INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DHARWAD

MINI PROJECT

Development of Smart Waste Management System based on IoT platform

Submitted By: Project Guide:

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Synopsis:

Generally, the solid waste is defined from households refusal and nonhazardous solid waste is from industrial, commercial and institutional establishments such as hospitals, market waste, yard waste and street sweepings. Today, Solid waste management has changed a long way from the old days when garbage was collected by horse and disposed of outside of town. Today, it is almost hard to manage waste collection process and management without high technology to pinpoint the locations of vehicles and recycling bins. In the developing countries, waste management is becoming an acute problem as urbanization and economic development increases leading to larger quantities of waste materials.

In our project we are building smart bins, which will be capable enough to track the levels of waste in the bins. And they will be capable of sending the location of the bin to control authorities.

*Working of Smart bins:

Smart Bins will continuously capture the distance between waste and the lid of the bin. When the bin gets completely filled by waste it sends the trigger signal along with the location of the bin to the controlling authorities(municipality).The controlling authorities then take an action of emptying it.

Advantages:

1)Reduce the transportation of municipal vehicles.

2)It will stop overflowing dustbins along roadsides.

3)By using the shortest path algorithm, it will find the shortest route to reach the bin.

4)Send optimized routes directly to the drivers.

5)By implementing this proposed system the cost reduction, resource Optimization effective use of Smart dustbins can be done.

Our project can benefit the society in following manners:

1)Protection of the environment through effective waste management

2)To protect the health and wellbeing of people.

3)Preventing pollution and ecological degradation.

Smart bins leads to clean and hygiene city