**Enhanced Rehabilitation Glove System for Hand Injury Patients**

**Abstract**

The Enhanced Rehabilitation System for Hand Injury Patients presents a novel approach to assist individuals recovering from hand injuries or strokes through tailored exercises aimed at expediting their rehabilitation process. This system integrates advanced technologies to facilitate patient recovery in a more efficient and engaging manner.

Central to the system is the utilization of computer vision technology, which replaces traditional flex sensor-based models. By employing Python for implementation, the system enables real-time customization of exercises based on patient needs and progress. Through a camera interface, healthcare professionals guide patients in performing exercises tailored to their specific condition.

A robotic arm, controlled by an Arduino Uno microcontroller, translates the movements captured by the computer vision system into corresponding actions. Individual servo motors are employed to precisely control hand movements, providing targeted rehabilitation exercises.

This innovative approach offers a more interactive and effective rehabilitation experience for hand injury patients, potentially enhancing their recovery outcomes while reducing reliance on conventional methods.