LITERATURE SURVEY

Sr. no.	Title of Paper	Name of Authors	Published Year	Remarks
1	Automatic Stress Detection using wearable sensors and machine learning: a reveiw	Shruti Gedam, Sanchita Paul	2020	**Features:** heart rate, heart rate variability and skin conductance. **Algorithms:** SVM, Random Forest, K-nearest neighbor **Advantages:** Physiological signals can be used to detect stress using wearable sensors and ml algo. Effective and affordable. **Disadvantages:** Increased Computation time.
2	A Decision Tree Optimised SVM model for stress detection using Biosignals	Alana Paul Cruz, Aravind Pradeep, Kavali Riya Sivasankar, Krishnaveni KS	2020	**Features:** ECG biosignals, EDR (ECG Derived Respiration), Respiration Rate, QT interval. **Algorithms:** Optimised SVM using decision trees. **Advantages:** Better Accuracy(96.3%). Determining ECG can easily derive information about respiratory signals without using any extra sensors.
3	Stress Detection with Machine Learning and Deep Learning using Multimodal Physiological Data	Pramod Bobade, Vani M.	2020	**Features:** Three Axis Acceleration(ACC), ECG, BVP, body temperature, Electrodermal Activity(EDA). **Algorithms:** K-Nearest Neighbour, Linear Discriminant Analysis, Random Forest, Decision Tree, AdaBoost and Kernel Support Vector Machine. Feed forward deep learning artificial neural network for three-class and binary classifications. **Advantages:** Accuracies of up to 81.65% and 93.20% for three-class and binary classification problems respectively. Using deep learning, the achieved accuracy is up to 84.32% and 95.21% respectively.
4	Stress Detection using deep neural networks	Russell Li, Zhandong Liu	2020	**Features:** Physiological signals from chest worn and wrist worn sensors. **Algorithms:** 1-dimensional convolutional neural network and a multilayer perceptron neural network. **Advantages:** The deep convolutional neural network achieved 99.80% and 99.55%

				accuracy rates for binary and 3-class classification, respectively. The deep multilayer perceptron neural network achieved 99.65% and 98.38% accuracy rates respectively. **Disadvantage:** The test dataset was very small (consisting only of 15 humans.)
5	Machine Learning and IoT for Prediction and Detection of Stress	Mr.Purnendu Shekhar Pandey	2017	**Features:** Heart beat rate **Algorithms:** Used ML algos along with IOT. Used algorithms include, VF-15, Naive Bayes along with SVM and Logistic Regression. **Advantages:** Uses heart rate as a stepping stone. Gives accuracy of about 66%-68%. **Disadvantages:** Low accuracy compared to other models.