

Smart Highway Street Light With Solar Tree using IOT

**Prof. Malatesh Kamatar¹, Prof. Indira², Abhishek S³, Anand P N⁴,
G M Vinayaka⁵, H Guru Prasad⁶**

Assistant Professor, Department of Computer Science and Engineering^{1,2}

Students, Department of Computer Science and Engineering^{3,4,5,6}

Proudhadevaraya Institute of Technology, Karnataka, India

maltkpl@pdit.ac.in, indira@pdit.ac.in, smithinfranchis@gmail.com, anandpn64@gmail.com,
vinayakagm987@gmail.com, gpguru20@gmail.com

Abstract: *Now a days with the growing population and energy demand we should take a renewable option of energy source and also we should keep in mind that energy should not cause pollution and other natural hazards. In this case the solar energy is the best option for us.*

India is a highly populated country, so we should take the advantage of such an energy which requires a very less space to produce energy efficiently. In this case solar tree could be the best one for us. We can also use the technique called —SPIRALLING PHYLLATAXY // to improve the efficiency of the plant. It can be applied in highway street lightening system, industrial power supply etc. It is much better than the traditional solar PV system in area point of view and also more efficient. So this will be a very good option and should be implemented.

Till now we are producing the electrical energy with the solar panels so far but all the two forms of these energies we are not using in same system. If we will do so then surely we can get the more efficient system than ever we had. So here in this paper we will demonstrate how an artificial tree will produce the electrical energy by using solar energy .For constructing the artificial tree the first step is to construct the nano leaves .The Nano leaf will consist of two transparent conducting layers one at the top and other one at the bottom .Between these two layers we are placing thin film photo voltaic layer to convert the sunlight into electrical energy and thin film thermo voltaic layer to convert the thermal radiation into electricity.

Keywords: Solar Energy; spiralling phyllataxy; Photo Voltaic Layer; Thermo Voltaic Layer

REFERENCES

- [1]. Omkar Natu et.al / International Journal on Computer Science and Engineering (IJCSE) “GSM Based Smart Street Light Monitoring and Control System” Vol. 5 No. 03 Mar 2013.
- [2]. Nuraishah Sarimin, Shereen Lina d/o Isaac², Najmiah Radiah Mohamad “Zigbee based Smart Street Lighting System” International Journal of Computer Trends and Technology- volume4Issue4- 2013.
- [3]. Mustafa Saad, Abdalhalim Farij, Ahamed Salah and Abdalroof Abdaljalil “Automatic Street Light Control System Using Microcontroller”.
- [4]. K.Santha Sheela , S.Padmadevi “Survey on Street Lighting System Based On Vehicle Movements” International Journal of Innovative Research in Science, Engineering and Technology Vol. 3, Issue 2, February 2014.
- [5]. B. K. Subramanyam, K. Bhaskar Reddy, P. Ajay Kumar Reddy “ Design and Development of Intelligent Wireless Street Light Control and Monitoring System Along With GUI “International Journal of Engineering Research and Applications , Vol. 3, Issue 4, Jul-Aug 2013.
- [6]. Deepak Kapgate “ Wireless Streetlight Control System “International Journal of Computer Applications, Volume 41– No.2, March 2012