

SAPTHAGIRI COLLEGE OF ENGINEERING

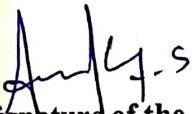
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Department of Computer Science and Engineering




Certificate

Certified that the Project Work entitled **"FRAMEWORK FOR ANALYSING STRESS USING DEEP LEARNING"** carried out by **NEWBY DAS (1SG14CS065), NISHCHITHA D. S. (1SG14CS070), RANJITHA V. (1SG14CS091), SAHANA M. R. (1SG14CS098)**, bonafide students of Sapthagiri College of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi during the academic year 2017-2018. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project Work (10CS85) prescribed for the said degree.


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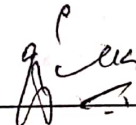

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EXTERNAL EXAMINATION:

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14/06/18


14/06/18

ABSTRACT

Most people frequently experience stress and anxiety these days. Chronic and excessive stress can lead to increase in blood pressure, insomnia, heart attacks or even death. Stress has become a prevailing factor for causing mental illness. If we do not get a handle on our stress, it becomes long-term and can seriously interfere with our job, family life and health. So, it is important to detect stress before it interferes with a person's well-being. Traditional face-to-face psychological diagnosis and treatment cannot meet the demand of peoples' stress completely due to its lack of timeliness and diversity. Nowadays the influence of Facebook, Twitter, YouTube and other social media giants has spread across modern society. People share their daily activities with friends on social media platforms. So, we create a social website where people can interact with their friends and this social media data can be used to analyse user's stress state. Our model will be useful in developing stress detection tools for mental health agencies and individuals. The Leacock-Chorodow (LCH) algorithm, an advanced deep learning algorithm along with the WordNet library is used to detect the stressed words from a user's tweet. We subsume two types of attributes namely tweet-level content attributes where we consider each and every tweet or post made by the user and user-scope statistical attribute where weekly tweet is taken. Finally, we propose a Deep Neural Network (DNN) model to incorporate the two types of user-scope attributes to detect users' psychological stress. Our social website can be used to detect stress based on the user's interactions with his friends and how active the user is on the social website.