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Patent Search

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Abstract:

The main concept of this paper is to detect stress in the IT professionals with the help of Machine learning and Image processing techniques. This paper is an upgraded version of the old stress detection systems which excluded the live detection and the personal counseling but this paper comprises of live detection and periodic analysis of employees detecting physical as well as mental stress levels in his/her by providing them with proper remedies for managing stress by providing survey form periodically. This paper focuses on managing stress and making the working environment healthy and spontaneous for the employees and to get the best out of them during working hours.

Complete Specification

Description: Stress detection system based on the analysis of the facial expression. Fig.1 represents architecture of stress detection. The system works when the IT professional will be seated in the front of camera then it will be able to detect the facial expression and run in real-time. A camera is used to capture the near front sight of employee while he is working in front of the computer. Captured video is divided into sections of equivalent length and set of similar number of image frames are extracted from each part correspondingly and are examined. The image detection includes the calculation of the variation in the place of the eyebrow from its mean position. The displacement of eyebrow from its place is considered by examining the image for the eyebrow co-ordinates. If the employee is found stressed in the successive sections time intervals which was previously divided, the decision for stress detection is formed for an employee working in front of computer with the obtained results it employs technique of deep learning. The stress detection module scans the binary image from the extreme left top to record the co-ordinates of the eyebrow. The stress detection module scans the binary image from the extreme left top to record the co-ordinates of the eyebrow. The offline displacement calculation sub-module calculates the shift of eyebrow using the obtained eyebrow co-ordinates which is subsequently followed by variance calculation of the displacement. The classifier sub-module is trained off are employed to determine the presence of emotion. The integrated decision of individual frames eventually determines the level of stress involved. , C , C , Claims:

1. We claim to have developed To Detect and reduce stress and create a much comfortable workplace for IT employees.
2. We claim the system works when the IT professional will be seated in the front of camera then it will be able to detect the facial expression and run in real-time.
3. We claim to have developed the integrated decision of individual frames eventually determines the level of stress involved
4. We claim to activate a camera is used to capture the near front sight of the employee while he is working in front of the computer.
5. We claim measure the on screen and off screen time of the working employee in IT sectors so that we can know if stress is caused due to the burden of work

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