**TEAM ID:**

**SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN**

**ABSTRACT**

Waste has become a major concern for all of us due to global population growth and industrialization of countries. Over the years, in the era of globalization, academics have come to the conclusion that waste management alone is not enough to effectively treat and dispose of waste. Researchers have developed IoT-based smart waste management initiatives and solutions with the help of technology that streamlines the time and energy required to provide waste management services and reduces the amount of waste produced. Unfortunately, many variables, including the socioeconomic environment, prevent developing countries from implementing those current solutions. We have focused on developing an intelligent Internet of Things based waste management system for developing countries like India to ensure effective household waste disposal, collection, transportation and recycling.

IOT-based dustbins are used in this smart waste management project to collect waste and monitor its volume inside the bin. Two ultrasonic sensors are used in the system, which is controlled by the Node MCU. An ultrasonic sensor detects the amount of waste in the bin, and another detects the person approaching the bin to remove the waste. This detection enables automatic opening and closing of the lid. The lid is connected to a servo motor which helps in closing and opening the lid. This device will inform the authorities concerned about the amount of garbage in the bin. Applications are used to monitor and store IoT data.