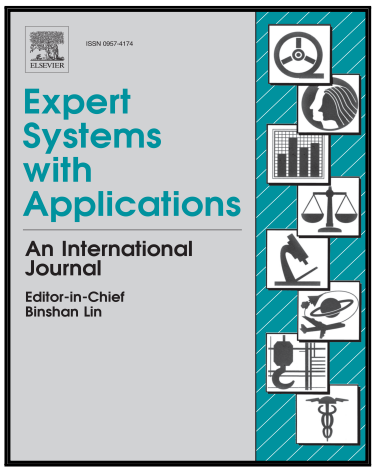

Evaluation of temporal stability of eye tracking algorithms using webcams

Jose Gómez-Poveda, Elena Gaudioso

PII: S0957-4174(16)30376-1
DOI: 10.1016/j.eswa.2016.07.029
Reference: ESWA 10775

To appear in: *Expert Systems With Applications*

Received date: 11 March 2016
Revised date: 20 June 2016
Accepted date: 19 July 2016

Please cite this article as: Jose Gómez-Poveda, Elena Gaudioso, Evaluation of temporal stability of eye tracking algorithms using webcams, *Expert Systems With Applications* (2016), doi: 10.1016/j.eswa.2016.07.029

Highlights

- For analysis of the movements of the eyes, the results should be precise and stable
- A layered framework for pupil detection is proposed and implemented
- A measure for temporal stability of pupil detection algorithms is proposed
- The GPF algorithm is the most stable with less noisy sources
- The Gradient and Combined algorithms are temporally stable with noisy sources