

ABSTRACT

Simply non engineered structures refers to masonry structures but reinforced cement concrete building constructed without proper design and supervision of technical input during construction also lies in same category. Non engineered structures are extremely prone to earthquake and other natural or manmade events. In recent year increasing terrorist attack demand the strengthening the non engineered structure high. Similarly natural disaster, earthquake brings serious damage to structure with number of human fatalities. To resolve these problems, it is most necessary to way out technically and economically viable solutions. Fiber-Reinforced Polymer (FRP) composite offers viable solution to mitigate the problem. This study covers namely externally bonded laminates, near surface mounted bars, and post-tensioning; experimental test programs dealing with the out-of-plane and in-plane behavior of walls, columns and arches with discussion of failure modes, field validation, and durability analysis and applications including historical structures.