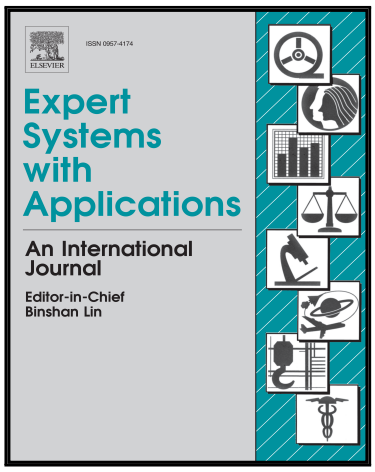

Windowed electroencephalographic signal classifier based on continuous neural networks with delays in the input

M. Alfaro-Ponce, A. Argüelles, I. Chairez

PII: S0957-4174(16)30414-6
DOI: 10.1016/j.eswa.2016.08.020
Reference: ESWA 10813

To appear in: *Expert Systems With Applications*

Received date: 24 February 2016
Revised date: 24 June 2016
Accepted date: 3 August 2016

Please cite this article as: M. Alfaro-Ponce, A. Argüelles, I. Chairez, Windowed electroencephalographic signal classifier based on continuous neural networks with delays in the input, *Expert Systems With Applications* (2016), doi: 10.1016/j.eswa.2016.08.020

Highlights

- An EEG signal classifier was developed based on a class of TDNN with delays appearing in the input signal
- This characteristic was proposed to take into account the concept of signal windowing
- The capability of a the TDNN to be employed as a EEG signal pattern classifier was tested
- The training process was proposed based on the technique of Lyapunov-Krasovsky stability analysis
- The correct classification of EEG signals attained a 99% of correct classification