

## LITERATURE REVIEW

S.NO	TITLE	YEAR	PROJECT DESCRIPTION	TECHNIQUE USED	ADVANTAGES	DRAWBACKS
1	IOT-Based Smart Solid Waste Management System A Systematic. Nor Azman Ismai Nurul Aiman Ab Majid Shukur Abu Hassan	2019	IoT based smart waste management system useful in many ways such as monitoring garbage level in real-time, tracking the location of garbage bins, optimizing waste collection route using an IOT.	Optimization Technique	People to take necessary amounts of food so that the wastage of food can be reduced	No prior information
2	From smart city to smart citizen: rewarding waste recycling by designing a data centric IoT based garbage collection service. Pelonero, Leonardo, Andrea Fornaia, and Emiliano Tramontana	2020	The smart bin model by proposing an incentive system that focuses on door-to-door waste collection. Such a solution assists door-to-door garbage collection by using practical and affordable QR-codes and IoT sensors to accumulate	DTD method, QR code methodology	Allows gathering a great deal of data, as well as timely giving users a monitoring ability and incentives according to their activities.	QR code detection some time makes mistakes.
3	A LoRaWAN IoT-Enabled Trash Bin Level Monitoring System. Ramson, SR Jino, S.Vishnu, Alfred Kirubaraj, Theodoros Anagnostopoulos, and Adnan M. Abu-Mahfouz.	2021	Development and validation of a self powered, LoRaWAN IoT enabled Trash Bin Level Monitoring System (IoT-TBLMS).	LoRaWAN, TBLMU, Dijkstra algorithm	System was validated by evaluating the accuracy of the sensor employed, maximum transmission distance between a TBLMU and a gateway, life expectancy of a TBLMU, battery charging time and cost. Based on the results obtained, the proposed IoT system is suitable for Municipality or Municipal Solid Waste Management Companies to manage municipal solid waste efficiently	System requirement of accuracy in LoRaWAN is less.
4	Machine Learning and IoT-Based Waste Management Model, Rizwan Khan, Santosh Kumar, Akilesh Kumar, Niharika Dhingra	2021	The smart waste management system can be administered and supervised using machine learning and the Internet of things. The system proposed by the authors functions with the ultrasonic sensor and moisture sensor	ML Based Methodology	The implementation of the system discussed above provides the optimized path for efficient waste collection. This system reduces infrastructure, rating, and maintenance costs by up to 30%. Smart bins outperform in comparison to ordinary garbage cans.	The performance of a machine learning model can be improved by using a larger data set
5	A smart waste management and segregation system that uses Internet of things, machine learning and android application. Varudandi, Shaunak, Raj Mehta, Jahnavi Mahetalia, Harshwardhan Parmar, and Krishna Samdani.	2021	Main constituent of this system is a waste bin which will automatically segregate the waste by employing technologies such as Internet of Things and Machine Learning.	Image classification algorithm	First version achieved an accuracy of 75% in classifying the waste as wet or dry whereas the second version achieved an accuracy of 90% when segregating the waste into six distinct categories.	Segregating of waste into six distinct categories is less user friendly and difficult process in the day to day usage process.