IPC SAUDI ARABIA 24

جامعة الملك خالد
KING KHALID UNIVERSITY

HydroClean

Natural Resources Track

AI TRAILBLAZERS

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Vision:

To be the leaders in water quality monitoring and analysis, achieving the highest levels of safety and environmental sustainability, improving individuals' quality of life, and preserving the environment.

Mission:

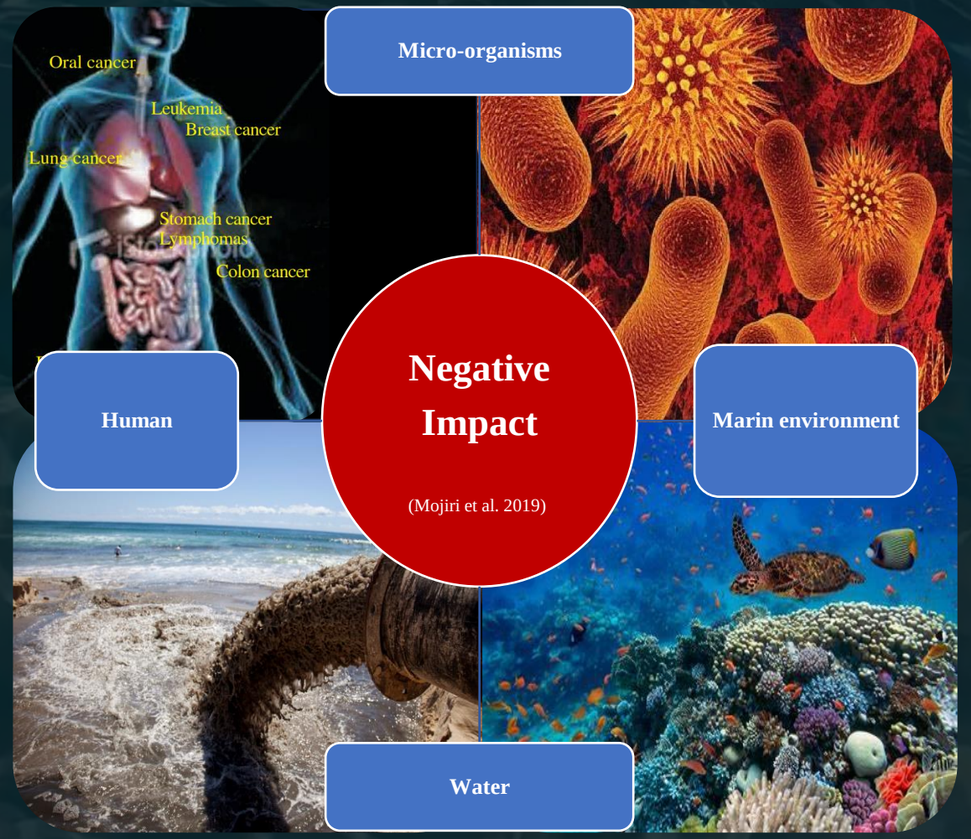
To provide integrated water quality monitoring and analysis services using the latest technologies and scientific tools, supporting initiatives aimed at improving water quality and protecting it from pollution.

Goals:

- Achieving water security.
- Preserving the environment and natural resources while promoting their sustainable development.
- Contributing to the achievement of sustainable food security

Problem

With the increasing environmental challenges and pollution resulting from industrial and agricultural activities, it has become necessary to monitor water quality periodically to ensure its purity and suitability for use. This allows for the necessary measures to be taken to protect water resources and ensure their sustainability for future generations.



What is the HydroClean?

Monitoring and tracking water quality through a system that uses artificial intelligence techniques to improve water quality by monitoring various water characteristics.

How did the HydroClean build?

1. Define the Problem
2. Collect and Prepare Data
3. Compute the Water Quality Index (WQI)
4. Building ANN Model
5. Model Training
6. Model Evaluation
7. Visualization

Prototype


10 : 30
HydroClean
%100
Suitable for drinking and use
10 : 30
HydroClean
%76
Suitable for use
10 : 30
HydroClean
%20
Not suitable for drinking or use

Hydroclean Advantages

Enhancing the sustainability of resource use

Early detection

Preserving biodiversity

Contribution to food security

Cost and efficiency

Improving quality of life

Target group

وزارة البيئة والمياه والزراعة
Ministry of Environment Water & Agriculture
Kingdom of Saudi Arabia المملكة العربية السعودية

المركز الوطني للأرصاد
National Center for Meteorology
المملكة العربية السعودية

HydroClean contribution

Contributing to achieving the Kingdom of Saudi Arabia’s Vision 2030 through real-time water quality monitoring and control.

Hydroclean in Future

1. Expanding the range of features in model development
2. Prediction of the water pollution source.
3. Integrating additional data sources and AI tools .

Team Members

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Thank you all of you for your kind presence and listening

Try HydroClean..