

S.No	Title of the Paper	Name of Authors	Published Years	Remarks  <b>1.Methodology</b> <b>2.Algorithm</b> <b>3.Advantages</b> <b>4.Disadvantages</b> <b>5.Applications</b>
1.	<b>Stress Detection with Machine Learning and Deep Learning using Multimodal Physiological Data</b>	Pramod Bobade, Vani M.	2020	<p>1. WESAD is the dataset that is used for this study. This multimodal dataset is the collection of motion data and physiological features of 15 subjects from both a chest-worn device.</p> <p>2. Three-class and Binary classifications.</p> <p>3. Automatically detect the stress condition of an individual by using the physiological data recorded during the stressful situations. High Accuracy of results Such a detection can help in monitoring stress to prevent dangerous stress-related diseases.</p> <p>4.Lot of pre-requisite data is required.</p> <p>5. Hospitals, Health centers.</p>
2.	<b>A Decision Tree Optimised SVM Model for Stress Detection using Biosignals</b>	Alana Paul Cruz, Aravind Pradeep, Kavali Riya Sivasankar and Krishnaveni K.S	2020	<p>1. Electrocardiogram (ECG) was taken as the biosignal to detect stress.</p> <p>2. Optimised Support Vector Machines (SVM) using decision trees. <b>[Tree optimised Cubic SVM shows]</b></p> <p>3. The advantage of taking ECG as the bio signal is, information about respiratory signals -EDR (ECG Derived Respiration) feature can be easily derived without any extra sensors.</p> <p>4. Complex Calculations</p> <p>5. Used in Prevention of Heart related Diseases.</p>

3.	<b>Automatic Stress Detection Using Wearable Sensors and Machine Learning:</b>	Shruti Gedam, Sanchita Paul	2020	<p>1. Examination and reviewing of various stress detection approaches who uses low-cost wearable sensors for data collection and machine learning algorithms for predicting stress level of an individual.</p> <p>2. Classification model (random forest, LDA, Gaussian Naïve Bayes and decision tree)</p> <p>3. This shows that physiological signals can be used to detect stress of an individual with the help of wearable sensors and machine learning algorithms are <b>effective and affordable</b>.</p> <p>4. The limitation of this study is many researchers used multiple features correlated with each other which results in increased computation time. Also some of them used costly commercial devices for physiological signal collection where low-cost sensors can be used.</p> <p>5. Stress detection in working environment , academics, driving ,etc.</p>
4.	<b>Machine Learning and IoT for Prediction and Detection of Stress</b>	Mr.Purnendu Shekhar Pandey	2017	<p>1. We can use a person's heart beat to predict whether that person is fit, unfit and over trained or not, provided we have that person's age. Based on heart beat we can predict whether a person is in Stress or not. To detect the stress beforehand we have used heart beat rate as one of the parameters. Internet of Things (IoT) along with Machine Learning (ML) is used to alarm the situation when the person is in real risk.</p> <p>2. SVM and Logistic Regression</p>

				<p>3. We can integrate this work with any health monitoring device and safety device.</p> <p>4.The paper faces the challenge of <b>inadequate data</b>, as any machine learning algorithm can only give correct readings/predictions if it is applied on reliable data.</p> <p>5. Through mapping of stress and heartbeat, we can identify a lot of things, for example whether the person is nervous or not, whether the person is in apprehension or fear, whether the person is working out, whether the person is over trained, remote monitoring of a patient with heart disease etc.</p>
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