**NITK SURATHKAL - ITA PROJECT PROPOSAL - CSE 2017**

**Garbage Management System**

1. Team Member Names and Roll Numbers  
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2. Abstract  
To design a garbage management system for a town using concepts of IOT. Whenever a public Dustbin is filled, the Cleaning Management gets notified. Whenever a home Dustbin is filled, users can request a pickup from the Cleaning Management. The Cleaning Management also offers to deliver new Dustbins and Garbage Bags upon ordering by users.

Users can report littering in an area, and a dustbin will be shifted there. In order to encourage users to keep their area clean, they will also receive information about the environment and more ways to care for it.

Users and Cleaning Management members will have separate logins on the system.

The physical demonstration will show only the public Dustbins functioning, with a layout of a model town.

3. Implementation  
We will have infrared/ultrasound sensors connected to an arduino attached to the top of dustbins to measure garbage height. Arduino will send the sensor’s data to a local server, of the garbage Dustbins status.

Users and garbage disposal personnel will have a dashboard where they may login for their separate functions. Each area will have data types to store the littering status.

An extension of this project is to use Dijkstra’s algorithm to find the shortest path for the garbage disposal personnel to collect garbage from all the filled up dustbins and from homes.

4. Hardware and/or Software Requirements  
Arduino. Infrared sensors.

Php Website/C Program.

5. Work Distribution

The three phases of this project are:

1. Physical Demo
2. Main System Coding
3. Link physical with system

Due to the project needing to be executed as a flow, all three members will be working together throughout.