LITERATURE SURVEY(Reading and Analysing IEEE Papers)

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| **SR.No** | Title Of Paper | Name of Authors | Published Year | Remarks |
| 1 | **Automatic stress detection using wearable Sensors and Machine Learning** | **Shruti Gedam and Sanchita Paul** Dept. of Computer Science & Engg. Birla Institute of Technology, Mesra Ranchi, India | **Published in:11th ICCCNT 2020 July 1-3, 2020 - IIT- Kharagpur** | **All the developed system first extracted the features using various algorithms and they applied machine learning algorithms to build classification model**.  **Algorithms:** **Random forest and K-Nearest Neighbor, svm**  **Keypoints—Stress detection, feature extraction, physiological measures, wearable sensing, machine learning.** |
| 2 | **Stress Detection with Machine Learning and Deep Learning Using Multimodal Physiological Data** | [**Pramod Bobade**](https://ieeexplore.ieee.org/author/37088492472)**, and** [**M. Vani**](https://ieeexplore.ieee.org/author/37086263578)  Department of Computer Science and Engineering, NIT, Surathakal, Karnataka, India | **Published in:**[2020 Second International Conference on Inventive Research in Computing Applications (ICIRCA)](https://ieeexplore.ieee.org/xpl/conhome/9169741/proceeding) | **Keypoints:** [**Stress**](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Stress&newsearch=true)**,** [**Machine learning**](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Machine%20learning&newsearch=true)**,** [**Biomedical monitoring**](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Biomedical%20monitoring&newsearch=true)**,** [**Sensors**](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Sensors&newsearch=true)**,** [**Electrocardiography**](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Electrocardiography&newsearch=true)**,** [**Physiology**](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Physiology&newsearch=true)**,** **Photoplethysmography, stressors, Accelerometer, Dichotomous, Sudomotor Nerve activity, convex optimization.**  **Advantages:** Automatically detect the stress condition of an individual by using the  physiological data recorded during the stressful situations.  **Disadvantages:** Due to the presence of lesser subjects, caution must be taken while interpreting the results. |
| 3 | **A Decision Tree Optimised SVM Model for Stress Detection using Bio signals** | **Alana Paul Cruz, Aravind Pradeep, Kavali Riya Sivasankar and Krishnaveni K.S**  Department of Computer Science and Engineering, Amrita Vishwa Vidyapeetham, Amritapur | Published in: [2020 International Conference on Communication and Signal Processing (ICCSP)](https://ieeexplore.ieee.org/xpl/conhome/9177229/proceeding) | Keypoints  [Support vector machines](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Support%20vector%20machines&newsearch=true), [Stress](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Stress&newsearch=true), [Electrocardiography](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Electrocardiography&newsearch=true),  [Mathematical model](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Mathematical%20model&newsearch=true), [Feature extraction](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Feature%20extraction&newsearch=true), [Kernel](https://ieeexplore.ieee.org/search/searchresult.jsp?matchBoolean=true&queryText=%22Index%20Terms%22:Kernel&newsearch=true) |
| 4 | **Stress Detection through Speech Analysis using Machine Learning** | ***Dr. S. Vaikole, S. Mulajkar, A. More, P. Jayaswal, S. Dhas******Associate Professor, Student, Student, Student, Student Department of Computer Engineering, Datta Meghe College of Engineering, Navi-Mumbai, India*** | Published in: Issue 5 May 2020 | Keyword: Stress Detection, CNN, MFCC, RAVDESS, MFC, Cortisol  To detect the stressed state using only speech signals, we used audio-visual data through a multi-step process and established stress-detection models using deep learning frameworks using an CNN structure. The stress status (i.e., stress vs. unstressed) will be detected by a labelled classification task with emotion labels assigned. |
| 5 | **Automated Stress Detection using Machine Learning** | * Anakha P. S, Aiswarya Devi, Anjana S Nair, Aishwarya Suresh, Neema George * Students, Dept. Of Computer Science & Engineering, Mangalam College of Engineering, India, | Published in: Issue – 2022  International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Published by, www.ijert.org ICCIDT - 2022 Conference Proceedings | Advantage: The results indicate that there is specific AU relevant to stress and AU intensity are significant increase during stress leading to a more expressive human face  **Disadvantages:** 1.The literature on AU stress analysis is limited, 2.AU temporal evolution was investigated achieving an average stress recognition accuracy of 75% for personindependent and 93% for person dependent analysis.  Methodology:1 Proposed system,2. Convolution Neural Networks |
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