

## عنوان مقاله:

Adaptive Sliding Mode Control for Series Elastic Actuator Assisting Rehabilitation System

## محل انتشار:

اولین کنفرانس بین المللی دستاوردهای نوین پژوهشی در مهندسی برق و کامپیوتر (سال: 1395)

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## خلاصه مقاله:

In this paper, a new robust adaptive sliding –mode control is presented for a rotary series elastic actuator (RSEA) in human rehabilitation. This actuator has some uncertainties in its parameters for output torque. Recently, safety is a major consideration so makes difficulties against of output torque control. A new robust hybrid adaptive and sliding mode controller in order to compensate these uncertainties is proposed. The proposed methodology in this paper tries to simulate the real conditions by considering uncertainties in both parameters and modeling. Simulation's results specially have shown significant improvements in output torque control comparison with the other methodologies such as single sliding-mode controller.

## کلمات کلیدی:

component;adaptive sliding mode control; elastic actuator

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/497237>

