Abstract

Children with Autism Spectrum Disorder (ASD) cannot express their emotions explicitly; this makes it difficult for the parents and caretakers associated with these children to understand the child's behavior, leading to a major setback in the child's early developmental stages. To identify the autism in child initial stages can help early diagnosis. Delayed detection of child autism leads to incurable. This paper analysis the existing works on detection of autism spectrum disorder from EEG signal. Various filtering technique and classification are presented. The experiment for were conducted for support vector machine (SVM), k-nearest neighbor (KNN), linear discriminant analysis (LDA), deep learning, Naive Bayes, Random Forest, deep-learning classification algorithms. Here the deep learning algorithm gives better results for autism recognition with the emotions such as happy, calm, anger and scared. As the no of medical records increases the conventional techniques is not suitable for handle large number data.

References
1. Niranjana Krupa, Karthik Anantharam, Manoj Sanker Sameer Datta John Vijay Sagar, “Recognition of emotions in autistic children uses physiological signals”, in Received: 21 July 2015 /Accepted: 8 March 2016.

Index Terms

Computer Science Signal Processing
Keywords

EEG Signal, Emotion Recognition, Autism Spectrum Disorder, Deep Learning, classification