

Translating sign-language into voice

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Contents

1	Introduction	1
1.1	Background	1
1.2	Problem Statement	1
1.3	Objectives	1

Chapter 1

Introduction

1.1 Background

Communication is a process of sending and receiving information among people. Humans communicate with others by a lot of ways but the most effective way is face-to-face communication. Many people believe that the significance of communication is like the importance of breathing. Indeed, communication facilitates the spread of knowledge and forms relationships between people.

Deep learning added a huge boost to the already rapidly developing field of computer vision. With deep learning, a lot of new applications of computer vision techniques have been introduced and are now becoming parts of our everyday lives.

Alongside with the power of today's computers, there are now various algorithms that were developed to enable computers to perform tasks such as object tracking and pattern recognition.

In this study, the focus will be on hand gestures detection and live tracking.

1.2 Problem Statement

The communication between disabled and other people is a really huge gap that needs to be filled up. In order to overcome this challenge many researches and products have been developed to solve these problems, but there is a lot to be enhanced.

1.3 Objectives

- To develop a hand gestures algorithm using deep learning
- To build a trained model.

- Translate the detected gesture into voice.
- Test the performance of the system.