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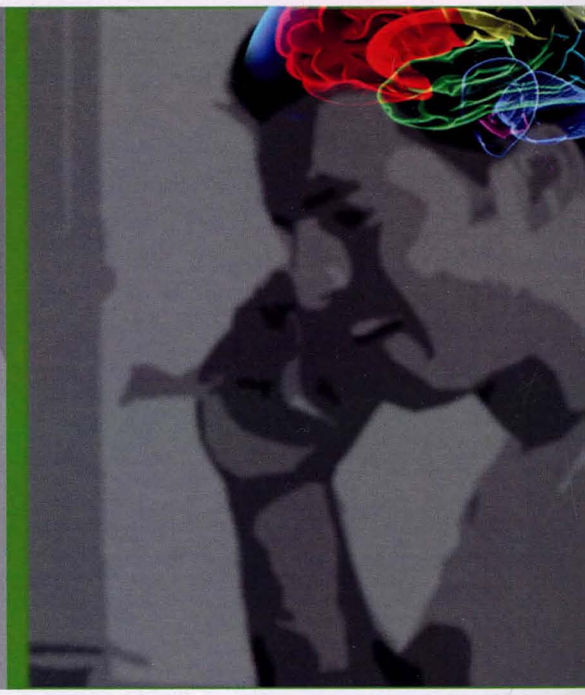
UNDERSTANDING BRAIN DEVELOPMENTAL DISORDER BASED ON EEG IN SOFT COMPUTING APPROACH

Abdul Wahab Abdul Rahman



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UNDERSTANDING BRAIN DEVELOPMENTAL DISORDER BASED ON EEG IN SOFT COMPUTING APPROACH

Editors

Abdul Wahab Abdul Rahman

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DETECTION OF AUTISM SPECTRUM DISORDER BASED ON 2D AFFECTIVE SPACE MODEL (ASM)

ABDUL WAHAB ABDUL RAHMAN AND NAJWANI RAZALI

9.0 Abstract

Research study using affective space model (ASM) had been used widely since 90s. Currently, ASM has been used in many studies related to emotion and also open up its function for understanding movement. Thus, our study adopted this model in order to detect autism based on motor imitation skills. Experimental results showed that there are potential findings for early detection of autism based on motor imitation using ASM. Data collection consists of both autistic and normal children with the total of 6 children for each group. All subjects were asked to clinch their hand by following video stimuli which presented in 1 minute time. Gaussian mixture model was used as a method of feature extraction for analyzing the brain signals in frequency domain. Then, the extraction data were classified using multilayer perceptron (MLP). According to the verification result, the