131_Prediction of building construction project cost using clasification and regression trees

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ABSTRACTS

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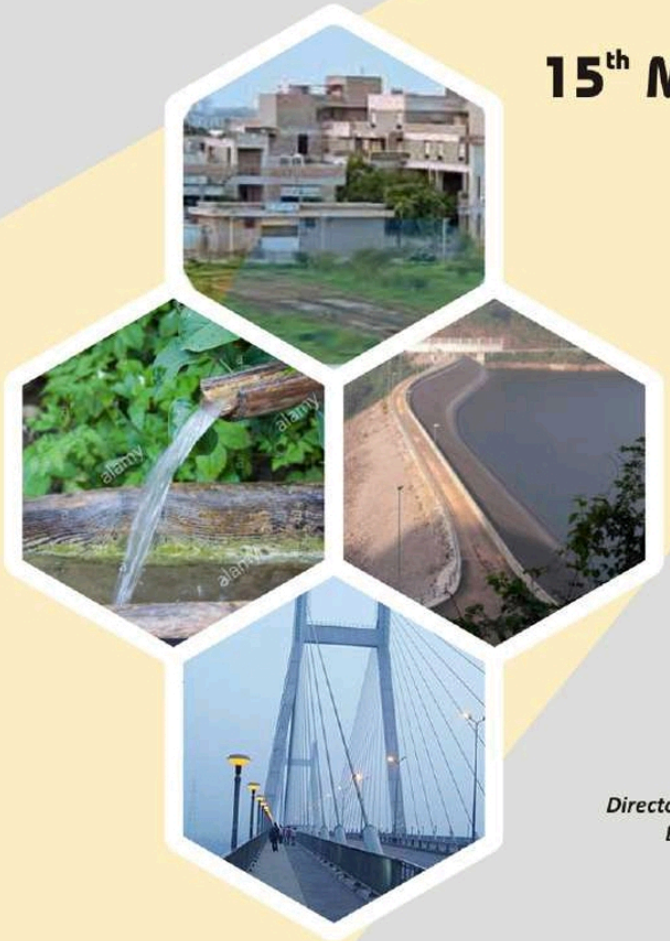
15th May, 2021



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THEME: TRANSPORTATION ENGINEERING (TRAN)

benchmarking the labor productivity in construction project of India. The important outcome from the literature is that there is no standard definition of productivity. This research provides a way to increase the labor performance on the construction site. Also, it gives a perfect concept of loss of productivity measurement for construction productivity claims. The results of this study will facilitate researchers, managers and engineers fascinated by understanding the conception and vying for improvement in labor productivity.

Keywords: *Labor, Productivity, Construction, Factors Affecting, Cost.*

PREDICTION OF BUILDING CONSTRUCTION PROJECT COST USING CLASSIFICATION AND REGRESSION TREES (STR15)

Viren B. Chandanshive[1] and Dr. Ajay R. Kambekar[2]

Abstract: *The cost estimation along with greater accuracy performs an important role in the effective project management and success of every building construction project. During the early phase of construction, the limited information of design and drawing parameters is available which performs a crucial job for a quantity surveyor. In this research, a total 78 dataset of building construction projects was collected from Mumbai region, India to develop Classification and Regression Trees (CART). For determining the predictive relationship with construction cost, eleven cost affecting independent variables (ground floor area, typical floor area, no. of floors, structural parking area, quantity of elevator wall, quantity of exterior wall, quantity of exterior plaster, area of flooring, no. of columns, type of foundation, and no. of householders) were taken into account. Statistical regression and error assessment-centered calculations were performed to validate the predictive capability of the evolved CART model. The correlation coefficient (R) of 0.941 and mean absolute error (MAE) of 0.128, are the statistical measures, that signify the evolved CART model performs better in predicting building project cost through the early phase of construction. Consequently, the CART model shows that it is a promising tool for estimating the construction costs. Finally, this study will be helpful to the construction industry in India.*

Keywords: *Construction Cost, Classification and Regression Trees (CART), early stages, prediction.*

RELATIVELY HIGH STRENGTH PERVIOUS CONCRETE USING LOCAL AGGREGATE (STR16)

Sulaimaan Mohammed[1] and Indrajit Ray[2]

Abstract: *Pervious concrete comes with a myriad of benefits, high permeability being of utmost importance for pavement surfaces. Given the host of advantages, the most significant disadvantage of pervious concrete which limits its usage is that of its compressive strength.*

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CERTIFICATE

This is to Certify that Dr./Prof./Mr./Ms

Viren B. Chandanshive

has Presented / published a paper titled

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