Title :
The Development Of Galvanic Skin Response For Depressed People

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Abstract:
University education and its environment are totally different from the nature of learning at the high school. The university students are facing a lot of challenges such as academic stress, financial problem, independent living, and future career planning. These factors predispose them to depression. Depression can be said as a serious medical condition and it is totally impossible to avoid it. However, with some preventive actions might be able to overcome the problem. The threat of depression caused the nervous system to respond by releasing a flood of stress hormones, including adrenaline and cortisol. The Galvanic Skin Response (GSR) is described as change in the electrical resistance of the skin that is physiochemical response to emotional arousal which increases sympathetic nervous system activity. The aim of this research is to investigate the waveform pattern of a depressed patient by using Galvanic Skin Response (GSR). The research was conducted on the university students with a range of gestational age 20 – 25 years old regardless of gender. The GSR measurements are performed by detecting changes in electrical activity as a result of changes in sweat gland activity during depression and at rest (sleep). The data from GSR and pulse rate are then transmitted to the serial plotter and organic light-emitting diode display. The GSR readings for no emotional arousal and physiological occurred were 600 mΩ. According to the results of the analysis, it was found that the readings of depression patients were below 600 mΩ with pulse rate of 210bpm compared with those were sleeping of 700 mΩ with mean pulse rate of 79bpm. Hence, pulse Galvanic Skin Resistance is a useful tool to indicate the waveform pattern in depressed patients.

Remark

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