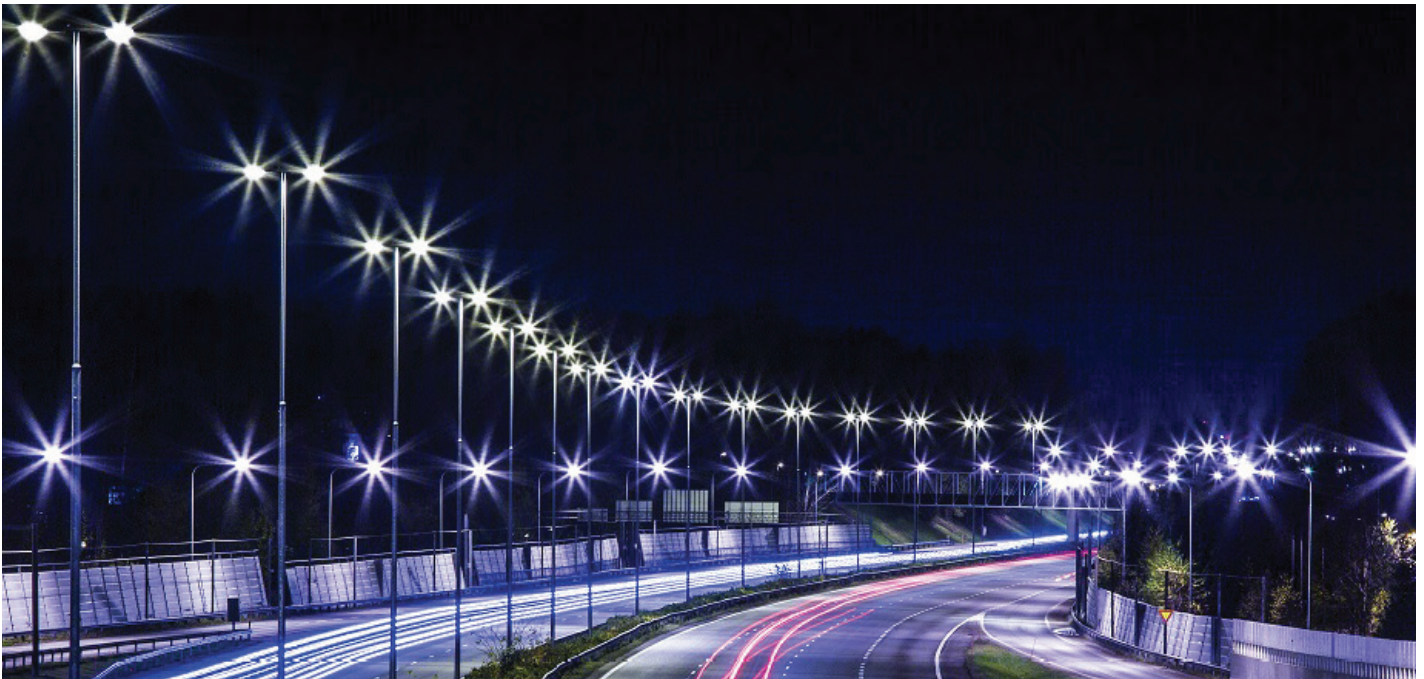


STREET LIGHT OPERATION AND MONITORING SYSTEM

- Monitor and control street lights
- Monitor failure of street lights
- Auto and manual operation of street lights
- Save maintenance expenses
- Reduce electrical energy in street lights
- Mobile app to monitor and control operation of street lights

STREET LIGHT CONTROL AND MONITORING

Street lights are the main backbone for any city. Any failure in street lights can result many losses and accidents. Street lights also consume lot of energy and are major expenditure for any city. Introducing smart monitoring and control of street lights will result in significant saving. Smart and intelligent street light system should have following features



**Image show for description purpose only*

- Monitor and control street lights
- Operate street lights based on sun rise and sun times.
- Identify location of defective street light
- Enable control of street lights from control center
- Send alarm SMS and messages for street lights defects
- Mobile app for monitoring and control of street lights
- Monitor energy consumption by street lights
- Prepare required reports

STREET LIGHT MONITORING ALARM AND CONTROL SYSTEM

Street light monitoring and control system is based on SATEC intelligent device EM133 and **eXpertpower** software. Communication is via public cellular network (2G, 3G or 4G). General scheme for the system is shown in figure –1 on the next page.

SATEC intelligent MFT EM133 with two digital inputs and one relay output and cellular modem is used to monitor and control of street lights.

Satec EM133 controls street light via its relay output via three phase solid state relay.

Light operation is controlled based on season and sun rise and set time for the season. It also possible to control street lights via commands from the control center.

EM133 will monitor power consumed by the street lights and will determine if any street lights has failed.

Reports on light operation and energy consumption will be sent to **eXpertpower** server via cellular modem.



SATEC EM133 with Cellular Modem

STREET LIGHT MONITORING ALARM & CONTROL SYSTEM (CONT.)

SATEC **eXpertpower** server will communicate with all field mounted EM133 and collect required parameters and alarm information. User shall login the **eXpertpower** service using any standard web browser.

SATEC eXpertpower will provide following from features :

- Geographical location of street light control boxes
- View operational parameters of street lights
- Enable control of street lights
- Alarms for defective street lights
- Send alarm SMS and emails
- Prepare energy consumption and other reports and send the same via emails
- Mobile app for operation and control of street lights

The compete system enables smart control and monitoring of street lights results in :

- Saving energy consumption by street lights.
- Reduce time required for detecting replacing defec-tive lights.
- Reduce costs for location and replacement of defec-tive street lights.
- Reduce losses and accidents due to defective street lights
- Improve living satisfaction of citizens



SATEC eXpertpower