

Project Design Phase-I

Proposed Solution

Date	04 MAY 2023
Team ID	NM2023TMID09640
Project Name	IoT Based Weather Adaptive Street Lighting System
Maximum Marks	2 Marks

Proposed Solution – (Inadequate Street Lighting in Residential Areas)



S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Im a resident of a residential area in a inadequate street lighting.Im trying to feel safe and secure in my neighborhood.But some areas of my neighborhood have poor or inadequate street lighting.because faulty streets are not being fixed in timely manner.which makes me feel uncomfortable and vulnerable in my own neighbor hood
2.	Idea / Solution description	The proposed solution is to install a smart street lighting system in the residential area.
3.	Novelty / Uniqueness	The smart street lighting system is a unique solution that utilizes the latest technology to provide adequate lighting in residential areas.
4.	Social Impact / Customer Satisfaction	The installation of the smart street lighting system will have a significant social impact as it will improve the safety and security of the residential area
5.	Business Model (Revenue Model)	The smart street lighting system can be implemented through a public-private partnership model.
6.	Scalability of the Solution	The initiative can also be expanded to cover larger areas and implemented in different cities and countries.

Proposed Solution - (Safety Concerns on Highways)

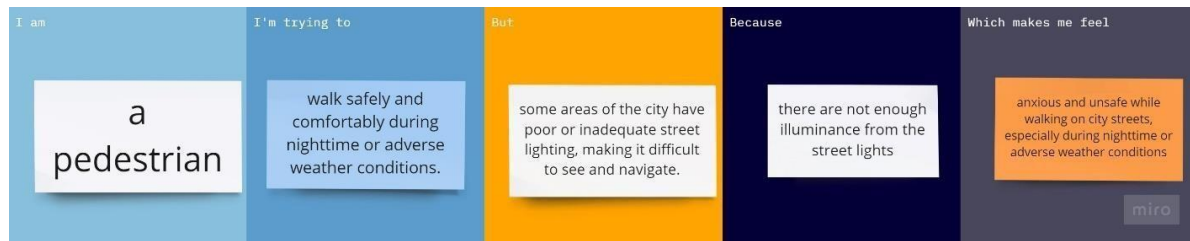


S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	im a driver.im trying to travel safely and efficiently.But some areas of highway have poor or inadequate street lighting making it diffcult to navigate.Because the street lights are not installed at correct places,which makes me feel anxious and unsafe.
2.	Idea / Solution description	The proposed solution is to install an intelligent highway lighting system that uses sensors and cameras to detect the presence of vehicles and adjust the lighting levels accordingly.
3.	Novelty / Uniqueness	The intelligent highway lighting system is a unique solution that utilizes the latest technology to provide adequate lighting on highways. The system is designed to be energy-efficient and environmentally friendly
4.	Social Impact / Customer Satisfaction	The installation of the intelligent highway lighting system will have a significant social impact as it will improve the safety and security of the drivers
5.	Business Model (Revenue Model)	The intelligent highway lighting system can be implemented through a public-private partnership model.
6.	Scalability of the Solution	The proposed solution of installing intelligent lighting systems can be made scalable by replicating the solution on other highways and roads with inadequate street lighting. The system can be customized and adapted to different road conditions and traffic patterns, making it applicable in different regions and countries.

Proposed Solution - (Inadequate Street Lighting in Commercial Areas)



S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	im a employee in a commercial area.im trying to feel safe and secure while shopping or working im the area.But Some area of commercial area have poor or inadequate street lighting.Because the street lights are not installed at right places.which makes me feel insecure.
2.	Idea / Solution description	The proposed solution is to install a commercial area lighting system that uses smart sensors and cameras to detect the presence of people and vehicles and adjust the lighting levels accordingly.
3.	Novelty / Uniqueness	The commercial area lighting system is a unique solution that utilizes the latest technology to provide adequate lighting in commercial areas.
4.	Social Impact / Customer Satisfaction	The installation of the commercial area lighting system will have a significant social impact as it will improve the safety and security of employees and shoppers in the commercial area.
5.	Business Model (Revenue Model)	The commercial area lighting system can be implemented through a public-private partnership model. The government can provide the necessary funding for the installation of the system, while private companies can be responsible for the system's maintenance and operation.
6.	Scalability of the Solution	The proposed solution of installing strategically placed street lights can be made scalable by replicating the solution in other commercial areas with inadequate street lighting.



S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	im a pedestrian.im trying to walk safely and comfortbly during night.but some areas of city have poor lighting system,because there is not enough illuminance from the street light,which makes me feel anxious and stressed
2.	Idea / Solution description	The proposed solution is to install a pedestrian-friendly lighting system that provides adequate and uniform lighting for pedestrians in cities.
3.	Novelty / Uniqueness	The pedestrian-friendly lighting system is a unique solution that prioritizes the safety and comfort of pedestrians. The system's use of high illuminance levels and sensors is a unique aspect that ensures that pedestrians can see and be seen in all lighting conditions.
4.	Social Impact / Customer Satisfaction	The installation of the pedestrian-friendly lighting system will have a significant social impact as it will improve the safety and comfort of pedestrians in cities.
5.	Business Model (Revenue Model)	The pedestrian-friendly lighting system can be implemented through a public-private partnership model.
6.	Scalability of the Solution	The proposed solution of installing a pedestrian-friendly lighting system can be made scalable by replicating the solution in other cities and countries. The system can be adapted to different pedestrian-heavy areas, such as parks, pedestrian crossings, and public plazas, making it applicable in different urban environments.



S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	im a electricity minister.im trying to provide adequate lighting for city residents while ensuring energy efficiency.But traditional street lighting system consume a lot of energy.because there is a need to reduce energy consumption which makes me feel concerned about environmental impact
2.	Idea / Solution description	The proposed solution is to install a smart street lighting system that uses LED lights and sensors to adjust lighting levels based on the presence of people and vehicles.
3.	Novelty / Uniqueness	The smart street lighting system is a unique solution that utilizes the latest technology to provide energy-efficient lighting in cities. The system's use of LED lights and sensors is a unique aspect that ensures that lighting is only provided where and when it is needed, resulting in significant energy savings.
4.	Social Impact / Customer Satisfaction	The installation of the smart street lighting system will have a significant social impact as it will improve the safety and security of city residents while reducing the carbon footprint.
5.	Business Model (Revenue Model)	The smart street lighting system can be implemented through a public-private partnership model.
6.	Scalability of the Solution	The proposed solution of installing a smart street lighting system can be made scalable by replicating the solution in different cities and countries. The system can be adapted and customized to different street layouts, traffic patterns, and environmental conditions, making it applicable in different regions.

Team ID: NM2023TMID09640
Team Leader: ADITHYA N
Team member: DINESH KUMAR P
Team member: GUGANESH RAJ S
Team member: MAGESH S
Team member: ARUNKUMAR M

