

## Strengthening of Concrete Slabs with Steel Beams

**Authors :** Mizam Doğan

**Abstract :** In service life; structures can be damaged if they are subjected to dead and live loads which are greater than design values. For preventing this case; possible loads must be correctly calculated, structure must be designed according to determined loads, and structure must not be used out of its function. If loading case of the structure changes when its function changes; it must be reinforced for continuing it is new function. Reinforcement is a process that is made by increasing the existing strengths of structural system elements of the structure as reinforced concrete walls, beams, and slabs. Reinforcement can be done by casting reinforced concrete, placing steel and fiber structural elements. In this paper, reinforcing of columns and slabs of a structure of which function is changed is studied step by step. This reinforcement is made for increasing vertical and lateral load carrying capacity of the building. Not for repairing damaged structural system.

**Keywords :** strengthening, RC slabs, seismic load, steel beam, structural irregularity

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