Solar Tree

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Abstract*—Solar tree is the solution for the new method of renewable energy source. It can be a new method to adapt for getting energy source in small amount of area. The main reason behind this idea is to give a solution for the future generations to use this idea and generate energy. In small areas we can use this idea for energy generation. (Abstract***)**

Keywords—solar tree,renewable energy. (*key words****)***

ACRONYM[1]

PC photovoltaic cell

PE photovoltaic effect

RE renewable energy

TSS traditional solar PV system

AC Alternating current

DC direct current

SC solar cell

LE light emitting diode

IPS industrial power supply

ES energy source

IC integrated circuits

UVR ultraviolet radiation

I. INTRODUCTION (*HEADING 1*)

Now a days with growing population and demand we should take a renewable option of energy source. In this case solar tree could be the best one for us . It is much better than the traditional solar PV system in area point of view and also more efficient. Solar tree is one of the best idea which uses less amount of area and produces vast amount of energy. It can be implemented now itself which can lead to saving space in a manner in which the energy also produced.

Solar energy is one of the free of cost and renewable energy which can be available anywhere. Where there is sunlight there this solar tree can be used to produce energy and also it can be used as decorative means of producing solar energy and also electricity. It is consists of many solar panels which together produces big amount of electricity in the daylight and when connected this solar tree to street lights around that area at dusk the lights will be on automatically by the electricity stored in batteries which is generated by solar tree

II. EASE OF USE

A. How solar tree works :

At first, photovoltaic cell converts sunlight into electrical energy and this effect is know as photovoltaic effect. Solar cell essentially create electricity by converting photons of light into electrons. Solar cell producing direct current, or DC, or this DC current is converted into alternating current, or AC by using inverter.

B. Can also be used as:

The solar tree panels charge batteries during the day.At dusk the solar tree automatically switches on it's LED's. The internal control can also regulate the amount of light produced depending on how much charge is left in the batteries.

RELATED REVIEW WORK

For the traditional system we require large size of land just for example to generate 2MW of power a PV module, it requires a 10-12 acres of land for housing of panels only. Whereas for the same amount of the energy we require only 0.10-0.12 acres of land in case of a solar tree.

MECHANISM ALAYSIS

It is a tree structured model consists of solar panels which will generate electricity in day light.

Solar tree is build in such a way that the panels in the structure are aligned in a way which uses less amount of area as well as generated electricity which can't be generated by the traditional PV system in that area .

These solar trees can be connected in such a way that these structures can be connected to nearby appliances like street lights, lamps, water supply,etc. In this way we can save area, can generate electricity from sunlight and also can use this solar tre to give electicity for the gadgets around them.

APPLICATIONS

There are so many applications for this solar tree like smart connectivity with the gadgets around it and also generating large amount of electricity within small amount of area.

Mostly we don't have to worry about the future energy sources. People in poor countries would have access to electricity with this solar tree because it's a free energy source and can be used by any one. People can save money which they spend on the energy they are using like for electricity bills.

Moreover the solar tree can bring a revolutionary method to implement in areas like silicon cities where it can be used as decoration as well as for energy production.

CONCLUSION

This solar tree can be used to fulfill the increase energy demand of the people where there is shortage of electricity. Saving of land with this project is a successful idea. This can provide electricity without any power cut problem. The extra energy can be provided to the grid nearby it. Solar tree can be useful in many ways if we develop in such a way that it can be connected to internet and it can change the power out put by the place where the electricity is needed the and where the electricity is needed less.

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