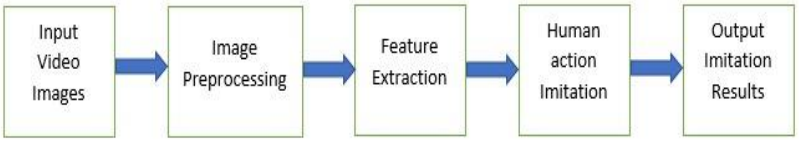
**BVRIT HYDERABAD**
**College of Engineering for Women**
**Department of Information Technology**
**Major Project - Academic Year 2021-22**

TEAM 7

# Human Action Imitation Using Gait Classifier

## Abstract
Human action imitation is a computer vision problem that tries to estimate human body actions and shows how the joints are connected. Human action imitation has gained popularity because of its wide applications in the field of automatic retrieval of videos of particular actions using visual features. The most common stages of action imitation include human segmentation, feature extraction, activity detection.

## Modules
Pre-Processing Module
Feature Extraction Module
Pose Detection Module

## Architecture



## Tools and Technologies
- tkinter
- Keras
- Gait Classification
- Mediapipe
- OpenCV
- Python IDE
- VS Code

## Conclusion and Future Scope
The utilization of Machine Learning in gait analysis is a developing field in Computer Vision. Human action imitation has a robust theoretical value and broad utility prospects in the discipline of the video surveillance, human-computer interaction, virtual reality, etc. The human action imitation is captured using gait classifier technique. While using gait classifier and mediapipe, both analysing techniques gave output alongside the human,when compared both the analysing techniques, the captured output with gait classifier is more accurate with human activity because it carried out actions for each frames of the streaming video. The captured output with mediapipe is not accurate because the output is a non-stop streaming authentic video, which can't be hold close by the humans.This work can be extended in future by including detection of multiple persons in the video surveillance. And also include other feature like detect everything in the streaming video.

## Guide
**Dr. P S Latha Kalyampudi**
**Associate Professor of IT**
**latha.k@bvrithyderabad.edu.in**

## Team

N.Akshitha
18WH1A1234


Ch.Srivalli
18WH1A1238


T.Mahalakshmi
18WH1A1244

## Github Links:
1. https://github.com/18wh1a1234/MajorProject
2. https://github.com/18wh1a1238/MajorProject
3. https://github.com/18wh1a1244/Major_Project