# **Short Course on Cold-Formed Steel Design**

23rd Short Course on Cold-Formed Steel Structures

October 15, 16, and 17, 2013 St. Louis, Missouri

#### **About the Course**

This short course will discuss the behavior of cold-formed steel members and connections. The short course is structured to provide an introduction to behavior and design for the engineer unfamiliar with cold-formed steel. For engineers experienced with cold-formed steel design, the short course will strengthen their understanding of the fundamental behavior of both members and connections, as well as provide a better understanding of the AISI design specification and the AISI framing standards. A preview of future specification changes will also be provided. Both commercial and residential applications of cold-formed steel will be discussed.

#### **Texts & References**

Lectures will be based on information contained in the AISI North American Specification for the Design of Cold-Formed Steel Structural Members and Commentary, 2012 edition. The text Cold-Formed Steel Design, 4th edition, by Wei-Wen Yu and Roger A. LaBoube, will also serve as a course reference.

## **Program**

# **Tuesday, October 15**

- 8:00 Registration
- 8:20 Welcome
- 8:30 Mechanical Properties of Steel and Effect of Cold-Work of Forming
- 9:30 Break
- 10:00 Local Buckling and Postbuckling Strength of Thin Flat Elements
- 12:00 Lunch
- 1:00 Tension Members
- 2:00 Break
- 2:30 Flexural Members Bending Strength and Deflection
- 4:00 Flexural Members Distortional Buckling
- 5:00 Adjourn for the day

# Wednesday, October 16

- 8:00 Flexural Members Web Design
- 9:30 Break
- 10:00 Flexural Members Lateral Buckling
- 11:00 Compression Members Flexural, Torsional and Torsional-Flexural Buckling
- Noon Lunch
- 1:00 Bracing Requirements
- 3:00 Break
- 3:30 Compression Members Distortional Buckling
- 4:30 Q and A and General Discussion
- 5:00 Adjourn for the day

## Thursday, October 17

- 8:00 Beam-Columns
- 9:00 Direct Strength Method
- 10:00 Break
- 10:30 Connections
- Noon Lunch
- 1:00 Cold-Formed Steel Framing Standards
- 3:30 Break
- 4:00 Cold-Formed Steel Framing Applications Example Problems
- 5:00 Closing comments

# **Continuing Education Credits: 2.4 CEUs**

## **Instructors**

**Roger LaBoube, PhD, PE**; Curators' Teaching Professor Emeritus of Civil Engineering at Missouri University of Science and Technology and Director of Wei-Wen Yu Center for Cold-Formed Steel Structures

Sutton Stephens, PhD, PE, SE; Chief Structural Engineer at Pacific Northwest Engineering, Inc.

# **Registration & Fee**

The registration fee of \$1095.00 per person includes textbooks, course notes and three lunches (exclusive of room and board). Check purchase/money order or credit card information for the fee should accompany each application. Advance registration is requested and should be completed prior to October 1, 2013.

### **Location and Accommodations**

This short course will be held at the **Drury Plaza Hotel at the Arch** 2 South 4th Street in downtown St. Louis, Missouri.

This historic property is an elegantly renovated former hat factory which is located just around the corner from the **St. Louis Gateway Arch** and just a few blocks from many other **downtown and riverfront attractions**. Amenities include a free hot breakfast and free wireless Internet. **Click here** to see a full list of the hotel services and extras.

**The special room rate for this course is \$99.00 per night.** Reservations may be made online by visiting **www.druryhotels.com** and clicking on the "Reservations" tab. Choose "Group Reservations" and enter the **group number 2171350** when making your reservation. The lodging **deadline is midnight September 12, 2013**.

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# Click here to register online

If you have any questions please contact us at Tel: (573) 341-4471, Fax: (573) 341-4476, e-mail ccfss@mst.edu.

The Center for Cold-Formed Steel Structures (CCFSS) was established at the University of Missouri-Rolla (now Missouri University of Science & Technology) in May 1990 under an initial grant received from the <u>American Iron and Steel Institute</u>. The Center's sponsors now also include: <u>Cold-Formed Steel Engineers Institute</u>, <u>Metal Building Manufacturers Association</u>, <u>Metal Construction Association</u>, <u>Rack Manufacturers Institute</u>, <u>Simpson Strong-Tie</u>, <u>Steel Deck Institute</u>, <u>Steel Framing Industry Association</u> and <u>Steel Stud Manufacturers Association</u>. In 2000, the Center was renamed for its Founding Director, **Dr. Wei-Wen Yu.** 

The mission of the Center is to provide an integrated approach for handling research, teaching, engineering education, technical services, and professional activity. The Center brings together the technical resources of interested parties, i.e., university researchers, steel producers,

product manufacturers, consultants, building officials, government agencies, and others with a common goal of continued improvement of cold-formed steel design and construction