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Experimental Investigation on the Behavior of Steel Fibers Reinforced Concrete under Impact Loading

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Abstract : This study aimed to investigate and examine the structural behaviour of steel fibre reinforced concrete slabs when subjected to impact loading using drop weight method. A number of compressive tests, tensile splitting tests, as well as impact tests were conducted. The experimental work consists of testing both conventional reinforced slabs and SFRC slabs. Parameters to be considered for carrying out the test will consist of the volume fraction of steel fibre, type of steel fibres, drop weight height and number of blows. Energy absorption of slabs under impact loading and failure modes were examined in-depth and compared with conventional reinforced concrete slab are investigated.

Keywords : steel fibre reinforce concrete, compressive test, tensile splitting test, impact test
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