HOLY MARY INSTITUTE OF TECHNOLOGY & SCIENCE

(Approved by AICTE,Affiliated to JNTU Hyderabad,Accrediated by NAAC 'A' grade)

Bogaram (V), Keesara (M), Medchal Dist. – 501 301

PROJECT TITLE

Sign Language Recognition using Python and OpenCV

CONTENT OF THE PROJECT

ABSTRACT:

Sign Language is a visual-gesture language used by deaf and dumb people to exchange information between their own community and with other people.Knowing sign language is not something that is common to all, this project can be very helpful for the deaf and dumb people in communicating with others ,this can also be extended to automatic editors.The project aims at building a machine Learning model that will be able to classify the various hand gestures used for fingerspelling in sign language,we will develop a sign detector,which detects the signs and hand gestures.Sign gestures can be classified as static and dynamic.The data acquisition,data preprocessing and transformation,feature extraction, classification and results obtained are examined.We use small dataset for pre-training.The project flow goes by collecting images using openCV ,Python and labelling them using label image package and then building a sign language detector to detect the sign language in real time.Three dimensional spaces and the hand movements are used to identify meanings.The aim of this project is to identify and review the sign language recognition with an efficient output.

SOFTWARE REQUIREMENTS:

Python (3.7.4)

IDE (Jupyter)

Numpy (version 1.16.5)

cv2 (openCV) (version 3.4.2)

Keras (version 2.3.1)

Tensorflow (as keras uses tensorflow in backend and for image preprocessing) (version 2.0.0)

GUIDE NAME

Mrs.Srilakshmi

Signature

BATCHNO:A16

NAME	ROLLNO
Katla Varshitha	18C91A0546
Gundu Vamshi Krishna	18C91A0529
K.Karthik Reddy	18C91A0535