

Using Outrigger Systems from Steel Plates in Tall Reinforced Concrete Buildings



UK | DUBAI | MALAYSIA



Alaa Habrah

Ph.D. student, Structural Engineering
School of Energy, Geoscience, Infrastructure and Society
Heriot-Watt University-Dubai Campus
Dubai, UAE
ah185@hw.ac.uk

Research Abstract

The aim of this research is to use thin steel plates as a replacement of the truss elements in RC tall buildings. The literature demonstrated that thin steel plate offers a high improvement in both resistance and ductility in comparison with using truss elements under lateral loading. However, most of the previous studies have introduced a steel plate to steel frames, whereas very rare works have been conducted on using steel plate in the existence of RC frames. Therefore, the performance of high-rise RC buildings in the presence of steel plates is one of the challenges of this research.

Supervisors

Dr Mustafa Batikha and Dr George Vasdravellis