ABSTRACT

People with speech disabilities communicate in sign language and therefore have trouble in mingling with the able-bodied. There is a need for an interpretation system which could act as a bridge between them and those who do not know their sign language. A functional unobtrusive Indian sign language recognition system was implemented and tested on real world data. A vocabulary of 2 symbols was collected using 1 subjects, totaling 2 images. The vocabulary consisted mostly of one-handed signs which were drawn from a wide repertoire of words of technical and daily-use origins. The system was implemented using web-cam which enables surrounding light conditions and object color to have negligible effect on the efficiency of the system. The system proposes a method for a novel, low-cost and easy-to-use application, for Indian Sign Language recognition, using the web-cam. In the fingerspelling category of our dataset, we achieved above 100% recognition rates for 2 signs with overall 2 distinct alphabets (I, V) recognized with an average accuracy rate of 100%.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES