**GestureArt: AI-Powered Virtual Drawing Platform**

**Abstract:**

GestureArt is a web-based application designed to enable virtual art creation through natural hand movements. Without the need for specialized hardware, this innovative system captures real-time hand gestures and translates them into precise digital strokes on the screen.

Using advanced image processing and artificial intelligence, GestureArt leverages computer vision libraries like OpenCV and MediaPipe to accurately track hand and finger movements. By utilizing a standard computer or laptop camera, the application interprets these gestures, allowing users to select colors and draw with remarkable ease and precision. This intuitive interaction enhances Human-Computer Interaction (HCI) and opens new possibilities for creative expression.

GestureArt serves a wide range of applications, including digital art creation, interactive experiences, educational tools, and demonstrations of technological innovation. Its user-friendly design and hardware-free operation make it accessible to artists, students, and enthusiasts alike, promoting creativity and engagement through cutting-edge AI technology.

**Batch 1 (CSB VI SEM):**

G Bhanu Teja (22261A3222)

Amrutha Dubey (22261A3201)

**FACULTY COORDINATOR:**

Dr. D. Vijaya Lakshmi

Professor & HoD

Department of IT