aqua™ WISE

DIGITAL TWIN FOR URBAN WATER

Real-Time Monitoring of Water and Utility Systems

aquaCITY

powered by aquaWISE

www.vassarlabs.com

For Over 121 Urban Local Bodies

ENSURING UNINTERRUPTED SUPPLY OF WATER. MINIMIZING LOSSES AND MEETING SERVICE-LEVEL AGREEMENTS

About Us

Founded in 2014 by MIT and IIT Alumni, Vassar Labs is a company of 370 plus dedicated climate tech warriors. Vassar Labs leverages technologies such as IoT, AI, GIS, Cloud Computing, Remote Sensing, Big Data, and Digital Twins to build solutions for effective monitoring and management of Water, Power, Disaster, Agriculture, and Smart Cities.

Why Choose Us?

Monitor water infrastructure, including distribution networks in real time. Gain insights into utilities' performance, oversee connections, and manage drinking water supply from the source to the end-user. A platform to manage urban water that creates a digital twin, so that you can measure, monitor, and manage in real-time, leveraging IoT and Artificial Intelligence.

Highlights

4.2 Millions + Connections Managed by the Platform

35K Miles + Length of distribution pipes managed

10K + IoT Devices for realtime intelligence

1500 + Pump houses operation are being managed

15 Millions + Visits per year as admins, citizens, and public

Digital Platform for Water and Utility Systems

Real-time Decision Support

Demand forecasting

Analyze historical data to forecast future water demand at the residential complex, industrial units, IT parks at zone or ward level.

Water Supply Forecasting

Provide a holistic view of water availability for the next week or month, notifying treatment plants to adjust production accordingly.

Digital Twin of Water Utility

It creates a digital twin for real-time monitoring of water supply, demand, and pump operations to optimize efficiency and reduce power consumption. Additionally, it offers scenario simulations to analyze operational effectiveness for guiding daily water operations.

Distribution Monitoring

Real-time monitoring of water distribution by detecting leaks, predicting demand, and ensuring efficient resource management for fair water allocation and reduced wastage.

Connection Management

Integrate end-to-end digital workflow for new connections, manage existing customers and track SLAs & KPIs in realtime.

Water Billing & Collection

Leverage water accounting to support accurate billing based on actual water usage. Use interactive dashboards to track appropriate and timely revenue collection.

Consumer Grievances

Realtime tracking and allocation of grievances and requests. Ensure service level complaints are resolved within the SLA and further maximize productivity.

Monitor and Optimise Water Distribution Network

Water Quality Monitoring

Monitor water quality by assessing clarity, turbidity, color, and concentrations of optically active substances.

Waste Water management

Monitor and optimize treatment of sewage and grey water, improving efficiency, and reducing environmental impact by recycling and safe discharge.

Water Reuse & Optimization

Optimize water reuse with analytics on recycled water for household and industry use, effectively conserve freshwater resources, reduce strain, and further maximize water utilization.
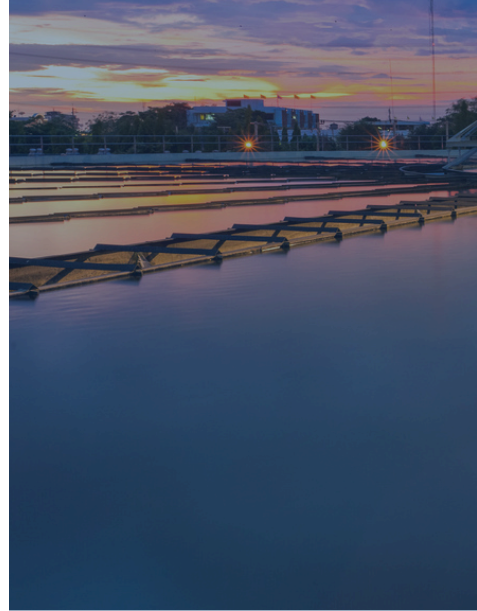
Pump Optimization

Get insights on pump scheduling, total runtime, energy consumption, vibration, pressure, etc. Further, it enables alerts on pump maintenance and usage.

Asset Management

Get predictive maintenanace alerts on remaining useful life of assets, detect anomalies and potential equipment failures.

Non Revenue Water tracking

Identify water sources via sensors & AI models. Receive leak alerts on mobile & website for prompt action to reduce water losses. SLA metrics and service delivery monitoring in the cloud use automated algorithms to track performance parameters like baseline performance, lower performance and breaches.

Water Budget and Audit

Streamline water audits and budgeting by providing detailed, real-time data on water usage, identifying inefficiencies, and forecasting future needs. Further, enable cities to allocate resources more effectively, optimize costs, and ensure sustainable water management practices.

Track Every Drop: From Source to Tap

Our Approach

Digital Twin

It creates a digital twin for real-time monitoring of water supply, demand, and pump operations to optimize efficiency and reduce power consumption. Additionally, it offers scenario simulations to analyze operational effectiveness for guiding daily water operations.

Geospatial Intelligence

Geospatial Intelligence helps in managing water pressure & flow, energy consumption & efficiency, and provides health monitoring of each pump to enable alerts and predictive and preventive maintenance. This enables performance monitoring in real-time with analytics on seconds, hourly, daily, monthly, or yearly.
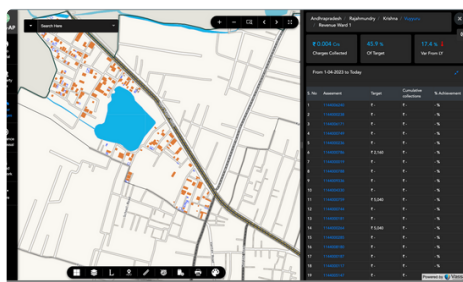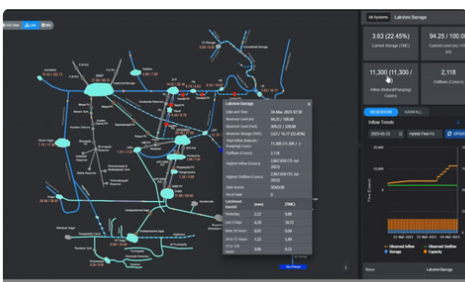
Internet of Things

Vassar Labs provides real-time insights into asset performance, environmental conditions, and operational processes, enabling proactive decision-making and efficiency improvements across industries.
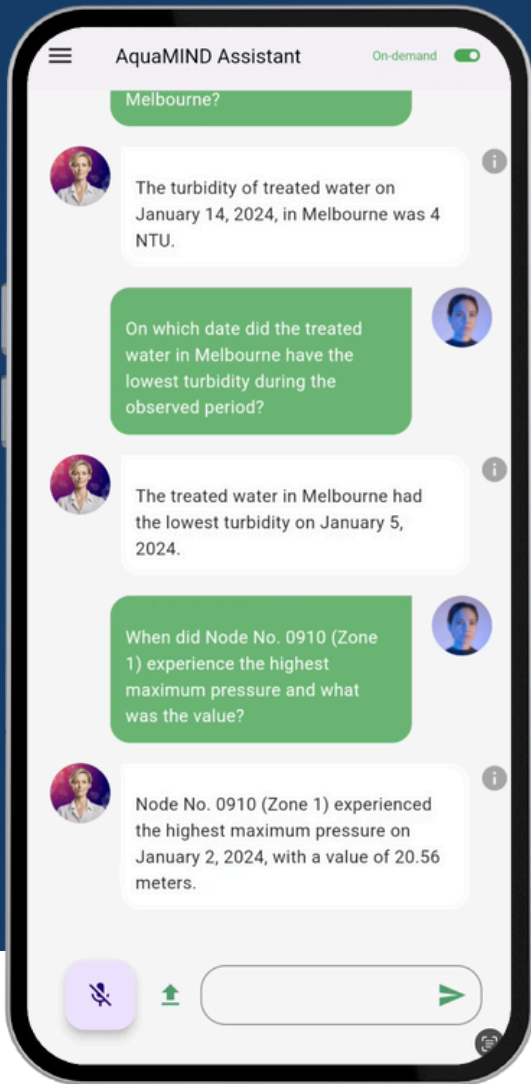
Artificial Intelligence

The platform leverages artificial intelligence to automate water quality analysis, route optimization, water demand planning and optimize energy consumption.

GenAI Assistant for Water Management

aquaMIND is a GenAI-based smart co-pilot that provides real-time insights into water availability, demand, supply, and usage across different scales at any given geography.

On Demand Queries

Get near-real-time alerts on water leakages, along with location of the leak detected, also get insights into any asset that might have malfunctioned.

Listening Mode

The co-pilot can also be a listening assistant that transcribes meetings, creates reports, and corrects facts. It sends reports about water demand, availability, and usage directly to your mobile phone.

Real-time Alerts

Ask aquaMIND about any queries from the whole water network, be it connection, grievances, energy utilization, asset monitoring, etc.

Hourly Updates

Hourly updates regarding the status of water across all active connections network along with insights on key events of past hour.

Vassar LABS

aquaCITY

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