

## **The behaviours of steel fiber as main reinforcement in high performance slurry infiltrated fiber reinforced concrete**

### **Abstract**

Normally, the concrete structure fabricated by combining steel bars as main reinforcement to the concrete mix. In this method, the steel fiber is randomly distributed in the mould before the concrete slurry takes place. In this study, high grade concrete slurry grade 80 was used. In order to determine the behavior of the steel fiber as reinforcement in concrete, three different percentage of steel fiber used, 3%, 4%, 5% and also the control sample without fiber. Sizes of prism used in this study are 100 x 100 x 500mm. The behavior of the steel fiber was investigated by using two-point load test until failure. The load-deflection data was recorded from the two-point load test. Based on the result, it was concluded that the optimum steel fiber content in this report was 5% by volume fraction which provided the highest flexural strength and deflection.

**Keywords;** Hooked-End Fiber, Load-Deflection, Slurry Infiltrated Fiber Reinforced Concrete, Steel Fiber