

## ML Lab Assignment 1

1. Design the solution using linear regression.

Model the output variable "concrete compressive strength" as a linear combination of 1 or 2 important features.

- a) Plot Y against each of the 8 features separately
- b) Formulate the cost function.
- c) Use Gradient Descent to optimize the cost (loss) function. Try with various learning rates of 0.1, 0.01, 0.001, 0.0001 and 0.00001
- d) Visualize the weight vector space .
- e) Plot the training curve .
- f) Generate 2 sample test cases and predict the output for these test cases.