# WASTE AND POLLUTION MANAGEMENT PROPOSAL

# SUDOL

## (DRAINAGE MANAGEMENT SYSTEM)

**PROBLEM STATEMENT:**

Ensuring the quality of water is a challenge due the excessive sources of pollutants. The main cause for water quality problem is due to over exploitation. The need for external involvement in maintaining water quality and looking at other aspects like hygiene, environment sanitation, storage and disposal are critical elements for proper maintenance of water resources.

A Storm Drain is designed to drain excess ground and rain water from surfaces such as parking lots, footpaths, side-walks, etc. Storm drains often cannot manage the quantity of water that fall in heavy rains or storms. This results in the risk of over-whelming the public sewer. Due to rapid development of industrial complexes, residents intentionally and illegally make connections of their sewage pipes to the storm drains. This results in clogging up of the storm drain. Although, the storm sewers are designed and intended to carry only storm water. This is the primary cause of urban flooding.

**PROPOSED SOLUTION:**

We propose to install a data transmission sub-system using IOT Technology which consists of a wireless communication device along with built-in features which transmits the data from the controller to data storage cloud. It would consist of multi - parameter sensors to transmit sensor information to the controller. The controller would gather the data and process the same. Indication of poor quality of storm water from the drainage means that sewage water or any other pollutants have been indulged in the same. After compiling this data, the government authorities responsible will be informed and would be required to take necessary actions in the concerned locality. Notification alerts will be sent via text messages to both the residents and the authorities informing them that actions need to be taken via our website/mobile application.

If the government authorities fail to take action within 3 days, there will be provision for residents to post anonymous complaints on our website. Also, they can regularly check the quality of water in their storm water drains through logging in using consumer ID and password on the website 'SUDOL'.

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