Automatic Detector of Abnormal EEG for Preterm Infants

Titre	Automatic Detector of Abnormal EEG for Preterm Infants
Type de publication	Communication
Type	Communication avec actes dans un congrès
Année	2017
Langue	Anglais
Date du colloque	24-25/10/2017
Titre du colloque	HealthyIoT 2017: Internet of Things (IoT) Technologies for HealthCare
Titre des actes ou de la revue	HealthyIoT 2017: Internet of Things (IoT) Technologies for HealthCare
Volume	225
Pagination	82 - 87
Auteur	Jrad, Nisrine [1], Schang, Daniel [2], Chauvet, Pierre [3], Nguyen The Tich, Sylvie [4], Daya, Bassam [5], Gibaud, Marc [6]
Editeur scientifique	Ahmed, Mobyen Uddin [7], Begum, Shahina [8], Fasquel, Jean-Baptiste [9]
Pays	France
Editeur	Springer International Publishing
Ville	Angers
ISBN	978-3-319-76213-5
Mots-clés	automatic EEG analysis [10], feature extraction [11], inter burst interval detection [12], preterm infants [13]
Résumé en anglais	Many of preterm babies suffer from neural disorders caused by birth complications. Hence, early prediction of neural disorders, in preterm infants, is extremely crucial for neuroprotective intervention. In this scope, the goal of this research was to propose an automatic way to study preterm babies Electroencephalograms (EEG). EEG were preprocessed and a time series of standard deviation was computed. These series were thresholded to detect Inter Burst Intervals (IBI). Features were extracted from bursts and IBI and were then classified as Abnormal or Normal using a Multiple Linear Regression. The method was successfully validated on a corpus of 100 infants with no early indication of brain injury. It was also implemented with a user-friendly interface using Java.
URL de la notice	http://okina.univ-angers.fr/publications/ua17057 [14]
DOI	10.1007/978-3-319-76213-5_12 [15]
Lien vers le document en ligne	https://link.springer.com/chapter/10.1007%2F978-3-319-76213-5_12#citeas [16]

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[1] http://okina.univ-angers.fr/nisrine-jrad/publications
[2] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=24962
[3] http://okina.univ-angers.fr/pierre.chauvet/publications
[4] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=1879
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[8] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=28380
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[15] http://dx.doi.org/10.1007/978-3-319-76213-5_12
[16] https://link.springer.com/chapter/10.1007%2F978-3-319-76213-5_12#citeas