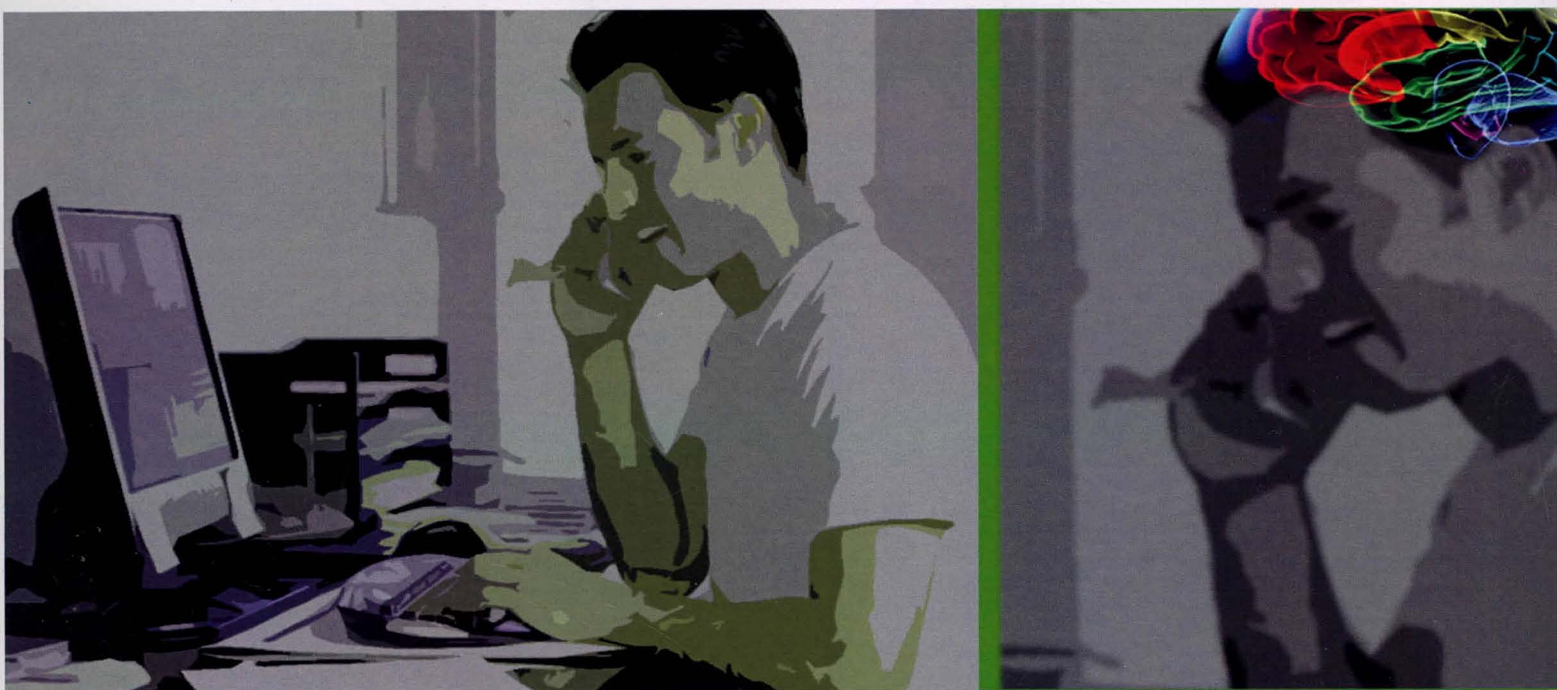


# UNDERSTANDING BRAIN DEVELOPMENTAL DISORDER BASED ON EEG IN SOFT COMPUTING APPROACH

**Abdul Wahab Abdul Rahman**



IIUM PRESS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

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**Editors**

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## **UNDERSTANDING STRESS USING EEG-VA**

### **APPROACH**

**ABDUL WAHAB ABDUL RAHMAN AND**

**RAHNUMA K.S**

#### **14.0 Abstract**

This paper will try to understand human stress using four basic emotions; happy, calm, fear and sad as basis function. Electroencephalogram (EEG) was adopted as a medium to capture brain signals. All subjects were asked to respond to the stimuli from the four basic emotions to stimulate stress. Then, all features were extracted using Kernel density estimation (KDE) and classified using Multilayer perceptron (MLP).

#### **14.1 Introduction**

Emotion is omnipresent and an important factor in human life in interacting and communicating people. Although emotion is intuitively known to everybody, it is hard to define. Scientists consider human brain as the main source of all emotions (Horlings, R., 2008). And therefore, brain signal is captured in order to study