

عنوان مقاله:

Brain machine interface for controlling prosthetic hand via mental activities

محل انتشار:

پنجمین کنفرانس بین المللی تحقیقات نوین پژوهشی در مهندسی و تکنولوژی (سال: 1396)

تعداد صفحات اصل مقاله: 13

نویسندگان:

Azam Zarei - Department of medical engineering, Islamic Azad University, Tabriz, Iran

Homayoon Ebrahimian - Department of medical engineering, Islamic Azad University, Ardabil, Iran

خلاصه مقاله:

Brain machine interface (BMI) can be used for physically improving the quality of life for users with disorders. In this non-invasive work, brain machine interface was designed for controlling a prosthetic hand by users' mental activities. This device was designed for performing 4 main tasks which manage the movements by brain signals. The classification precision in this experiment is about 80% and it has fewer signals to noise ratio which have resulted in accurate performing of the test. This experiment includes carrying out the target in 4 points by the prosthetic hand with real time control. This test showed that this system can do more complicated tasks for handicapped people and they can easily perform their daily tasks by brain and machine interface.

کلمات کلیدی:

BMI, EEG signal, Support Vector Machine, prosthetic hand

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<https://civilica.com/doc/749584>

