allied academies

Neurosurg 2017, 2:2
DOI: 10.21767/2471-9633-C1-006

controller system that maintains the user`s focus up using Passive brain comfort/frustration signals in a smart office environment

Ghada Al-Hudhud
King Saud University, , Saudi Arabia

The aim of this project is to develop a smart controller system that maintains the user`s focus up using Passive brain comfort/frustration signals in a smart office environment. This system combines multiple features that differentiate it from the currently published works. It uses the passive Brain signals to determine the attention`s level of the workers. Additionally, it will observe the environment factors in the office such as temperature, light brightness level, noises, and open/closed curtains in real-time. The system will control and adjust the environment factors in the office based on the analysis of collected data in order to maintain the user`s focus on a high level in the cases of brain injuries that affects the physical movement, and / or the speech ability. It is based on measuring the comfort and the frustration brain signal of the user and adjust the environment accordingly. LabVIEW Software and Devices will be used to develop the system; which will provide powerful control over the system and the used devices. This project is expected to add a value to research about the smart cities infrastructures, and to the research about the focus and productivity at smart offices. In addition, it is expected to add value to research in the brain-computer interface field especially for the passive signal processing area.

e: galhudhud@ksu.edu.sa