AI Based Stress Detection using Machine Learning Techniques

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Abstract:*The main objective of this study is to develop an AI based system that will predict the stress level of each student. First step is to collect the data needed to train the system. A total of 60 questions were prepared with the help of an expert. Each student will have to answer all the questions. Each question has four options never, somewhat frequent, frequent, always. Questions were provided to the students using google form. Then based on the information, we manually determine the stress level. Every answer has a score associated with it. Then total score is calculated and on the basis of the calculated score stress is determined as mild stress, moderate stress and severe stress. If the total score is greater than 180, then stress level is Severe. If the total score is greater than or equal to 90 and less than or equal to 180, then stress level is moderate. If the total score is less than 90, then stress level is mild. We append these stress level into the dataset. Then we will split the dataset into training and testing dataset. Then three classifiers were trained using the training data and the models are evaluated and best classifier is chosen for implementation.*

Keywords: Stress, Random Forest, Support Vector Machine, Naïve Bayes, etc.

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