## SRI CHANDRASEKHARENDRA SARASWATHI VISWA MAHAVIDYALAYA [SCSVMV]



(Deemed to be University u/s 3 of the UGC Act, 1956) Accredited with "A" Grade by NAAC



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

## SMART LIGHTING SYSTEM REPORT

05.10.2021

- Smart Lighting System is very compact unit. It consist of solar panel, LED light, LDR, PIR sensor and lithium iron battery.
- Smart Lighting system installed and tested with two number of light with existing pole on 04.10.2021 at our Vinayagar temple towards first year block road.
- The following features are observed from the smart lighting system.
  - a) ON OFF control with Remote
  - b) Standard LDR Mode
  - c) Radar Mode using PIR Sensor (100 % brightness when image crossing around 25
  - feet radius; 30 % brightness if no image sensed.)
  - d) Can operate the lamp Constant 100 % Brightness
  - e) Also with Constant 30 % Brightness
- Specifications of Smart Lighting (as installed)
  - a) Power: 60 Watt
  - b) Battery Charging time: 5 7 Hrs.
  - c) Battery Capacity: 20,000 MAH (74 WHr.)
  - d) Input Voltage: 3.7 V DC Only
  - e) Beam Angle: 120°
  - f) Lumens: 120lm n/watt
  - g) (COLOUR RENDERING INDEX) CRI: > 80

h) LDR operate @ < 400 Lux irrespective of sunrise and sunset (ambient illumination)

- i) Smart Lighting Unit Cost for
  - $\blacktriangleright$  40 Watts = Rs.2100/-
  - $\blacktriangleright$  60 Watts = Rs.2700/-

## **Standard LDR Mode**



Rader Mode using PIR Sensor (30 % brightness if no image sensed; 100 % brightness when image crossing around 25 feet radius)



Live Demo Video Link: https://drive.google.com/file/d/19NO\_pfdbuQEioshTgGBck\_dVku48xyg5/view?usp=drivesdk

> Smart Lighting Project Team Department of EEE