

Finite element analysis of RC interior beam-column joints with various beam section details

*Yu-Bin Son¹⁾ and Hyeon-Jong Hwang²⁾

^{1), 2)} School of Architecture, Konkuk University, Seoul 05029, Korea

¹⁾ dbqlsdl573@naver.com

²⁾ hwanghj@konkuk.ac.kr

ABSTRACT

Current reinforced concrete design codes only focus on cases where the beam-column joints are symmetrical. But interior beam-column joints with asymmetric beam section are used in many industrial buildings. In this study, finite element analysis was performed on interior beam-column joints with different beam height and Atena, a nonlinear finite element analysis program, was used

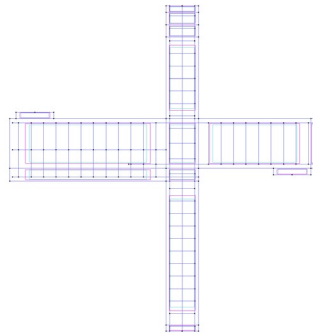


Fig. 1 Atena analysis model

ACKNOWLEDGEMENTS

This work was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MSIT) (No. RS-2024-00333882).

REFERENCES

1. G.H. Xing, T. Wu¹, D.T. Niu, X. Liu¹, "Seismic behavior of reinforced concrete interior beam-column joints with beams of different depths" Earthquakes and Structures, Vol. 4, No. 4 (2013)

¹⁾ Graduate Student

²⁾ Professor

The 2024 World Congress on
The 2024 Structures Congress (Structures24)
19-22, August, 2024, The K hotel, Seoul, Korea

1-000

-
2. Kailin Xia, Guohua Xing, Tao Wu and Boquan Liu, "Shear behavior of RC interior joints with beams of different depths under cyclic loading" *Earthquakes and Structures*, Vol. 15, No. 2 (2018) 145-153