



## Lifelong Learning at CSCE's 2015 Annual Conference

May 27, 2015  
Delta Regina  
1919 Saskatchewan Drive  
Regina, SK S4P 4H2

To register for this course only: <http://csce.ca/product/S850-Regina>

### CSA-S850 – Design and Assessment of Buildings Subjected to Blast Loads

#### The Content

CSA S850 is a new Canadian standard for the design and assessment of buildings subjected to blast loads. It is the most detailed and comprehensive standard of its kind in the world. The standard allows designers to determine for a given blast scenario, or design basis threat, the level of protection that can be provided by an existing building structure or that can be achieved in a new structure. It provides detailed procedures for determining blast load on buildings for a given charge size and standoff, the strength of materials under high strain rates, the selection of the appropriate methods of analysis and design for reinforced concrete, steel, masonry and wood components and structures and for field testing of structural and non-structural components under blast loads. It also contains provisions for preventing progressive collapse and brittle failure. The procedures for Threat and Risk Assessment (TRA) will be discussed. This includes the review and documentation of potential threats and all existing or planned security measures which may affect the selection of the appropriate Design Basis Threat (DBT). In CSA S850, DBT is a key component of the design and assessment of buildings subjected to blast loads and designers will learn about the elements which are considered in its determination

#### The Instructors

**Ghani Razaqpur, Ph.D., P.Eng.**, is professor of civil engineering at McMaster University and past president of CSCE and **Murat Saatcioglu, Ph.D., P.Eng.**, is professor of civil engineering at the University of Ottawa. Dr. Razaqpur is the Chair of the Technical Committee for the CSA Standard S850 and Dr. Saatcioglu is a leading member and chair of its sub-committee on design. They have extensive experience in the analysis, design and testing and of steel, concrete and masonry structures under blast load and have played a leading role in the development of the CSA-S850

#### Agenda

- Overview of CSA Standard S850-12 and its scope
- Introduction to blast and types of explosion
- Threat assessment and design basis threat (DBT)
- Building performances criteria under blast loads
- Effects of explosion, including pressure, impulse and their time variation, and their calculation
- Effects of explosion, including pressure, impulse consideration in design
- Dynamic analysis of structures subjected to blast loads
- Design of reinforced concrete, steel and masonry structures for resisting blast loads
- Structural integrity and prevention of progressive collapse
- Building envelope design
- Wrap-up



### FEES

Click to register : <http://csce.ca/product/S850-Regina>

8:00 Registration – 8:30 Start of Session – 10:00 Coffee Break – 12:00 Lunch – 15:00 Coffee Break – 4:30 End of Session

	By May 7, 2015		After May 7, 2015	
CSCE Members	\$450 + Tax	= <b>\$472.50</b>	\$500 + Tax	= <b>\$525.00</b>
New Members	\$470 + \$95 + Tax	= <b>\$593.25</b>	\$520 + \$95 + Tax	= <b>\$645.75</b>
Non-members	\$550 + Tax	= <b>\$577.50</b>	\$600 + Tax	= <b>\$630.00</b>
Students	\$100 + Tax	= <b>\$105.00</b>	\$100 + Tax	= <b>\$105.00</b>

- ▶ **GROUP RATES** (5 and more) are available upon request.
- ▶ **NEWLY ENROLLING MEMBERS** pay a special introductory membership fee of \$95 plus tax and obtain a discount on all future CSCE events.

**Cancellation & Substitution** Cancellation requests received more than 14 calendar days before the start of the course will receive a full refund minus a \$75 administration fee.  
Cancellation requests received within the 14 days prior to the start of the course will be non-refundable.  
CSCE reserves the right to cancel any course and will, in such event, fully refund all registration fees.  
Any registrant may substitute another person eligible for the same fee at any time prior to the start of the course.

For group rates and additional information: **Mahmoud Lardjane: mahmoud@csce.ca 514-933-2634 ext. 4**