**ABSTRACT**

The objective of our project is to detect pedestrians in images and video sequences as it is an essential and significant task in any intelligent Video surveillance system, Driving assistance system, Image and video retrieval.

Detection system has received tremendous attention in the vision community but has numerous challenges and complexities. Since the detection systems are critical to the success of next generation automotive vision systems, it must be easily configurable by new environment. We present a work on detection system that can be trained to detect the pedestrians in the real time version of the system.

The images of pedestrians are obtained and it is determined whether each pedestrian candidate is suitable or not on the basis of average value and height of the respective pedestrian candidate as appeared on the image and performs selection processing for eliminating unsuitable candidates.

CONTENTS

**Sl. No. Chapter Name Page No.**

**i. Abstract i**

**ii. Contents ii**

**iii. List of figures iii**

**iv. List of tables iv**

1. **Chapter 1 - Introduction 1**
   1. Heading 2
   2. Heading 3
   3. Heading 4
   4. Heading 5
      1. Sub Heading 5
      2. Sub Heading 6
      3. Sub Heading 7
   5. Heading 8
   6. Heading 9
2. **Chapter 2 – Literature Survey 10**
   1. Heading 12
   2. Heading 13
   3. Heading 14
3. **Chapter 3 – Requirement Specifications 15**
   1. Heading 16
   2. Heading 17
   3. Heading 18
   4. Heading 19
4. **Chapter 4 – System Design 21**
5. **Chapter 5- Implementation 23**
6. **Chapter 6- Testing 24**
7. **Chapter 7 – Results 25**
8. **Chapter 8- Conclusion & Future scope 27**

**References 28**

**LIST OF FIGURES**

**Figure. No Figure Name Page. No**

**Figure 1.1.** Image Enhancement 02

**Figure 1.2.** Image Restoration 03

**Figure 1.3.** Image Compression 04

**Figure 1.4.** Binary Images 05

**Figure 1.5.** Gray Scale Images 05

**Figure 1.6.** Color Image 06

**Figure 1.7.** Digital Image Processing 11

**Figure 1.8.** Video Retrieval 13

**Figure 4.1.** Partial Occlusions 27

**Figure 5.1.** Examples of Positive and Negative Samples 33

**Figure 5.2.** Flowchart of PL-SVM Training 34

**Figure 5.3.** Flowchart of Human Detection 34

**Figure 5.4.** Feature Representation 36

**Figure 5.5.** Cascade Detector 36

**Figure 5.6.** Cascade Classification 37

**Figure 5.7.** Sliding Window 37

**LIST OF TABLES**

**Table.No Table Name Page. No**

**Table 1.1 : Description of Table 1**  41

**Table 1.2 : Description of Table 2**  41

**Table 2.3 :** 41

**Table 3.4:** 42

**Table 5.1:**  43