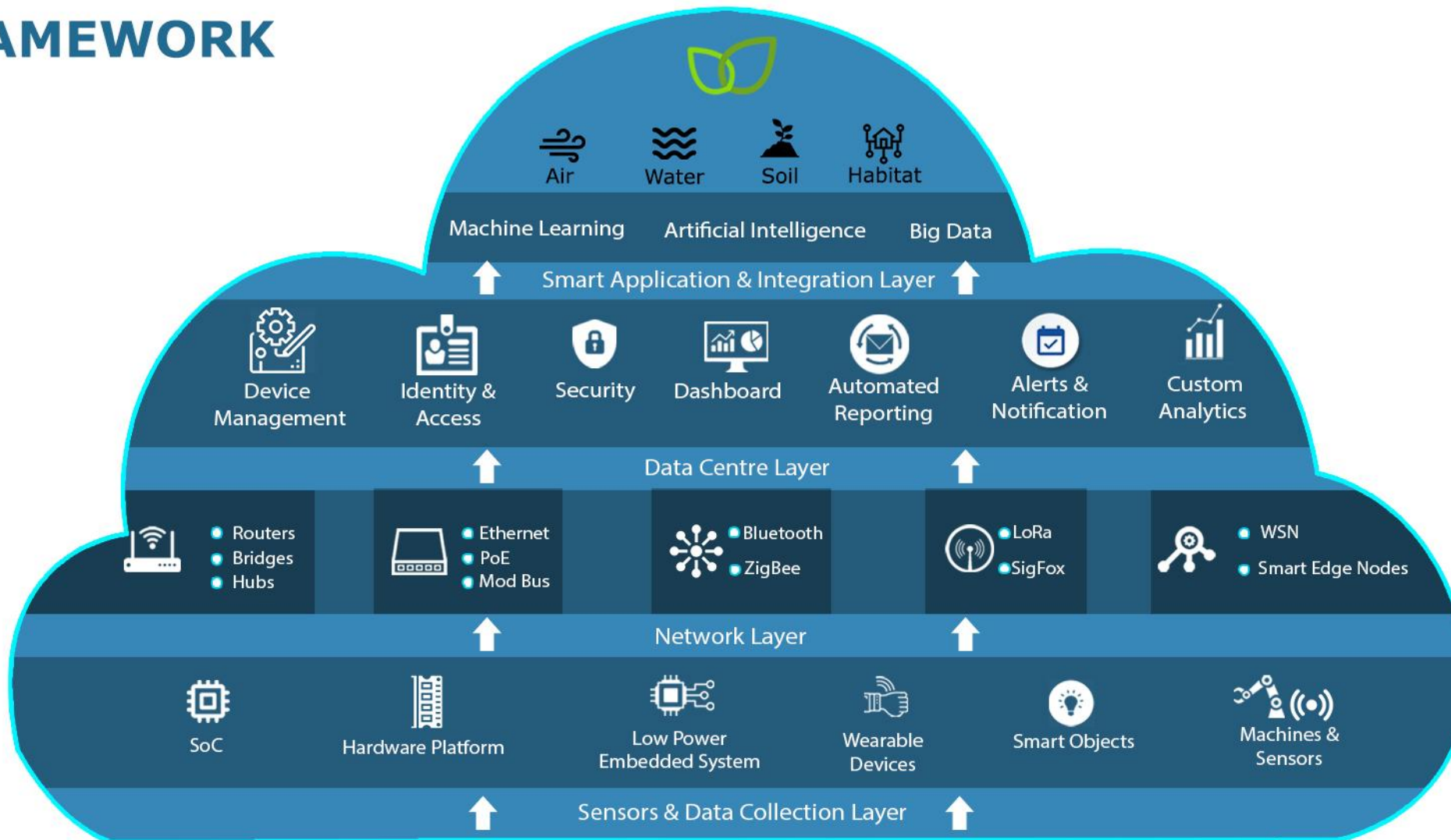


Mobile App



# IoT FRAMEWORK

Private & Confidential



- Scalability - Scalable to provide continuous growth to meet the growing requirements.
- Availability - Provisions for high availability for services.
- Security - End to end security model that protects data.
- Manageability - Ease of configuration, ongoing health monitoring, and failure detection.
- Interoperability - Interoperable with other ICT systems via API.

# Solutions



Air

airU



Water

hydroU



Soil

agriU



Habitat

safeU



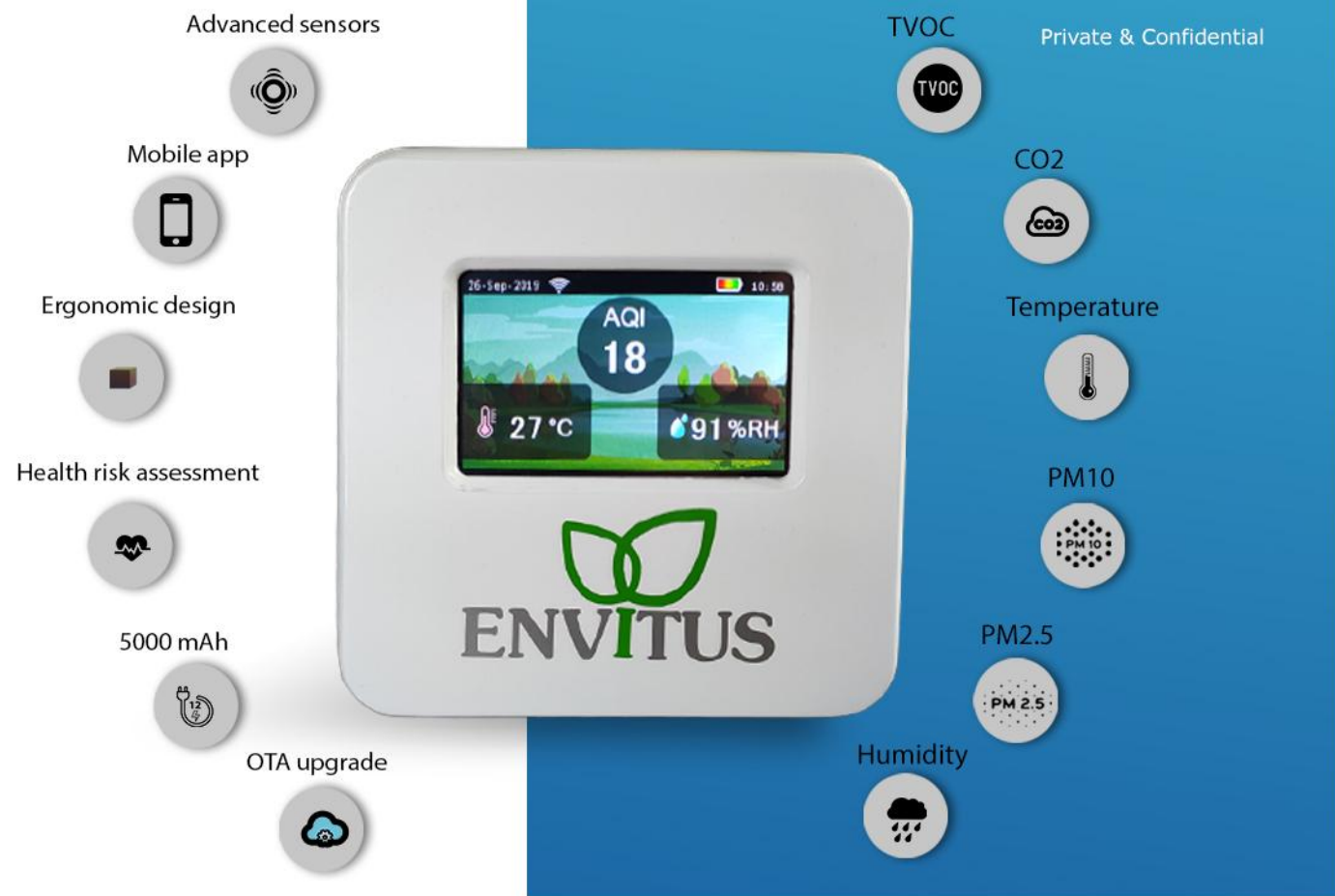
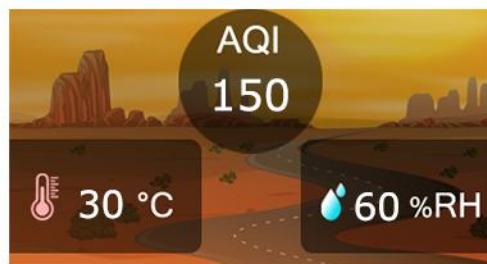
# airU

## Indoor

airU Indoor is a portable air quality monitor that gives instant insights on the ambient conditions and the air you breathe. Elegantly designed to help to understand the health risks associated with air quality.

### Keeping everyone safe

Indoor identifies pollutants in the surrounding air that affect human health. A smartphone app will provide you with personal insights on your local air quality.



### Application Areas

	Home		Party
	Hotel		Kitchen
	School		Automobile
	Office		Storage Room



# airU

## Ambient

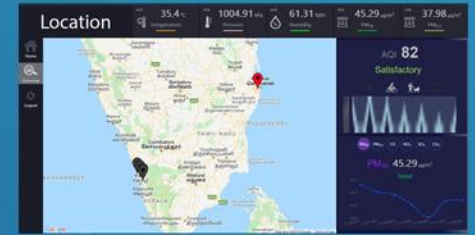
airU-Ambient identifies, monitors and creates awareness on air pollution from natural and anthropogenic sources. Solutions enable people and communities, panchayaths, cities and countries to continuously monitor real-time air pollution levels, to develop solutions and policies for healthier tomorrow and to create widespread macro level and hyperlocal environmental awareness among people.



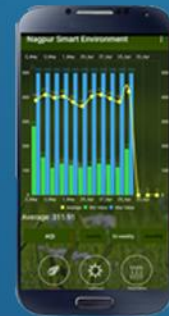
### Features

- Real time information
- Continuous measurement
- Compact & portable
- Easy to install
- Calibrated
- Theft Resistant
- Weatherproof- IP certified
- Power Supply Options

Private & Confidential



- Intelligent Analytics
- Forecasts & Trends
- Community Wide View
- Custom Reporting



- Realtime Notification
- Personalized Alerts

## PARAMETERS MONITORED



NOISE  
LIGHT  
PRESSURE  
HUMIDITY  
TEMPERATURE



CO<sub>x</sub>  
NO<sub>x</sub>  
SO<sub>x</sub>  
H<sub>2</sub>S  
O<sub>x</sub>  
AsH<sub>3</sub>  
C<sub>6</sub>H<sub>6</sub>  
NMHC  
NH<sub>3</sub>



UV  
RAIN  
WIND SPEED  
WIND DIRECTION  
IRRADIANCE  
RADIATION  
HAIL

## Application Areas

-  Smart City
-  Burning / incineration sites
-  Airport
-  Tunnel & Street
-  Residential Zones
-  Factories/ Industrial Zones

## Connectivity



LoRa  
Sigfox



GSM Data



Zigbee  
6LowPAN



Ethernet



WiFi



PoE





hydroU solutions enable people and communities to continuously monitor real-time water quality , to ensure safe water. These portable monitors can be easily deployed and installed in and around different waterbodies to enable various stakeholders to make informed decisions.

### Continuous and real time water quality monitoring

- ORP
- Temperature
- Total dissolved solids
- Dissolved Oxygen
- Turbidity
- pH
- BOD
- COD

### Connectivity options for existing and new wireless network infrastructure

- GSM
- LoRa
- Sigfox
- Wi-Fi
- ZigBee

### Supreme User Experience with advanced features







- Data Management
- Predictive Analytics
- Alerts and Reporting
- Advanced Security

### Features

- Monitor multiple parameters at the same time
- High quality, rugged sensors
- Battery powered for remote locations
- Cloud based software included
- Data Logger



### Application Areas

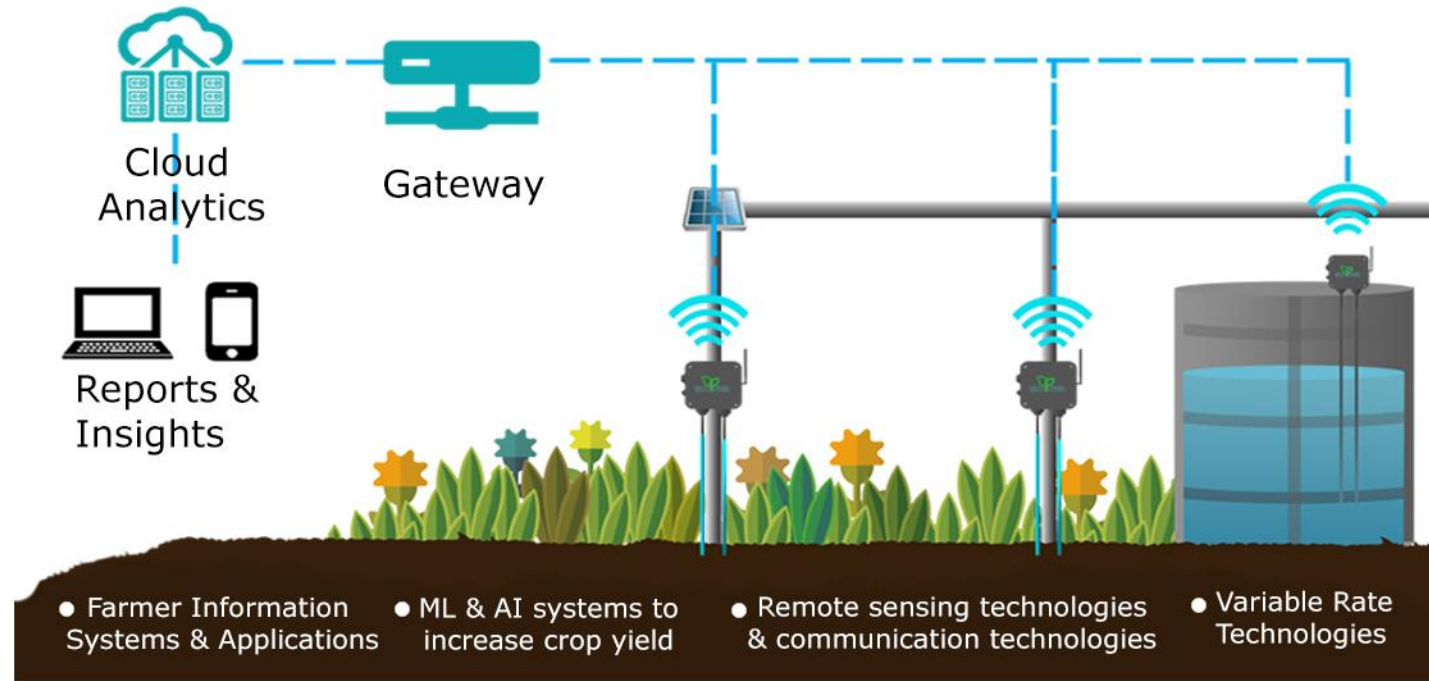
-  Sewage Treatment Plants
-  Factories/ Industrial Zones
-  Water Distribution Networks
-  Dams
-  Irrigation Distribution Networks
-  Residential Area Overhead Tanks



agriU is an elegantly designed, and a cost effective hyperlocal solution for precision farming. agriU is an IoT based solution to ensure profitability and sustainability of farms. agriU sensors collect real-time data about crops, soil, water, ambient air and weather to provide farmers with real-time decision making information.



Agricultural control centre software platform is powered with Artificial Intelligence and Machine Learning algorithms to integrate sensor data and other relevant data to provide actionable intelligence to farmers. This information can also be used to integrate and automate other sub systems such as irrigation, pest control, fertilization, etc.



## Application Areas

- Farming
- Crop Management





safeU enables people and communities, panchayaths, cities and countries to continuously monitor real-time changes in weather, rainfall, water levels to ensure the safety of communities from disasters.

For the safety of citizens and quick response of emergency services, safeU emergency response systems such as Panic buttons, SOS buttons and emergency call boxes are deployed at chosen sites. Various parameter such as the location of the event, time of the event, etc, are instantly send to multiple response teams, such as police, ambulance, hospitals, etc.

## Subsystems



Emergency Call Box



Weather Station



Panic Button



Flood Monitoring System



Weather Station is a holistic high performance weather station with advanced sensor technology. Weather Station is easy to install and fully customisable to your meteorological parameters requirement.



**Weather Station**



LoRa  
Sigfox



GSM



Zigbee  
6LowPAN



Wi-Fi



**Flood Monitoring**

Flood monitoring is a holistic solution to remotely monitor water levels and access information via the internet on a real-time basis. The system sends instant notifications via SMS, Email or Push notification when the predefined liquid level is reached.

## Features

- LoRa / GSM (4G / 3G / 2G )
- Solar Powered
- Pole or Bridge mounted
- Max range 3 ft to 50 ft.
- Ingress Protection (IP) 68

# safeU



**Emergency Call Box**

## Features



Rugged & Reliable



World-Class User Experience



Superior Sound Quality



Instant Alert



**Panic Button**

Our range of panic buttons has been ergonomically designed. A fixed panic button allows the user to alert "help" with one simple button press.

## Features

- |                                   |  |                      |
|-----------------------------------|--|----------------------|
| ● Instant alert                   | ● SMS Alerts                                 | ● GPS Location       |
| ● Waterproof enclosure            | ● Quick Response                             | ● Web and mobile app |
| ● Wireless and Wired connectivity | ● Auto-switching between Ethernet & Wireless | ● Remote alarm RESET |

**THANK YOU**