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Design and development of gripping assistive device for post - Stroke rehabilitation (Conference Paper)

Ramlee, M.R.H.B., Yusoff, H.M.

Department of Mechatronics Engineering, Kulliyyah of Engineering, International Islamic University Malaysia, Malaysia

Abstract

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Report from The National Stroke Association of Malaysia (NASAM), the disease that cause most deaths is stroke which comes after cancer and heart attack. Even though most of the stroke cases is avoidable, rehabilitation will be in high demand. Devices as such has not been created and looking into since the therapist could not fulfil the demand. This project addresses a device to help post - stroke patients to grip and release their fingers as a rehabilitation working process. The system uses leap motion sensor as the input and the output is a servomotor-based exoskeleton. At the moment the system is based on a master-slave mechanism which needs a healthy hand to control the weak hand. The exoskeleton is still being tested on using linear-like actuator mechanisms to perform grasping and extension. © 2017 IEEE.

SciVal Topic Prominence

Topic: Patient rehabilitation | Robotics | hand exoskeleton

Prominence percentile: 98.406

Author keywords

exoskeleton | leap motion sensor | linear-like actuator mechanisms | rehabilitation

Indexed keywords

Engineering controlled terms: Electronic medical equipment | Exoskeleton (Robotics) | Expert systems | Linear actuators

Engineering uncontrolled terms: Assistive devices | Design and Development | Heart attack | Leap motions | Master slave | Post stroke patients | Post-stroke rehabilitation | Working process

Engineering main heading: Patient rehabilitation

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