Construction technology



Compressive strength is one of the important parameters used for characterizing concrete. Measurement of its strength is done normally with an interval of 7 days. After 28 days whatever strength is obtained is known as its Characteristics Strength which is defined as strength of material below which not more than 5% of the test result are supposed to fail. 1 Generally its strength distribution is of normal type having 95% area at the left side of day 28.

Test Result

Various tests have been performed and the results are plotted below.

Conclusion and Discussion

The curve fitting was done in MATLAB 7. 0 using Least Mean Square Algorithm. LMS algorithm is nothing but one curve fitting tool to keep overall error minimum throughout the data range. Hence from the above graphs we can easily conclude about the behaviours of compressive strength with respect to concrete days, rebound number and pulse velocity.

Reference

Ashok K. Jain. "Reinforced Concrete Limit State Design". 6th Edition. NEM Chand & Brothers, Roorkee. 2006.