Informatics Institute of Technology

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Autism Spectrum Disorder Pre Identification

A dissertation by

Mr. M.M.T.R.Ananda

Supervised By

Mr. Rathesan Sivagananalingam

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Abstract

Autism is a brain development disorder that gives initial symptoms during the childhood and the Autism Spectrum Disorder (ASD) has become a widely discussed subject among medical professionals and other academics as the early detection or diagnosis of ASD leads to better understanding, analysis and treatment of the children suffering from autism.

Usually autistic children are diagnosed by pediatric psychiatrist, psychiatrist or pediatrician and they use manual observation and comprehensive diagnostic evaluation processes for the assessment. The comprehensive review includes monitoring behavior, development of child and interviewing parents. However Current diagnostic evaluation processes in Sri Lanka does not give any attention on technology related medical testing processes and if correctly use the technological processes could be used to overcome many hurdles in early identification of ASD.

This research project is proposing an application that can be used to identify autistic children by analyzing their brain waves through EEG associated physical tasks with the help of neural networks. This exercise could be more accurate as the process is independent and probability of bias is significantly low with compared to other current processes.