

## **POST TEST STUDY OF PRECAST RC BEAM-COLUMN JOINT AGAINST CLOSE-IN DETONATION**

Choon-Keat ANG<sup>1</sup>, Zoey LIM<sup>1</sup>, Zi-Jing HENG<sup>1</sup>, Jian-Yun SUN<sup>1</sup>

<sup>1</sup> *Prostruct Consulting Pte Ltd., 38 Cleantech Loop, #01-31, Singapore 636741.*

**Key words:** Precast RC Beam-column Joint, Close-in Detonation, Finite Element Analysis (FEA), LS-DYNA

### **Abstract:**

A blast test was conducted with precast reinforced concrete column subjected to contact detonation. The test is part of an ongoing effort to investigate the implementation of blast-resistant precast concrete components that are subjected to contact/ close-in detonation, as well as to develop a numerical methodology that can reliably capture the structural response of said scenario. The test results were used to improve the numerical model built in a pre-test study, and this paper presents the improved model using 3D ALE mapping method.