

Composite slab numerical strength test method under M-K approach

ABSTRACT

The paper presents an experimental validation of proposed numerical strength determination function for profiled deck composite slab (PDCS). The study is timely in finding solution to the costlier and mandatory laboratory procedure required for the strength determination for PDCS. The study load carrying capacity is from the longitudinal shear capacity estimation using slope-intercept method. The study yields to the formation of numerical load determination function for PDCS and the validation test programme consisted of four shear span length under unrestrained conditions. The litmus test comparisons of load capacity with the experimental test result shows good prospect of the numerical load model in determining the strength capacity of PDCS. Index Terms- Composite slab, Failure test load, Longitudinal shear, Slope-intercept method.

Keyword: Composite slab; Failure test load; Longitudinal shear; Slope-intercept method