KarIoT®

AI & IOT ENABLED SMART WATER MANAGEMENT SYSTEM

Digitize & Smartly operate your water Infrastructure

Sustaining the *Elixir of Life*

Atal Mission for Rejuvenation and Urban Transformation 2.0

agnii IGNITING IDEAS

START-UP STARS AWARDS Winner

startupindia SEED FUND SCHEME

Problem Statement

We have systematically identified water management problems that impact revenue and sustainability.

55 %
of households lack access to drinking water

90%
of the water used in agriculture is due to poor irrigation systems

600M +
People face high water stress

70%
of freshwater sources are contaminated.

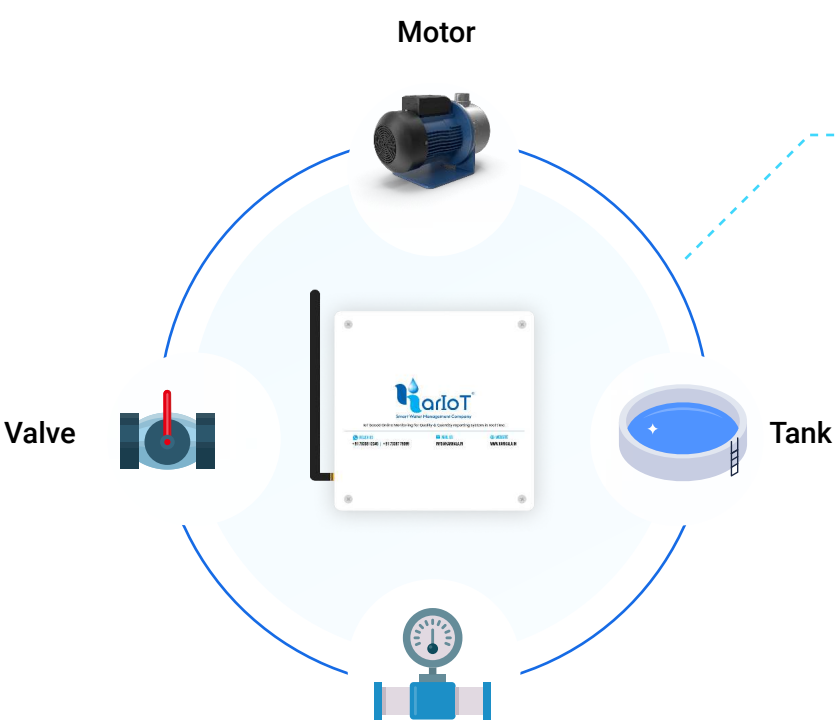
by 2030
demand will double that of the supply

8%
of rainwater is stored

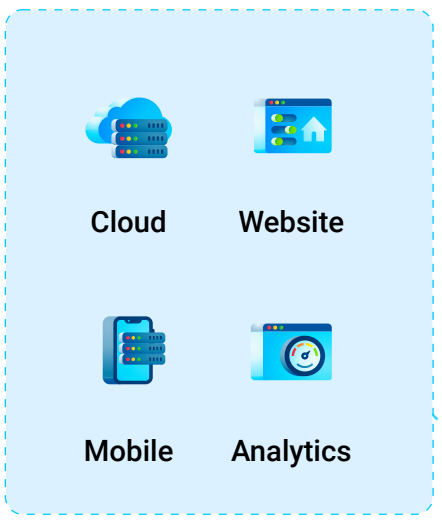
- Over exploitation of water
- Zero-loss Preventive Measures
- Lack of Data Transparency
- Scarcity of Quality Water
- Higher Cost Investment

KarIoT an Intelligent Solution

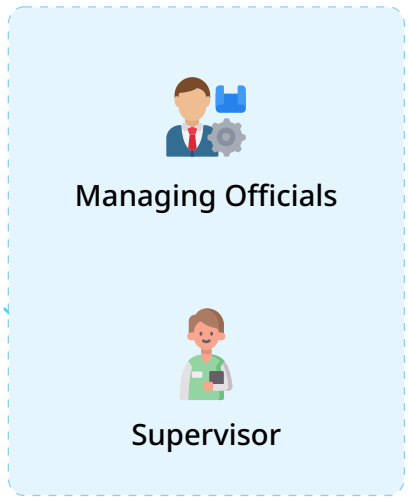
MONITOR	MEASURE	MANAGE



Auto-operate motor, tank, pipeline and valve functions remotely



Real-time recording of data, accessed via smart devices



Remotely manage water systems without physical intervention

We Provide services to

1 Government Sector

KarIoT provides 360° view of the supply and distribution of water system. Govt. officials can make informed decisions to ensure correct LPCD is provided with the required quality of water

Customizable Dashboard

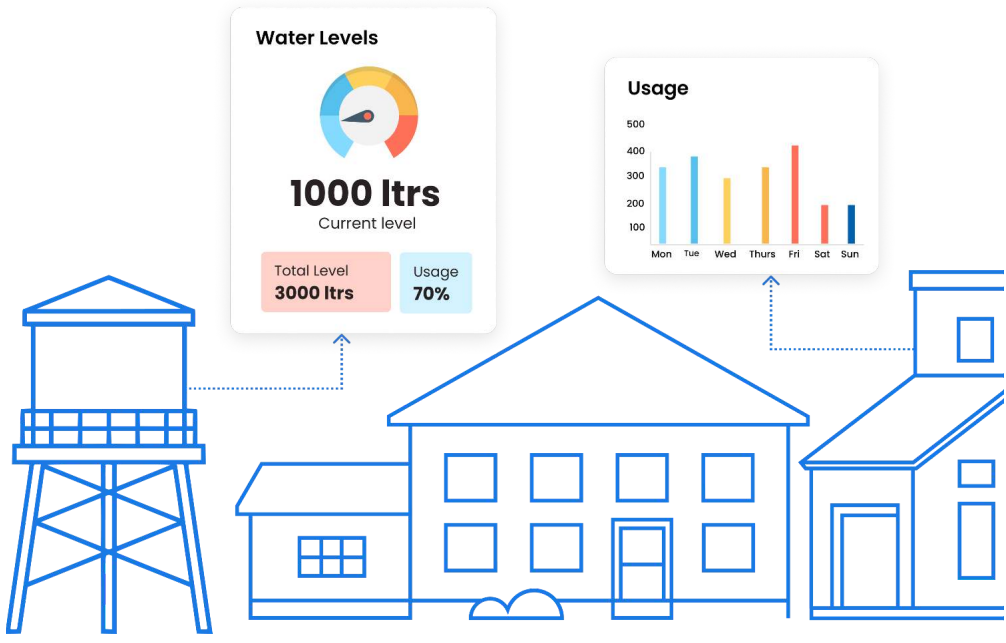
Key KPIs can be instantly analyzed via graphical and pictorial reports, depending on customized problem statements or use cases.

Remote Operations

No manual intervention is required. The entire city's water distribution can be viewed, operated, and managed remotely.

Real-time Alerts

Location-wise triggers can be identified and alerted for leakages and overflows; thereby reducing the overall downtime, and wastage.



2 High Rise Building

Gated communities and individual homes can leverage metered water usage, reduced energy consumption and ensure a continuous water supply

Pay-Per-Usage

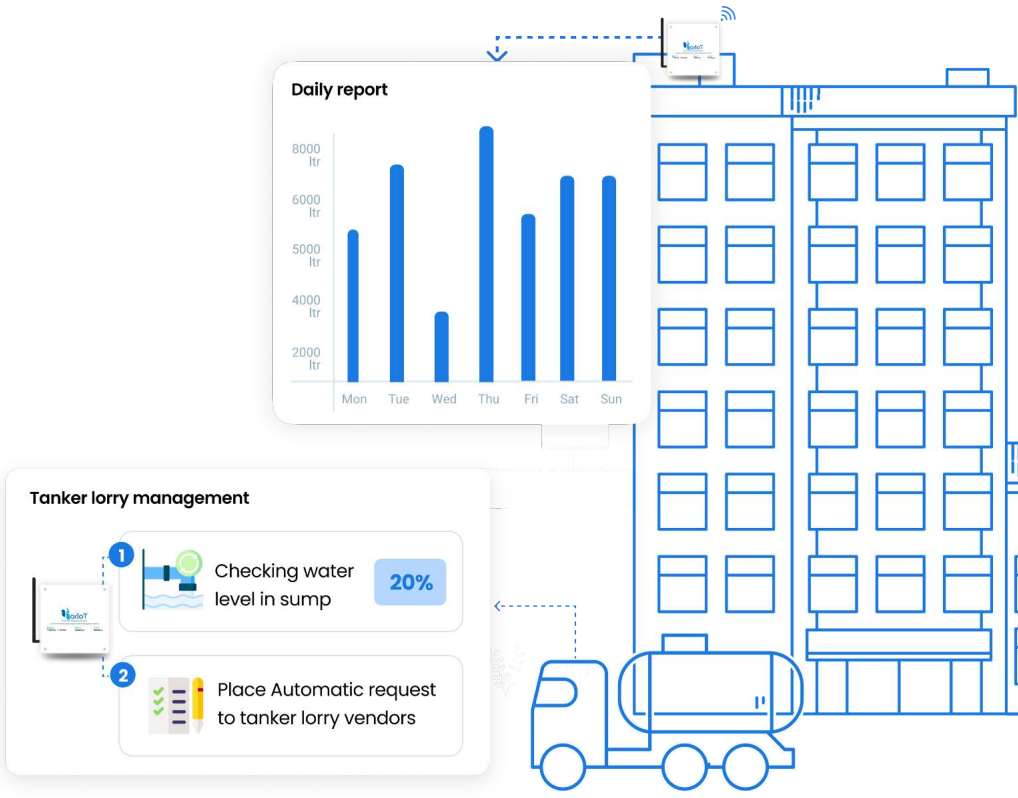
Automatic bill generation as per consumption of every houshold.

Automatic Tanker Lorry Management

Monitor, manage and automate processes involved in procuring and receiving tanker water.

Motor & Valve ON-OFF

Remotely operate and control valves, check overhead tank level and automatically schedule ON/OFF actions.



We provide services to

3 Industrial

Industries can ensure smooth operations with high efficiency and reduced downtime. No manual readings with auto-report generation and remote operation.

Energy Audit & Analysis

Monitor and audit inlet and outlet functioning of treatment plants - STP, WTP, & ETP.

Water Quality Monitoring

Measure pH, TDS, BOD, COD, Nitrate, Chlorine, etc., and trigger notifications instantly.

Increase Productivity

Reduce downtime due to failures and save operational expenses upto 30%.

4 Commercial

Hassle free maintenance and management of water system on a mobile and web device. The Building Manager can operate with reduced manpower and enhance the efficiency of water usage.

Smart Water Consumption & Distribution

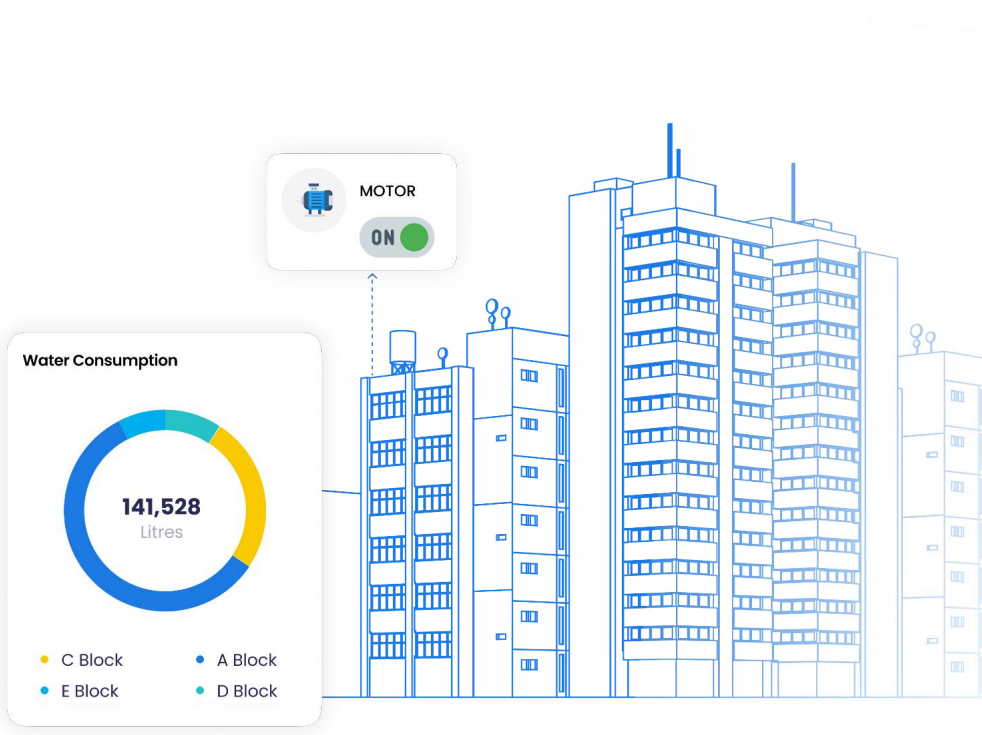
Remotely monitor, analyse and get daily report of the water consumption, level, pressure and quality of the water.

Instant Alerts on Device

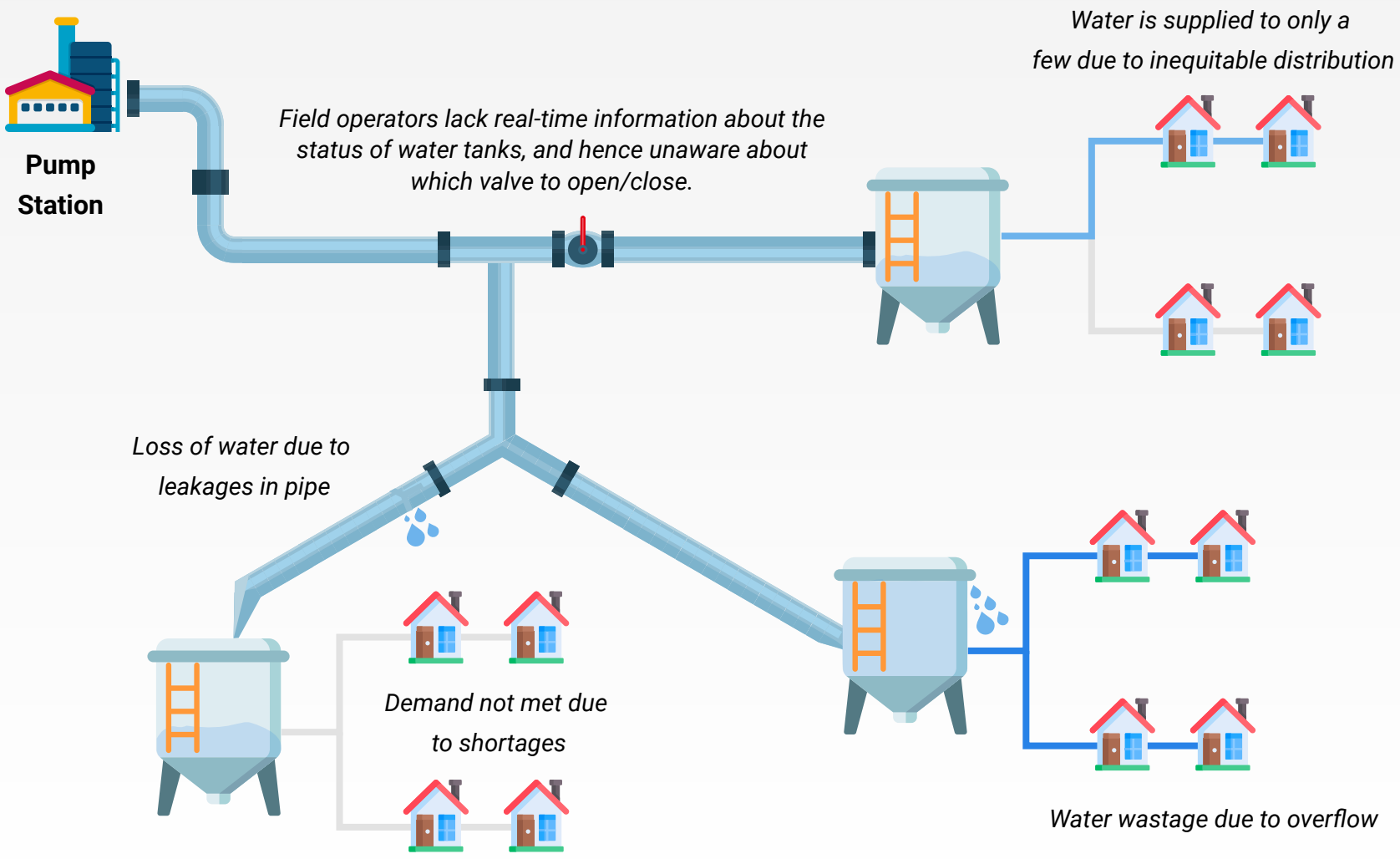
Provide real-time alerts, get notified on water quality fluctuations, and reduce water leakages/overflows.

Sustainability/ Green Building Management

Optimize energy efficiency, cautious water usage, and generate less wastage.



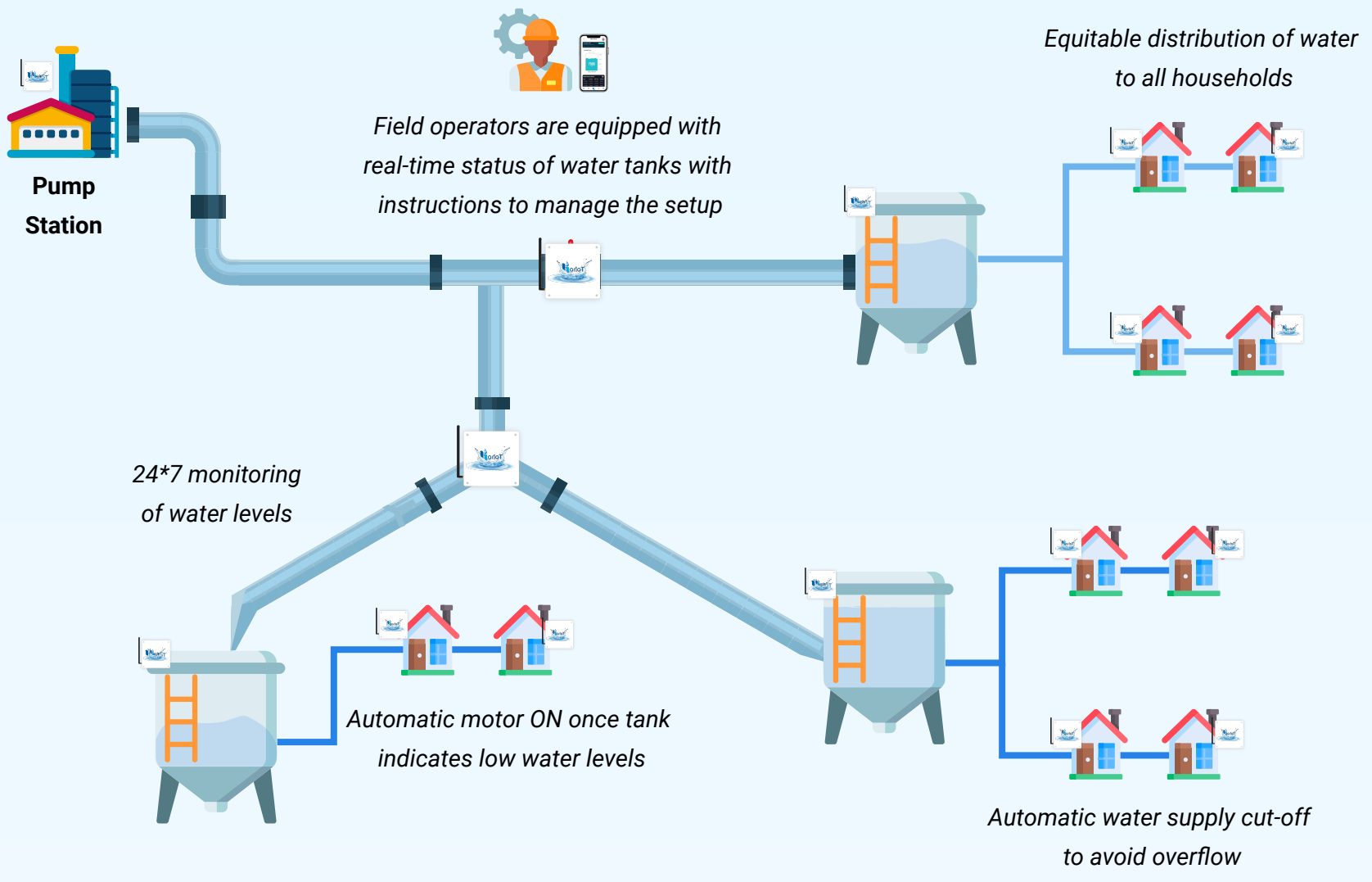
Current Scenario



Use Cases (Municipality)

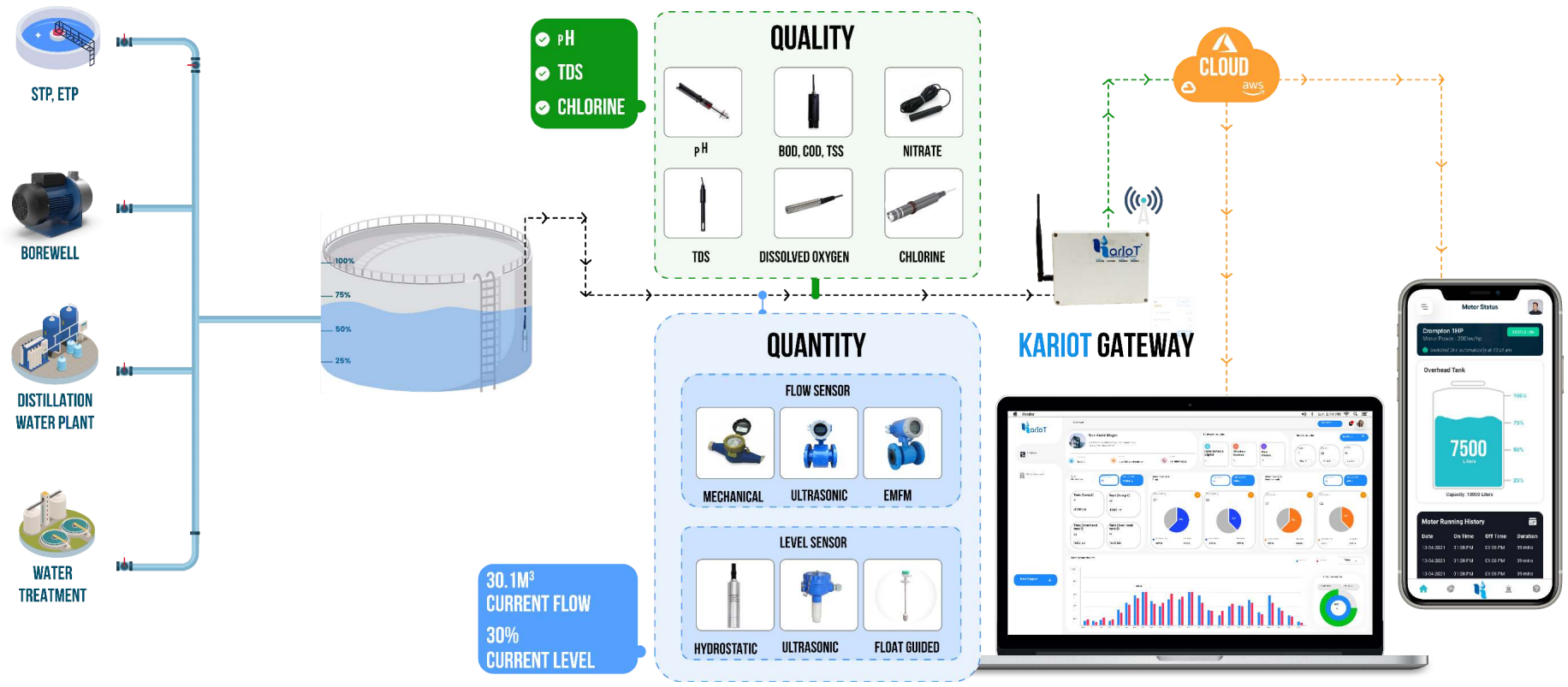
Remote monitoring and operation of pumps

KarIoT Device KarIoT App



Product Architecture

KarIoT's solution is customized to resolve a number of problems in various sectors, leveraged with curated dashboards as per specific users' requirements.

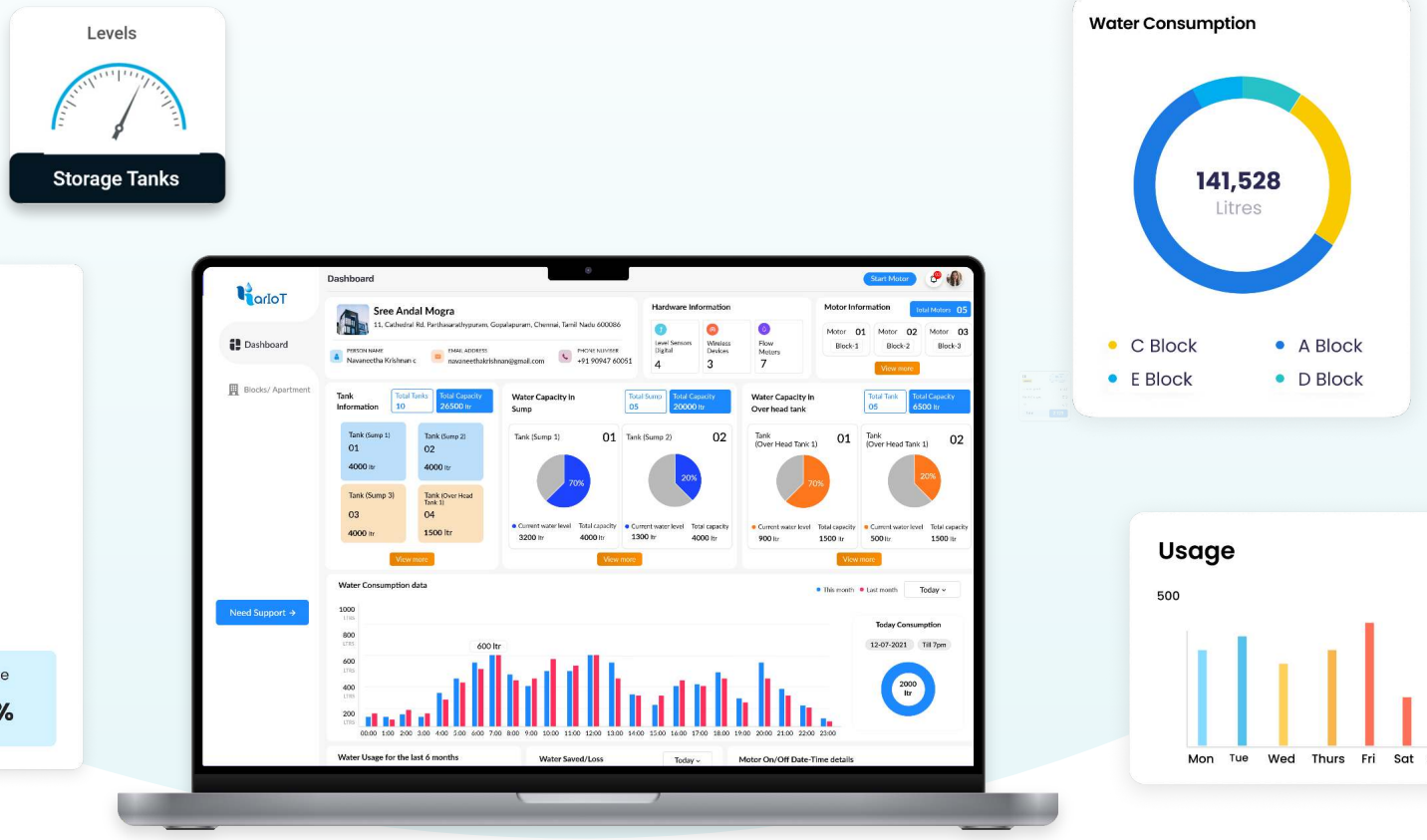


Our Clients

Delphi-TVS Technologies
LARSEN & TOUBRO ECC Kanchipuram
TWAD Board Recruitment
TVH LUMBINI SQUARE
Transpek creative Chemistry
SPML Engineering Life
Rain Water Harvesting Company
HOTEL MARIS
HECS
Chennai Metro
Golf view Apartment
NORTH TOWN
Evergreen Enviro Engineering Company
HOTEL SHELTER UNIT OF DEV GROUP
UNIMATION ROBOTICS
Chinnakarai CETP
KROHNE achieve more
TVH
EARTH FOKUS
IBM
DUSAUT INSTRUMENTS
SDS RAHEJA RESIDENCY
GEE GEE KAY
LANDMARK CONSTRUCTION trust we build

Web Platform

Data is represented in a simplified graphical and pictorial form for any user to grasp information within seconds.

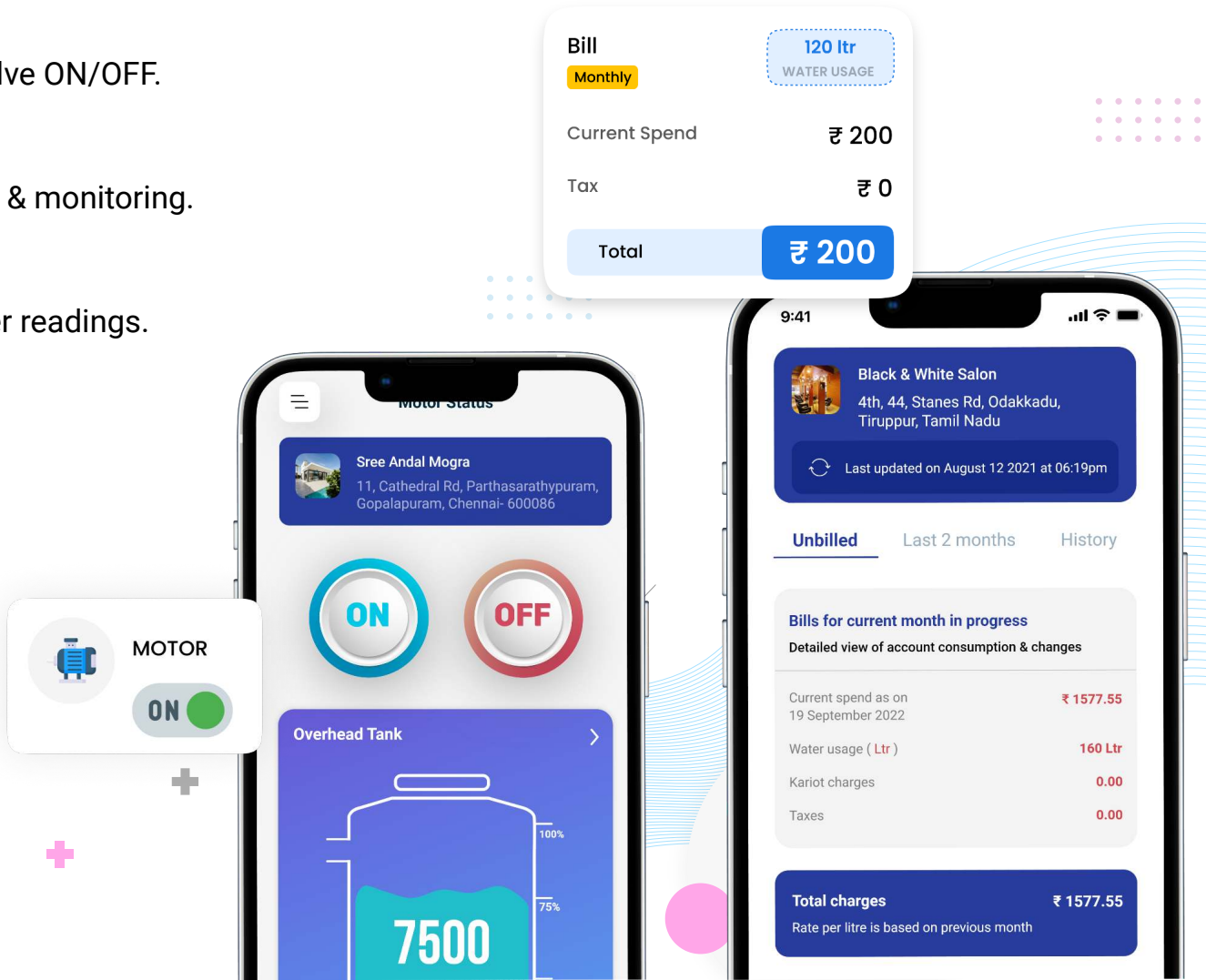


App Platform

Ease of use and control operations from the comfort of anywhere with the use of Android or iOS devices.

- Instant alerting system on fluctuations.
- Auto-operations pump & valve ON/OFF.
- Consumption management & monitoring.
- Real-time recording of water readings.

Save Water
with us on our App!



Download app on

Download on the App Store

GET IT ON Google Play

Awards & Recognition

startupindia SEED FUND SCHEME

GINSERV Nurturing Ventures

For Receiving
30 LAKHS
Seed Fund
From Startup India

अमृत 2.0
Atal Mission for Rejuvenation and Urban Transformation

For Receiving
20 LAKHS
Under Amrut 2.0
(Min Of Housing And Urban Affairs)

START-UP STARS AWARDS
Winner

Best energy tech startup of the year 2021

KarIoT - a Technology Recommended By

जल शक्ति मंत्रालय /
पेयजल और स्वच्छता विभाग
MINISTRY OF JALSHAKTI
DEPARTMENT OF DRINKING WATER & SANITATION

Office of the Principal Scientific Adviser to the Government of India

Har Ghar Jal
Jal Jeevan Mission

Empanelment of KarIoT - IoT enabled smart water management system as innovation technology Under Jal Jeevan Mission / Swachh Bharat Mission .

W-11042/69/2020-JJM-IV-DDWS-Part (2)
Government of India
Ministry of Jal Shakti
Department of Drinking Water and Sanitation
(National Jal Jeevan Mission)
****

4th Floor, Pt. Deendayal Antyodaya Bhavan,
CGO Complex, Lodhi Road,
New Delhi-110003
Dated: 22nd November, 2022

To
Kariot Solutions Pvt. Ltd.
Level 5, Chennai Citi Centre, Dr. Radhakrishnan Road,
Mylapore, Chennai- 600004
Email: aravind@karikala.in; suresh@karikala.in

Subject: Empanelment of Kariot-Next Gen IoT enabled smart water management system (Application no. W-0000205) as innovative technology for use under Jal Jeevan Mission/ Swachh Bharat Mission – regarding.

Madam/ Sir,

I am directed to refer to your application number W-0000205 for empanelment of Kariot-Next Gen IoT enabled smart water management system as innovative technology under Jal Jeevan Mission/ Swachh Bharat Mission. The matter was examined by the Technical Committee, chaired by the Principal Scientific Adviser, Government of India in its meeting held on 21.09.2022 and 10.10.2022 wherein your representative made a presentation.

2. The committee observed that it is a monitoring tool and can be used for monitoring the water supply system as it monitors basic quality and quantity parameters.

3. Based on the details provided in the application, appraisal carried out by the Committee and the presentation made, it has been decided to recommend Kariot-Next Gen IoT enabled smart water management system as innovative technology to be included under the list of recommended innovative technologies of the Department of Drinking Water and Sanitation's innovation portal.

Yours faithfully,

22/11/22

(Sunil Kumar)
Under Secretary to Govt. of India
Email: sunil.kumar70@nic.in
Tel: 011-24361671

Copy to Office of Principal Scientific Adviser/ PPS to Secretary, (DWS)/ PS to AS & Mission Director (SBM & JJM) for information please.

Benefit of our Smart Water Solutions

Prediction of potential failures and Root Cause Analysis.

20% reduction in water loss due to leakage and overflow triggers.

Automate operations and manage solutions remotely.

Reduce water and energy consumption with monitored usage.

Manage usage and billing per unit consumption.

Our Team

Over the years a vision is being transformed into a working model, and our core team forms the backbone of this structure.

Aravind Natarajan

CO-FOUNDER

SDLC Specialist
With Operational Approach

10+ Years Experience in IT Sector

Suresh Jambunathan

CO-FOUNDER & CTO

IoT Expert With
Pragmatic Approach

10+ Years Experience in IT Sector

Jessy Dcruz

BUSINESS HEAD

London South Bank University
Expert With Business Experience

5+ Years Experience in Marketing

Our Device

Solar PV Connectivity

Capable of powering devices using a solar photovoltaic system.

Real Time Data

Real time monitoring of water distribution network from anywhere.

Secure Communication

Supports transmission of data via GSM, WiFi, LoRA, and Bluetooth.

Control Panel

Remote control operations from mobile and desktop from any location.

Why are Meters Important

a system without meters is like a taxi without a fare counter

Demonstrate Accountability

They allow the system to demonstrate accountability.They make it possible to charge customers in proportion to the amount of water they use

Record Specfic Usage

They are fair for all customers because they record specific usage

Detect Leakage

They aid in the detection of leaks and waterline breaks in the distribution system.

Rural Portfolio

Panchayat Of Tiruchendur Tamil Nadu (12 OHD tanks in 8 habitations)

Our Vision is to make water management digital, sustainable and economical for every individual.

Location

Udangudi

Industry

Government Sector

- Digitally-enabled water supply infrastructure will help in real-time monitoring and evidence-based policymaking
- Automated alerts to notify the key personals of inconsistencies, malfunctions and anomalies
- Monitoring and auditing of water/energy consumption from pumps, filtering plants, etc.
- Automated and remote control of water valves

Urban Portfolio

CMWSSB

Project with Chennai Metropolitan Water Supply and Sewerage Board to monitor the entire Water Distribution System

Location

Chennai

Industry

Government Sector

- Remote and scheduled motor operations according to set time intervals.
- Customized reports, analytics and location-based tracking.
- Dashboard logins for officials to get updated on real-time data.
- Instant download of reports based on different data points by unskilled personnel.

Industrial Portfolio

HECS is using KarIoT for Complete Remote Monitoring.

Location
All over Tamilnadu

Industry
STP Treatment plant

- Remote monitoring of the flow, levels, condition, and quality of treated water.
- 24*7 monitoring of equipment functioning that boosts maintenance and instant triggers for any sudden breakdown.
- Tracking of motors, pumps, air backwash blowers, etc., to regulate energy consumption.
- Instant report generation on the complete treatment process in accordance with the central Pollution Control Board.
- Instant report generation on the complete treatment process in accordance with the central Pollution Control Board.

KarIoT Intervention in GEE GEE KAY's Chemical Industry

Our Vision is to make water management digital, sustainable and economical for every individual.

Location
Thoothukudi

Industry
Agricultural chemical manufacturing company

- Reduce infrastructure cost for real time monitoring over the Scada solutionby 60%
- Providing real-time data via a cloud server and accessible on web and mobiledevices.
- Automated all manual operations with regular shift-based reports. Drastically reduce manual efforts and labor cost.
- Alert on fluctuations thereby reducing the overall product loss.

Commericial Portfolio

Ganesh Towers

Ganesh Towers is a shopping mall with showrooms,retail shops and restaurants.It acts as the business centre and an hub for commercial rental spaces

Location
Tiruppur

Industry
Commercial Sector

- Data collection of the water consumption process is done manually.
- The existing pulse meter was not in working condition.
- Calculating the water consumption on each floor of the commercial building was difficult.
- Automated and remote control of water valves
- The billing system was taking place manually

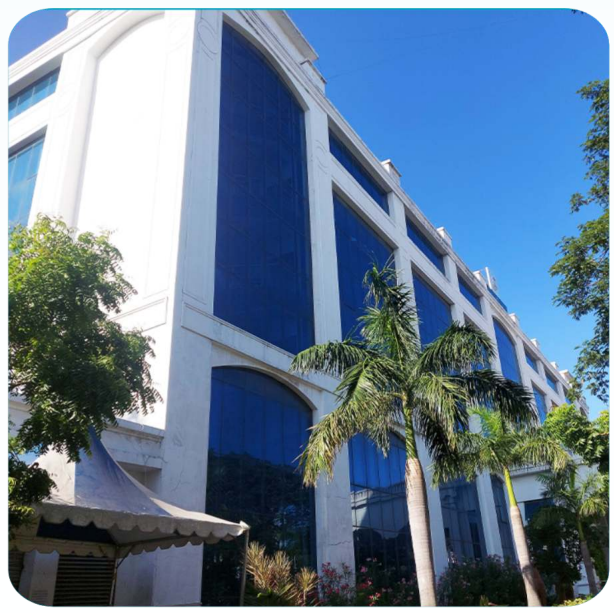
Government Portfolio

Ripon Building

Greater Chennai Corporation Office

Location
Chennai

Industry
Government Sector



- IOT sensors enable instant and remote monitoring of the flow, levels, condition,and quality of treated water.
- Efficiency monitoring and tracking of motors, pumps,air backwash blowers, etc., to regulate energy consumption.

Stats

50+ Locations

All over india

Recent Locations

- Standard Chartered Pvt limited
- IEC Fabchem limited
- Mattest Research Academy
- CMWSSB
- L&T TLT Kanchi
- Transpek Industry Limited
- Anjan drugs private limited
- L&T HYDROCARBON
- Rippon building
- Kasipalayam CET
- Delphi Tvs Technologies
- Hotel Maris
- TVH
- SDS Raheja Residency
- North Town
- TWAD Board recruitment

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