Sustainable Water Management: Integrating Technology for Enhanced Monitoring and Location Tagging

HYDROSENTRY

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PROBLEM STATEMENT:

Almost two thirds of the world's population — experience severe water scarcity for at least one month each year.

1. Global Water Crisis:
    - Millions lack access to clean water, violating a fundamental human right.
    - Scarcity of clean water sources and inadequate sanitation facilities exacerbate the crisis.

2. Health Risks and Development Hindrances:
    - Contaminated water sources pose health risks, leading to waterborne diseases.
    - Lack of clean water and sanitation hinders socio-economic development, especially in underserved communities.

Mainly focusing on achieving Clean Water and Sanitation objectives through multifaceted solutions.

Key Features:

  1. pH Monitoring.

  2. Water purity parameter Assessment.

  3. Geological Location Tagging for Tanker Operations.
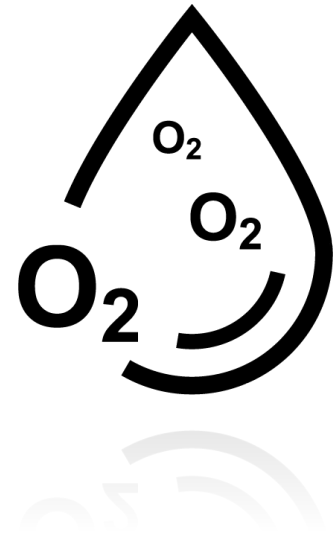
  4. Mobile App for Monitoring.

pH Monitoring:

 - Utilize pH sensors and monitoring systems.

 - Real-time measurement and analysis.

Oxygen Content Assessment:

- Deploy state-of-the-art oxygen sensors.

- Continuous tracking of oxygen levels.

- Early detection of potential oxygen depletion.

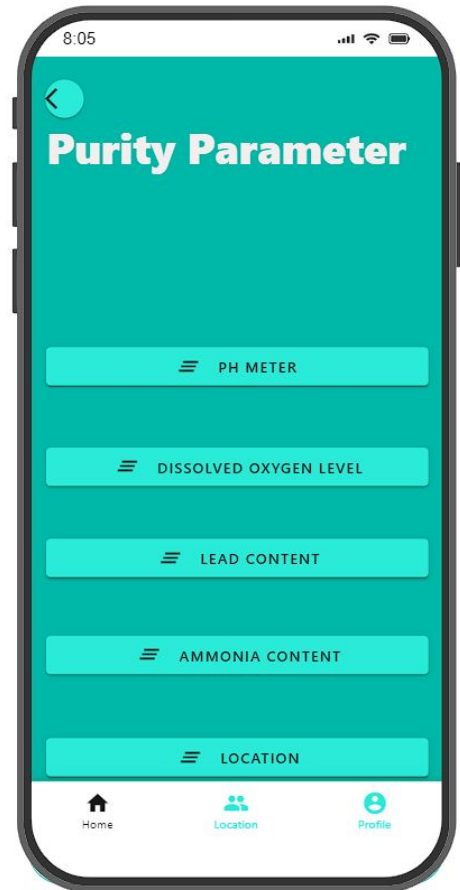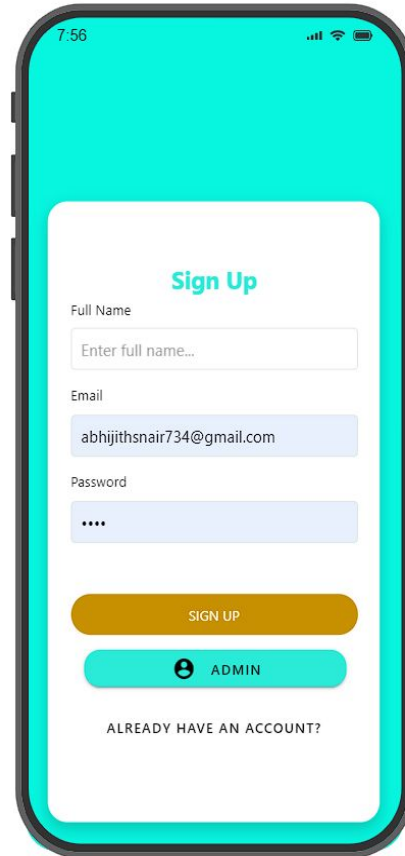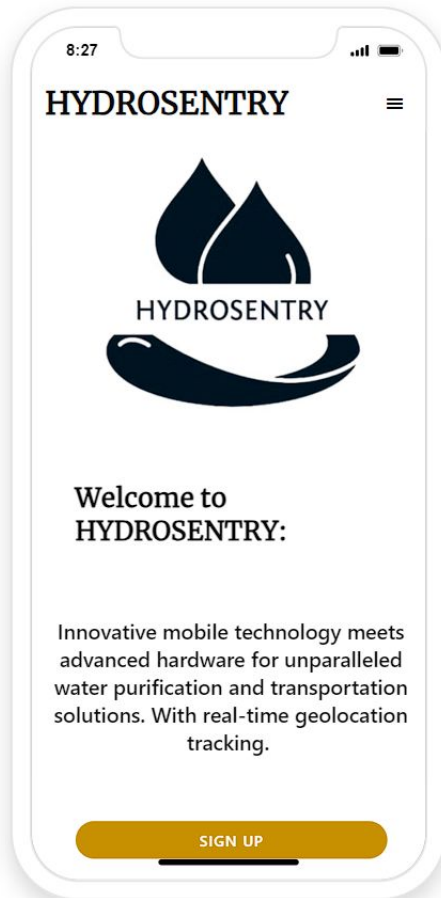**Location Tagging for Tanker Operations:**

- Integrate GPS-based tagging systems.

- Track origin and destination of water tanker operations.

- Facilitate efficient logistics management and ensure transparency in water distribution processes.
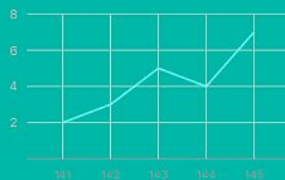
Mobile App for Monitoring

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- Our mobile app complements our sustainable water management initiative .

- by providing **real-time monitoring** of **geological locations & purity parameters.**
- Complete **tracking of the route path** of the water supply tanker starting from water reservoir to the consumer's house

pH Meter

8
6
4
2

141 142 143 144 145

≡ SHARE

All   Saves   Account

Dissolved Oxygen Level

● 33%
● 27%
● 20%
● 13%
○ 7% Other

≡ SHARE

All   Saves   Account

Location

St. Louis

≡ SHARE

All   Saves   Account

Message (Enter to send message to 'Arduino Uno' on 'COM5')

```
sensor =
61        output ph = 5temp = 33
sensor =
47        output ph = 8temp = 33
sensor =
0         output ph = 17temp = 33
sensor =
105       output ph = -2temp = 33
sensor =
75        output ph = 2temp = 33
sensor =
125       output ph = -6temp = 33
sensor =
84        output ph = 2temp = 33
sensor =
65        output ph = 4temp = 33
sensor =
49output ph = 7temp = 33
sensor =
73        output ph = 3temp = 33
sensor =
47        output ph = 8temp = 33
sensor =
40        output ph = 9temp = 33
sensor =
506       output ph = -79temp = 33
```
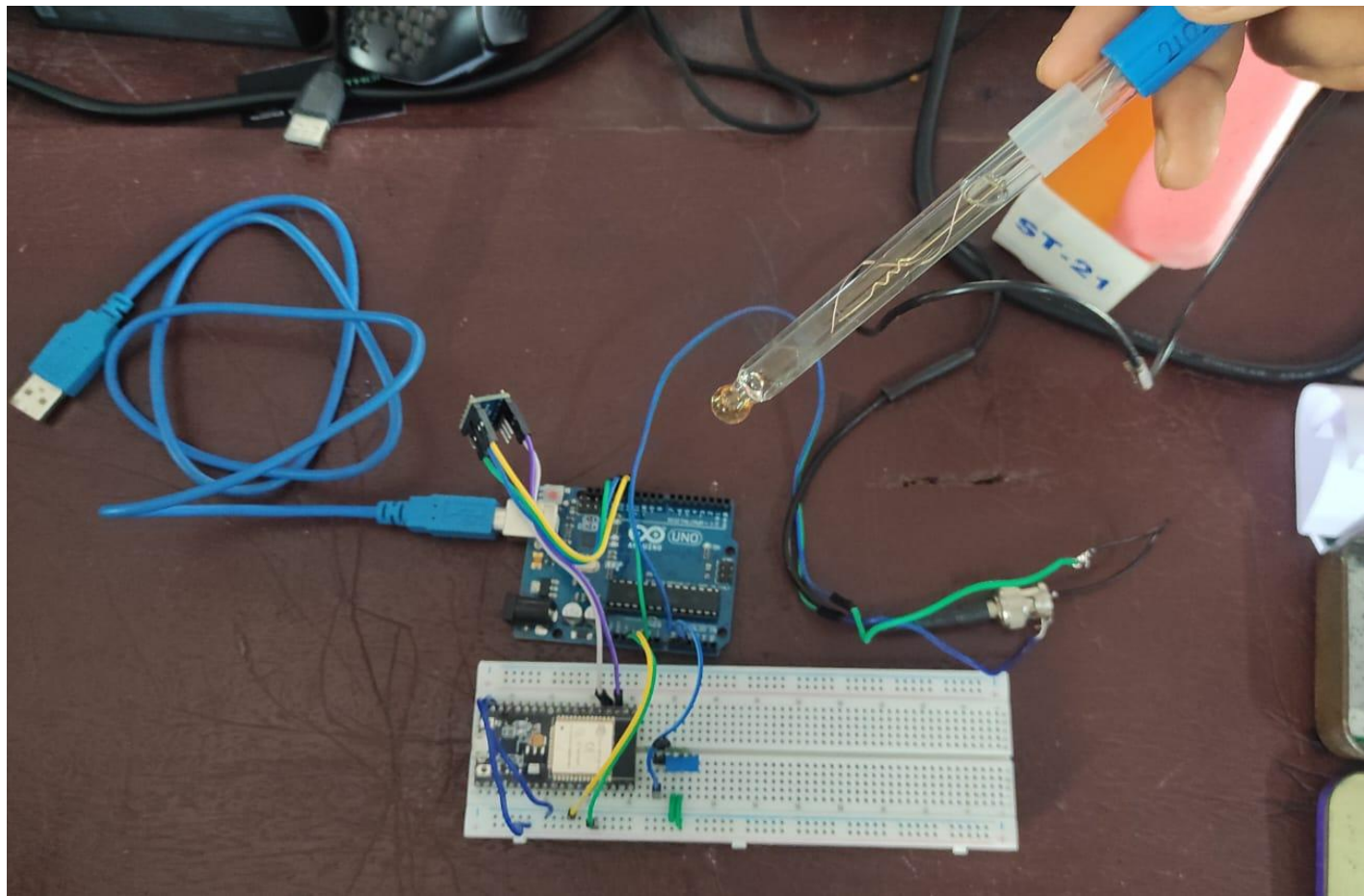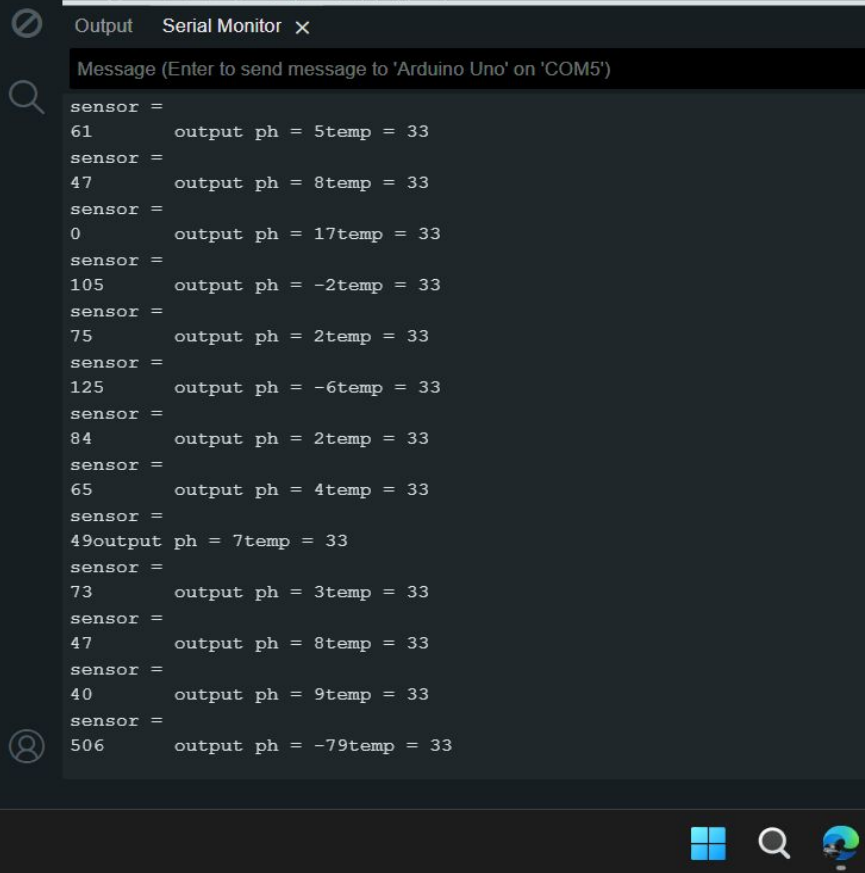
Benefits

- Enhances understanding of geological factors impacting water sources.
- Enables proactive measures to address geological risks and ensure water safety.
- Improves efficiency in decision-making for water distribution and management.

Thank You…