

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belagavi – 590 010



**PROJECT REPORT
ON**

**“INTELLIGENT SMART LIGHTING FOR POWER
SAVING USING PWM TECHNOLOGY”**

Submitted in partial fulfillment of the requirements for the award of degree

**BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted By

Name
RAKESH B KULKARNI
MADAN MARABAGIMATH
PRAVEEN KUMAR M
PUNITH M T

USN
4AL12EC413
4AL13EC407
4AL13EC411
4AL13EC413

Under the Guidance of
Mr. VENKATESH Y.C.
Assistant Professor
Department of E&C Engineering



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
MOODBIDRI – 574 225.

2015-2016

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI - 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled "INTELLIGENT SMART LIGHTING FOR POWER SAVING USING PWM TECHNOLOGY" is a bona fide work carried out by

RAKESH B KULKARNI	4AL12EC413
MADAN MARABAGIMATH	4AL13EC407
PRAVEEN KUMAR M	4AL13EC411
PUNITH M T	4AL13EC413

in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year **2015-2016**. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.


20/05/2016

Signature of the Guide
Mr. Venkatesh Y.C.



Signature of the H.O.D
Prof. Raghavendra Rao A
H. O. D.

Dept. Of Electronics & Communication
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225
EXTERNAL VIVA



Signature of the Principal
Dr. Peter Fernandes
PRINCIPAL

Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.

Name of the Examiners

Signature with date

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ABSTRACT

One of the most important challenges faced by consumer electronics in these days is energy saving. Artificial luminaries account for a great part of day to day total energy consumption. This emphasizes the need for an energy efficient lighting system. The system is designed to provide a control solution for energy efficient lighting system 'The Smart Lighting'. In this proposed system, different sensors used for automatically controlling the switching dimming action of LED lamps and speed variations of fan. In addition used voice recognition kit is used for manually controlling the LED lamp intensity and fan speed variation which makes it user friendly. Moreover, this lighting system is powered from a battery which is powered from a PV-panel employing solar tracking. Solar tracking helps the panel to charge the battery to its maximum level for reliable performance of this lighting system. The goal of this project is to design a lighting system with the aim of energy saving and autonomous operations.