Ideation Phase

Literature survey on the selected project & Information Gathering

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| Team ID | PNT2022TMID50597 |
| Project Name | Project - IoT Based Smart waste management for metropolitan cities |

# INTRODUCTION

Smart waste management is about using technology and data to create a more efficient waste industry.Based on IoT technology ,smart waste management aims to optimize resource allocation, reduce running costs, and increase the sustainability of waste services.

This system provides the necessary information about the safety using sensors such as their location from GPS, temperature sensor, humidity sensor, pulse rate detection sensor etc. These collected values are used to detect the status of the child and alerts the respective guardians using GSM technology.

# LITERATURE SURVEY

# IOT BASED SMART WASTE SYSTEM:

Our waste generation is constantly growing to form a Global garbage crisis. Even though we compromise on creating a more sustainable and green world with 2050 climate targets before too late, we still fail to recycle or handle our waste generation. Combining technology support with a vision of social, economic and environmental sustainability is the only way out of this problem.

# How Can Your Waste Operations Benefit from IoT?

[**IoT-based** **waste management for smart cities**](https://evreka.co/blog/sustainable-waste-management-with-big-data-ai/) has various examples around the world. These systems not only offer optimization for your operational plans but can also help reduce extra spending and ensure a more intelligent budget. In addition, they set an example for [**eco-friendly waste management**](https://evreka.co/blog/eco-friendly-solid-waste-management/), and the new resources created by advanced recycling practices make an important contribution to [**the circular economy**](https://evreka.co/circular-economy-solutions/). Overall, smart waste management using IoT can catch:

1) An operational standard and less managerial time

2)Wisely usage of scarce resources

3)Maximum revenue generation

Let’s give some examples of how smart waste management IoT relationship can restructure your business.

# ****Smart Bin Sensors:****

Waste bins are one of the essential components of waste management operations because they start the cycle of waste operations. **[IoT-based smart sensors](https://evreka.co/smart-bin-technologies/" \o "IoT-based smart sensors" \t "_blank)** help you utilize smart bin sensor technology from the beginning.

One of the best types of smart bin sensors, the[**Fill Level Sensor**](https://evreka.co/solutions/fill-level-sensor/), supported by IoT technology, you can:

1)Track the location with real-time data

2)|View fullness levels for creating daily optimized routes for collection

3)Monitor the temperature of your smart bins

This way, you can reduce the number of missing containers with location tracking and reach advanced inventory management. Monitoring the temperatures will help prevent unwanted accidents like explosions and fires. Viewing the fullness levels will be one of the critical components of [**multi stop route optimization system**](https://evreka.co/solutions/route-optimization/).

**To conclude, IoT Technology.**

To wrap up, Evreka can transform waste management operations to unprecedented levels with IoT technology. With the IoT based waste management for smart city, you can quickly achieve operational excellence. Utilizing above mentioned solutions in your operations will boost your revenue and bring your business to a respected place. But technology alone is not enough for gaining respect. When IoT and smart city are not combined with the sustainability vision, it may not produce the desired result.

# EXISTING SYSTEM

Mobile wearable device communication creates new challenges and also covers the short-range. It gives peer-to-peer communication or client-server fashion communication with smartphones, tablets, and gateway nodes. Women safety devices give protection and women themselves want to intimate their dangerous situation by pressing the buzzer in the device. In this, a person with a particular application will receive a woman's current status in a danger situation. The system provides an alert message for the small range and it can be received only through mobile phones. The existing system uses a Wi-Fi module to intimate the parents about their child's condition.

Parents can get the personal details of children by giving keywords like Body temperature, location to the concern device.

# PROPOSED SYSTEM

After analysing the drawbacks of the existing system, we have proposed a Child Tracking System using sensors and electronic components to detect the child's location. It also gets the details about the child's body temperature, surrounding temperature near the child, humidity of the environment, and if a child is in danger, it creates an alarm to the parents. Using this system, the parent can also create a Geo Fence around a particular location. By continuously checking the child's location notifications will be generated if the child crosses the geofence. Notifications will be sent according to the child's location to their parents or caretakers. The entire location data will be stored in the database.

# REFERENCE

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