

(54) Title of the invention : SENSING THE GARBAGE LEVEL USING ULTRASONICS AND MONITORING ITS ODOR GASES USING IOT

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(57) Abstract :

The regular trend of manually collecting the wastes in waste bins is a complex process and involves more human effort. For this purpose, a smarter way of conventional waste management using sensors is used to gather garbage and to maintain high level hygienic surroundings. Here, Arduino acts as main controlling body which is interfaced to Ultrasonic sensor which continuously uploads the statistical values of garbage levels to the output sensing elements and this information is also conveyed to municipality office as well as truck driver via SMS alert. The continuous increase in population, garbage management becomes the most alarming concern of today's world mainly the countries with high population rate. Excess garbage in disposal area or overflow of garbage in the dustbin may aggregate different harmful diseases for the neighboring people. Hence the disposal and clearance and monitoring of garbage needs Garbage level Monitoring and its location based analysis using IOT which will help to maintain hygiene and cleanliness of surrounding area. This work proposed the IoT based smart garbage monitoring and clearance alert system in which led display will be attached with the bins as the indicator of the garbage level to the people who throw garbage in that. After disposal of garbage, the sensor present within the bin will monitor the level of the garbage. When the garbage level will meet the maximum capacity level it will send alert to the municipal authorities and if the level is not crossed but the garbage is being cleared for more than two days then also a clearance alert will be generated. A GSM module is installed to send the alerts from the microcontroller used in the system to the management. The whole procedure is reducing the human labor of monitoring. The total system will be used for replacement of the filled

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