Project Design Phase-I

Proposed Solution Template

Date	05 May 2023
Team ID	NM2023TMID01947
Project Name	Intelligent Garbage Classification Using Deep Learning
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	• As increases in population and the volume of waste increases, it generates a dangerous chemical reaction when mixed with hazardous waste and affects workers' health.
2.	Idea / Solution description	• We proposed the solution as an intelligent garbage classification that uses deep learning algorithms to classify various garbage. The system will utilize various sensors and cameras to classify the garbage such as recyclable, organic, etc..., • Convolutional neural networks (CNNs) and other deep learning techniques will be used by the system to identify garbage based on its properties and attributes.
3.	Novelty / Uniqueness	• The suggested system is unique in that it uses deep learning algorithms to effectively classify various sorts of rubbish, making it more efficient and accurate than typical garbage classification methods. • In addition, the system can adapt to new waste types by training it and making it scalable for future waste management.
4.	Social Impact / Customer Satisfaction	• The Intelligent garbage classification has a social impact by reducing pollution and improving environment sustainability. • customer satisfaction can be provided by the accurate method of classification and by reducing the time for classification.
5.	Business Model (Revenue Model)	• The intelligent classification could involve the income by selling the model to the organisations for fee for waste classification. • In addition, we can gain revenue by data analytics, providing valuable information to the organisation.
6.	Scalability of the Solution	• The proposed solution is scalable because it can be adapted to different waste management systems and adapt to new waste types by training it. • It can be easily integrated with the existing waste management and scale up the organisations.