Smart Waste Management System using IoT (Internet of Things)

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Abstract: *Effective waste management is a major issue in crowded urban areas. In many developing countries, it is common to see garbage left on streets and in public spaces. This situation harms the environment and creates unsanitary conditions. Both developed and developing countries face challenges in managing waste for sustainable development. This paper looks at how automation can improve waste management systems in terms of cleanliness and hygiene.*

To tackle these problems, the Smart Netbin concept has been introduced. It combines hardware and software solutions by adding a Wi-Fi network to regular trash bins. This setup offers users free internet access for a limited time. The technology encourages users to keep their surroundings clean, which helps with effective waste management in their neighborhoods. The Smart Netbin uses various technologies: it measures the amount of trash added, tracks the movement of waste, and sends necessary signals while connecting users to the Wi-Fi network. The proposed system uses a client-server structure. It supports a clean environment, public health, and a pollution-free community.

Keywords: *Load cell, Internet of Things(IoT), load detection plate, Arduino, Wi-Fi, Internet*