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Poster Presentation

Anxiety Control Using Q-Learning

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Abstract

Anxiety disorders are the most common reasons for referring to specialized clinics. If the response to stress changed, anxiety can be greatly controlled. The most obvious effect of stress occurs on circulatory system especially through sweating. the electrical conductivity of skin or in other words Galvanic Skin Response (GSR) which is dependent on stress level is used; beside this parameter person's heart rate is measured for more accuracy and reducing error. When the person encounters with relaxation training and biofeedback, he can reduce his stress due to changes in GSR circuits. In this article it is offered stress management by Q-learning along with biofeedback that is more efficient than other methods computationally. The purpose is reducing the amount of stress by getting feedback from biological signals (biofeedback) using photo and music playback. Response to the electrical resistance of the skin is measured by passing the flow through the sensors on it. In fact, it is possible to get information (feedback) from the body (bio) by connecting the electrical sensors on hand. So the person can be aware of his situation, according to LEDs placed on the machine. The person should focus on the photos and music which are playable by using Q-learning to make maximum changes in stress reduction. In general, it can be concluded, the image and rough tracks, raises stress levels, heart rate increased, the amount of sweat resulting in increased resistance and reduced voltage level, LEDs that can be embedded on the device, see the role of Q-learning is stress management by playing photo and music due to therapist condition instead of a psychologist in the clinics. So in this study it is presented a method for stress management with Q-learning to improve the accuracy of diagnosis with easy way, early detection, low cost and new style.

Keywords: Anxiety disorders, Q-Learning, Stress

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