عنوان مقاله:

Diagnosis Oculomotor Dysfunction with Eye Tracking Technology

محل انتشار:

مجله بین المللی پیشرفت در علوم کامپیوتر, دوره 4, شماره 3 (سال: 1394)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Tannaz Bahramitooran - *Department of Computer, College of Mechatronic, Karaj Branch, Islamic Azad University, Alborz, Iran,*

Alireza Nikravanshalmani - *Department of Computer, College of Mechatronic, Karaj Branch, Islamic Azad University, Alborz, Iran,*

خلاصه مقاله:

We proposes a computer aided diagnosis system(CADx)for tracking and analyzing the movement of the eye ,which has many applications in medicine including diagnosis ofoculomotor dysfunction. this process should be done in an environment with proper lighting with a laptop and awebcam. The architecture of the proposed system consistsof two phases. In the first phase, pupil of the eye is tracked and its position is saved into a database.in the second phase prediction the oculomotor dysfunction. is done by The neural network which is trained based on 112 data which includes 57 patient with normal conditionand 55 patient with oculomotor dysfunction. Also 100 data have been used to evaluate the precision of the system.Precision in diagnosis of the tested samples as if they are healthy or unhealthy is evaluated as 84%. proposed systemcan be used as a supplement of physician's suggestion to improve the diagnosis in clinical environment

کلمات کلیدی:

eye tracking, image processing technology, iris detection, oculomotor dysfunction, neural network, diagnose with computer

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/405204