ACKNOWLEDGEMENT

The completion of project brings with and sense of satisfaction, but it is never completed without thanking the persons who are all responsible for its successful completion. First and foremost, I wish to express our deep sincere feelings of gratitude to my Institution, **Sai Vidya Institute of Technology**, for providing mean opportunity to do our education.

I would like to thank the **Management** and **Prof. M R Holla,** Director, Sai Vidya Institute of Technology for providing the facilities.

I extend my deep sense of sincere gratitude to **Dr. H S Ramesh Babu**, Principal, Sai Vidya Institute of Technology, Bengaluru, for having permitted to carry out the project work on **"Sign Language Recognition"** successfully**.**

I am thankful to **Prof. A M Padma Reddy**, Additional Director and Professor, Department of Computer Science and Engineering, Sai Vidya Institute of Technology, for his constant support and motivation.

I express my heartfelt sincere gratitude to **Prof. Sreelatha P K,** HOD, Department of Computer Science and Engineering, Sai Vidya Institute of Technology, Bengaluru, for his valuable suggestions and support.

I express my sincere gratitude to **Guide Name**, Designation, Project Guide, Department of CSE, Sai Vidya Institute of Technology, Bengaluru, for his constant support in completing the project.

Finally, I would like to thank all the Teaching, Technical faculty and supporting staff members of Department of Computer Science and Engineering, Sai Vidya Institute of Technology, Bengaluru, for their support.

Satwik Ram K 1VA17CS047

N Pavan Kumar 1VA17CS028

ABSTRACT

Sign Language is mainly used by deaf (hard hearing) and dumb people to exchange information between their own community and with other people. It is a language where people use their hand gestures to communicate as they can't speak or hear. Sign Language Recognition (SLR) deals with recognizing the hand gestures acquisition and continues till text or speech is generated for corresponding hand gestures. Here hand gestures for sign language can be classified as static and dynamic. However, static hand gesture recognition is simpler than dynamic hand gesture recognition, but both recognition is important to the human community. We can use Deep Learning Computer Vision to recognize the hand gestures by building Deep Neural Network architectures (Convolution Neural Network Architectures) where the model will learn to recognize the hand gestures images over an epoch. Once the model Successfully recognizes the gesture the corresponding English text is generated and then text can be converted to speech. This model will be more efficient and hence communicate for the deaf (hard hearing) and dump people will be easier. In this paper, we will discuss how Sign Language Recognition is done using Deep Learning.

Table of Contents

List of Figures

List of Tables