Revolutionizing Public Hygiene: An Innovative Model of Smart IOT-Enabled Public Washroom System

Introduction

Revolutionizing Public Hygiene

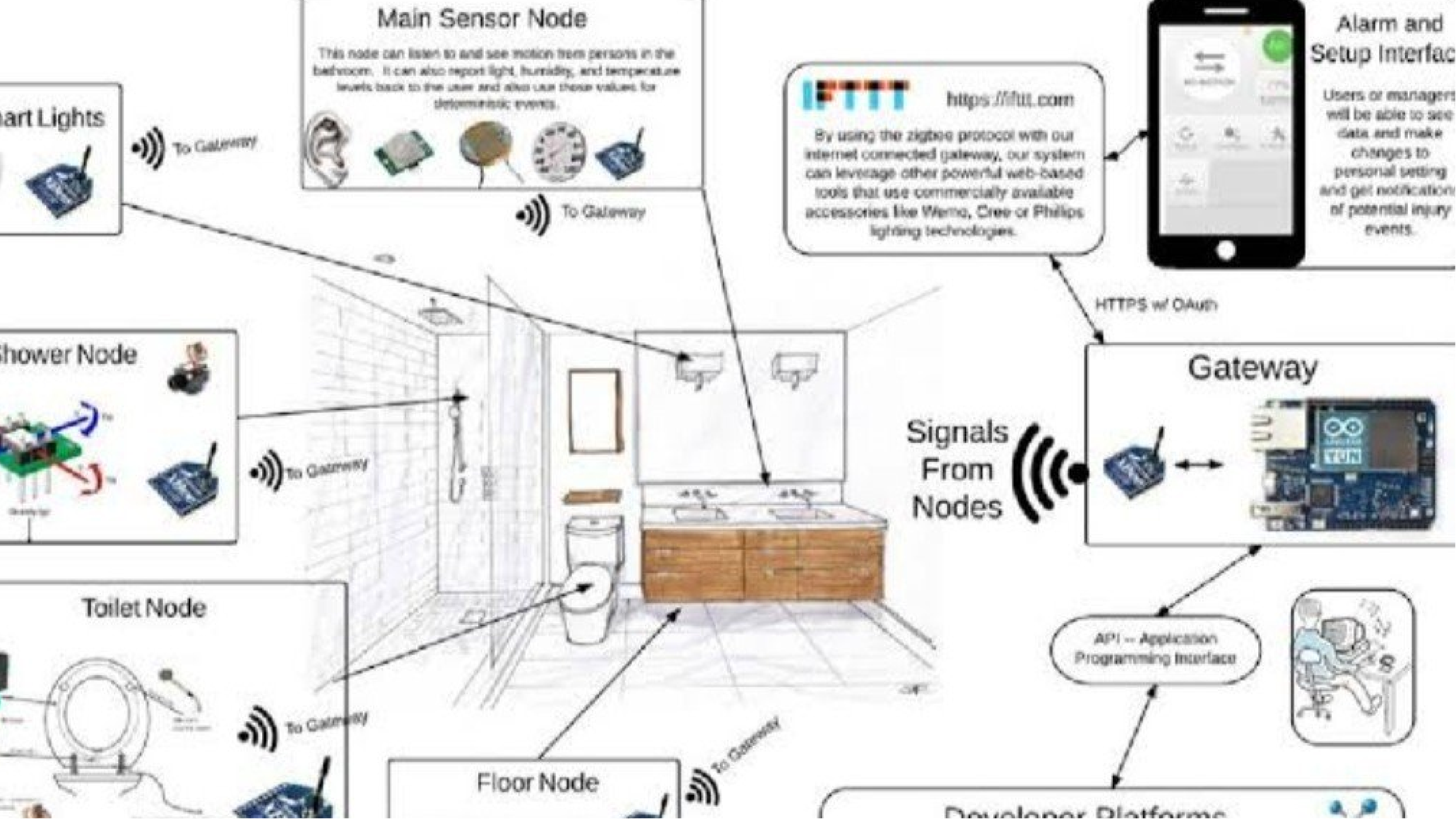
The project is based on IOT concepts using different sensors like smell sensor, dirt sensor, sonic sensor, RFID reader, Database. Using these materials we are trying to provide the clean toilets and create the awareness among the people.

Problem Statement

Current public washroom systems are often unhygienic and inefficient, leading to discomfort and inconvenience for users. There is a need for a **smart IoT-enabled** solution to address these challenges and improve public hygiene.

Smart IoT-enabled Features

Our innovative model incorporates **smart IoT-enabled** features such as automated **sanitization**, **occupancy monitoring**, and **maintenance alerts**. These features ensure a clean and safe environment, efficient resource management, and enhanced user experience.


Main Sensor Node
This node can listen to and see motion from persons in the bathroom. It can also report light, humidity, and temperature levels back to the user and also use these values for deterministic events.
To Gateway
art Lights
To Gateway
IFTTT
https://ifttt.com
By using the zigbee protocol with our internet connected gateway, our system can leverage other powerful web-based tools that use commercially available accessories like Wemo, Cree or Philips lighting technologies.
Alarm and Setup Interfac
Users or managers will be able to see data and make changes to personal setting and get notification of potential injury events.
HTTPS w/ OAuth
hower Node
To Gateway
Signals From Nodes
Gateway
Toilet Node
To Gateway
API -- Application Programming Interface
Floor Node
To Gateway

Implementation Challenges

While the benefits are substantial, there are challenges to consider, such as initial setup costs, infrastructure requirements, and data privacy concerns. However, with careful planning and collaboration, these challenges can be overcome, and the long-term advantages outweigh the initial investment.

Conclusion

The innovative model of a **smart IoT-enabled** public washroom system offers a transformative solution to revolutionize public hygiene. By leveraging technology, we can create cleaner, more efficient, and user-friendly public washroom facilities that positively impact the overall well-being of communities.

Thanks!