A Novel Approach for Smart Garbage Management

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Abstract: *Large problems were caused as a result of the modernization of urbanization in the world's growing economies, population increase, and the expansion of human activities. Consumption and production patterns have resulted in the accumulation of large volumes of rubbish, which needs to be disposed of, treated, and managed in an appropriate manner to provide a sustainable environment and a good standard of life for a population that is steadily increasing. The solutions that are currently being used for the management of waste are neither effective nor efficient enough to curb the increase in the volume of waste. This article gives a comprehensive survey of the existing body of literature, locating and characterizing active research activities on intelligent garbage bins that would enable efficient waste management. In addition, the planning and development of an intelligent waste segregation system that is based on the Internet of Things (IoT) are covered here. The system that has been proposed is efficient for both dry and moist trash, and it is able to appropriately separate the two different kinds of garbage.*

Keywords:- IoT, Waste, Smart Dustbin, Waste Separation.

1. INTRODUCTION

The battle for a sustainable future will be won or lost in urban areas depending on how exactly we collect, dispose of, handle, and control waste creation. To maintain a healthy environment and provide a satisfactory level of living for the expanding population, a significant amount of garbage must be processed, disposed of, and handled in an appropriate manner.

Today's waste management challenges necessitate the implementation of an appropriate strategy and decision-making procedure. Changing lifestyles have contributed to an increase in waste generation. The increase in waste production poses major problems [1]. Current waste disposal methods in the United States, such as open dumping, open burning, and burial, have been deemed ineffective and hazardous to the environment and human health. The outdated method of waste management in which cleaners are required to empty trash cans on a regular basis. This strategy has significant problems. Due to the daily growth in garbage production, waste bins in our environment frequently overflow, creating a hazardous environment for the local population and emitting a foul odor. Consequently, a number of human disorders and diseases spread [2]. It is common in our country to witness overflowing trash cans with trash spilling out. Here, numerous disease-causing microbes and insects flourished. Inadequate urban waste collection can result in a variety of problems that affect the environment, countries,