

PROBLEM SOLUTION FIT

Project Title: Smart Waste Management System using IOT

Team Members:

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1. CUSTOMER**CS**

Mismanagement of waste can cause water contamination, soil erosion and air contamination

managed efficiently

A reduction in the number of waste collections needed by up to 80%, resulting in less manpower, emissions, fuel use and traffic congestion.

6. CUSTOMER**CC**

In this modern world, creating a healthy and sanitized environment for the upcoming generations.

5. AVAILABLE SOLUTIONS**AS**

The mode of communication is through digital platform. Collecting the data from garbage can periodically.

Through the mobile application users can also view the capacity left in the trash bin.

Explore AS,

2. JOBS-TO-BE-DONE / PROBLEMS**J&P**

The people in a community throw their waste in nearby garbage can, by that the local garbage collector get notified how much left capacity of garbage can so it can be emptied time to time

Assisting with planning and decision-making; Setting waste reduction, recycling or diversion, objectives and targets; Identifying waste generation and recycling trends; Determining the viability and capacity of existing solid

9. PROBLEM ROOT CAUSE**RC**

Collecting waste material manually is not efficient and hygienic to solve this problem we use the smart waste collection method.

7. BEHAVIOUR**BE**

Diseases such as asthma, birth defects, cancer, cardiovascular disease, childhood cancer, COPD, infectious diseases, low birth weight, and preterm delivery.

It cause discomfort for people around the garbage bin

Focus on J&P, tap into BE, understand

3. TRIGGERS**TR**

This would help to maintain a polluted free environment for children and adult. Helps to live a healthy disease-free life

4. EMOTIONS: BEFORE / AFTER**EM**

Harms physical habitats, transports chemical pollutants, threatens aquatic life
clean air, fresh water, medicines and food security

10. YOUR SOLUTION**SL**

Access to reliable data on the state of solid waste at different locations within the city will help both the local authorities and the citizens to effectively manage the menace. The fill level of solid waste in each of the containers, which are strategically situated across the communities, is detected using ultrasonic sensors. A Wireless Fidelity (Wi-Fi) communication link is used to transmit the sensor data to an IoT cloud platform known as ThingSpeak. Depending on the fill level, the system sends appropriate notification message (in form of tweet) to alert relevant authorities and concerned citizen(s) for necessary action. Also, the fill level is monitored on ThingSpeak in real-time. The system performance shows that the proposed solution may be found useful for efficient waste management in smart and connected communities.

8. CHANNELS of BEHAVIOUR**CH**Offline:

The IoT-based smart waste management not only helps in modernizing the conventional garbage collecting methods.

Online:

IoT-based smart waste management is also beneficial in terms of environmental issues. It can help the garbage collector to efficiently use fuel and other resources available

Extract online & offline CH of BE

