

CANADIAN SOCIETY FOR CIVIL ENGINEERING
2012 ANNUAL CONFERENCE
LEADERSHIP IN SUSTAINABLE INFRASTRUCTURE



CONFERENCE ANNOUNCEMENT AND CALL FOR PAPERS

125TH ANNIVERSARY ANNUAL GENERAL CONFERENCE
12TH INTERNATIONAL ENVIRONMENTAL SPECIALTY CONFERENCE
3RD INTERNATIONAL STRUCTURAL SPECIALTY CONFERENCE
9TH INTERNATIONAL TRANSPORTATION SPECIALTY CONFERENCE
1ST INTERNATIONAL CONFERENCE ON SUSTAINING PUBLIC INFRASTRUCTURE



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ANNÉES

www.csce2012.ca

MESSAGE FROM THE CHAIRS

Leadership in Sustainable Infrastructure

Leadership in Sustainable Infrastructure is the theme for the 2012 Canadian Society for Civil Engineering annual conference. Hosted in beautiful Edmonton, Alberta, Canada, the conference theme is aligned with the rollout of CSCE's Vision 2020, which will support the advancement of excellence in civil infrastructure in Canada and around the world.

In societies internationally, expectations of civil infrastructure continue to evolve. Current infrastructure needs must be met, while simultaneously planning for the needs of future generations. This demand for enduring, financially prudent, and environmentally sound infrastructure presents huge challenges—and opportunities—for civil engineers and allied professions the world over. CSCE Edmonton 2012 will provide a forum in which to share ideas amongst civil engineers, planners, accountants, city managers, and many others who must work together to deliver these vital infrastructure services.

125th Anniversary Celebration

2012 marks the 125th anniversary of the creation of the original Canadian Society of Civil Engineers in 1887. Over the years, that society has evolved into the present-day Canadian Society for Civil Engineering. As part of the anniversary celebrations, a new national CSCE award for government excellence in sustainable infrastructure will be presented, intended to help encourage governments to strive for smart, sustainable decision-making in public infrastructure.

We are also delighted to announce that the 125th anniversary spotlight in Edmonton will be shared with the Engineering Institute of Canada. EIC is commemorating 125 years of learned engineering societies in Canada and their profound impact on our profession and society. EIC functions to take place in parallel with the CSCE conference will be announced soon.

Students and Young Professionals

Following Ottawa's lead in 2011, in Edmonton we will focus on student involvement and include a young professionals' program. We are reaching out to these vibrant groups using innovative marketing tools that will make their way to your CSCE Section in the coming months.

A Personal Invitation to Join Us in Edmonton

Edmonton is the heart of Alberta's capital region. With a regional population in excess of one million, it is a hub of cultural and economic activity, as well as infrastructure growth. Edmonton is the primary service centre to Alberta's energy sector, and therefore also a key research and development market. On the more creative and entertaining side, Edmonton is known as Festival City. Edmonton's thriving cultural and arts scene are yours to discover during your visit. In fact, our conference welcome reception will be held in the exciting new Art Gallery of Alberta.

In June, the days are warm and the evenings long. We can't wait to share a few of them with you. So please join us for CSCE 2012 as we celebrate the 125th anniversary of the CSCE, with our conference theme – Leadership in Sustainable Infrastructure. We look forward to seeing you in Edmonton!



Art Gallery of Alberta - Site of CSCE 2012 Welcome Reception

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CONFERENCE INFORMATION

TECHNICAL PROGRAM

The technical program includes technical tours, workshops, plenary, parallel and case study sessions over three days. Distinguished keynote speakers will make presentations that reflect the state-of-the-art as related to the Conference theme "Leadership in Sustainable Infrastructure".

Submission and Notification Deadlines

- October 14, 2011: Deadline for short abstracts (250 words maximum)
- November 4, 2011: Notification of acceptance
- January 19, 2012: Draft of full paper for review
- March 15, 2012: Receipt of final paper (pre-registration is required)
- May 25, 2012: Receipt of presentations

All submissions will be made electronically through the conference website, www.csce2012.ca

SUBMISSION FORMAT

Two paper formats are available:

- Full-length papers (up to 10 pages)
 - Extended abstracts for case studies (4 pages only)
- *Note that this format is not available for the specialty conferences

Authors are invited to submit a short abstract (250 words) in accordance with the topics of the general and specialty conferences. Authors will be required to specify the appropriate conference (general or specialty) on their submission. Papers will be accepted in either English or French.

PROCEEDINGS AND PUBLICATIONS

The proceedings for CSCE 2012 will be available digitally after the conclusion of the conference.

STUDENT PAPER COMPETITION

Papers presented by students will be automatically entered into the Student Paper Competition. Six awards of \$300 will be given to the best student paper in each of the specialty conferences (4 awards) and in the general conference for both graduate and undergraduate students (2 awards). Undergraduate students may submit in Extended Abstract form to the general conference.

SHORT COURSES

A number of short courses will be offered that will appeal to conference attendees. Topics will be announced soon.

TECHNICAL TOURS

A number of technical tours are planned and will be offered before and during the conference, such as the Millwoods Double Barrel Tunnel, Edmonton Waste Management Centre, North LRT extension and the Federal Building.

EXHIBITION

The conference provides an opportunity for local and international companies to display their latest products, services and projects in the areas of civil engineering and sustainability. The exhibition will be an excellent venue for conference participants to become familiar with a wide range of commercially available products and services.

SOCIAL AND COMPANIONS' PROGRAMS

Our social evening will feature a low key fun event where you will experience true Edmonton hospitality in the River Valley!

The companions' program will include visits to local tourist attractions including West Edmonton Mall, the Ukrainian Village, Fort Edmonton and so much more!

For information on Edmonton, visit www.edmonton.com

ACCOMMODATION

Relax and unwind at The Westin Edmonton. Situated in the city center and connected to the Shaw Conference Centre, The Westin Edmonton is only a few steps away from the best shopping, dining, arts and entertainment Edmonton has to offer.

The Conference is being held at the Westin Hotel where a limited number of rooms have been reserved for delegates, so early registration is advised.

Contact information: 780-426-3636 or 1-800-937-8461.

For more information on The Westin, visit www.thewestinedmonton.com

CALL FOR PAPERS

125TH ANNIVERSARY ANNUAL GENERAL CONFERENCE

The Canadian Society for Civil Engineering (CSCE) invites you to submit abstracts for papers in the scope of the 2012 CSCE Annual Conference, the theme of which is “Leadership in Sustainable Infrastructure”. The objective of the conference is to provide a forum for the presentation and discussion of recent developments in all areas of civil engineering, and an opportunity for national and international delegates from industry as well as research and academic institutions to interact and share their views, learn about new and innovative technologies in the different areas of civil engineering, and discuss future directions.

The submission of papers (and extended abstracts for case studies) on one or more of the following (non-exhaustive) list of topics is encouraged:

- Geotechnical engineering
- Construction engineering
- Hydrotechnical engineering
- Engineering mechanics and materials
- Case studies (extended abstract or fall paper format)
- Civil engineering history
- Codes of practice and their change to encourage greater sustainability
- Cold and arctic regions engineering
- Emerging technologies
- Geomatics and remote sensing
- Municipal engineering
- Information technologies & computer applications
- Climate change mitigation measures

For more information, please contact:

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CALL FOR PAPERS

12TH INTERNATIONAL ENVIRONMENTAL SPECIALTY CONFERENCE

The 12th International Environmental Specialty Conference is organized under the auspices of the CSCE Environmental Division. In keeping with the general theme, “Leadership in Sustainable Infrastructure”, the objective of the conference is to bring together academics, researchers and practitioners from around the world in the various fields of environmental engineering to present and discuss recent advancements and innovative solutions as well as to identify the challenges of the present and the future in this field.

The conference topics include, but are not limited to:

- Potable water treatment
- Water quality and quantity
- Municipal, industrial and rural wastewater treatment
- Industrial waste treatment
- Residuals management
- Solid waste management
- Waste minimization
- Contaminated site assessment, remediation and reclamation
- Air quality and air pollution control
- Environmental issues related to the oil and gas sector (conventional, oil sands, etc.)
- Mine waste management and mine reclamation
- Greenhouse gas emissions
- Climate change
- Nanomaterials and nanotechnology in environmental engineering
- Risk assessment and uncertainty analysis
- Environmental issues in developing regions
- Environmental management
- Environmental engineering education
- Case studies (full paper format)

In conjunction with the 1st Specialty Conference on Sustaining Public Infrastructure which will also be held as part of CSCE 2012, 12th International Environmental Specialty Conference will also cover topics related to environmental sustainability, including but not limited to:

- Sustainable environmental management
- Sustainable design
- Sustainable energy
- Sustainable resource development and management

All papers will be peer reviewed.

For more information, please contact:

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CALL FOR PAPERS

3RD INTERNATIONAL STRUCTURAL SPECIALTY CONFERENCE

The 3rd International Structural Specialty Conference is organized under the auspices of the CSCE Structures Division. In keeping with the general theme, "Leadership in Sustainable Infrastructure", the objective of the conference is to bring together academics, researchers and practitioners from around the world in the various fields of structural engineering to present and discuss recent advancements and innovative solutions, as well as to identify the challenges of the present and the future in this field.

The conference topics include, but are not limited to:

- Structure Types
 - Buildings
 - Plate, shell and space structures
 - Bridges and highway accessory structures
 - Heavy civil structures
 - Underground and foundation structures
- Analysis and Design
 - Code developments in concrete, steel, masonry and timber structures
 - Loads and structural design for safety and reliability
 - Modeling and design
 - Structural dynamics
 - Bearings and expansion joints
 - Innovative solutions and systems
 - Prefabrication and rapid construction
 - Composite and hybrid structures
 - Seismic design, evaluation and retrofit of structures
 - Soil-Structure interaction
 - Structural robustness and progressive collapse mitigation
- Structural Materials
 - Sustainability – recycling, demolition, optimization
 - Leadership in Energy and Environmental Design (LEED)
 - Reinforcing and prestressing materials and systems
 - High performance structural materials
 - Steel, aluminum, glass, timber and composite material applications
- Bio- Mechanics
 - Analysis and design of Orthopaedic prostheses and devices
 - Analysis and testing of bone and soft tissue
 - Analysis and testing of engineered tissue
 - Safety and crash analysis

- Structural biomaterials
- Durability
 - Long-term performance of structures
 - Reinforcing and prestressing materials and systems
 - FRP reinforcement for new and existing structures
 - Instrumentation and monitoring of structures
 - Life-cycle performance-based design
 - Deterioration models and rehabilitation
- Asset Management
 - Testing and residual life assessment
 - Repair, maintenance and upgrading of structures
 - Assessment of damage, safety and functionality of structures
 - Life-cycle strategies
- Case Studies (full paper format)
 - Learning from failures
 - Sharing successes
 - Structural engineering around the world
- Aesthetics
 - Structures for urban environment
 - Historic structures

All papers will be peer reviewed.

For more information, please contact:

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CALL FOR PAPERS

9TH INTERNATIONAL TRANSPORTATION SPECIALTY CONFERENCE

The 9th International Transportation Specialty Conference is organized under the auspices of the CSCE Transportation Division. In keeping with the general theme, "Leadership in Sustainable Infrastructure", the objective of the conference is to bring together academics, researchers and practitioners from around the world in the various fields of transportation engineering to present and discuss recent advancements and innovative solutions, as well as to identify the challenges of the present and the future in this field. Also, short-course will be offered in connection with the conference.

The conference topics include, but are not limited to:

- Design, construction and operation of highway facilities
- Highway operations and capacity analysis
- Safety and safety audits
- Traffic control and devices
- Intelligent Transportation Systems
- Connected Vehicle
- Transportation planning
- Activity-based travel demand modeling
- Winter Roadway Maintenance
- Public Transportation
- Bituminous and concrete materials
- Preservation of transportation infrastructure
- Pavement design and analysis techniques
- Pavement and asset management
- Pavement maintenance and rehabilitation
- Low volume roads
- Freight transportation
- Effectiveness of the Canadian transportation industry
- Energy, sustainability, and environment
- Transportation systems and changing climates
- Case studies (full paper format)

All papers will be peer reviewed.

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CALL FOR PAPERS

1ST INTERNATIONAL CONFERENCE ON SUSTAINING PUBLIC INFRASTRUCTURE

Owning, designing, constructing, operating and maintaining public infrastructure – such as roads, bridges, drainage systems, water treatment, transit, and recreational facilities – has historically been the role of governments. While this responsibility continues to primarily rest with governments, the recent economic downturn and ongoing global financial instability, has put a greater onus on civil servants and elected officials to make sound financial decisions that will optimize infrastructure investment and ensure long-term sustainability. Sustaining public infrastructure requires forward-thinking and the careful weighing of physical, environmental, economic, political and social considerations. As stewards of the natural and built environment, civil engineers play a significant leadership role in achieving and managing this important balance.

As the demand for sustainable infrastructure increases, Canadian civil engineers will need to broaden their scope, and embrace the challenges, prospects and demands of today's changing society. The 1st International Specialty Conference on Sustaining Public Infrastructure provides a unique opportunity for practitioners to examine issues that are beyond the traditional discipline of engineering, and consider how financial, political, social and environmental elements impact sustainability.

In keeping with the general theme, "Leadership in Sustainable Infrastructure", the objective of the conference is to bring together academics, researchers and practitioners from around the world in the various fields of engineering, finance, planning and other related fields to present and discuss issues related to sustaining public infrastructure, recent advancements and innovative solutions, as well as to identify the challenges of the present and the future in this field.

The conference topics include, but are not limited to:

- Infrastructure Management and Decision-making
 - Infrastructure management challenges
 - Leading sustainable infrastructure asset management practices
 - Decision-making tools and processes
 - Collaboration among disciplines related to public infrastructure management
 - Consistent infrastructure practices for different types of infrastructure
 - Integrated land use and infrastructure planning
 - Renewal practices and techniques
 - Project delivery (including P3)
 - Level of services
 - Condition assessment
 - Life cycle analysis
 - Risk assessment

- Financial Sustainability
 - Defining infrastructure financial needs
 - Capital renewal / growth planning
 - Infrastructure funding
 - Managing infrastructure gaps/deficits
 - Innovative financing alternatives
- Social Sustainability
 - Communities that are accessible, strong and inclusive, with access to a full range of public services
 - Infrastructure that supports citizens' enjoyment and personal health
 - Lifetime neighbourhoods that offer the best chance of health and well being, regardless of age
 - Innovative infrastructure that supports a safe and clean city
- International Practices on Sustainable Infrastructure
 - International Leading Practices and Experience
- Sustainable Infrastructure in small municipalities
 - Challenges faced by small communities and creative solutions in providing sustainable public infrastructure

In conjunction with the 12th International Environmental Specialty Conference which will also be held as part of CSCE 2012, the 1st International Conference on Sustaining Public Infrastructure will also cover topics related to environmental sustainability, including but not limited to:

- Infrastructure development and interaction with the environment
- Enhancing sustainability of water and waste management infrastructure systems
- Impacts of infrastructure decisions on energy and emissions
- The role of Low Impact Development in minimizing impacts of the environment
- Relating municipal infrastructure to ecological footprints
- Valuing ecological services and other externalities in infrastructure investment decision.

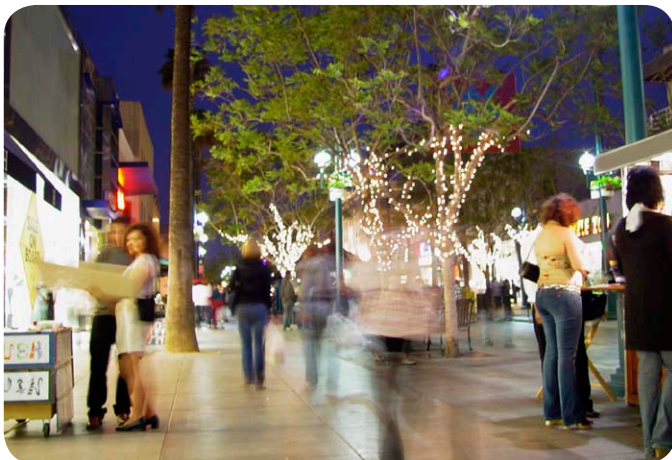
All papers will be peer reviewed.

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