Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	13 May2023
Team ID	NM2023TMID20443
Project Name	IoT based Weather adaptive lighting system

Technical Architecture:

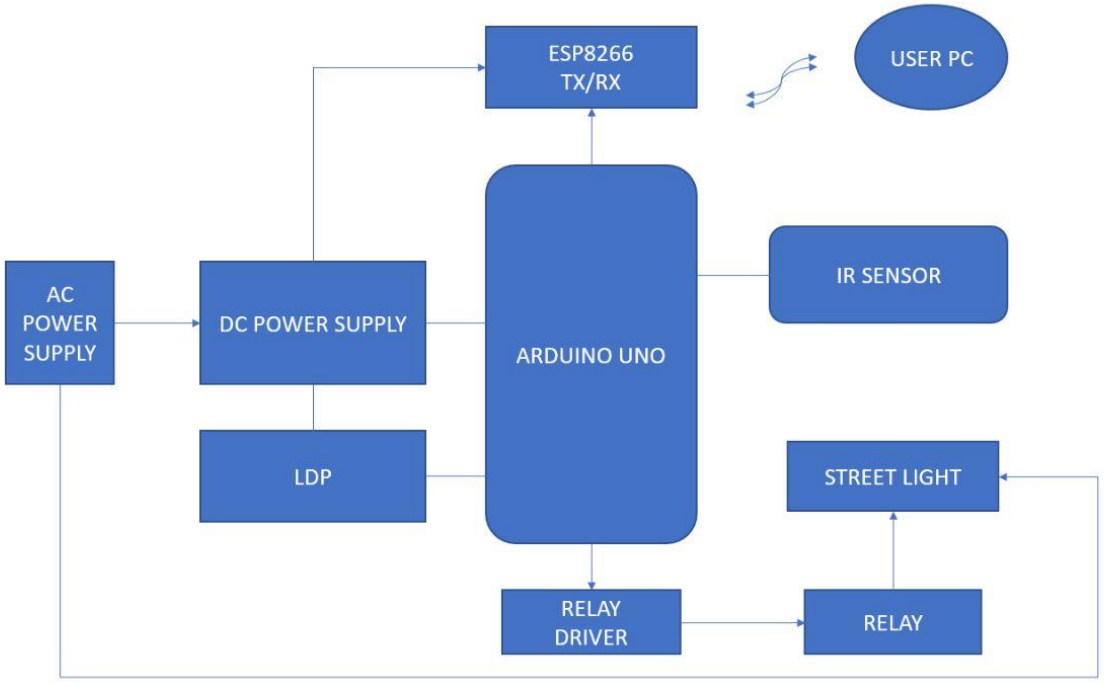

Table-1:Components &Technologies:

S.No	Component	Description
1.	Light Dependent Resistors (LDRs)	LDRs are used to sense the ambient light level and control the street lights. They vary their resistance based on the intensity of light they are exposed to.
2.	Microcontroller	A microcontroller is a small computer that controls the operation of the system. It receives data from the LDRs and processes it to control the street lights.
3.	Power supply	A power supply unit is used to supply power to the microcontroller and the other components of the system.
4.	Circuit board	A circuit board is used to connect all the components of the system and ensure proper electrical connectivity.
5.	Sensors	Additional sensors such as temperature and humidity sensors can be added to the system to monitor the environmental conditions and provide additional data for analysis.

Table-2:Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Remote monitoring	The system should have the capability to allow remote monitoring of street light status and energy consumption. This could be achieved through a mobile app or web portal.	Wireless Communication
2.	Real-Time control	The system should be able to control street lights in real-time based on ambient light levels detected by the LDRs. This will ensure optimal energy savings and efficient street lighting.	Machine Learning