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Spotlight on *Structures*

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Volume 40 of *Structures* (June 2022) is available to read at www.sciencedirect.com/journal/structures/vol/40.

Editor-in-Chief, Leroy Gardner, has chosen an article on semi-rigid moment-resisting connections made from composite cold-formed steel-rubberised concrete and its development as the 'Featured Article' from this issue.

Editor's Featured Article

Development of composite cold-formed steel-rubberised concrete semi-rigid moment-resisting connections

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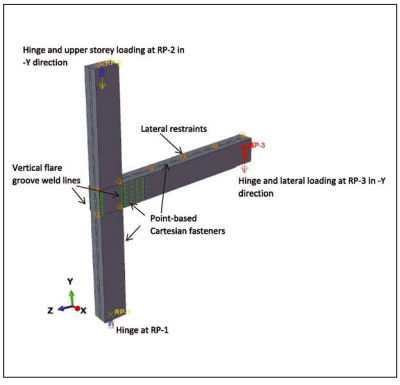
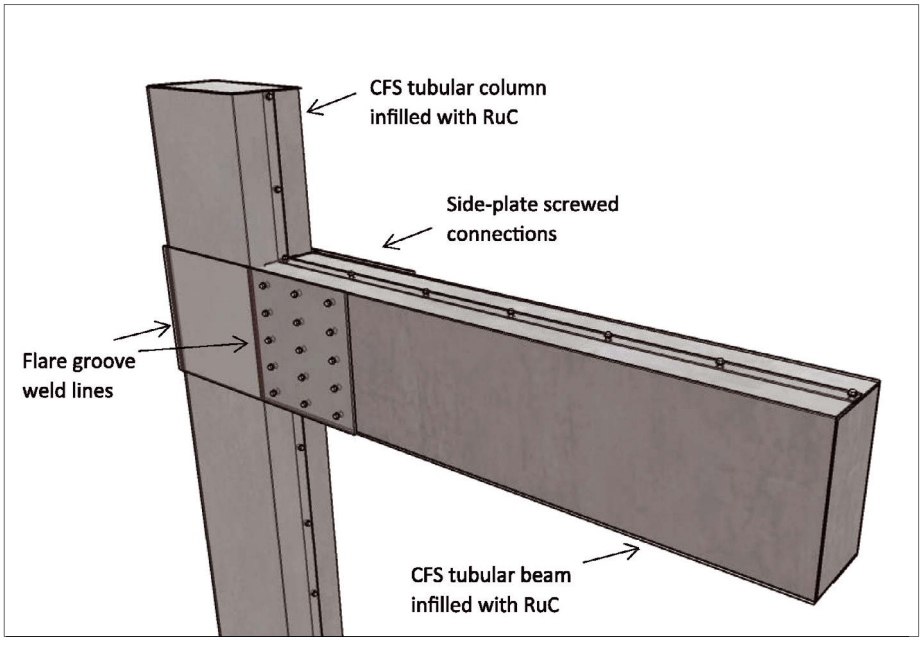
This paper presents the development of a composite cold-formed steel (CFS)-rubberised concrete (RuC) semi-rigid moment-resisting connection suitable for framed building structures. The connection comprises built-up tubular cold-formed steel beam and column sections connected using side-plate screwed fasteners and infilled with rubberised concrete. A detailed finite element analysis validated against physical tests is employed to model both bare steel and composite beam-to-column connections subjected to lateral and gravity loadings. The governing design limit states are characterized as local buckling in bare steel beams, connection screw shear failure, and side plate plasticity. It is shown that the strength and ductility capacity of composite connections could be increased by up to 1.44 and 3.46 times, respectively, compared with those of the bare steel connections. The connection rigidity of both bare steel and composite connections can be classified as a semi-rigid joint.

→| Read the full paper at **https://doi.org/10.1016/j.istruc.2022.04.069**





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