SAN-SAM
Controls & Automation

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CONTROLS AND AUTOMATION

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SMARTER THAN EVER

Years of field experience and dedication has lead us to come up with an outstanding CCMS (*Centralized Control & Monitoring System*),the product which is more flexible,smarter and reliable than ever before. Irrespective of your town or city's lighting infrastructure, Sansam's CCMS suits for all and is one stop solution for all your street lighting needs.

Instant light controlling

Smart scheduling

Remote monitoring

Energy meter reading

Energy consumption report

Street lighting is a major public service across the globe which consumes huge part of energy resources improper switching of these street lights leads to heavy wastage in power and inconvenience to citizens . We at Sansam developed such smart street light control and monitoring system solutions for all these needs.Sansam's street light management becomes more efficient ,ecological ,providing city with greater control. A city that is environmentally friendly economically reliable.

Cutting edge CCMS technology for all kind of lighting infrastructure

Every city's lighting infrastructure is not always same as metropolitan city having understood the fact SANSAM'S adoptive CCMS technology suits for all lighting infrastructure whether it's a town, city or metropolitan city

Adaptation

In Sansam we stay step ahead of future ,We play our role at it's best without modifying existing lighting infrastructure.
Let it be LED street light, Sodium vapor or halogen irrespective of light type and infrastructure our CCMS suits for all. Easy to install and maintain.

Flexible Scheduling

When we talk about saving power we should have smart scheduling method .Our CCMS enables both auto and manual scheduling option to set desirable On/Off time manually as well as by selecting auto mode On/Off time set automatically by it's geographical longitude and latitude.

Data Governance & Security

Windows operated cloud server, data migration to client's cloud server with role based access control and data storage upto 2 years without any loss of data.

Energy Audit

The critical part in street lighting ever remains is energy audit. Either public authority lacks with staff for audit task or there are no organized switching points with energy meters . Our CCMS ease this problem by having certified inbuilt energy meter which sends data to the server on daily basis helps to keep the complete track of exact energy consumption at each switch point by monthly or yearly.

Device Security

It is not just enough to have secured data ,it is equally important to secure the device at field .A theft alert sent to authority in case of theft also shares it's next operated Place with it's exact location.

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Thyrister based smart street light control & monitoring system

Load *share* mechanism.

Thyristor based smart street light control and monitoring system is classified in the IT act under "Energy Saving"category.

Generally in fields number of street lights connected to each switching point is not pre determined. Sansam's dual thyristor load sharing mechanism gives an excellent boost to device's life span compared to contactors and relays and remains unmatched for performance. By it's cutting edge automatic load sharing technology. Single thyristor operates under normal load condition, and stand by thyristor turns on under heavy load condition shares the load evenly.
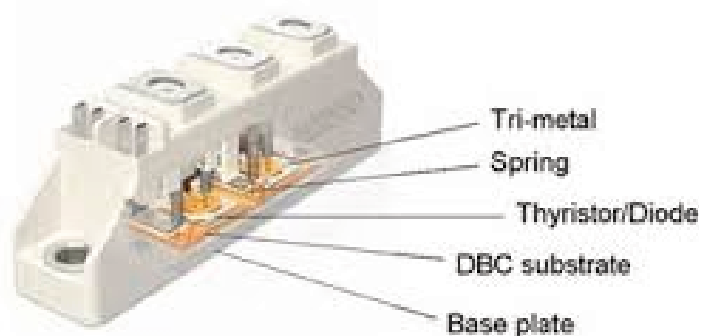
Device Technical Specification

- Model -SLICON-1P / SLICON-3P
- Operating voltage -140V to 320V
- Load -Upto 18kva
- Phase -Single phase / Three phase
- Surge protection-Upto 380 volts
- Switching-Using Thyristor
- Communication-GPRS technology
- Software-Both Android app & Desktop web application.

Features

- ARM 32-bit Cortex M3 CPU Core
- Remote firmware upgradation
- On board GPS for real time clock
- Quand band GSM/GPRS modem
- On board M2M E SIM
- Lithium battery back up to 14 Hrs
- Dual thyristor mechanism
- In built energy meter
- Self healing (auto reboot)

Classified in the IT act under "Energy Saving" category

Features	Thyristor	Contactor
Switching Device	Solid state thyristor module	Electro-Mechanical Contactors
Wear and Tear	Negligible	Continuous
Switching Limitations	Non(Unlimited)	Yes(Limited)
Switching Trasnscients	Negligible	Extremely High
Suitability for variable loads	Yes	No
Response to PF Correction	Rapid	Sluggish

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VOLTAGE REGULATION

Any type of light needs to be fed ideal voltage but in night mid hours line voltage may increases to it's max which reduces the life span of light. Our SLICON120 has voltage regulatory driver which sets the ideal voltage to lights.

TRACKING AND INVENTORY

SLM1000 software pin point's each device's location on google map, collects and reports every kind of device related data.

Burnt out Lights Detection

SLM1000 software notifies the authority for number of not working lights in line at particular switch point which helps authority to dispatch the crew before even public notices it.

Remote Lighting Management

SLM100 software is compatible design for both desktop and android mobile app to manage and control street lights remotely through command center or through mobile from anywhere across the globe.

Auto or Manual mode Scheduling

Set desirable On/Off timing to specific individual or group devices by it's city's lighting need. Lights on demand for main roads early lighting, residential streets standard dusk and dawn lighting and park's dual timing can set instantly also reschedule whenever required.
Selecting auto scheduling option in software, individual or group device's On/Off time automatically by itself depending on geographical dusk and dawn.

Rugged Hardware Design

Sansam designed,handpicked each electrical and electronic component carefully by it's unique engineering skill gives outstanding outdoor performance even under abnormal electrical conditions.

Powerful Wireless Communication

Real Time Clock sync by satellite GPS, time update to device on every interval.
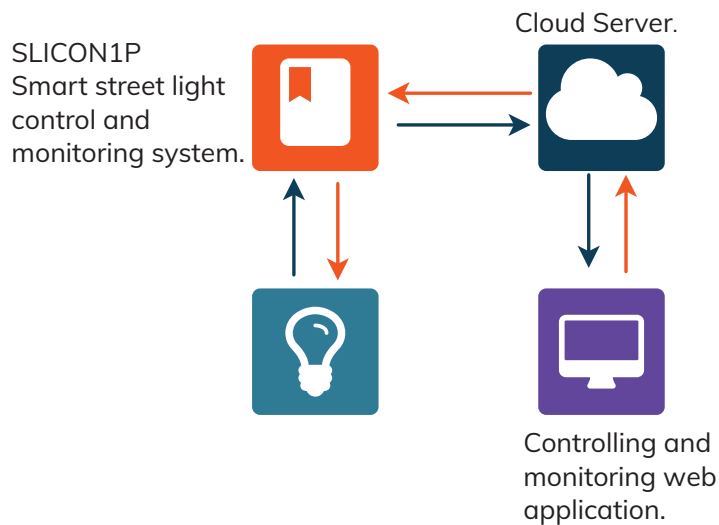Impedance matched GSM/GPRS module for smooth and continuous wireless communication even under less reception area.

"Sansam's smart street light solution for smart and sustainable cities for better tomorrow "

IOT BASED SMART STREET LIGHTING

How does it work ?

SLICON1P
Smart street light control and monitoring system.

Cloud Server.

Controlling and monitoring web application.

Command Center
Bi-directional data communication between Command center and cloud server by it's unique user friendly web application.

SLICON1P
Rugged hardware yet smart, controlling and monitoring device for smooth switching. Live bidirectional data communication with cloud.

Secured Cloud
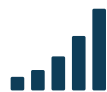Dedicated cloud server,data migrant API to cloud server with no data loss.

Software Tool

Powerful web and android application allows user to gain full control over individual or grouped devices remotely. Flawless real time status and performance information,energy analysis calculation of devices to optimise the future lighting infrastructure also luminaries fault and outages are automatically registered and notifications are sent to concern authority. Tracking city's lighting performance,status,energy consumption report in pdf or excel.

Cloud Server
Amazon cloud server for data storage and handling .

GPRS Communication
Quad band GSM/GPRS modem with auto reconnection technology

Embedded SIM
On board chip bases embedded sim, a perfect replacement with a traditional M2M sim.

Android App
App at finger tip for easy controlling and monitoring .

Thyristor bases switching
Highly durable SCR module for efficient high load switching operation.
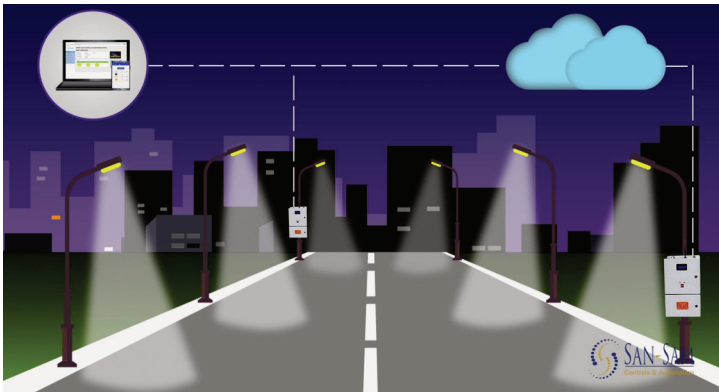
Report Analysis.
Detailed daily report E-mail in excel or pdf.
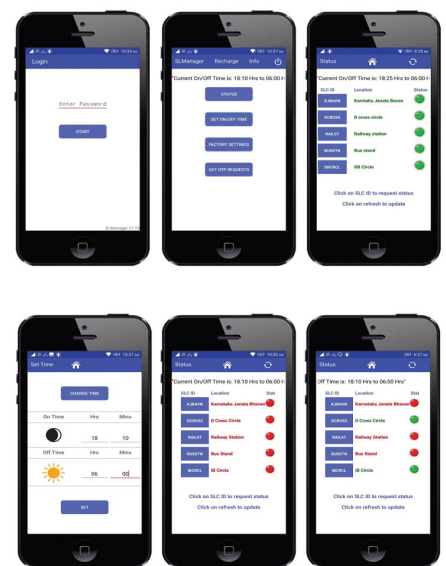
Power at Fingertips

How does it work?

Each switching point connected to device which contains high speed microcontroller that accepts commands sent by user to the cloud.The micronctroller processes this data and sends back to the cloud.A bi-directional wireless communication between web application,cloud and device allows user to get real time status.

GSM/GPRS communication

Specially designed quad band M2M embedded sims for smooth wireless communication.

- Continuous live communication between device and command center
- Real time data sync in case of offline device
- Device control over SMS as last resort in case of GPRS network loss
- Fine tuned,impedance matched GSM/GPRS antenna for high signal strength.

State-Of-The-Art mobile app

All crew members will not have access to the command center,our user friendly mobile app ease this problem by creating role based mobile app access to all crew members can help crew to know the light live status also helps to fix the not working lights in no time, that is even before public notices it.

SANSAM Lite

Designed our app easier yet powerful to be used by authority to crew members. Available on play store.