

ARTIFICIAL INTELLIGENCE GUIDED TARGETING SYSTEM

A Major Project

Submitted By:

ADISH JAIN (10315210006)

ANSHUL SHARMA (10315210015)

ASHIT KUMAR (10315210023)

in partial fulfillment for the award of the degree

of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

at



SRM
UNIVERSITY
DELHI-NCR, SONEPAT

SRM UNIVERSITY DELHI-NCR, SONIPAT, HARYANA-131029

May 2019

DECLARATION

We **Adish Jain (Reg.No10315210006)**, **Anshul Sharma (10315210015)**, **Ashit Kumar (Reg.No.10315210023)** hereby declare that the project entitled “**Artificial Intelligence Guided Targeting System**” submitted for the B. Tech. (CSE) degree is our original work and the project has not formed the basis for the award of any other degree, diploma, fellowship or any other similar titles.

.....

Adish Jain

Reg. no. (10315210006)

.....

Anshul Sharma

Reg. no. (10315210015)

.....

Ashit Kumar

Reg. no. (10315210023)

CERTIFICATE

This is to certify that the project titled “**Artificial Intelligence Guided Targeting System**” is the bonafide work carried out by **Adish Jain (Reg. No10315210006)**, **Anshul Sharma (Reg. No10315210015)**, **Ashit Kumar (Reg. No10315210023)**, students of B.Tech (CSE) of SRM University Delhi-NCR, Sonipat, Haryana-131029 during the academic year 2018-19, in partial fulfillment of the requirements for the award of the degree of Bachelor of Technology (Computer Science and Engineering) and that the project has not formed the basis for the award previously of any other degree, diploma, fellowship or any other similar title.

Place: Sonipat, Haryana

Signature of the Guide

Date:

ACKNOWLEDGEMENT

We feel an immense amount of pleasure in submitting this project report on “**Artificial Intelligence Guided Targeting System**” as partial fulfilment for the award of the Degree of B.Tech in Computer Science & Engineering. The satisfaction and euphoria that accompany the successful completion of any project would be incomplete without a mention of people who made it possible and whose constant guidance and encouragement crown all the efforts.

First and foremost, we would like to express our sincere gratitude to our advisor, **Dr. Neeraj Dahiya**, for his invaluable guidance and cooperation throughout the work. His constant encouragement and vision enabled us to take this new endeavor to the success path.

We would like to express our hearty gratitude to Dean, SRM University, Delhi-NCR, Sonapat, Haryana for his support and encouragement throughout the work and for providing the suitable environment to carry out the work.

We feel compelled to articulate our thankfulness to **Dr. Ajay Sharma** HOD, Department of Computer Science & Engineering, SRM University for his encouragement which was a source of inspiration.

In the last but not least we indebted to all the teaching and non-teaching staff members of our college for helping us directly or indirectly by all means throughout the course of our study and project work.

ABSTRACT

A guiding system mounted on PAN-TILT architecture allows the system to monitor in all direction which is further supported by a camera placed in front to detect human and real time video feed is sent to processing board. This processing board runs an algorithm to control two servo motors which provide them direction and degree to rotate and focus to chase down targeted object

PIR sensors and Microwave sensors comes into picture when question is arising to detect the back side of camera. These sensors are responsible for detecting surrounding for possible threats. Based on reported data, the whole system will be operated. All system will be synchronized in such a way that all components will work in their respected allotted time and all data will be recorded in given amount time to infer decision. It will also avail a power saving algorithm which saves a lot of power as this project will be mostly operated in remote areas.

TABLE OF CONTENTS

Title Page	i
Declaration	ii
Certificate	iii
Acknowledgements	iv
Abstract	v
Table of Contents	vi-vii
List of Figures	viii
1. INTRODUCTION	1
1.1 Problem Definition	1
1.2 Working	1
1.3 Hardware Specification	2
1.4 Software Specification	2
2. LITERATURE SURVEY	3-5
2.1 Proposed System	3
2.2 Feasibility Study	3
2.2.1 Factors for Assessing Feasibility	4-5
3. SYSTEM ANALYSIS & DESIGN	6-7
3.1 Requirement Specification	6
3.1.1 Detection	6
3.1.2 Elimination	7
3.2 Flowchart	7
4. METHODOLOGY	8-27
4.1 Technology and Peripherals Used	8-26

4.2 Platform	26-27
5. RESULTS/ OUTPUTS	28-30
6. CONCLUSION AND FUTURE WORK	31
6.1 Conclusion	31
6.2 Future Work	31
7. REFERENCES	32

LIST OF FIGURES

FIGURE	FIGURE NAME	PAGE NO.
Fig 4.1.1	Working of Yolo	12
Fig 4.1.2	Detected	13
Fig 4.1.3	Old Pir	14
Fig 4.1.4	New Pir	15
Fig 5.1	When the target has been eliminated	25
Fig 5.2	To chase target	26
Fig 5.3	Aiming and Targeting	27