**VSB Engineering College,karur-639111**

**Project Design phase – I**

**Problem Solution fit**

**Project name: Smart waste management system in metropolitan cities**

**Team Id :** **PNT2022TMID33576**

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| **1.Customer segments:-**  In early days, for collecting the waste the following methods were used :  1.Alley service  2.Set out set back service  3.Backyard Service | **6.Customer constrains:-**  The primary constraint in the waste management system is to measure the weight for timely collection of the garbage disposals as quickly as possible. | **5.Available solutions**  Smart sensor monitor fill levels in the waste container powered by IoT network. |

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| **2.Jobs to be done :-**  When the dustbin detects specific level of weight, it sends a command to the corresponding Service station. These commands will be notified. | **9.Problem route cause:-**  Waste management systems are in place to do three major things :  Detects the weight  Sends alert to command station  Collection of garbage | **7.Behavior:-**  Smart waste system rises alarm when it reaches certain level of weight. Then alert is triggered automatically from the IoT sensors. |

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| |  | | --- | | 3.Triggers:-  Data will be sent through LoRa/RF communication “Smart Mesh” link to control server. |   4.Emotions:-  Feel hygienic | **10.Solution**:-    IoT sensors and cloud services are included to be designed for this system and they provide efficient and clean environment. | 8.Channels of behavior:-  Weighing sensors  IoT sensors  GPS tracker |