

## Alzheimer electroencephalogram temporal events detection by K-means

Pedro Miguel Rodrigues<sup>a</sup>, Diamantino Freitas<sup>a</sup>, João Paulo Teixeira<sup>b</sup>

<sup>a</sup>*University of Porto, Porto, Portugal*

<sup>b</sup>*Polytechnic Institute of Bragança, Bragança, Portugal*

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### Abstract

Alzheimer Disease (AD) is a chronic progressive and irreversible neurodegenerative brain disorder. Its diagnostic accuracy is relatively low and there is not a biomarker able to detect AD without invasive tests. This study is a new approach to obtain electroencephalogram (EEG) temporal events in order to improve the AD diagnosis. For that, K-means were used and the results suggested that there are sequences of EEG energy variation that appear more frequently in AD patients than in Health subject.

*Keywords:* Alzheimer disease; electroencephalogram; temporal events; sequences; K-means;

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