

KEYSTROKE DYNAMICS AS INDICATOR OF STRESS IN OFFICE ENVIRONMENT

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Stress is a significant problem for office workers, and it can have several negative effects on their well-being, office environment, and office employers. Firstly, stress can lead to various physical and mental health problems, such as fatigue, headaches, irritability, anxiety, depression, and burnout. This can result in decreased job performance, absenteeism, and turnover, all of which can be detrimental to the company's success. Secondly, stress can create a negative work environment that is not conducive to productivity and teamwork. Employees who are stressed may be more likely to engage in conflicts and interpersonal issues, leading to poor communication and low morale. Furthermore, a high-stress workplace can lead to a culture of overworking and unhealthy competition, which can further exacerbate stress levels. Thirdly, office employers may face financial and legal consequences due to stress-related issues in the workplace. This can include higher healthcare costs, worker's compensation claims, and legal disputes related to workplace harassment or discrimination [1], [2].

Keystroke dynamics is a behavioral biometric that captures user typing rhythms. The most commonly used as indicators of keystroke dynamics are: delay time, that is, the time a key is pressed, the average delay time, the duration between keystrokes and their average value, the time between pressing two consecutive keys, the frequency of pauses, the speed of typing, the number of keystrokes, the duration of digraphs and trigraphs, the number of events in a combination of key events, and the frequency with which certain keys such as backspace or space are used. Key pressure has also been used in some studies [1].

No specialized hardware is required to use keystroke dynamics analysis as a stress detection method; every computing device has a built-in physical or virtual keyboard, and the user is not required to perform any special actions other than their normal office work.

The keystroke dynamics analysis system for stress recognition in an office environment is convenient and economical, it provides real-time analysis and can be used for continuous stress detection. In addition, keystroke dynamics analysis can be used to authenticate users. By using keystroke dynamics analysis, organizations can improve the stress management of their employees and provide a safer environment for their users.

References:

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