

Electronic Eye for BVI (Blindness and Visual Impairment)



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Undertaking

I certify that research work titled “*Electronic Eye for BVI (Blindness and Visual Impairment)*” is my own work. The work has not been presented elsewhere for assessment. Where material has been used from other sources it has been properly acknowledged / referred.

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Dedication

We dedicate this thesis report to our families for their eternal love and support. Thank you for the endless affection, prayers, sacrifices and advices. We would also like to dedicate our work to the blind people who can't communicate and move easily without the help of white cane. This project will ease their hardships as it will enable them to live comfortable life like other people. This project will surely make the lives of blind people simple and effortless.

Abstract

Individuals with visual disability confront different issues in their everyday life as the cutting edge assistive gadgets are frequently not meeting the customer prerequisites in term of cost and level of help. This paper introduces another plan of assistive smart glasses for blind or visually impaired people. The goal is to aid various everyday tasks utilizing these wearable plan arrange.

As a proof of idea, our project exhibits various illustration application, i.e. reading of simple text that can help perusing from printed copy materials, avoidance of obstacles through ultrasonic sensors, tracking down the location of blind person through Global positioning system, recognition of people by using LBPH algorithm and lastly distinguishing and recognising of various simple expression like happy, sad, excited etc.

We have used raspberry pi as it is a general purpose computer and can perform various tasks at a time and the raspberry pi camera for picture getting and sensors like ultrasonic sensors and GPS+GSM following modules. Test occurs demonstrate that the model is working of course.

List of Tables

Table 3.1 Components	14
Table 6.1 Comparison with other devices.....	33
Table 6.2 Why Electronic Eye for BVI is better.....	33

List of figures

Figure 1 Working of GPS [11]	8
Figure 2 Voltage Divider [12]	10
Figure 3 Process of facial expression recognition	12
Figure 4 CNN	13
Figure 5 Flow Chart	18
Figure 6 Location Detection Screenshot	27
Figure 7 Working of ultrasonic sensor	28
Figure 8 LBP Activity.....	29
Figure 9 Pixels placement	30
Figure 10 Histograms	31
Figure 11 Face Expression Recognition.....	32
Figure 12 OCR Working.....	33

Content

Undertaking.....	ii
Acknowledgement	iii
Dedication	iv
Abstract.....	v
List of Tables	vi
List of figures.....	vii
Chapter#1	1
Introduction.....	1
1.1 Introduction:.....	2
1.1.1 Electronic Eye for BVI:	2
1.2 Project Aim:	2
1.3 Artificial Intelligence:.....	2
1.3.1 Image processing:	3
1.3.2 Deep Learning:.....	3
1.4 Roadmap:	4
Chapter#2.....	5
Literature Review.....	5
2.1(a)Visual impairment and blindness:	6
2.1(b) Number of People Suffering from blindness:.....	6
2.1(c) Literature Review:	6
2.1(d)Existing Techniques:	7
1.SMART WALKING STICK FOR VISUALLY IMPAIRED:	7
2.B-LIGHT: A Reading aid for the Blind People using OCR and OpenCV:.....	7
2.1 (e) Location Detection through GPS.....	7
2.1.1 GPS:	7
2.1.2 Execution:	7
2.1.3 GSM Module:	8
2.1.4 NMEA:.....	8
2.2 Obstacle Avoidance:	9
2.2.1 Introduction:.....	9
2.2.2 Techniques:	9

2.2.3	Voltage division:	9
2.3	Facial Recognition:	10
2.3.1	Philosophy:	10
2.3.2	LBPH:	11
2.4	Facial Expression Recognition:	11
2.4.1	Description of methodology:	12
2.4.2	CNN:	12
2.5	Optical Character Recognition (OCR):.....	13
2.5.1	OCR:	14
2.5.2	Methodology:.....	14
2.5.3	Text To Speech:	14
Chapter#3.....		15
Methodology.....		15
3.1	Proposed system:	16
3.1.1	Features:.....	16
3.1.2	Compnents:	16
3.2	Tools (Hardware/Software).....	17
3.3	Flow Chart:	18
Explanation:		18
Chapter#4.....		19
Implementation Part 1.....		19
4.1	Tracking through GPS	20
4.1.1	Hardware Used:	20
GPS:.....		20
4.1.2	Software Used:.....	20
4.1.3	Design framework.....	20
4.1.4	GPS	20
Specifications:		20
4.1.5	GSM Module:	21
Specifications:		21
4.1.6	Libraries Used:.....	21
4.2	Obstacle Avoidance through Ultrasonic Sensor	22

4.2.1	Hardware components:	22
4.2.2	Specifications:	22
4.2.3	Pins:.....	22
4.2.4	Libraries Used:.....	22
4.3	Face Recognition	23
4.3.1	Equipment Components:.....	23
4.3.2	Programming Components:	23
4.3.3	Libraries Used:.....	23
4.4	Facial Expression Recognition.....	23
4.4.1	Hardware Components:.....	23
4.4.2	Software used:	24
4.4.3	Libraries Used:.....	24
4.5	Optical Character Recognition (OCR).....	25
4.5.1	Hardware Components:.....	25
4.5.2	Software:.....	25
4.5.3	Libraries Used:.....	25
Chapter#5	26
Implementation Part 2	26
5.1	Tracking through GPS	27
5.1.1	Working Explanation:	27
5.1.2	Screenshots:	27
5.2	Obstacle Avoidance through Ultrasonic Sensor	28
5.2.1	Working:	28
5.3	Face Recognition	28
5.3.1	Working:	28
5.4	Facial Expression Recognition.....	32
5.4.1	Working:	32
5.4.2	Screenshots:	32
5.4.3	Characteristics of the system:	32
5.5	Optical Character Recognition (OCR).....	32
5.5.1	Working:	32
Chapter#6	34

Results.....	34
RESULTS:	34
6.1 Comparison with other devices:.....	35
6.2 Why Electronic Eye for BVI is better:	35
Chapter#7	39
Conclusion	39
Chapter#8.....	41
Future Work	41
FUTURE ADVANCEMENTS:.....	42
Limitations:	42
REFERENCES:	43