

## Special Issue on **Behavior of Concrete-Encased Composite and Concrete-Filled Steel Tubular Columns**

# CALL FOR PAPERS

Concrete-encased composite and concrete-filled steel tubular columns are composed of structural steel and concrete material. These columns are increasingly used in modern structures owing to their advantages, such as high axial load capacity and high stiffness, and they prevent local buckling effect. In addition, because steel tube acts as a formwork for infilled concrete, concrete-filled steel tubular columns require less labor cost during construction. Carbon steel and stainless steel materials can be used to construct the concrete-filled steel tubular members. Stainless steel tube offers high strength capacity, superior corrosion resistance, and aesthetic appearance. However, it is noted that stainless steel members are more expensive than those of carbon steel. More economical and structural benefits can be achieved for composite columns by using high strength materials. In addition, steel fiber reinforced concrete materials used in construction of composite members possess beneficial features, such as elimination of concrete cracks, favorable deformability, and ductility of members.

We invite authors to contribute original research articles as well as review articles that will illustrate and stimulate the experimental and analytical behavior of concrete-encased composite and concrete-filled carbon steel and stainless steel tubular columns as well as carbon fiber polymer confined columns.

Potential topics include but are not limited to the following:

- ▶ Experimental and analytical studies on concrete-encased composite columns
- ▶ Research studies on concrete-filled carbon steel and stainless steel tubular columns
- ▶ Structural behavior of composite columns constructed with steel fiber concrete
- ▶ Carbon fiber polymer confined concrete-encased composite and concrete-filled steel tube columns
- ▶ Analytical methods on the determination of the behavior of composite columns and concrete-filled carbon steel and stainless steel tube columns
- ▶ Theoretical studies on the constitutive models for confined concrete in concrete-encased composite and concrete-filled steel tubular columns
- ▶ Studies on local buckling behavior of thin-walled rectangular concrete-filled steel tubular columns
- ▶ Design studies on concrete-encased composite and concrete-filled steel tubular columns
- ▶ Behavior of concrete-filled steel tubular columns with ultrahigh strength concrete

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/ace/bccc/>.

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