Intelligent Systems

CCMS – Centralised Control & Monitoring System

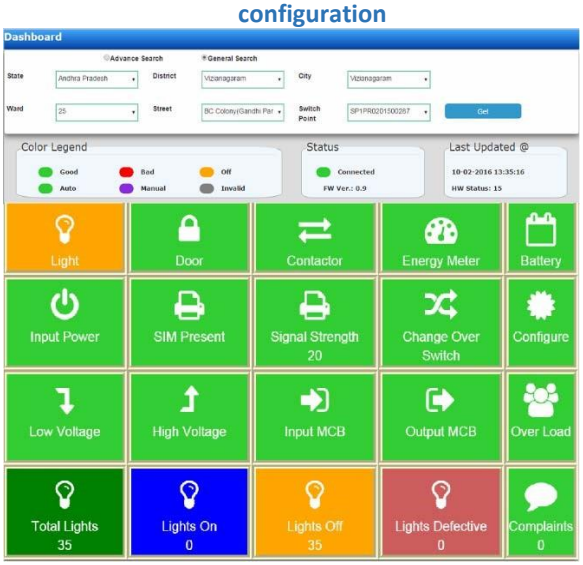
WHAT IT DOES -

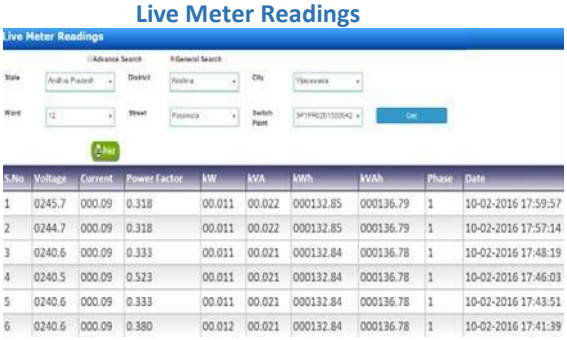
- ③ Switch ON and OFF the lights of a particular switching point and/or networked switching points from Central Control Station
- ③ Control lights instantaneously or automatically throughout the year on basis of Sunrise and sunset time depending on the geographical location of the switching point.
- ③ Single Switch point can support up to 300 lighting poles
- ③ GPRS based remote streetlight monitoring system with self-protection from short-circuit
- ③ Over voltage protection and anti- theft alert.
- ③ Battery backup of 4 hours.
- ③ Metal/Polycarbonate/SME enclosure with proper lock arrangement.
- ③ GIS mapping covering all switching points

HOW IT FUNCTIONS

- ③ CCMS has a web-server to receive and record all data from the streetlight controllers.
- ③ Communicate with any individual switching point
- ③ Records LED luminaires glowing and non-glowing hours of a particular switching point.
- ③ Displays the power failure details of a
- ③ particular switching point.
- ③ Registers all fault conditions like excess
- ③ voltage/current drawn, lamps failure, no-power supply, etc through the instantaneous alert messages sent by the CCMS unit.
- ③ Reports such as energy saving report, lamp failure report, actual hours of operation, uptime (%), etc. can be generated on a daily basis from the data/readings received from the CCMS units.
- ③ Different user authorization levels can be set

Web based Application for remote monitoring and configuration



③ Total Load: It is the real time total power consumption of all the street lights connected to switch points based on selection criteria like State/District/City. ③ Total Meter Readings: It shows the accumulated power consumption of all the switch points. ③ Configured: It shows the number of switch points for which connected load is configured. It helps in detecting Overload & light failures.	**City level Dashboard View** 
③ Voltage each phase ③ Current each phase ③ PF each phase ③ Metering KWH cumulative ③ Metering KVAH	**Live Meter Readings** 

S.No	Voltage	Current	Power Factor	kW	kVA	kWh	kVAh	Phase	Date
1	0245.7	000.09	0.318	00.011	00.022	000132.85	000136.79	1	10-02-2016 17:59:57
2	0244.7	000.09	0.318	00.011	00.022	000132.85	000136.79	1	10-02-2016 17:57:14
3	0240.6	000.09	0.333	00.011	00.021	000132.84	000136.78	1	10-02-2016 17:48:19
4	0240.5	000.09	0.523	00.011	00.021	000132.84	000136.78	1	10-02-2016 17:46:03
5	0240.6	000.09	0.333	00.011	00.021	000132.84	000136.78	1	10-02-2016 17:43:51
6	0240.6	000.09	0.380	00.012	00.021	000132.84	000136.78	1	10-02-2016 17:41:39

Analytics Use Cases CCMS

1. **Fault analysis – Identification of power fault to decide the uptime of LED SL.**
2. **Energy Saving data – Cumulative Energy saving data gives the reduction in power consumption as well as reduction in greenhouse gas emission (GHG) which is major contributor in global warming.**
3. **Theft analysis- Identification of theft and unauthorized tapping through powerline.**
4. **Overload alert through message to the user mobile phone.**
5. **Zone-wise/ward wise monitoring of LED SL through CCMS data.**
6. **Control of LED SL on-off duration through timer.**
7. **Auto trip recovery and stabilization of LED SL operation post fault clearance**