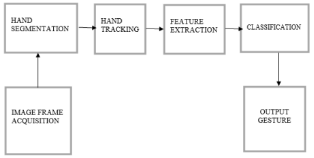
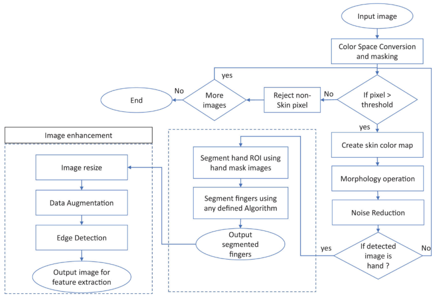
Parameters \ Papers	*Sign Language Recognition 1 Satwik Ram Kodandaram, 2N Pavan Kumar 3 Sunil G L*	*Real Time Sign Language Detection*	*Sign Language Recognition System using TensorFlow Object Detection API*	*A Review Paper on Sign Language Recognition for The Deaf and Dumb*	*Sign language identification and recognition: A comparative study*
Publication	Research Gate	Research Gate	International Conference on Advanced Network Technologies and Intelligent Computing	IJERT	De Gruyter
Year of Publication	2021	2022	2021	2021	2022
Language	American Sign Language	Sign Language Gestures	Indian Sign Language	American Sign Language	American Sign Language
Algorithm	CNN & Transfer Learning	Transfer Learning & ConvNets	Transfer Learning	CNN	KNN, CNN, SVM
Transfer Learning Model used	LeNet-5, MobineNetV2,Ensemble	SSD Mobile net V2	SSD Mobile net V2	-	-
Tools Used	OpenCV, Django	Object Detection API, OpenCV, LabelImg	Object Detection API, OpenCV, TF Record		
Methodology	Get the dataset having images of same size. Preprocess the image by removing noise and masking the hand. Give the input image to CNN model or Transfer Learning model.	Used Object Detection API to find the objects (hands) in an image and then labelled them as to what sign that gesture is using LabelImg. Then similar Transfer Learning process was done.	Own dataset created and similar process followed.		
Flowchart				 HAND SEGMENTATION HAND TRACKING FEATURE EXTRACTION CLASSIFICATION IMAGE FRAME ACQUISITION OUTPUT GESTURE	 Input image Color Space Conversion and masking yes No More images End Reject non-Skin pixel No If pixel > threshold yes Image enhancement Image resize Data Augmentation Edge Detection Output image for feature extraction Segment hand ROI using hand mask images Segment fingers using any defined Algorithm Output segmented fingers Create skin color map Morphology operation Noise Reduction yes If detected image is hand ? No
Accuracies Achieved	MobileNetV2 98.9% LeNet-5 97% Own Model 98% Ensemble 99.8%	70-80%	Average Confidence Rate of 85.45%.	92%	accuracy of 97.62% for CNN, 78.95% for KNN, and 70.25% for SVM
Links	https://www.researchgate.net/publication/354066737_Sign_Language_Recognition	https://www.researchgate.net/publication/357622360_Real_Time_Sign_Language_Detection	https://arxiv.org/ftp/arxiv/papers/2201/2201.01486.pdf	https://www.ijert.org/a-review-paper-on-sign-language-recognition-for-the-deaf-and-dumb	https://www.degruyter.com/document/doi/10.1515/comp-2022-0240/html?lang=en