**MACHINE LEARNING – ASSIGNMENT**

1. Least Square Error
2. Linear Regression is sensitive to outliers
3. Negative
4. Both of them (Correlation and Regression)
5. Low bias and High variance
6. Predictive model
7. Regularization
8. SMOTE
9. Sensitivity and Specificity
10. False
11. Apply PCA to project high dimensional data
12. We don’t have to choose the learning rate, It becomes slow when number of features is very large, We need to iterate.
13. Regularization is the technique to reduce the error by fitting a function appropriately on the given training set and avoid overfitting and underfitting.

Regularization is any modification we make to a learning algorithm that is intended to reduce its generalization error but not its training error. In short it refers to the method of preventing overfitting, by explicitly controlling the model complexity.

1. Ridge and LASSO are the particular algorithm used in regularization.
2. Error = Actual / Predicted

Error=y-(ax+b)

Y=ax+b+error

The error term of a regression equation represents all of the variation in the dependent variable and not by independent variable.