

## Smart Trash Can Interface between Origin and Destination Waste Management

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**Abstract :** The increase in population in the cities has also led to the increase and accumulation of urban waste. Managing and organizing waste is an action that must be taken to prevent environmental pollution. Separation of waste from the source is the first step that must be taken to determine whether the waste should be buried, burned, recycled, or used in the industry according to its type. Separation of trash is a cultural work that the general public must learn the necessity of doing; then, it is necessary to provide suitable conditions for collecting this waste. It is necessary to put segregated garbage cans in the city so that people can put the garbage in the right place. In this research, a smart trash can has been designed, which is connected to the central system of the municipality and has information on the units of each neighborhood separately. By entering the postal code on the page connected to each bin and entering the type of waste, the section related to the waste in the existing bin is opened and the person places the waste in the desired section. In addition, all the bins are connected to the municipal system, and the sensors in it warn each relevant body about the fullness and emptiness of the bins. Also, people can know how full and empty the bins around their building are through the designed application connected to the system. In this way, each organization collects its desired waste, wet and dry waste are separated from the beginning, and city pollution and unpleasant odors are also prevented.

**Keywords :** connector, smart trash can, waste management

**Conference Title :** ICSIDDE 2023 : International Conference on Sustainable Interior Design and Decoration Engineering

**Conference Location :** Tokyo, Japan

**Conference Dates :** May 22-23, 2023