Team

KIT-KAT

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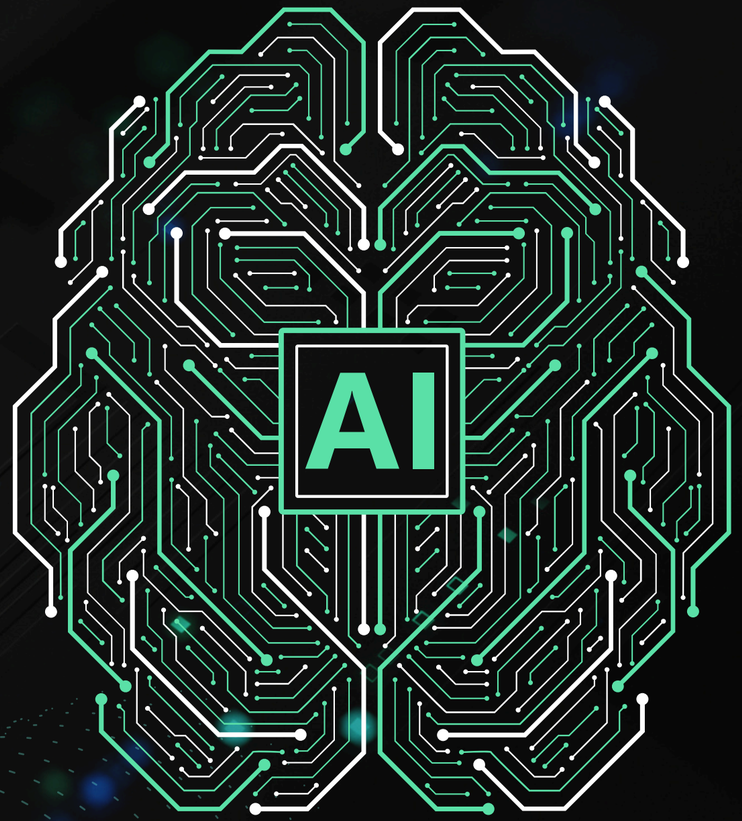
EcoSMART

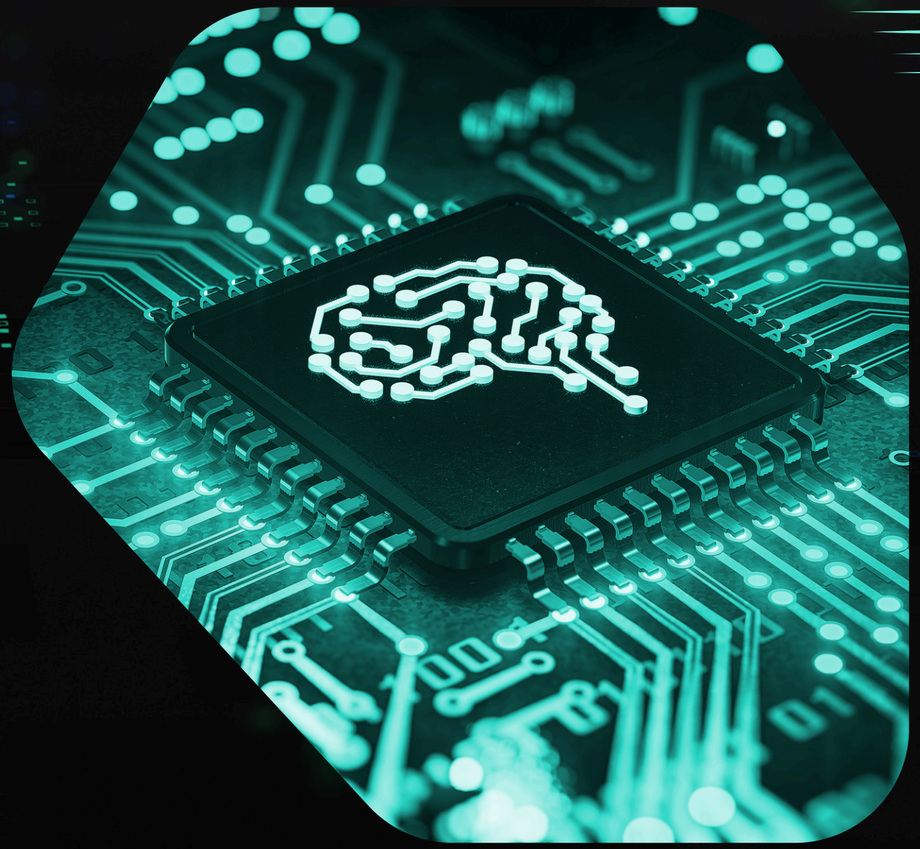
AI-Powered Resource Management System

Optimizing Electricity & Water Consumption with AI



What Is EcoSmart

An AI-powered water flow monitoring and electricity bill prediction system.



Why is it important?

- Water mismanagement and electricity overuse are major global concerns.
- Predictive AI can help prevent disasters and optimize resource use.

The Problem !

Water Management Issues

- Dams often release too much or too little water, causing floods or droughts.
- Lack of real-time data affects decision-making.

Electricity Cost Uncertainty

- Users receive bills after consumption - leading to unexpected high costs.
- No real-time tracking of electricity usage.

The Solution !

AI-Powered Dam Monitoring

- Tracks water levels, inflow & outflow in real-time.
- Predicts floods & droughts using AI models.
- Helps government & local authorities manage water better.

Electricity Bill Prediction

- Uses unit consumption data to estimate monthly bills.
- Alerts users when usage crosses a limit.
- Helps users save electricity & reduce costs.

Feature 1
Dam Monitoring System

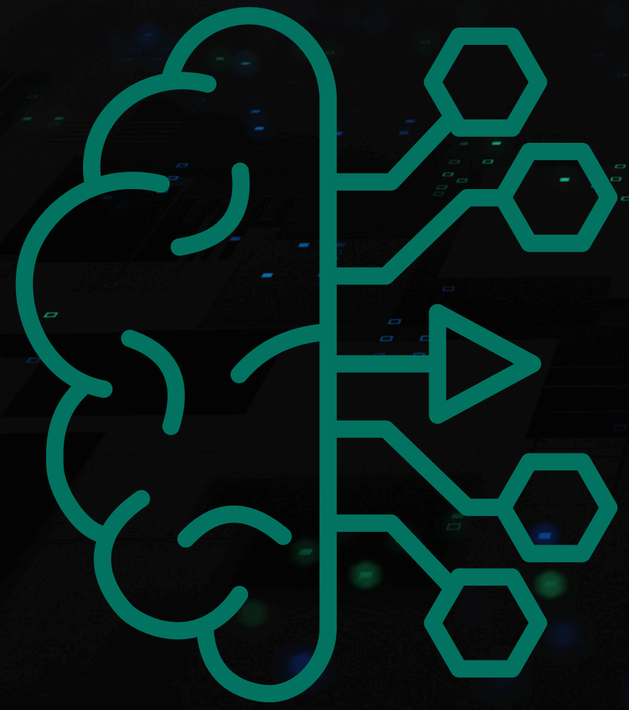
How it Works

1. Data is sent to AI for analysis.
2. System predicts water release needs & flood risks.
3. Alerts are sent to relevant authorities.

Benefits

- Prevents floods & droughts.
- Optimizes water distribution.
- Data-driven decisions for dam management.

Feature 2
Electricity Bill Prediction



How it Works

1. AI monitors household power consumption.
2. Uses historical data & real-time usage to estimate bills.
3. Sends alerts & insights on high energy usage.

Benefits

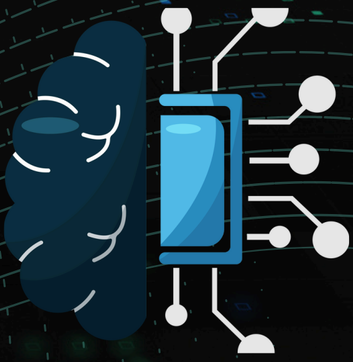
- Prevents bill shocks by giving early predictions.
- Encourages energy-efficient behavior.
- Helps users reduce costs & save electricity.

Technology Used

React

Node JS

Python



AI/ML Model

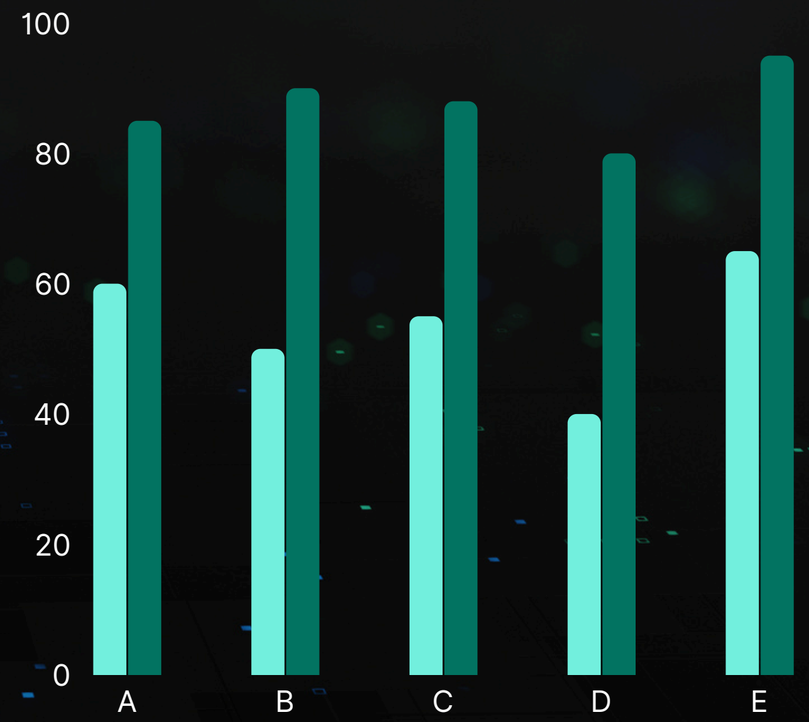
Market Opportunity

Who can Benefit?

1. Government agencies - Better dam management.
2. Households - Smart electricity savings.
3. Industries & Smart Cities - Efficient energy & water use.

Long-Term Impact

- Prevents natural disasters.
- Saves millions in electricity costs.
- Promotes sustainable resource usage.



Legend :

A - Dam Water Management
B - Flood Prevention
C - Drought Prediction
D - Household Energy Savings
E - Electricity Bill Prediction Accuracy
- Current Efficiency (%)
- Expected Efficiency After Eco Smart (%)

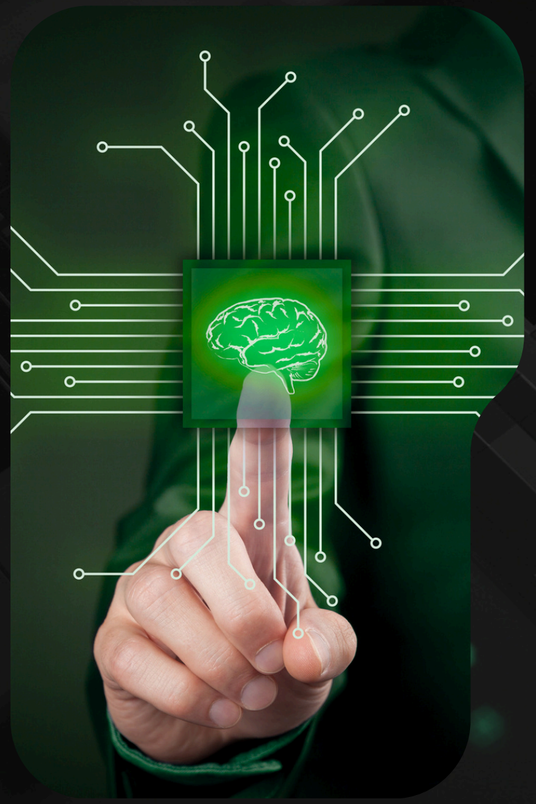
Future Enhancements

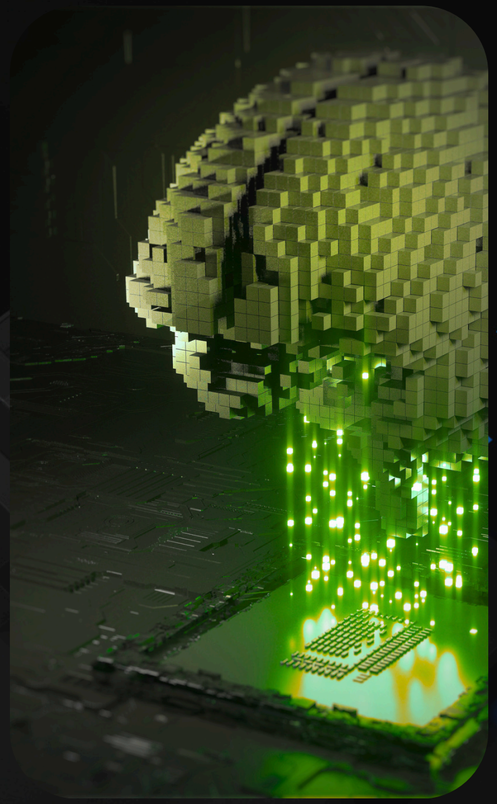
01 Mobile App Integration

02 More accurate AI predictions

03 Smart automation for water & electricity control

04 Extend AI models for industrial water & power usage.





Conlusion

Key Takeaways

- Eco Smart solves real-world problems using AI.
- Helps governments & households save resources.
- Future-ready technology for smart water & energy management.

Thank You

FROM TEAM KIT-KAT

SCAN ME