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**SHARADA INVENTIONS**

# Energy Efficient Solar Powered Traffic Signals

Conventional Traffic Signals using incandescent Lamps consume high quantum of electrical energy. The failure of lamps, fading of the reflectors, need of 230 V A C mains power, frequent maintenance are major constraints in their operation. Beside this, during power failure the traffic chaos and strain on the traffic police is a very serious matter calling need for remedial

The frequent failure of the lamps cause confusion to the traffic and the fading of the reflector causes drastic luminous depreciation leading to poor visibility of signal. All this associated with the phantom effect can mislead the traffic to identify the signal status resulting into accidents and/ or conflict with traffic police .

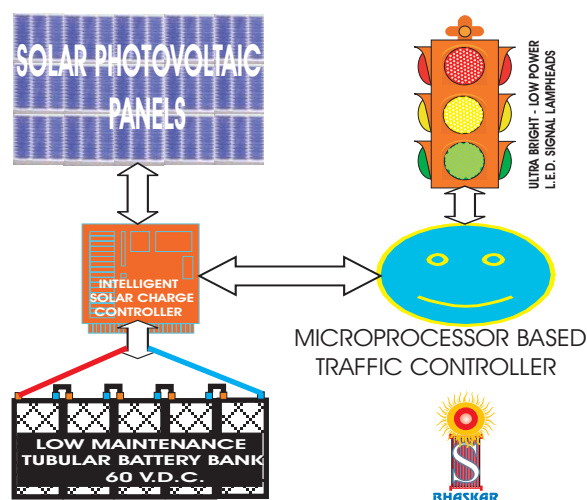
The replacement costs of above components and the labour costs make the system maintenance very expensive in addition to heavy electricity bills.

In short by using conventional old technology, we not only invite trouble factors associated with serious inconvenience but also pay very heavy costs on all fronts.

## Features:

- ⌘ Ultra low power consumption.
- ⌘ User friendly programmable controller.
- ⌘ Operating Voltage 60 VDC to minimize I<sup>2</sup>R losses.
- ⌘ Multiple Programming facility for Peak - Slack Hours and Blinker mode.
- ⌘ Auto - Manual / Blinker Selection.
- ⌘ Communication Port for Synchronized linking
- ⌘ High contrast visibility even in misty & foggy weather.
- ⌘ Power consumption less than 5 Watts/ lamphead.
- ⌘ Emitted Energy is 100% light. No Heat generation.
- ⌘ Practically maintenance free.
- ⌘ Light output is sufficient even if few LEDs fail.

## SOLAR POWERED L.E.D. TRAFFIC SIGNAL SYSTEM



## Benefits:

- ❖ Ultra light-weight of the fixture reduces cost of supporting structure.
- ❖ Fast payback associated with utmost reliability of performance.
- ❖ Modulated DC gives more light output at less power consumption.
- ❖ Signal operation is un-interrupted.
- ❖ Traffic flow discipline not affected.
- ❖ Stress on Traffic Police due to power failure is avoided
- ❖ 100% Energy Saving - ENERGY SAVED IS ENERGY GENERATED - an effective step towards Energy Conservation as per Energy Efficiency Bill 2000.
- ❖ **WIRE-FREE SIGNALS (OPTIONAL)** : Due to ultra low power consumption which can be catered by Solar Energy, each signal pole becomes stand alone for power requirement and the Signals can be operated without interlinking cables. This

**YOUR GESTURE OF SAVING ELECTRICAL ENERGY IS A MATTER OF PRIDE  
AND COULD BE REMARKABLE EXAMPLE TOWARDS SELF RELIANCE IN POWER SECTOR !!!**

## AREAS OF APPLICATIONS :

### MUNICIPAL COUNCIL & CORPORATIONS :

High Traffic density road junctions, High way approaches,  
big utility centers with direct access on main roads, School approach roads etc.

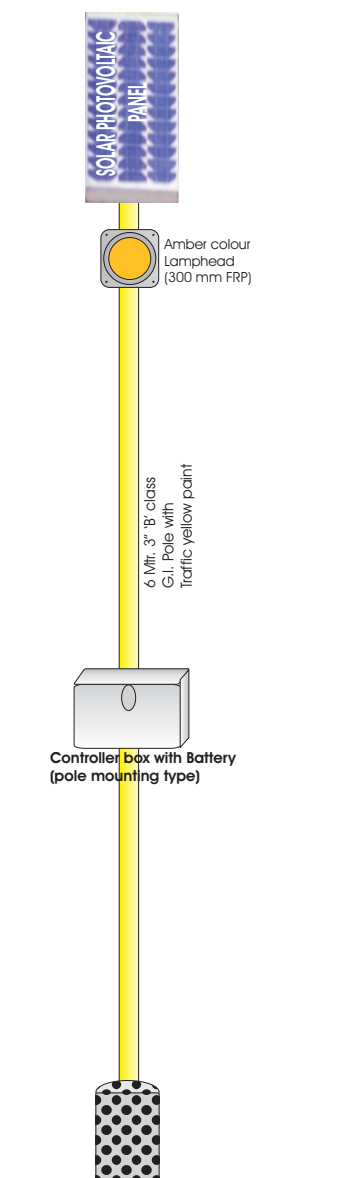
### TRAFFIC INSTALLATIONS :

Motor-Ways, Arterial Roads, Tunnels & Sub-Ways, Pedestrian Crossings,  
Internal Roads of large Industrial setups with direct approach to main roads.

## COMPARISON CHART OF CONVENTIONAL & SOLAR L.E.D. SIGNALS

PARAMETER	CONVENTIONAL	L. E. D. Based
Power Consumption	100 Watts/ Lamphead	< 5 Watts/ Lamphead
Lumens Output	105 cd	385 cd
Luminous Depreciation	more than 25%per year	Less than 5% in 10 years
Lumens Efficiency	< 6% of input power	> 96 % of input power
Contrast & Visibility	Poor visibility in Misty & Foggy Weather.	High Visibility Even In Misty & Foggy Weather.
Failure Of Lamps	Very less Lamp Life with frequent failure	Ultra Long Life. Almost no failures.
Energy Savings	Very Poor	Exellent
Compatibility For Solar Energy.	Un-Economical	Best Suitable Due To Low Power Consumption.
Heat & UV generation	94% power is wasted.	No Heat & UV generation
Interruption due to Power failure	Very often as fully dependent on Mains.	No interruption at all.
Stress on Traffic Police during failure.	Very much annoying due to frequent failure.	No stress as there is no failure.
Running & Maintenance expenses.	Very High by way of Energy Bill & Replacement of Components.	Practically ZERO

## Night Safety Road Traffic Solar Blinker



### Traffic Blinker : consisting of

- 1) 6 Mtr. 3" 'B' class GI pole,
- 2) 300 mm FRP LED Lamphead
- 3) 74 Wp12V SPVP
- 4) 12 V 60 AH Batt.
- 5) Solar Charge controller Automatic Dusk to Dawn Switching.

(SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE)

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