A Project Report

On

SIGN LANGUAGE DETECTION USING CONVOLUTIONAL NEURAL NETWORK

Submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELGAUM, KARNATAKA- 590014

In partial fulfilment of the completion of Eighth semester

Bachelor of Engineering

in

Information Science and Engineering

By

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CERTIFICATE

This is to certify that the project entitled **"Sign Language Detection Using Convolutional Neural Network"** has been successfully completed by

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the bonafide students OF **DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING, Alva's Institute of Engineering and Technology**, Moodbidri affiliated to **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the academic year 2020–21. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed in partial fulfillment of awarding Bachelor of Engineering degree.

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ABSTRACT

Sign language and spoken language, both are generated from the same human brain, but their linguistic and physical transmission varies greatly from each other. Sign language is an indispensable communication means for deaf-mute people because of their hearing impairment. At present, sign language is not popular communications method among hearing people, hence most of the hearing are not willing to have a talk with the deaf-mute.

Persons having hearing and speaking impairment are often incapable of communicating their statements appropriately. So, they use sign language to communicate with each other and with the rest of the world. As a result, sign language recognition (SLR) has become one of the most interesting topics in computer vision and machine learning recently. Researchers are trying to improve this language to use in a large-scale though it is not an international language

This report documents the implementation of Sign Language Recognition (SLR) system, which aims to translate sign language into text from the image input given to it. Using the sign language recognition system, the deaf and dumb people would be able to communicate by their natural form of communication which would then be converted into its respective text so that it would be understood by the non-signers. This system would make the life of deaf-mute people much easier by allowing them to communicate without any restrictions and lead a normal life like others.