

4th International Conference on

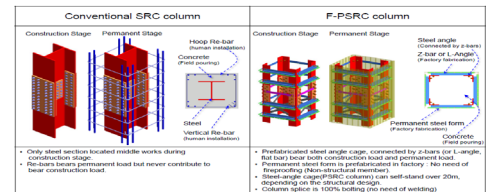
ADVANCED STEEL STRUCTURES

November 09-10, 2017 Singapore

Case studies of innovative composite structural system applied to Singapore and South Korea

Jaewook Jeong, Seunghwan Lee and Daekyung Kim
SEN Engineering Group, Singapore

Off-site construction methods such as prefabrication method have been developed to improve productivity in construction and to reduce cost. SEN Engineering Group, a Korea-based structural productivity solution provider, introduces new productivity enhancing construction methodologies, including the Form Prefab Steel Reinforced Concrete (F-PSRC) column and Thin Steel Concrete beam system. This system can dramatically augment on-site productivity by reducing or eliminating the usage of temporary scaffolding works and form-works. The F-PSRC column and TSC beam system has been successfully applied in more than 50 projects in Korea, especially in those involving super-fast-track IT industry factories and offices. In terms of productivity, it was identified through the previous study that F-PSRC columns technology was 42.45% more productive than the conventional SRC columns without increasing of overall cost including fabrication and on-site construction. And now this system is about to be introduced in Singapore through a large-scale inland container deposit project. This system focuses to enhance productivity on site by reducing temporary on-site works and pursuing factory prefabrication. Hence, it is imperative that those in the industry learn about how the F-PSRC column and TSC beam system practices and design are able to shorten the construction periods of projects.



Recent Publications

1. Jeong J, Hong T, Ji C, Kim J, Lee M, Lee S (2017) An Integrated Evaluation of Productivity, Cost and CO2 emission between prefabricated and conventional columns. Journal of Cleaner Production; 142(4): 2393-2406.
2. Jeong J, Hong T, Ji C, Kim J, Lee M, Jeong K and Koo C (2017) Development of a prediction model for the cost saving potentials in implementing the building energy efficiency rating certification. Applied Energy; 189: 257-270.

Biography

Jaewook Jeong is Country Manager of Singapore at SEN Engineering Group. He has received his PhD from Architectural Engineering at Yonsei University. As a Professional Engineer, he had worked for Kolon Global Corporation in South Korea and he, as a Researcher, also have published several SCI(E) papers about productivity and sustainability on construction industry.

jwjeong@senkuzo.com