

## **VENUES**

#### **SASKATOON**

November 17, 2009 TCU Place – Saskatoon's Arts & Convention Centre Gallery Suite I & II 35 - 22nd Street East Saskatoon, SK S7K 0C8 306-975-7777

#### CALGARY

November 18, 2009 Sandman Hotel City Centre – Great Room I & II 888 7th Ave. SW Calgary, AB T2A 6J6 403-237-8626

#### **EDMONTON**

November 19, 2009 The Coast Edmonton Plaza Hotel – Drayton Valley Ballroom 10155 105 Street Edmonton, AB T5J 1E2 780-423-4811

#### **VANCOUVER**

November 20, 2009 The Coast Plaza Hotel & Suites-Nelson Room 1763 Comox Street Vancouver, BC V6G 1P6 604-688-7711

## TORONTO

November 24, 2009 Four Points by Sheraton – Kingston Room 6257 Airport Road Mississauga, ON L4V 1E4 905-678-1400

### WINNIPEG

November 25, 2009 Holiday Winnipeg South – Conference Theatre Room 1330 Pembina Highway Winnipeg, MB R3T 2B4 204-452-4747

#### OTTAWA

November 26, 2009 Chimo Hotel – Franklin Room 1199 Joseph Cyr St. Ottawa, ON K1J 7T4 613-744-7845

#### **FREDERICTON**

December 1st, 2009 The Wu Conference Centre – Aitken Room University of New Brunswick 6 Duffie Drive Fredericton, NB E3B 5A3 506-453-5135

## MONCTON

December 2nd, 2009 Université de Moncton – Local 226, CEPS Campus de Moncton Moncton, NB E1A 3E9 506-858-4759

#### ST. JOHN'S

December 3rd, 2009 The Battery Hotel and Conference Centre – Riverhead Room 100 Signal Hill Road St. John's, NL A1A 1B3 709-576-0040

#### **MONTREAL**

December 8, 2009 Hôtel Maritime Plaza – Salle Le Grand Mât 1155, rue Guy Montréal, QC H3H 2K5 514-932-1411 Formation donnée en anglais

# **DESCRIPTION**

This one-day seminar will be a thorough examination of the newest edition of CSA Standard S16-09 to be the reference structural steel design standard for the NBCC 2010. The 2009 Edition contains numerous additions to the Standard that deal with new seismic systems (e.g., restrained buckling bracing systems, protected zones), design of single angles in various situations, more detail for laterally unrestrained beams, new material for infill plates with perforations, and new Annexes on topics such as Design to prevent brittle fracture and Structural design for fire conditions (now a procedure permitted by the NBCC).

This CSA Standard is now available from www.shopcsa.ca at the price of \$175 (paper copy) and \$160 (PDF file). Participants will obtain a 15% discount. Please write to mahmoud@csce.ca for your discount code.

**Who Should Attend** – Structural engineers, designers, civil engineers designing in steel, detailers, fabricators and educators.

#### **AGENDA**

This course will provide a thorough clause-by-clause review of the CSA Standard S16-09 with particular emphasis on what's new, what's changed, and what has remained the same. For example:

- Emphasis on practical aspects of changes in this edition that will affect your designs
- Changes impacting the design of laterally unsupported beams explored
- Changes impacting the design of members subject to tension and block shear defined
- Discussion of new clause dealing with connections with welds and bolts in same shear plane
- Why are there new requirements for column anchorages
- New buckling restrained bracing system for seismic lateral load resisting systems introduced to try to match the compressive and tensile resistances of the brace
- Introduction of new requirements for single angles in compression
- The concept of "protected zones" explained
- Steel plate shear walls now have design provisions to handle penetrations through the infill panels
- Requirements for structural documents explained
- Introduction of new guidance to reduce risk of brittle fracture
- Rationale behind the factor, Ry, applied to the specified yield stress of steel
- Discussion of new Annex which has been added to provide guidance for design under fire conditions







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**GROUP** (5 and more) and student rates are available upon request.

JOIN CSCE now at the introductory fee of \$95 + taxes and pay the CSCE member fee at all CSCE activities held during the coming year.

## Please e-mail, fax or mail this form along with your payment to:

Mahmoud Lardjane
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Canadian Society for Civil
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Suite 201
Montreal, QC H3Z 1N1
E-mail: mahmoud@csce.ca
F: (514) 933-3504

Any registrant may substitute another person eligible for the same fee at any time. Full refund will be issued when a written notice of withdrawal is received 2 weeks before the event. An administrative fee is deducted at this time. We regret that there will be no refunds issued past this date. In the event that CSCE must cancel the program, the participant will receive a full refund for workshop fees.

Signature \_

#### CSA-S16-09 REGISTRATION

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CSCE Member	-			\$396.90							
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Newly Enrolling CSCE Member				\$532.98							
Non-CSCE Member	\$451.50	\$483.10	\$474.07	\$487.62	\$507.93	\$504.00	\$539.28	\$529.20	\$544.32	\$541.80	
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