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(57) Abstract :

The goal of this research is to focus on one of the most common medical conditions that individuals nowadays deal with is stroke, which can lead to long— term consequences like aphasia, hemispheres, and paresis. These illnesses have a severe physical impact on the patient and can be financially and socially debilitating. This research offers a novel solution—a wearable rehabilitation glove—to solve these issues. The purpose of this motorized glove is to help individuals with paresis receive comfortable and efficient therapy. It is simple to use at home and in clinical settings thanks to its special soft materials and small size. With the help of sophisticated linear integrated actuators driven by sEMG signals, the glove may train each finger separately or all fingers at once. Along with being strong and long-lasting, the glove has a 4-5 hour battery life. The motorized wearable glove that is placed on the affected hand can be programmed to imitate the movements of the fion-affected hand using the categorized hand gestures as control commands. With the aid of this cutting-edge technology, rehabilitation activities based on task-oriented and mirror therapy theories are completed All things considered, the wearable rehabilitation glove is a major advancement in stroke recovery, providing patients with a useful and efficient way to lessen the financial, social, and physical effects of their stroke.

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