

IOT BASED WASTE COLLECTION MONITORING SYSTEM

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Internet of Things (IOT) is playing an important role in many application fields such as home, industry, environment and health. This approach can be applied in the field of solid waste management. A new cost effective method is proposed to collect and monitor the waste collection process in this paper. Smart bins are placed in the urban are interfaced with microcontroller based system with ultrasonic sensors and Wi-Fi modules where the ultrasonic sensors detect the level of the smart bin and send the signal. The microcontroller receives the signal and pass the signal to the central system through internet. The data will be received, analyzed and processed which displays the status of the garbage in the smart bin on the Dashboard. At the same time the main server system will give an indication to the nearest driver of the garbage collection truck as to which smart bin is completely filled and needed urgent attention. This indication will be given by a notification through an android application which is developed and installed in driver's smart phone. This application will send the vehicle's current location to the main server which is also displayed in the dashboard. Along with these an android application is developed which can be installed in the citizen's smart phones/tablets through which the citizen can choose any bin and make complain on it.

Keywords: *Dash board, IOT, Microcontroller, Ultra Sonic sensors, Wi-Fi module.*

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