Conclusion: Tai Chi exercise as an adjunctive treatment may potentially improve smooth ventilating blood, smooth emotion, strong bones and strong bones of Cervical Spondylosis patients as well as quality of life. Tai Chi exercise could be tentatively prescribed for Neck Type Cervical Spondylosis in combination with the conventional rehabilitation program to quicken the process of recovery.

060 | Concentration level monitoring in education and healthcare

Abraham Varghese[1]; Ali Al Musawi[2]; Sunil Jacob[3]; Jibin Lukose[3]

[1]Information Technology Department, Higher college of Technology, Muscat, Sultanate of Oman; [2]Department of Instructional and Learning Technologies (ILT), Sultan Qaboos University, Muscat, Oman; [3]SCMS Centre for Robotics, SCMS School of Engineering and Technology, Ernakulam, Kerala, India

Background: During the learning process, whether students remain attentive throughout the session influences their learning capability. If teachers can identify whether students are attentive they can be notified to remain focused, thus resulting in improving their learning capability. Traditional methods require, teachers observe students' facial expressions to identify whether they are attentive during the session. However, this method is often inaccurate and increases the burden on teachers. The number of Alzheimer's patient and resulting deaths is increasing every year mainly due to delay in the early detection so as to take necessary measures and treatments to overcome it. With the development of electroencephalography (EEG) detection tools, a window has opened for developing an effective equipment to aid this cause.

Objective: The aim is to develop a device that can check the concentration level, memory capacity and arithmetic levels of students and for the early detection of the Alzheimer's disease. Teachers can put on remedial methods for weaker students by offering them with special attention and care. Early detection of Alzheimer's disease will help in taking necessary measured to get cured or control the extent of it.

Methods: Every subject undergoes a session of trials for computing the subject-specific threshold to assess his/her attention and concentration level to perform specified tasks. The subject will be sitting in an upright posture wearing the EEG device, presented with the some objects or a sheet of patterns. Session has 3 phases such as preparation, concentration and relaxed phases. During idle phase active concentration to object or point on the pattern is avoided. In the concentration phase, user actively concentrated at a specified object or part of the pattern. In Relaxed phase subjects are free to divert their focus from the objects and patterns. Analysis of the data was done to estimate the values of the EEG signal extracted during the active concentration period. The average data of the trials is taken as the threshold. The threshold and the extracted raw data are compared and analyzed. The resulting data is used for the brain activity analysis which would help in the effective detection of Alzheimer's in its early stages.

Results: Effective EEG signal extraction is achieved. Efficiently analyzed concentration levels of students thereby helping the staffs to analyse their concentration levels and employing necessary measures to enhance the brain activity and concentration skills of the students. In healthcare early detection of the Alzheimer's was very supportive to help the patient and provide necessary treatment and care at the early stages itself.

Conclusion: A more user friendly, compact and better portable system will be designed such that it could be easily used in education institutions. The easy portable design will also be very helpful in hospitals aiding the patient to move around and interact by wearing the device.

061 | Study and design of physical health management system for civil servants in Hubei province of China

Qi Luo

College of Sports Engineering and Information Technology, Wuhan Sports University, Wuhan, 430079, China

Objectives: The purpose of this paper is to construct a complete civil servant health assessment index system (adding psychological and social adaptation indicators), and to take civil servants in Hubei province as the research object, aiming at comprehensive, objective and accurate evaluation of the physical health status of civil servants in Hubei province. On the basis of seizing the factors affecting the health of the civil servants, we searched the opinions of the collective health experts, designed targeted exercise prescriptions, and finally developed and designed the Hubei province civil servant health management integrated system (including database, expert database and website), which support for the practice of promoting the health of civil servants. This project is the need to implement the scientific concept of development, strengthen the quality of civil servants, and build a civil servant team that is lean, efficient, diligent, honest and pragmatic, so that civil servants can understand their physical health and seize