

An Experimental Study on Flexural Strengthening of Reinforced Concrete Beams Using Externally Bonded FRP

P.D.R. Perera¹, C. S. Lewangamage², M. T. R. Jayasinghe³.

Abstract

The strengthening technique of Fiber Reinforced polymer (FRP) bonding externally is now established as a simple and convenient repair method for enhancing the flexural performance of concrete beams. In order to increase the stiffness and the flexural carrying capacity of beams under specific service conditions, FRP bonding has become very effective method. This paper presents the structural performances of FRP bonded beams. Experiment was conducted to find out the flexural strength increment which can be obtained by bonding FRP externally and identified the deflection pattern and failure modes.