PROJECT SYNOPSIS

1. PROJECT TEAM:

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2. PROJECT TITLE: Gesture Craft Slider using OpenCV

3. AIM: **To develop a system that allows controlling a PowerPoint presentation through webcam-detected hand gestures, enhancing user interaction and engagement without the need for traditional input devices.**

4. ABSTRACT: Utilizing computer vision and gesture recognition, this project aims to enable hands-free control of PowerPoint presentations via webcam-detected gestures. The system interprets specific hand movements, allowing seamless slide navigation, drawing, and presentation manipulation, fostering an interactive and engaging user experience.

5. DOMAIN: OpenCV

6. DESCRIPTION: The basic moto of this project is develop a hands-free control system for PowerPoint presentations through webcam-captured hand gestures. Using computer vision techniques, the system interprets distinct gestures, enabling users to navigate slides, draw on presentations, and manage slide progression seamlessly. The aim is to offer an intuitive and interactive interface, enhancing user engagement and interaction during presentations without relying on conventional input devices.

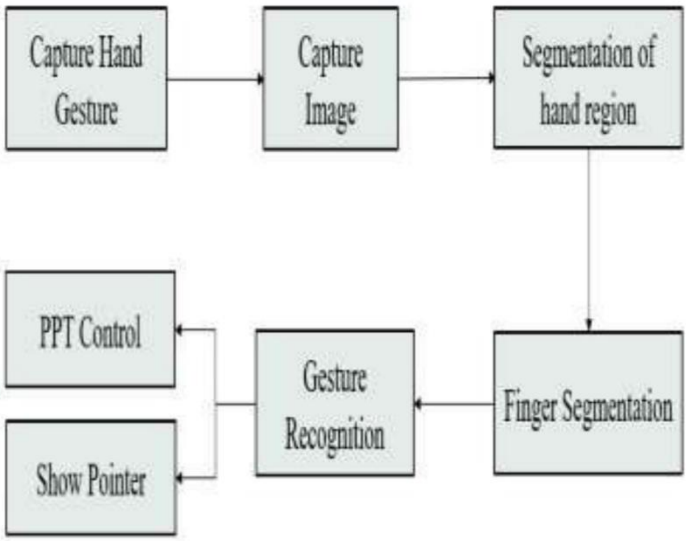
Advantages:

- Enables a more engaging and interactive presentation experience by allowing presenters to control slides through natural hand gestures.
- Eliminates the need for traditional input devices, offering a convenient, hands-free method for controlling presentations, promoting ease of use and mobility during presentations.

Disadvantages:

- May face challenges in accurately recognizing and distinguishing between different gestures.
- Achieving high accuracy in gesture recognition requires complex algorithm optimization, demanding extensive fine-tuning and computational resources.

7. SYSTEM ARCHITECTURE:



8. SOFTWARE REQUIREMENTS

- Operating System: Microsoft Windows 10 Home Single Language
- Back end: Python
- Technologies used: OpenCV and Deep Learning

9. HARDWARE REQUIREMENTS

- Processor: Intel Core i5 or higher
- Clock Speed: 2.4 GHz or higher
- Hard Drive: Min. 20 GB
- Ram: More than 4 GB of RAM
- Internet: 10 Mbps
- Webcam

10. APPLICATIONS

- Enables educators to engage and interact dynamically during presentations, fostering a more immersive learning experience.
- Provides an accessible means of controlling technology, particularly beneficial for users with physical limitations, fostering inclusivity.