

Project Design Phase- IProposedSolutionTempla te

Date	21/10/2022
TeamID	PNT2022TMID40955
ProjectName	Smart Waste Management System For Metropolitan Cities
MaximumMarks	2Marks

ProposedSolutionTemplate:

Projectteamshallfillthefollowinginformationinproposedsolutiontemplate.

S.No.	Parameter	Description
1.	ProblemStatement(Problemto esolved)	This project deals with the problem of wastemanagementinsmartcities,wheretheg arbagecollection system is not optimized. This projectenables the organizations to meet their needsof smart garbage management systems. Thissystem allows the authorised person to knowthefill level ofeachgarbagebininalocalityor cityatalltimes,togiveacost- effectiveandtime- savingroutetothetruckdrivers.
2.	Idea/Solutiondescription	Thekeyresearchobjectivesareasfollows: • The proposed system would be able toautomatethesolidwastemonitoringproc essand management of the overall collectionprocessusing IOT(InternetofThings). • The Proposed system consists of mainsubsystemsnamelySmartTrashSyst em(STS)and Smart Monitoring and ControllingHut(SMCH). • Intheproposedsystem,wheneverthewaste bin gets filled this is acknowledged by placingthe circuit at the waste bin, which transmits itto the receiver at the desired place in the areaorspot. • Intheproposedsystem,thereceivedsignal indicatesthewastebinstatusatthemonitoringa ndcontrolling system.
3.	Novelty/Uniqueness	We are going to establish SWM in our collegebut the real hard thing is that janitor (cleaner)don'tknowto operatethesethingpracticallysohere our team planned to build a wrist band tothem, that indicate via light blinkingwhen thedustbinfill andthisisUniquenesswemade herebesidefromprojectconstrain.
4.	SocialImpact/CustomerSatisfaction	From the public perception as worst impacts ofpresent solid waste disposal practices are seendirectsocialimpactssuch asneighbourhood of landfillstocommunities,breedingofpestsan dlossinpropertyvalues

5.	BusinessModel(RevenueModel)	<p>Waste Management organises its operationsintotworeportablebusinesssegments:</p> <p>Solid Waste, comprising the Company's wastecollection, transfer, recycling and resourcerecovery, and disposal services, which areoperated and managed locally by theCompany'svarioussubsidiaries,whichfoc usondistinctgeographicareas;and Corporate and Other, comprising theCompany's other activities, including itsdevelopment and operation of landfill gas-to-energyfacilitiesintheINDIA,anditsrecycling brokerageservices,aswellasvariouscorporate functions.</p>
6.	ScalabilityoftheSolution	<p>In this regard, smart city design has beenincreasingly studied and discussed aroundtheworld to solve this problem. Following thisapproach, this paper presented an efficient IoT-based and real-time waste management modelfor improving the living environment in cities,focused on a citizen perspective. The proposedsystem uses sensor and communicationtechnologies where waste data is collectedfrom the smart bin, in real-time, and thentransmitted to an online platform wherecitizenscanaccessandchecktheavailabilityof thecompartmentsscatteredaroundacity.</p>