



# NEXIONIX

Empowering Progress, Shaping Tomorrow

A photograph showing a group of approximately ten people gathered around a large telescope. They are all wearing dark shirts, likely uniforms, and are focused on the equipment. The telescope is mounted on a tripod and has a large eyepiece. The background is dark, suggesting it's nighttime or they are in a dimly lit observatory. The text "MEET THE TEAM" is overlaid in the center of the image.

MEET  
THE TEAM

# Team Nexionix



**Nipun Sathsara**  
Team Leader



**Ravindu Perera**  
Project Manager



**Thisuli Lohansa**  
Business Analysis



**Fathima Azra**  
Quality Assurance



**Akash Hirumal**  
UI/UX Engineer



**Keshara Sasanka**  
Developer



**Ruvindu Sharada**  
Developer



**Bhashini Munasinghe**  
Developer



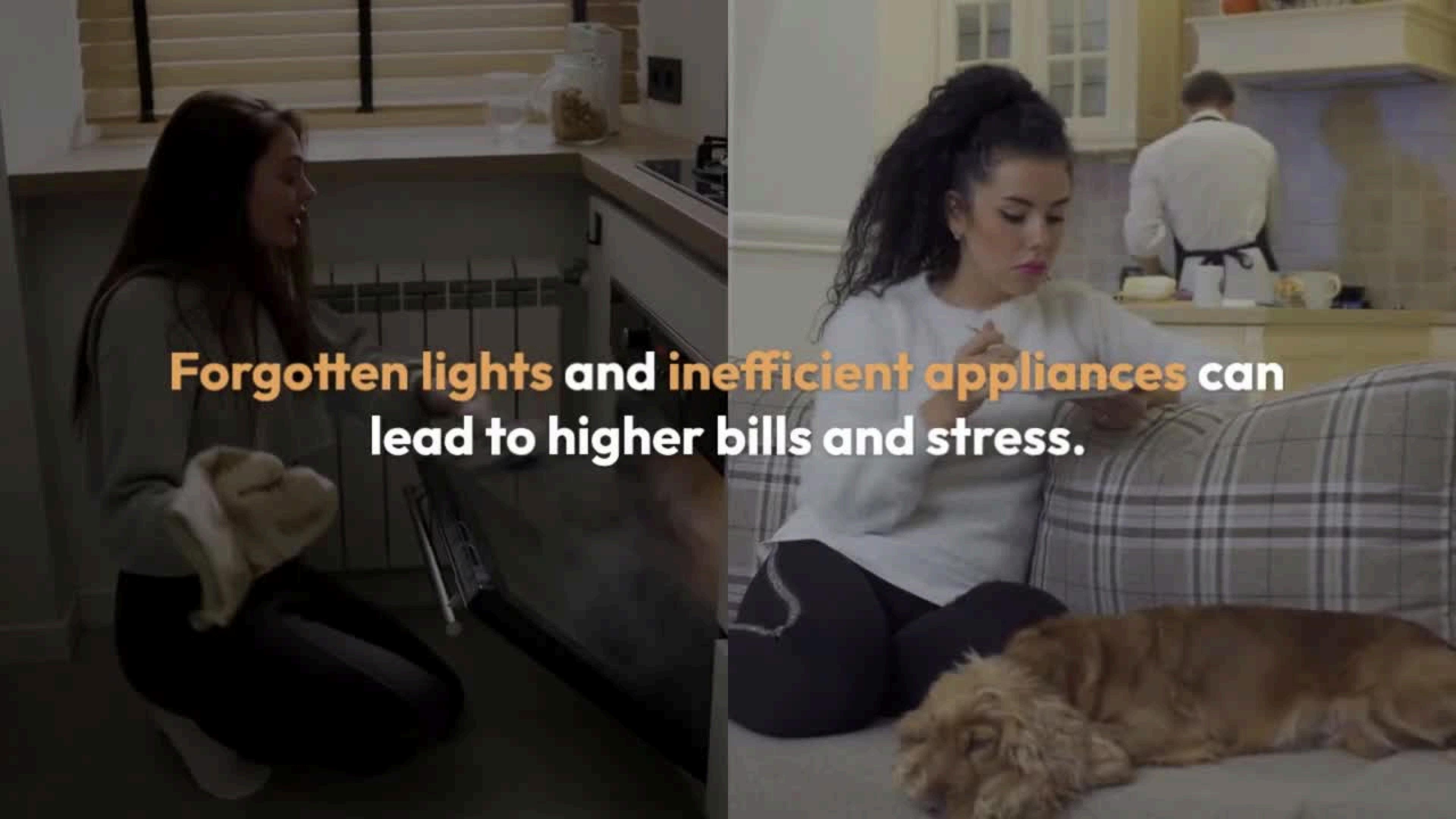
**Chathuri Alwis**  
Developer



**Lakindu Semal**  
Developer



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A woman with dark hair tied back is sitting on a grey couch, looking down with a worried expression. Her hands are clasped near her chin. To her right, a small brown dog is sleeping peacefully. In the background, a man in a white shirt is standing at a kitchen counter, and a window with blinds is visible.

**Forgotten lights and inefficient appliances can  
lead to higher bills and stress.**

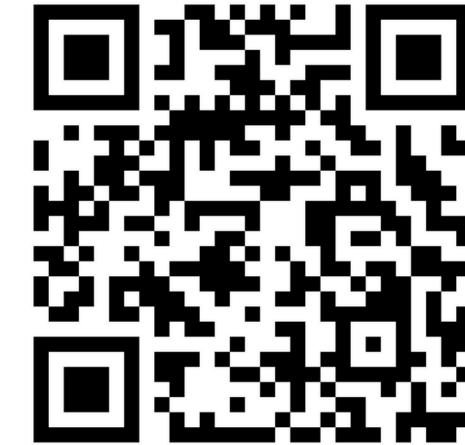
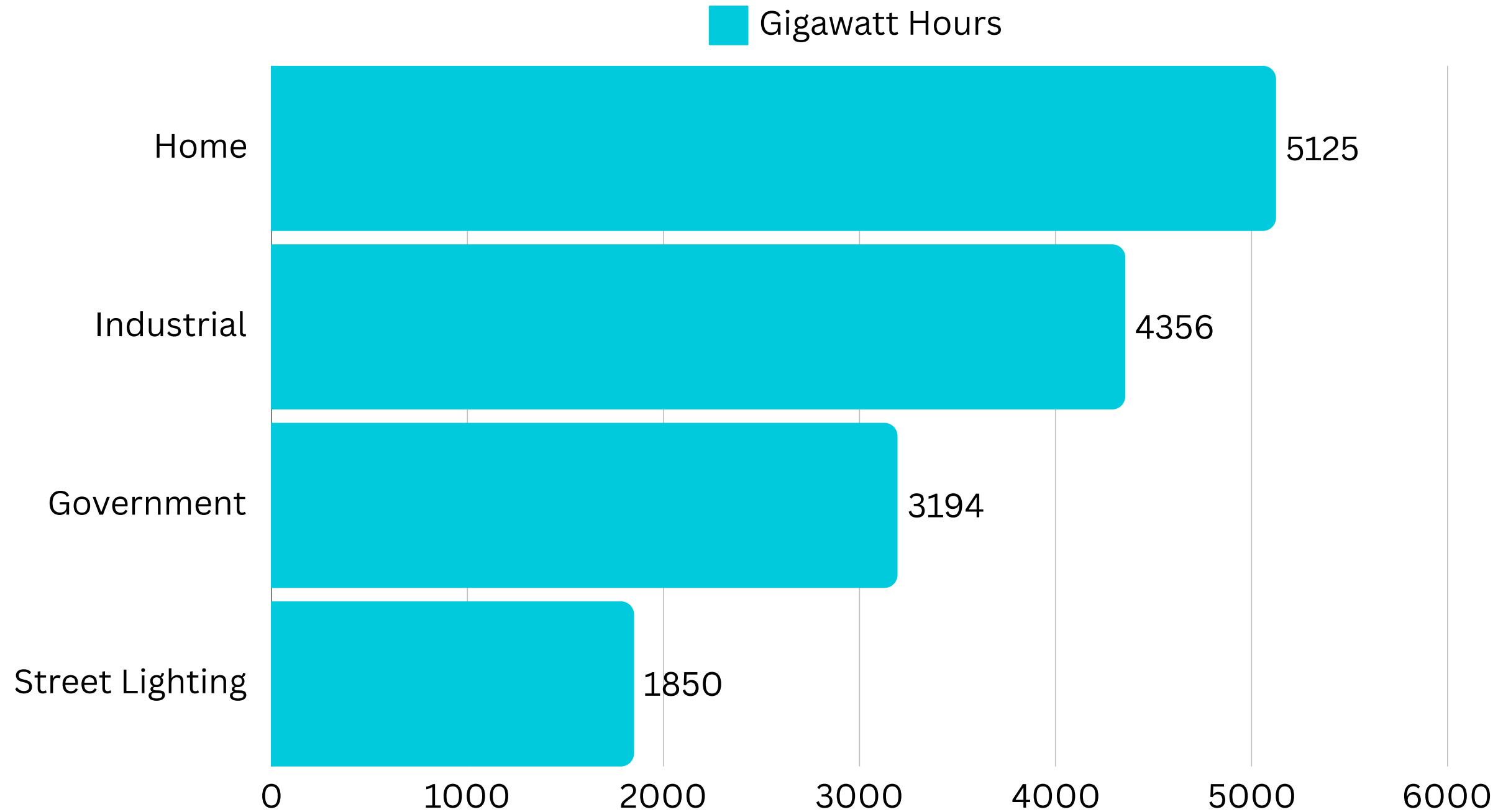
# Smart Energy Guard



This is an innovative IoT-based system that enables real-time monitoring and control of household energy use through a simple app.

It enhances home functionality and safety by allowing users to manage devices, track energy consumption, and quickly respond to emergencies.

# Sri Lanka's Electricity Consumption in 2022



Scan the QR code for detailed data  
on Sri Lanka's electricity  
consumption from the CEB Sales and  
Generation Data Book 2022.



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# Smart Energy Guard



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# Features of the Project

## Real-Time Current Monitoring

- Track electricity usage via IoT devices integrated with the app.



# Features of the Project

## Remote Control of Switchboards

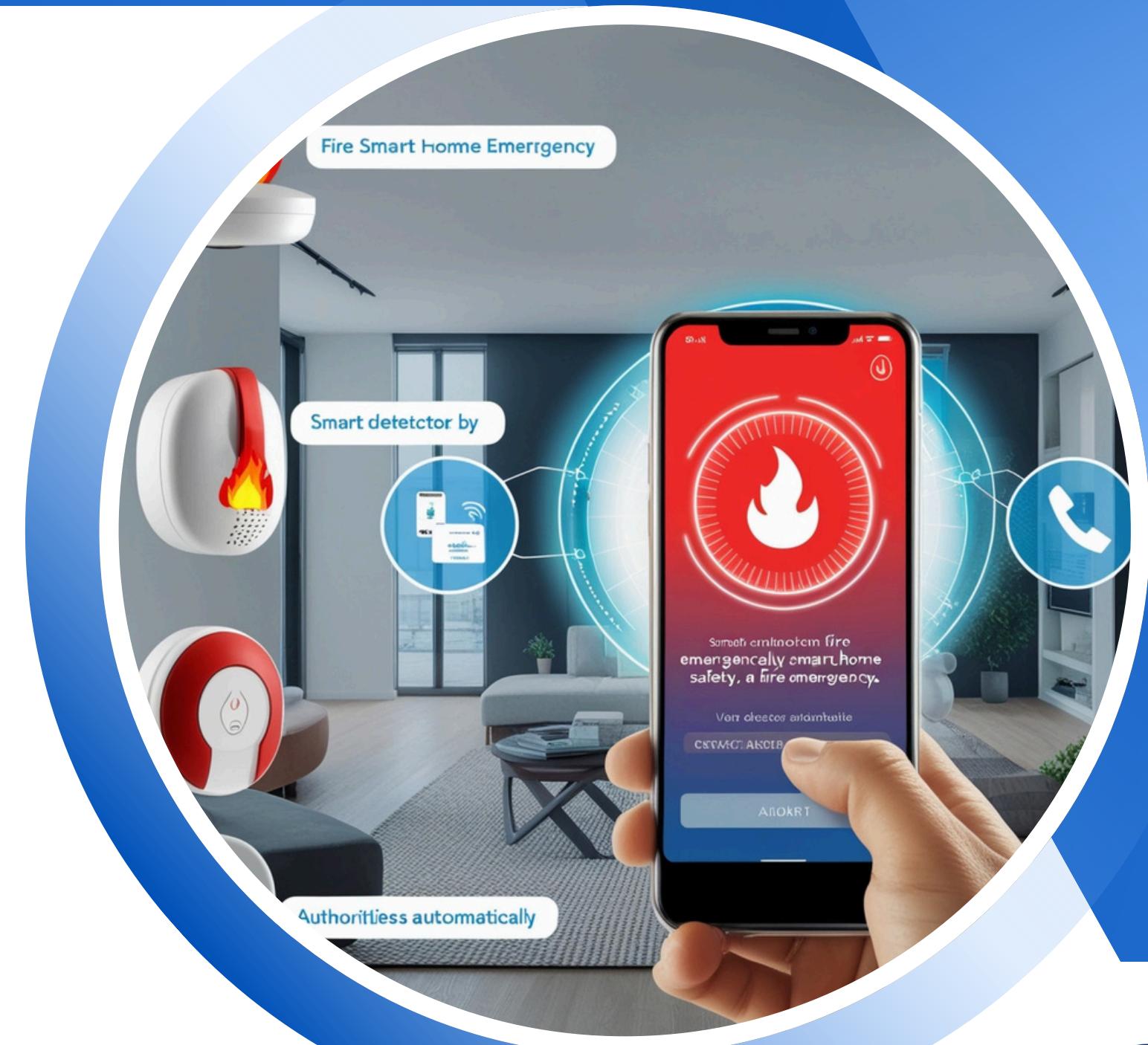
- Control and turn off switches remotely for convenience and safety.



# Features of the Project

## Emergency Response System

- Automatically contacts authorities and alerts users during emergencies.



# Features of the Project

## Electricity Bill Management

- View and pay electricity bills seamlessly through the app.



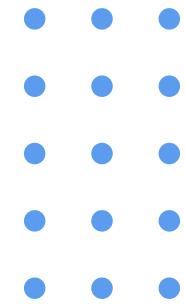
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# Functional Requirements



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# Functional Requirements



## Device Monitoring and Control

- The system must enable users to monitor the status(on/off) of connected devices.
- Users must be able to remotely turn devices on or off through the app.



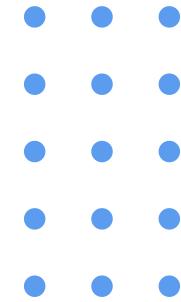
## Energy Consumption Tracking

- Provide real time data updates on energy usage.



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# Functional Requirements



## Emergency Notifications

- The system detect electrical hazards and send alerts users.



## Electricit Bill Calculation

- Calculate bills based on consumption rates.



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# Functional Requirements



## User Authentication

- User authentication must ensure only authorized access.



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# Non-Functional Requirements



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# Non-Functional Requirements



## Performance

- The project must provide electrical data in real-time.
- Response time for switchboard control should be fast.



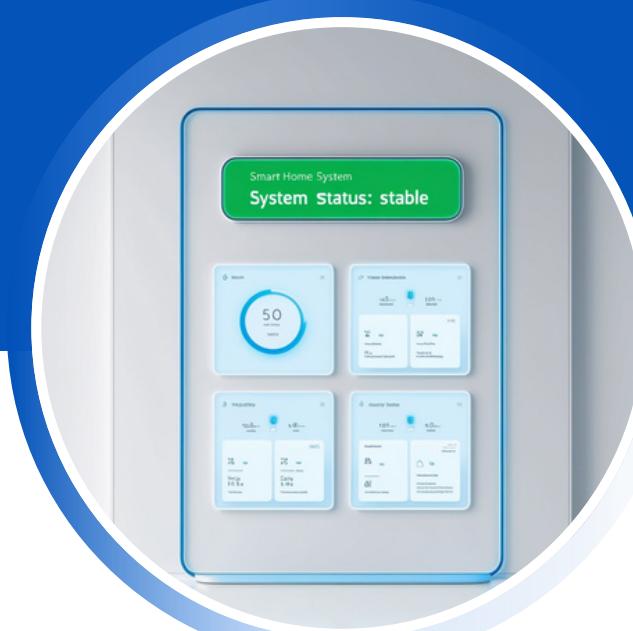
## Usability

- The app must be user-friendly and intuitive.
- Options should be easily selectable for user convenience.



## Scalability

- The system must support additional devices for upgrades.



## Quality

- Maintain a low error rate in app operations.



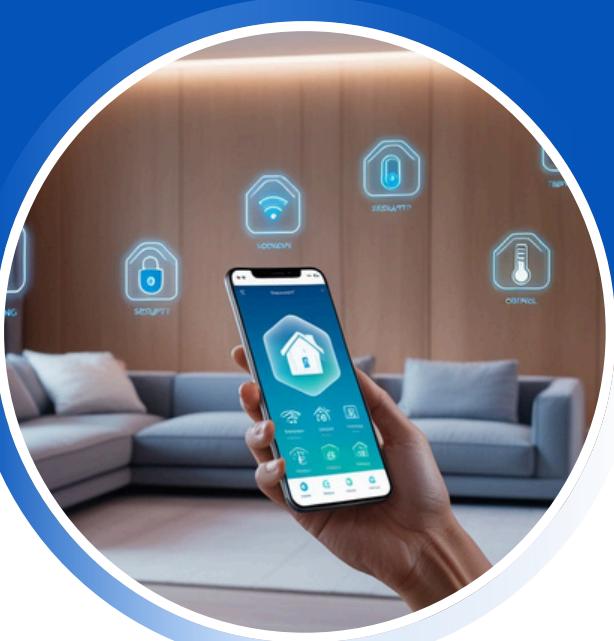
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# Non-Functional Requirements



## Security

- Ensure the application's data is protected from unauthorized access.
- Maintain a secure connection between the IoT device and the app.



## Reliability

- The IoT device and app should function accurately at all times.
- Provide globally accurate data on electricity flow.



## Emergency Management

- In emergencies like a fire, the system can quickly disable electricity in specific areas to prevent further damage and ensure safety.



## Interoperability

- The system should work seamlessly with various IoT devices and electrical systems in homes.



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# Q & A

Scan this QR code  
to share your  
feedback with us!



# Thank You.!



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