Project Design Phase
Proposed Solution Template

Date	15 February 2025
Team ID	LTVIP2025TMID45617
Project Name	**CleanTech: Transforming Waste Management with Transfer Learning**
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1	Problem Statement	Inefficient and inaccurate waste classification leads to poor waste management and environmental pollution.
2	Idea / Solution Description	Use transfer learning on pre-trained deep learning models to classify waste images into biodegradable, recyclable, and trash categories accurately and efficiently.
3	Novelty / Uniqueness	Applying transfer learning reduces training time and data requirements while achieving high accuracy in waste classification compared to traditional methods.
4	Social Impact / Customer Satisfaction	Improves waste segregation, promoting recycling and reducing landfill waste, thereby contributing to environmental sustainability and enhanced customer satisfaction.
5	Business Model (Revenue Model)	Subscription-based SaaS model for municipalities and waste management companies, plus licensing the technology for commercial use.
6	Scalability of the Solution	The model can be easily adapted to new waste categories and scaled to process large volumes of images across different regions and platforms.