

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

Date	06 May 2023
Team ID	PNT2022TMIDxxxxxx
Project Name	Project - xxx

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Light Control	The system can turn on/off the street light according to the environment using the sensor.
FR-2	Timer Setting	System allows users to change the timing of lights.
FR-3	Light Pattern managing	System allow users to set the brightness of the light.
FR-4	Power saving	System can detect the traffic and reduce the power usage by dimming the light.
FR-5	Emertgency alarm	The system can detect emergency signals in the environment and alert the authorities accordingly.
FR-6	System monitoring	System can monitor the working of each light and send periodic reports to its service centers.

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The system should be easy to use and provide an intuitive user interface.
NFR-2	<b>Security</b>	The system should be built with secure authentication protocols to ensure that only authorized personnel can access the system.
NFR-3	<b>Reliability</b>	Reliability for the Smart Street Light System should be a key non-functional requirement. Reliability must be monitored, maintenance plans for the system must be implemented, and the system must be able to recover from any failures quickly.
NFR-4	<b>Performance</b>	System response time should be within 200ms on an average. Uptime should be more than 99.5%.The street light should be able to work 24/7 in any environmental conditions.
NFR-5	<b>Availability</b>	The Smart Street Light System must be available for at least 99% of business hours. The Smart Street Light System must be able to respond to requests from users within four seconds.
NFR-6	<b>Scalability</b>	Scalability refers to the ability of the smart street light system to handle increased usage or traffic due to an increase in customer demand and/or usage.