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# A Review Paper on Shapes of Shear Reinforcement in Concrete Beam

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***Abstract:*** ***Beam plays most important role in any structure. Beam transfer the loads of structure from superstructure to foundation. So the study of the beam is essential. There are two types of reinforcement provided in beam these are main reinforcement and distribution reinforcement. For further study of beam literature survey is carried out. Study focus on the shapes of shear reinforcement and distribution reinforcement provided in beam. Study of swimmers reinforcement along with the lattice girder is carried out .Also study focus on the sample prepare for experimental analysis of the beam.***
***For analytical analysis of beam various software are available. For detail analysis of beam Ansys software is used. Test for experimental analysis is studied. Lack of research area is found during the study of the literature.***
***Keywords: shape of shear are quite complex structures.***

## I. LITERATURE REVIEW

1) *Junfei Shen and Cuixiang Jiang et al (2018)[1] :* Author's study presents the works on the flexural performance of the steel fiber reinforced concrete structures through the change of steel fiber latticed structures, as well as the effect of altered latticed structures on the bearing capacity of steel fiber reinforced structures. The mechanical performance of steel fiber reinforced concrete was studied in this paper. The steel fibers in the concrete were processed into latticed structure. This reinforced concrete has the feature of good design ability and convenient construction. The experiment was conducted to study the influence of fiber lattice form on the bearing capacity of reinforced concrete. The results show that adjusting the included angle between the fibers and increasing the effective working length in the direction of tensile stress can retard the growth of crack.The steel fiber lattice reinforced concrete structure can efficiently increase its bearing capacity. This kind of reinforced concrete structure has great advantage of good design ability and convenient construction. Along the direction of tensile stress, the effective length of the steel fiber increases through the adjustment of the included angle θ between the steel fibers. As a result, this structure significantly reduces the crack widths and enable the concrete to sustain higher loading.
2) *N Kaarthik Krishna et al (2017)[2]:* In this paper, experimental results of testing six beams with respect to deflection and load bearing capacity by using normal and normal with helical reinforcements are done by comparing with each other to show the significant enhancement in load bearing capacity and ductility of the normal with helical reinforced concrete beams. All the six beams were tested under three point loading and the results were plotted.The present work explores the compatibility of normal with helical reinforcement as a whole which can be looked upon as an efficient replacement for normal reinforcement because of its ability to reinforce in all directions. The effectiveness was assessed by performing tests on the beams with respect to the cracking pattern, ductility and load defection diagrams. The obtained results were compared using ANSYS software and the values were found to be nearly accurate and hence the advantage of using helical reinforcement can be observed significantly. Therefore, reinforced beam with helical reinforcement has higher ultimate load-bearing capacity than normally reinforced beam. Hence it can be used in places where horizontal loads have higher significance.
3) *M.Tapan et al (2014)[3]et al:* This paper summarizes the test data obtained from an experimental investigation of reinforced concrete (RC) wide beams reinforced with lattice girders, which can also be described as one-way slabs, under low-rate (static) concentrated loading applied at their mid-span. Tests were conducted on lattice girder reinforced and traditionally reinforced beam-type specimens to investigate the effect of lattice girder on load carrying capacity. Key aspects of structural response such as the load–deflection behavior, crack patterns, strength and failure modes of the tested beams were recorded and given in this paper. A total of 6 beams with two different reinforcement arrangements were tested. Tested beams were simply supported at a span of 2250 mm. All specimens were tested under static loading and midspan deflections were recorded using a displacement transducer. Similar stiffness was displayed by the lattice girder reinforced and traditionally reinforced beams, but higher resistant capacity was shown by the lattice girder reinforced beams.Although similar initial stiffness was displayed by the lattice girder reinforced and traditionally reinforced beams, higher resistant capacity was shown by the lattice girder reinforced beams