

RSLCTM

Remote Street Light Control



ICSA

An ISO 9001:2000 Company

Energy savings combined with reduced maintenance costs are prime benefits of street light control and management. Remote Street Light controllers (RSLC) from ICSA provide just the same. Our position and growing market penetration is based on excellent quality and advanced features and the unique benefits found with use of technologies like GSM/GPRS, PLCC and CDMA.

Benefits :

- Low acquisition cost
- It saves Energy and Money
- Increased reporting accuracy. Automated fault detection and reporting
- Effectively eliminates the day glowing of lamps
- Keeps track of energy usage patterns
- Reduces luminary component damage due to lamp cycling/failure
- Improved Maintenance Management. Easy to track contractor performance
- Manages the peak demand by effective time-staggering circuit switching
- Easy to install. No additional wiring is required thereby reducing installation costs
- Reduced manpower required for maintenance
- Improved Asset Management. Easier to track repairs and inventory
- Flexible and Scalable. The system is highly scalable from tens of monitored points to thousands of monitored points
- Meets the industry standards for Electrical and Lighting Management Systems
- This product is useful for malls and big commercial complexes

Empowering Energy Sector

Functions in brief :

Remote Street Light Control unit can be operated in two modes. Lights are switched ON/OFF automatically depending on preset time table or manual commands. The light control unit sends message if failures occur and sends the measured data to base station for monitoring and reporting. RSLC can be integrated fast and easily even where older light control systems exist. All parameters, settings and usage modes can be changed remotely using normal SMS.

Features :

- Any Street light Junction Box (JB) can be controlled from the central location
- The switch ON/OFF time can be configured from the central location
- Switching ON/OFF feedback to the central station
- The ON / OFF timings can be programmed as per the seasonal changes
- The individual phases can be switched OFF and ON at different timings.
- The % of lights 'glowing' and the % of lights 'not glowing' can be detected remotely
- The unit can be switched ON and OFF from the authorized mobile phones
- Security measures like door open / close alarm can be generated

Advantages :

- Power can be saved (Power saved is twice the power generated)
- Total Street light control is centralized and is automatic. This gives good information and operational convenience to the authorities
- The lights can be switched OFF during emergencies like fire, electrical hazards, etc.
- The lights can be switched ON during emergencies like low vision during the day time, VIP movement etc.
- Status of the % of lights glowing / not glowing, which gives a check on the maintenance team, can be obtained from the central location

Functional specifications :

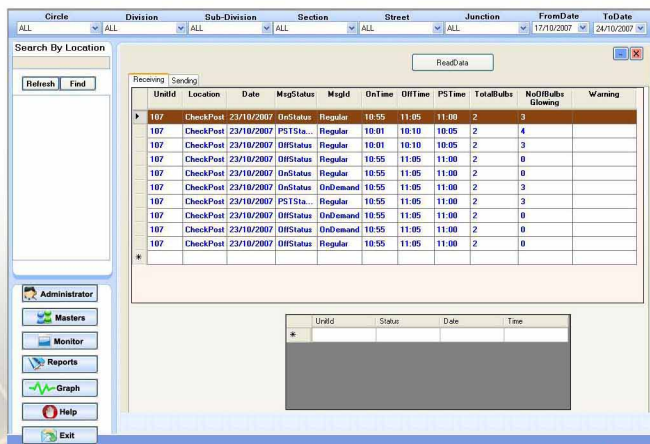
- The RSLC system shall be able to switch ON/POWER SAVE/OFF the lights from the base station and/or from the permitted cell phones
- The time of switch ON, POWER SAVE and OFF shall be configurable online, as per the seasonal requirements and administrative convenience
- Facility should be made available for seasonal preset programming of switching ON / OFF time for the whole year.
- The system is able to calculate the number of lights switched ON based on the current sensing in each phase
- Messages (giving location, time of switched ON, Power Save or OFF, number of lights switched ON) can be sent to the base station from each remote, whenever any group is in Power Saving Mode
- The ON time, Power Saving time and OFF time shall be recorded and circle-wise print report is generated at base-stn
- Facility is made available at the base station to send a query manually and find out the status of the lights at any remote place

Typical calculations on energy saving :

- Power savings well above 30% are proven
- Manpower savings. All the field support staff who were being used for switching ON & OFF can be diverted for other important works.
- Operational savings. Many indirect benefits

Note: Additional features/specifications can be incorporated based on user's requirement

MONITORING SOFTWARE : SCREEN SHOT



Unaid	Location	Date	MsgStatus	MsgId	OnTime	OffTime	PSTime	TotalBulbs	NoOfBulbs Blowing	Warning
107	CheckPost	23/10/2007	OnStatus	Regular	10:55	11:05	11:00	2	3	
107	CheckPost	23/10/2007	PSTSta..	Regular	10:01	10:10	10:05	2	4	
107	CheckPost	23/10/2007	OffStatus	Regular	10:01	10:10	10:05	2	3	
107	CheckPost	23/10/2007	OffStatus	Regular	10:55	11:05	11:00	2	0	
107	CheckPost	23/10/2007	OnStatus	Regular	10:55	11:05	11:00	2	0	
107	CheckPost	23/10/2007	OnStatus	OnDemand	10:55	11:05	11:00	2	3	
107	CheckPost	23/10/2007	PSTSta..	Regular	10:55	11:05	11:00	2	3	
107	CheckPost	23/10/2007	OffStatus	OnDemand	10:55	11:05	11:00	2	0	
107	CheckPost	23/10/2007	OffStatus	OnDemand	10:55	11:05	11:00	2	0	
107	CheckPost	23/10/2007	OffStatus	Regular	10:55	11:05	11:00	2	0	

SPECIFICATIONS :

MODEM :

- Type: GSM
- Information transfer : using SMS messages
- Capable of continuous working in the field
- Standard : GSM 900 / 1800 phase 2/2 Dual band
- Sensitivity : GSM 900: <-100dBm, GSM 1800: <-100dBm
- Modem Registrations : GSM ESTI Phase 1 and 2 CE label acc.CE 168X
- Antenna : SMA connector for connecting to Antenna
- Antenna gain : min 0 db
- Communication with the base station : using RS232C serial port at 9600 baud rate

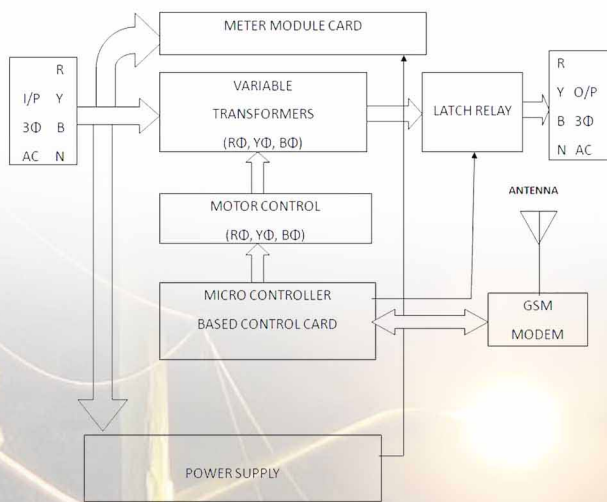
Power supply to the modem:

- Input :110/230 VAC +/-10% 50Hz (SMPS based)
- Output voltage : 5.6 VDC
- Output current capacity: 1 Amp

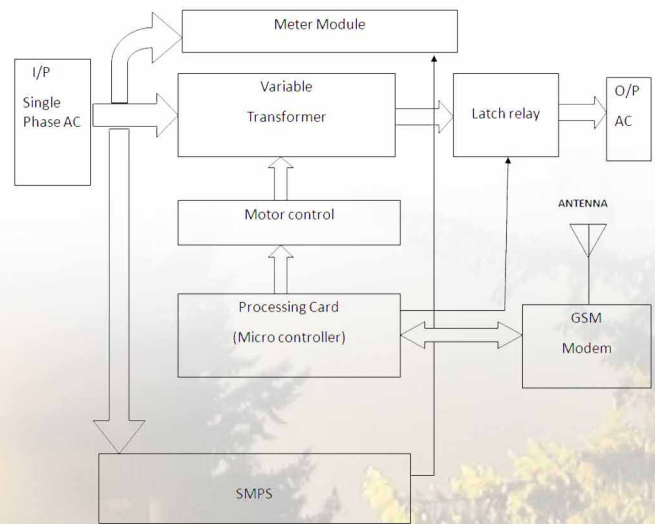
Remote station(Hardware Unit)

- UNIT capacity : 5 - 15 KVA. Single Phase/Three phase
- Type : Micro controller based unit with necessary memory, firmware and inbuilt GSM modem
- Mode of communication to the base station : GSM - using SMS messages
- I/P Power supply : 110/230 VAC +/- 10%, 50 Hz (SMPS based)
- Latched relay : Coil voltage 12 V, contact rating 100 AMPS.To be provided to take care of power interruption in the field. These latched relays are capable of driving the selected contactors for switching ON/OFF of the street lights.Coil voltage 12 V, contact rating 100 AMPS
- Output Supply : 210 volts in ON- STATE
180 Volts in PST -STATE
0 VOLTS in Off State
- Operating temperature : 0 - 70 degrees centigrade
- Power Failure Memory : Unit has inbuilt EEROM memory to Store the ON,OFF and PST TIME
- Over current protection : 20 - 60 AMP MCB

Block Diagram:



Three Phase



Single Phase

Field Photograph:



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