



**INFORMATICS
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In Collaboration with

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Stress Detection Using Voice And Suggest Relaxation Methods

Product Specification & Prototype Design

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ABSTRACT

In today's fast-paced world, stress has become a pervasive issue influencing individuals' well-being. This thesis presents a novel approach to stress detection and management using a mobile application that leverages voice analysis and a deep learning model for emotion classification. This project's primary objective is to provide individuals with a simple and effective method for determining their stress levels and receiving individualized relaxation techniques.

The proposed stress detection mobile application, named "Relaxifyer," utilizes advanced deep learning techniques to analyze vocal patterns and extract emotional cues from an individual's voice. By training the model on a diverse dataset of voice recordings, encompassing various stress levels and corresponding emotional states, the application achieves high accuracy in classifying emotions related to stress.

The development of Relaxifyer involves several key stages. Firstly, an extensive literature review is conducted to explore existing research on stress detection, voice-based emotion analysis, and relaxation methods. To detect emotions implemented deep learning model is trained including convolutional neural networks (CNN). Stress can be expressed as a percentage of emotion. These values are used to check the user's stress level

Keywords: Stress detection, voice analysis, deep learning, emotion classification, mobile application, personalized relaxation methods.