

# Video Streaming Platform with Automated Media Playback Control

Maddila Mohitha Shiva Sankari<sup>1</sup>, Vasundhara Kandi<sup>2</sup>, Sasidhar Karrothu<sup>3</sup>,  
Sai Varun Karri<sup>4</sup>, M. Beulah Rani<sup>5</sup>

Students, Department of Computer Science & Engineering<sup>1-4</sup>

Associate Professor, Department of Computer Science & Engineering<sup>5</sup>

Maharaj Vijayaram Gajapathi Raj College of Engineering (Autonomous), Vizianagaram, India  
shivasankari2107@gmail.com, kandivasundhara2004@gmail.com, sasidharkarrothu@gmail.com,  
karrisaivarun@gmail.com, beulahrani@gmail.com

**Abstract:** *The project aims to develop a video streaming platform with automated media playback control, utilizing hand signals and voice commands. The main objectives include enabling users to control playback (play, pause, skip, volume) with gestures, also while combining voice commands for more intuitive control, and allowing customized gesture recording for personalized interactions and tailor controls to individual preferences. Expected outcomes include a significantly enhanced user experience with intuitive and accessible controls, innovative interaction methods driven by advanced technology leveraging machine learning algorithms and image processing techniques. The overall goal is to revolutionize media playback control, improving accessibility and user engagement in a competitive digital entertainment landscape.*

**Keywords:** Gesture Recognition, Voice Command Processing, Computer Vision, Machine Learning, Speech Recognition, Real-Time Processing, Flask, OpenCV, MediaPipe, VLC, YouTube Integration, Accessibility, Human-Computer Interaction

