VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010

PROJECT REPORT ON

"INTELLIGENT VISION BASED ROBOT USED IN SECURITY FOR IDENTIFYING AND FIRING ENEMIES"

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

BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING

Submitted By

Name	USN
SRIJAN KUMAR M.	4AL13EC094
SRIKANTH C.R.	4AL13EC095
SUDHA B.S.	4AL13EC096
SUPARNA G.	4AL13EC099

Under the Guidance of
Mr. SANTHOSH T.
Asst. professor
Department of E&C Engineering

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI – 574 225.

2016-2017

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 VISION BASED ROBOT USED IN SECURITY FOR IDENTIFYING AND FIRIG ENEMIES" *is a bona fide work carried out by*

SRIJAN KUMAR M.	4AL13EC094
SRIKANTH C.R.	4AL13EC095
SUDHA B.S.	4AL13EC096
SUPARNA G.	4AL13EC099

in partial fulfillment for the award of BACHELOR OF ENGINEERING in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2016–2017. 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.

Signature of the Guide　　　**Signature of the H.O.D**　　　**Signature of the Principal**

Mr. Santhosh T.　　　　　Dr. D V Manjunatha　　　　Dr. Peter Fernandes
　　　　　　　　　　　　　　　　　H. O. D.　　　　　　　　　　　PRINCIPAL
Dept. Of Electronics & CommunicatiAlva's Institute of Engg. & Technology,
Alva's Institute of Engg & TechnologMijar, MOODBIDRI - 574 225, D.K.
Mijar, MOODBIDRI - 574 225

Name of the Examiners　　　　　　　　　　　　Signature with date

1...　　　...................................

2...　　　...................................

ABSTRACT

The Border Security Force (BSF) of nation plays an important role in preventing the entry of terrorists and illegal people with drugs and weapons. The BSF is the primary border guarding force of India. It ensures the security of the borders of India and the matters connected with it. India shares its borders with six nations namely China, Pakistan, Bangladesh, Nepal, Myanmar and Bhutan. There exist some dangerous borders where BSF men find it very difficult to operate there. The Line of Control (LOC) between India and Pakistan and the Siachen, world's highest battle field have witnessed the loss of many lives of soldiers whenever there is a terror attack. To overcome above stated problems, an Intelligent vision based robot used in security for identifying and firing enemies which continuously monitors the given real time area and if at all some terrorists or enemies try to enter into that area they are shot.

An USB camera which is used for the continuous monitoring of the real time scenario sends the data to the monitoring PC. The PC performs certain MATLAB operations with the real time images; this data is sent to the microcontroller ATmega328 serially through ZigBee. The robot performs the operations based on the data sent by the microcontroller. The system is provided with the intelligence to discriminate between enemies/terrorists and our soldiers by the presence of Phototransistor circuit. If the detected intruder is an enemy, then the system automatically fires against the enemies using the laser gun.