LITERATURE SURVEY

S.NO	TITLE	AUTHORS	ABSTRACT
1	Smart Waste Management System using IOT	Tejashree Kadus, Pawankumar Nirmal, Kartikee Kulkarni	The paper is based on the concept of Automation used in waste management system under the domain of Cleanliness and Hygiene. Dumping garbage onto the streets and in public areas is a common synopsis found in all developing countries and this mainly end up affecting the environment and creating several unhygienic conditions. In order to deal with these problems Smart net bin is an ideology put forward which is a combination of hardware and software technologies i.e. connecting Wi-Fi system to the normal dustbin in order to provide free internet facilities to the user for a particular period of time. The technology awards the user for keeping the surrounding clean and thus work hand in hand for the proper waste management in a locality. Smart netbin uses multiple technologies firstly the technology for measuring the amount of trash dumped secondly the movement of the waste and lastly sending necessary signals and connecting the user to the Wi-Fi system. The proposed system will function on client server model, a cause that will assure clean environment, good health, and pollution free society
2	Smart Waste Management: Garbage Monitoring Using Iot	Mrs Sarmila SS , Siva Kumar V, Vasanth Kumaur P K-Assistant Professor	In this project, we present the Smart bin system that identifies hazardous gases and fullness of bins. The system is designed to collect data and to deliver the data through wireless mesh network. To collect data and to obtain bin utilization and bin daily information, With such information, wastage bin providers and cleaning contractors are able to make better decision.
3	Smart City Waste Management System Using Internet of Things and Cloud Computing	Prof. Aderemi A. Atayero,Nigeria Segun I. Popoola, Rotimi Williams, Joke A. Badejo	Indiscriminate disposal of solid waste is a major issue in urban centres of most developing countries and it poses a serious threat to healthy living of the citizens. Access to reliable data on the state of solid waste at different locations within the city will help both the local authorities and the citizens to effectively manage the menace. In this paper, an intelligent solid waste monitoring system is developed using Internet of Things (IoT) and cloud computing technologies. The fill level

			of solid waste in each of the containers, which are strategically situated across the communities, is detected using ultrasonic sensors. A Wireless Fidelity (Wi-Fi) communication link is used to transmit the sensor data to an IoT cloud platform known as ThingSpeak. Depending on the fill level, the system sends appropriate notification message (in form of tweet) to alert relevant authorities and concerned citizen(s) for necessary action. Also, the fill level is monitored on ThingSpeak in real-time. The system performance shows that the proposed solution may be found useful for efficient waste management in smart and connected communities.
4	IoT-Enabled Solid Waste Management in Smart Cities	S. Vishnu , S. R. Jino Ramson, Samson Senith , Theodoros Anagnostopoulos , Adnan M. Abu-Mahfouz , Xiaozhe Fan , S. Srinivasan and A. Alfred Kirubaraj	The Internet of Things (IoT) paradigm plays a vital role for improving smart city applications by tracking and managing city processes in real-time. One of the most significant issues associated with smart city applications is solid waste management, which has a negative impact on our society's health and the environment. The traditional waste management process begins with waste created by city residents and disposed of in garbage bins at the source. Municipal department trucks collect garbage and move it to recycling centers on a fixed schedule. Municipalities and waste management companies fail to keep up with outdoor containers, making it impossible to determine when to clean them or when they are full. This work proposes an IoT-enabled solid waste management system for smart cities to overcome the limitations of the traditional waste management systems. The proposed architecture consists of two types of end sensor nodes: PBLMU (Public Bin Level Monitoring Unit) and HBLMU (Home Bin Level Monitoring Unit), which are used to track bins in public and residential areas, respectively. The PBLMUs and HBLMUs measure the unfilled level of the trash bin and its location data, process it, and transmit it to a central monitoring station for storage and analysis. An intelligent Graphical User Interface (GUI) enables the waste collection authority to view and evaluate the unfilled status of each trash bin. To validate the proposed system architecture, the following

			significant experiments were conducted: (a) Eight trash bins were equipped with PBLMUs and connected to a LoRaWAN network and another eight trash bins were equipped with HBLMUs and connected to a Wi-Fi network. The trash bins were filled with wastes at different levels and the corresponding unfilled levels of every trash bin were monitored through the intelligent GUI. (b) An experimental setup was arranged to measure the sleep current and active current contributions of a PBLMU to estimate its average current consumption. (c) The life expectancy of a PBLMU was estimated as approximately 70 days under hypothetical conditions.