

Experimental Study on Connection Method of Precast Beam-Column Using CFRPS

Authors : Harmonis Rante, Rudy Djamaluddin, Herman Parung, Victor Sampebulu

Abstract : Many research of FRP strengthening on beam-column joint have been done. They used FRP as a strengthening material but not as a connection method. This paper presents a result of experimental-study on connection method of precast beam-column using CFRP sheet to investigate the possibility of CFRP sheet to be a connecting material. Six specimens were prepared and tested to investigate the behavior of CFRP-s connection capacity. The performance of two-connection method is presented in this paper. Three specimens have been tested so far, they were specimen without belt, specimen using one belt and monolith specimen as a control specimen. Result indicated that FRP joint system without belt reached higher capacity than joint system using one belt, but both are lower than monolith joint. Capacity of joint system without belt is 90.6% and 62.5% for the joint system using one belt, respectively compared to the control specimen.

Keywords : belt, CFRP-s, connection method, strengthening

Conference Title : ICCEIE 2015 : International Conference on Civil, Environmental and Infrastructure Engineering

Conference Location : Kyoto, Japan

Conference Dates : November 12-13, 2015