

A Systematic Approach to Detect and Manage Academic Stress of University Students Using Emotional AI

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Stress is a prevalent issue that affects all of us at some point in our lives. The most common sort of stress that university students suffer is academic stress. This has a huge possibility of harming a university student's academic performance. According to the research findings stress is caused due to assignments on time submission, GPA Values, Modular Grades, and Loss of Hopes and Ambitions. Also, the personal coping mechanisms used by university students to manage academic stress are listening to music, watching videos, being motivated, and working hard, and wishful positive thinking. Moreover, the data gathered shows that there is a meaningful relationship between the ability to manage stress levels, gender, academic year, or university type of undergraduate students. Academic stress has become a part of university students' lives; which at times, encourages them to improve themselves and work hard but at other times, it has become a burden when they are unable to manage it. Therefore, this research paper focuses on proposing a system to detect stress levels and manage academic stress of university students through stress-releasing mechanisms that will assist university students to reduce stress levels caused due to many factors using various strategies. This proposed system uses Emotional Artificial Intelligence to detect students' emotions and identifies stress levels through Text Input (natural language processing), audio (voice emotion AI), video (facial movement analysis, physiological signals, and other factors), and system assists university students for various stress reduction techniques.

Keywords: *academic stress, stress reduction system, emotional artificial intelligence*