**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 20 May 2023 |
| Team ID | NM2023TMID13373 |
| Project Name | IoT based smart city waste management system with connected trash cans |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Develop an IoT-based Weather Adaptive Street lighting system that addresses the limitations of traditional street lighting systems, such as lack of adaptability to weather conditions and inefficient energy consumption. |
|  | Idea / Solution description | Implement an intelligent lighting system that utilizes IoT technology and weather data to dynamically adjust the brightness and color temperature of street lights based on weather variations, enhancing visibility and safety on the streets. |
|  | Novelty / Uniqueness | The integration of IoT technology, real-time weather data, and adaptive lighting algorithms creates a unique and innovative solution that optimizes street lighting based on changing weather conditions, improving energy efficiency and visibility. |
|  | Social Impact / Customer Satisfaction | The Weather Adaptive Street lighting system will significantly improve pedestrian and driver safety by providing enhanced visibility during different weather conditions. It will also contribute to energy savings, reducing environmental impact and increasing customer satisfaction. |
|  | Business Model (Revenue Model) | The business model can involve selling and installing the IoT-based lighting system to municipalities, city planners, and urban developers. Revenue can be generated through product sales, installation services, and ongoing maintenance contracts. |
|  | Scalability of the Solution | The solution is scalable as it can be implemented in various urban areas and adapted to different infrastructure setups. It can be deployed in small neighborhoods, large cities, and even scaled up to cover entire smart city projects. |