



pre-conference

Wednesday
27 May

	Wednesday, May 27
Registration Desk	OPEN: 8:00 am - 6:00 pm <i>Hotel Lobby</i>
Pre-Conference Workshops	8:30 am - 4:30 pm 1. Performance of Concrete in a Marine Environment <i>Garrison Room</i> 2. Top Ten Targets for Improving Construction Productivity <i>Signal Room</i> 3. Introduction to Blast Loads on Structures <i>Salon C</i>
Technical Tours	8:30 am - 5:30 pm Tour 1 - 8:30 am - 10:30 am <i>Marine Institute High Rise Structure Stability Simulation</i> Tour 2 - 10:45 am - 2:15 pm <i>NRC Institute for Ocean Technology, and 3-D Visualization Centre, Memorial University Campus</i> Tour 3 - 2:30 pm - 5:30 pm <i>Windsor Lake Water Treatment Plant, and Historic Site Dedication</i> Tour 4 - 10:45 am - 5:30 pm <i>Historic Bell Island Mine Tour, and Windsor Lake Historic Site Dedication</i>

	Wednesday, May 27
Heads and Chairs Meeting	9:00 am - 5:00 pm <i>Avalon/Battery Rooms</i>
Various CSCE Committee Meetings	9:00 am - 5:00 pm <i>Columbus, Viking, Hibernia, White Rose, Terra Nova Boardrooms</i>
CSCE Executives' Workshop (Section Officer Training)	10:00 am - 3:00 pm <i>Salon D</i>
Trade Show	OPEN: 6:00 pm - 9:00 pm <i>Prefunction and Salon A</i>
After Hours	6:00 pm - 9:00 pm Welcome Reception <i>Prefunction/Salon A</i>

Daily
Program

am summary



2009
CSCE
Annual
Conference



St. John's NL
May 27-30

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2009



St. John's T-N.L
27-30 mai

	Thursday, May 28	Friday, May 29	Saturday, May 30
Registration Desk	OPEN: 8:00 am - 5:00 pm <i>Hotel Lobby</i>	OPEN: 8:00 am - 5:00 pm <i>Hotel Lobby</i>	OPEN: 8:00 am - 12:00 noon <i>Hotel Lobby</i>
Companions' Programme	8:00 am - 4:30 pm <i>Offsite Locations</i>	9:00 am - 4:00 pm <i>Offsite Locations</i>	10:00 am - 11:30 am <i>Walking Tour or Free Morning</i>
Trade Show	OPEN: 8:00 am - 5:00 pm <i>Prefunction and Salon A</i>	OPEN: 8:00 am - 3:50 pm <i>Prefunction and Salon A</i>	CLOSED, DISMANTLED
Plenary Sessions	8:00 am -10:00 am 1. Opening Ceremony - 8:00 am 2. Plenary 1 - 8:30 am - 9:15 am 3. Plenary 2 - 9:15 am - 10:00 am <i>Salon B</i>	8:30 am -10:00 am 1. Plenary 1 - 8:30 am - 9:15 am 2. Plenary 2 - 9:15 am - 10:00 am <i>Salon B</i>	NONE
Morning Coffee Break	10:00 am -10:20 am <i>Prefunction and Salon A</i>	10:00 am -10:20 am <i>Prefunction and Salon A</i>	10:00 am -10:20 am <i>Court Garden</i>
Morning Technicals	10:20 am -11:20 am <i>Salon C, Salon D, Garrison, Signal</i> 10:20 am -12:00 noon <i>Avalon, Battery, Plymouth</i>	10:20 am -11:20 am <i>Salon C, Salon D, Garrison, Signal</i> 10:20 am -12:00 noon <i>Avalon, Battery, Plymouth</i>	8:40 am - 10:00 am, 10:20 am - 12:00 noon <i>Salon C, Salon D, Garrison, Signal,</i> <i>Avalon, Battery, Plymouth</i>
Luncheon	12:00 noon - 2:00 pm Luncheon and Guest Speaker <i>Salon B, Salon C, Salon D, Signal,</i> <i>Garrison</i>	12:00 noon - 2:00 pm Luncheon and AGM <i>Salon B, Salon C, Salon D, Signal,</i> <i>Garrison</i>	12:00 noon - 2:00 pm Closing Luncheon <i>Salon A, Salon B</i>



summary pm Daily Program

	Thursday, May 28	Friday, May 29	Saturday, May 30
Early Afternoon Technicals	2:30 pm - 3:30 pm <i>Salon C, Salon D, Garrison, Signal</i> 2:10 pm - 3:30 pm <i>Avalon, Battery, Plymouth</i>	2:30 pm - 3:30 pm <i>Salon C, Salon D, Garrison, Signal</i> 2:10 pm - 3:30 pm <i>Avalon, Battery, Plymouth</i>	NONE
Afternoon Coffee Break	3:30 pm - 3:50 pm <i>Prefunction and Salon A</i>	3:30 pm - 3:50 pm <i>Prefunction and Salon A</i>	NONE
Late Afternoon Technicals	3:50 pm - 5:10 pm <i>Salon C, Salon D, Signal, Garrison</i> <i>Avalon, Battery, Plymouth</i>	3:50 pm - 5:10 pm <i>Salon C, Salon D, Signal, Garrison</i> <i>Avalon, Battery, Plymouth</i>	NONE
Historic Sites Dedication	NONE	2:00 pm - 5:00 pm <i>Petty Harbour, Cape Spear</i>	NONE
After Hours	6:00 pm - 8:00 pm Offsite Social, Cocktails <small>(OPTIONAL EVENT, Purchase Separately, Not included with Delegate Registration)</small> <i>Johnson GEO Centre</i> 8:00 pm - 10:00 pm Lobster Dinner & Entertainment <small>(OPTIONAL EVENT, Purchase Separately, Not included with Delegate Registration)</small> <i>The Battery</i>	6:00 pm - 7:00 pm Awards Banquet, Cocktails <i>Courtyard Garden</i> 7:00 pm - 10:00 pm Awards Banquet, Dinner <i>Salon A, Salon B</i>	6:30 pm - 10:00 pm Fellows' Dinner <small>(BY INVITATION ONLY, Purchase Separately, Not included with Delegate Registration)</small> <i>Murray's Pond Fishing and Country Club, Portugal Cove-St. Philips</i>

Thursday
28 May

am plenary



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St. John's NL
May 27-30

8:00-10:00

Opening Session: *Salon B*
Chair: Gordon Jin, P. Eng, FCSCE

8:00-8:30 **Welcome and Opening Ceremony**

CSCE President: Guy Gosselin

Conference Chair: Gordon Jin

Honorary Conference Chair: Jim Sharp

City Representative: Mayor Dennis O'Keefe, City of St. John's

8:30-9:15 **Keynote Presentation 1:** Forum on Professional Practice and Career Development,
Patricia Galloway, Past President, ASCE

9:15-10:00 **Keynote Presentation 2:** Construction Specialty Conference,
Brad Greene

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10:00-10:20

Coffee Break: *Salon A and Prefunction Area*



Thursday
28 May **am**



Reinforced Earth

Sustainable Technology

ARROW
CONSTRUCTION
PRODUCTS
LIMITED

Thursday
28 May

am technical



Student Paper
Competition Entry

Session: GC-A1
Construction: *Salon D*
Chair: B. McCabe

Session: GC-B1
SHM 1: *Garrison*
Chair: TBA

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St. John's NL
May 27-30

10:20-10:40

GC
049

**Prioritization Technique for
Asset Management: Using
Network Topology**
Moselhi, O., and Islam, T.

GC
098

**Role of SHM System in
Sustainable Development**
Wadud, A. and Azmal, M.

10:40-11:00

GC
044

**Incorporating Factor
Interdependencies in Discrete
Event Simulations**
Nahrvar, S. and McCabe, B

GC
164

**Structural Health Monitoring
of the Traffic Bridge in
Saskatoon, SK**
MacLeod, A., Wegner, L. and
Sparling, B.

11:00-11:20

GC
147

**Intelligent Crew Allocation Sys-
tem for Precast Manufacur-
ing: Railway Sleepers Precast
as a Case Study**
Al-Bazi, A., and Dawood, N.

GC
160

**Application of Neural
Networks and Wavelet
Transform in SHM**
Rahman, M., and Bagchi, A.

11:20-11:40

11:40-12:00

12:00-2:00

Luncheon: *Salons B, C and D. Overflow: Garrison and Signal*



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Thursday
28 May **am**

Session: GC-C1
Geotechnical: *Signal*
Chair: R. Harvey

Session: ICS-A1
Construction Mgmt: *Avalon*
Chair: M. Attalla

Session: ICS-B1
Simulation: *Battery*
Chair: J. Ruwanpura

Session: FPD-A1
Education & Training: *Plymouth*
Chair: Alan Perks

GC 171	Innovative Backfill for MSE Wall Ropret, M.	ICS 211	Key Performance Indicators to Measure Design Performance in Construction Budawara, N., and Alkass, S.	ICS 200	Simulation-based tool for scheduling construction projects with repeating processes Hu, D., and Mohamed, Y.	FPD 012	Lifelong Learning to Advance the Engineer's Career Jin, G, and Law R.
GC 105	Advanced Design of Foundation for Vibrating Equipments Han, Y. C.	ICS 215	Maturity Modeling in Construction: Introducing the Construction Industry Macro Maturity Model(CIM3) Willis, C. J., and Rankin, J. H.	ICS 212	Demonstrating the Usefulness of the High Level Architecture in Simulating Construction Labban, R., AbouRizk, S. M., Hague, S.	FPD 013	Engineering Faculty: Challenges and Changing Roles Kells, J. A., and Sparling, B. F.
GC 210	NL Hydro Dam Safety Management System: Case Study of Long Pond Reservoir Dam Safety Review Poole, G., and Woolgar, R.	ICS 073	Suggestions for a Leadership Based Total Quality Management Model Farooqui, R. U., and Ahmed, S. M	ICS 003	Planning of Low Income Housing Projects using Computer Simulation Marzouk, M., Omar, O., Hamid, M.A., and El-Said, M.	FPD 011	How Should We Be Teaching Structural Engineering to Undergraduate Students? Thorburn, J.
		ICS 205	Integrating Construction Safety and Project Performance Through Safety Information Management in an Industrial Construction Company Saba, F., and Mohamed, Y.	ICS 049	E-Risk: Enterprise Simulation Platform for Risk Management of Complex Management Environment Moussa, M., Ruwanpura, J., and Jergeas, G.	FPD 014	How to Assess Term Work? That is the Question. Kells, J. A.
		ICS 044	Safety Performance Model as a Gauge for Organizational Maturity Goggin, A., and Rankin, J. H.	ICS 070	Simulation Based Schedule Enhancement of Tower Cranes Moghani, E., Taghaddos, H., Salehi, M., AbouRizk, S. M., and Mohamed, Y.	FPD 007	Ethics and the Standard of Care Galloway, P.

Thursday
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pm technical 1



Student Paper
Competition Entry

Session: GC-B2
SHM 2: Garrison
Chair: TBA.

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2:10-2:30



2:30-2:50

	GC 158	Structural Health Monitoring of Railway Bridges Deeba, F., Rahmatian, A., and Bagchi, A.
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2:50-3:10

	GC 156	Towards a Wireless Sensor Network Design Guideline for SHM Applications Zakikhani, S., Hammad, A., and Bagchi, A.
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3:10-3:30

	GC 149	Structural Health Monitoring for Halifax Metro Centre Roof Limaye, V., MacDonnell, R., Nickerson, P., Newhook, J., and Hardy, D.
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3:30-3:50

Coffee Break: *Salon A and Prefunction Area*



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Thursday
28 May pm

Session: GC-C2
Earthquake Engineering 1: *Signal*
Chair: TBA

Session: ICS-A2
Constructability: *Avalon*
Chair: J. Rankin.

Session: ICS-B2
Construction Equipment: *Battery*
Chair: J. Christian.

Session: FPD-A2
Sustainability: *Plymouth*
Chair: Jim Kells.

		ICS 206	Constructability Assessment Framework Using BIM Technology Hijazi, W., Alkass, S., and	ICS 055	A 4D Planning Tool: Automatic Generation of Progress and Cost Profiles using Variable Productivity Data in Earthwork Construction Shah, R. K., Dawood, N., and Castro, S.	FPD 015	Sustainability of the Remediation of Soil and Sediments by Natural Remediation Mulligan, C.N., Fukue, M., and Yong, R. N.
GC 039	Damage-Based Evaluation of the Canadian Nuclear Seismic Design Spectrum Safar, M.	ICS 208	Supporting Constructability Reviews of Drainage Tunneling Projects through an Artificial Neural Network Conceptual Estimating Model ElNimr, A., Kuffert, C., Fernando, S., and Mohamed, Y.	ICS 210	The Idling Cost Rate of Retaining Equipment Hsu, K-J, Shen, Z., and Shi, J.	FPD 002	Present Status of Municipal Solid Waste Management in Khulna City Corporation (KCC) of Bangladesh Chowdhury, K., Alamgir, M.
GC 100	Seismic Risk Index for Canadian Cities Cockburn, G., and Tesfamariam, S.	ICS 203	Developing a model's structure to optimize the construction site layout using Unified Modeling language Fattah, A. A., and Ruwanpura, J.	ICS 131	Collaborative Multi-Agent System for Supporting Construction Equipment Zhang, C., Hammad, A. and AlBahnassi, H.	FPD 004	A Little Engineering - A Lot of Listening Denham, Richard
GC 176	Modelling Progressive Collapse of RC Bridges during Earthquakes Wibowo, H., Reshotkina, S. S., and Lau, D. T.	ICS 014	Measuring Sustainability of Existing Buildings Weerasinghe, U. G. D., and Ruwanpura, J. Y.	ICS 132	Accurate heavy equipment motion planning with considering local and global constraints AlBahnassi, H., Hammad, A., and Zhang, C.	FPD	General Discussion. Kells, J. A.

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Thursday
28 May

pm technical 2



Student Paper
Competition Entry

Session: GC-B3
Structural Loads: Garrison
Chair: TBA.

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St. John's NL
May 27-30

3:50-4:10

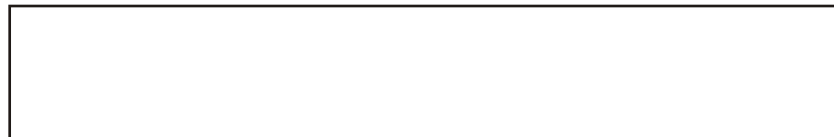


GC
126

**Load Path of Low Rise Wood
Light Frame Buildings**

Noory, M. I., Smith, I., Asiz, A.,
Doudak, G., and Mohammad, M.

4:10-4:30



GC
138

**Blast Load Effects on Building
Structures**

Yagob, O., Naumoski, N., and
Saatcioglu, M.

4:30-4:50



GC
047

**Aerodynamic Behaviour of a
Split Bridge Deck Section for
Long Span Bridges**

Hoftyzer, M., Dragomirescu, E.,
and Kitagawa, T.

4:50-5:10



GC
215

**Design Wind Loads for
Residential Photovoltaic
Systems**

Stenabaugh, S. and Karava, P.

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6:00-10:00

Offsite Social: **OPTIONAL EVENT, Purchase Separately, Not included with Delegate Registration**

Buses leave the Conference Hotel Lobby every
10 minutes starting at 5:30



6:00-8:00 Cocktails Johnson GEO Centre

Buses leave GEO Centre Lobby from 7:45 to 8:15

8:00-10:00 Lobster Dinner The Battery

Buses leave The Battery Lobby at 9:00 and 10:00



Thursday
28 May pm

Session: GC-C3
Earthquake Engineering 2: Signal
Chair: TBA

Session: ICS-A3
Construction Methods: Avalon
Chair: T. Zayed.

Session: ICS-B3
Infrastructure: Battery
Chair: A. Hammad.

Session: FPD-A3
Global Civil Engineers: Plymouth
Chair: R. Denham.

GC 015	Modelling of Seismic Repair and Retrofit of Concrete Shear Walls Cortes, W. L., and Palermo, D.	ICS 012	Effects of Pouring Rate on Lateral Pressure of Agilia Concrete Azimi, R., Ourdev, I., AbouRizk, S. M., and Tutton, W.	ICS 004	Assessment of Pavement Performance using Markov Model Marzouk, M., Awad, E., and El-Said, M.	FPD 017	Skills Needed by the Civil Engineer of 2020 Haas, R., and Borbely, C. L.
GC 166	Seismic Performance of Concrete Shear Wall Buildings designed using NBCC 2005 Mousavi, S., Bagchi, A., and Pekau, O. A.	ICS 042	Cost-Optimum Design of Reinforced Concrete Beams with Rectngukar Cross-Section Merta, I., and Kravanja, S.	ICS 068	Multiple-Element Bridge Management System: A Case Study in Ontario Hegazy, T., Elbehairy, H., and Soudki, K.	FPD 010	The Impacts of Globalization on Canadian Engineering Gupta, R., Burrell, B. C., Zhou, F., and Chan T.
GC 155	Dynamic Response Control of Building using Magneto-Rheological Damper Iqbal, F., Bagchi, A., and Sedaghati, R.	ICS 054	Evaluating Prestress Losses During Pretensioning Robitaille, S., Bartlett, F. M., Youssef, M. A., and Tape, W.	ICS 069	Simplified Approach for Condition Prediction of Building Components Utilizing Preventive Maintenance Data Hegazy, T., Ahluwalia, S. S., and Attalla, M.	FPD 020	Ubique: Canadian Military Engineers in a Global Context Vlachopoulos, N., Heffernan, P., Wight, R.G., and Atherley, J.
GC 129	The Effect of Ground Motion Characteristics on the Seismic Fragility Curves of RC Buildings Maher, M., El-Kholy, S., and El-Assaly, M.	ICS 135	Use of Hand Tunneling Techniques for Opportunistic Sewer Separation Rajbhandari, B. K., Mainali, A., and Policicchio, F.	ICS 133	Construction Document Management Archives: An Assessment of Requirements Keefe, P., Scammell, L., Waugh, L. M., Sinclair, L., and Nason, H.	FPD 006	Developing Global Engineers: Incorporating International Development into the Engineering Curriculum Fishbein, J. M..

Friday
29 May

am plenary



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8:30-10:00

Opening Session: *Salon B*
Chair: Gordon Jin, P. Eng, FCSCE

8:30-9:15 **Keynote Presentation 1:** Coastal, Estuarine and Offshore Engineering Specialty Conference
William Kamphuis, "Moving Forward with (Coastal) Engineering and Education"

9:15-10:00 **Keynote Presentation 2:** Engineering Mechanics and Materials Specialty Conference
Jim Beaudoin, "Nano-cement and Concrete Science"

10:00-10:20

Coffee Break: *Salon A and Prefunction Area*

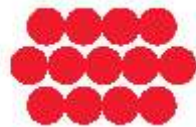
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Friday
29 May **am**



Reinforced Earth

Sustainable Technology



Friday
29 May

am technical



Student Paper
Competition Entry

Session: GC-D1

Transportation 1: *Salon C*
Chair: TBA.

Session: GC-E1

Risk Assessment 1: *Salon D*
Chair: B. Chen.

Session: GC-F1

Hydrology 1: *Garrison*
Chair: C. Agboma.

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10:20-10:40

GC
143

Modeling Brake Reaction Time in Car Following Behaviour Based on Human Factors

Mehmood, A., and Easa, S. M.

GC
091

Stochastic-based Fuzzy Risk Assessment of SO₂ Emission from a Power Station

Ping, J., Chen, B., and Husain, T.

GC
104

Trends in New Brunswick Hydrometric Data

Arisz, H., Dalton, S., Scott, D., and Burrell, B. C.

10:40-11:00

GC
145

Propagation of Traffic Related Information in Road Networks

Rezaei, F., Naik, K., and Nayak, A.

GC
113

Multi-criteria Decision Analysis with Fuzzy Probabilistic Risk Assessment for Produced Water Management

Mofarrah, A., Husain, T., and Hawboldt, K.

GC
135

Hydrological Monitoring and Characterization of a Sub-Arctic Wetland in the Hudson Bay Lowlands

Jing, L., Chen, B., Snelgrove, K., and Papakyriakou, T.

11:00-11:20

GC
132

Variations in the Relationship between Fuel Price and Bus Ridership among US Transit Systems

Haire, A., and Machemehl, R. B.

GC
124

Risk-based Decision Support Modelling for Offshore Produced Water Management

Mofarrah, A., Li, P., Ping, J., Niu, H., Husain, T., and Lee, K.

GC
107

Flood Forecasting on the Humber River Using an Artificial Neural Network Approach

Cai, H., Lye, L. M., and Khan, A.

11:20-11:40

11:40-12:00

12:00-2:00

Luncheon: *Salon B, C and D. Overflow: Garrison and Signal*
CSCE Annual General Meeting



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29 May **am**

Session: HSC-A1
Coastal & Offshore Engr 1: *Signal*
Chair: Cy Elliott.

Session: ICS-C1
Construction Mgmt 2: *Avalon*
Chair: Y. Mohamed.

Session: EMM-A1
Concrete 1: *Battery*
Chair: A. Hussein.

Session: EMM-B1
Modelling & Analysis: *Plymouth*
Chair: S. Kenny.

<p>IHSC 033</p> <p>Physical Modeling Tests Results of IRAN-LNG Harbour's Breakwater Section (Amoured by Xbloc) Aghtouman, P., Hosseyani, S. M., Afshar, A., and Davazdahemami, S. A.</p>	<p>ICS 071</p> <p>Managing Construction Conflicts Using Attitude-Based Negotiation Yousefi, S., Hegazy, T., and Hipel, K. W.</p>	<p>IEMM 025</p> <p>Investigation Of The Corrosion Problems Experienced In a Housing Complex Razaqpur, A. G., and Isgor, O. B.</p>	<p>IEMM 004</p> <p>Mean Minimum Breakage Velocity of Monolithic Annealed Glass from Small Windborne Missiles Bruder, M.</p>
<p>IHSC 030</p> <p>Risk Assessment and Modeling for Tsunamis: A Case Study in Sri Lanka Wickramarate, S., Ruwanpura, J. Y., and Wirasinghe, S.C.</p>	<p>ICS 051</p> <p>Contractor Selection in Construction Projects based on a Fuzzy AHP Method Banki, M. T., Hadian, S., Niknam, M., and Rafizadeh, I.</p>	<p>IEMM 019</p> <p>A New Modelling Approach for Corrosion Monitoring of Reinforced Concrete Structures Ghods, P., Pour-Ghaz, M., and Isgor, O. B.</p>	<p>IEMM 006</p> <p>Nonlinear Seismic Free Field Response Analysis of Saturated Sand Talukder, M. K., and Butt, S. D.</p>
<p>IHSC 055</p> <p>Evacuation of a Coastal Railway Line under a Tsunami Warning Sirisoma, R.M.N.T., and Wirasinghe, S.C.</p>	<p>ICS 072</p> <p>A Total Quality Approach to Streamlining Ethical Behaviours in the Construction Industry Farooqui, R. U., and Ahmed, S. M.</p>	<p>IEMM 010</p> <p>Compressive Stree-Strain Model for Confined Lightweight Aggregate Concrete Subjected to Short-term Loading Myat, M. H., and Wee, T. H.</p>	<p>IEMM 007</p> <p>Evaluation of Seismic Lateral Response of a Pile in Saturated Sand Talukder, M. K., Butt, S. D., and Popescu, R.</p>
	<p>ICS 005</p> <p>Developing a Project Management Structure for the Roles and Responsibilities of the Owner in a Managing Contractor Project Delivery Model Elbarkouky, M., and Fayek, A. R.</p>	<p>IEMM 011</p> <p>The Impact of Expansion due to Akali-Carbonate Reaction on Engineering Properties of Concrete Radwan, R. Z., Shehata, M. H., Abdelaziz, G. E., El Hariri, M.O. R., and Abdelalim, A. M. K.</p>	<p>IEMM 020</p> <p>Numerical Model for Assessing the Post-Earthquake Fire Resistance of wood-stud wall Yassin, M. H., Bagchi, A., and Kodur, V.</p>
	<p>ICS 006</p> <p>Building a Roles and Responsibilities Structure for Project Owners in a Managing Contractor Model Using the Concept of Fuzzy Consensus Elbarkouky, M., and Fayek, A. R.</p>	<p>IEMM 013</p> <p>Surface Testing to Evaluate the Level of Water-Cement Ratio in Hardened Concrete Kandasamy, S. and Shehata, M. H.</p>	

Friday
29 May

pm technical 1



Student Paper
Competition Entry

Session: GC-D2
Transportation 2: Salon C
Chair: TBA.

Session: GC-E2
Risk Assessment 2: Salon D
Chair: Jing Ping.

Session: GC-F2
Hydrology 2: Garrison
Chair: S. Richter.

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2:10-2:30



2:30-2:50

GC 067	Comparison of Renewable Oil, Recycled Oil, and Commercial Rejuvenating Agent Derived from Crude Oil in Paving Asphalt Modification Gordon, C., Ho, S., and Zanzotto, L.	GC 092	Application of Decision Support System for Produced Water Management (DISSPROWM) for Human Health Risk Assessment Chowdhury, K. H., and Husain, T.	GC 094	Development of Two-Stage ART-ARTMap Classification System for Supporting Watershed Management Li, P., Chen, B., and Husain, T.
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2:50-3:10


GC 033	Development of 3D Highway Visualization Model using Stereo IKONOS Satellite Imagery Yan, W. Y., Shaker, A., and Easa, S. M.	GC 097	Study of Ecological Risk Assessment of PAHs and Phenols in Produced Water After Partitioning in the Water Phase Mahmoud, N., Husain, T., Hawboldt, K., Hamoutene, D., and Lee, K.	GC 017	Assessment of the Soil Moisture Patterns Over the Canadian Prairie During Extended Period of Dryness Agboma, C. O., Snelgrove, K. R., Lye, L., and Yirdaw, S. Z.
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3:10-3:30

GC 041	Extraction of 2D and 3D Highway Geometric Parameters Using Stereo High-Resolution Satellite Imagery Kwon, T-J., Chin, T., Wong, H., Shaker, A., and Easa, S.	GC 074	Characteristics of Cement Kiln Dust and Preliminary Assessment of Capacity to Neutralize Acidic Wastewaters Mackie, A., Boilard, S., Walsh, M. E., Lake, C. B. and Dickson, C.	GC 022	Investigating the Influence of Simplified versus Detailed soil Maps on the Performance of a Semi-Distributed Hydrological Model Watson, B. M., and Putz, G.
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3:30-3:50

Coffee Break: Salon A and Prefunction Area



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Friday
29 May pm

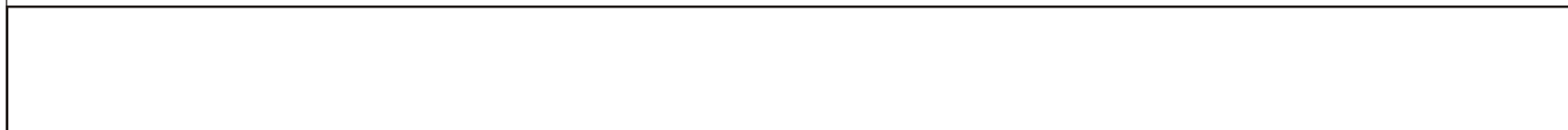
Session: HSC-A2
Coastal & Offshore Engr 2: *Signal*
Chair: Cy Elliott.

Session: ICS-C2
Cost & Schedule: *Avalon*
Chair: S. Alkass.

Session: EMM-A2
Concrete 2: *Battery*
Chair: B. Isgor.

Session: EMM-B2
Pipelines: *Plymouth*
Chair: S. Kenny.

		ICS 201	Cash Flow Analysis of Construction Projects Liu, Y., Zayed, T., and Li, S.	IEMM 022	A Plasticity Model for High Strength Concrete Hussein, A. and Marzouk, H..	IEMM 005	Parametric Study of Lateral-Vertical Pipeline/Soil Interaction in Clay Daiyan, N, Kenny, S., Phillips, R., and Popescu, R.
IHSC 053	Is there Statistical Correlation between Solar Activity and Icebergs below the 48th Parallel? Skinner, J. H.	ICS 008	Finance-Based Scheduling of Multiple Construction Projects Using Multiobjective Evolutionary Algorithms Elazouni, A. M., and Abido, M. A.	IEMM 024	Marine Performance of Concrete Containing Fly Ash and Slag Scott, A. N., Thomas, M. D. A., and Bremner, T. W.	IEMM 008	Investigation on the Buckling Behaviour of Girth Welded Pipelines Barrett, J., Kenny, S., and Phillips, R.
IHSC 004	Engineering Assessment of Ice Gouge Statistics from the Canadian and American Arctic Oceans Caines, J., Kenny, S., and Paulin, M	ICS 015	Special Purpose Simulation for Sustainable Development: LEED Cost Simulation Model Madanayake, H. L. S. P., and Ruwanpura, J. Y.	IEMM 023	Effect of Fly Ash Composition on the Sulfate Resistance of Concrete Dhole, R. D., Thomas, M. D. A., Folliard, K. J., and Drimalas, T.	IEMM 018	Generation of material stress-strain curves for the parametric study of pipeline buckling Tan, Z., and Khoo, H.
IHSC 050	Design of a touristy artificial island off the Holland Coast Mahmoodian, M., Spyropoulou, S., Thang, H. V., and Egon, A.	ICS 048	A Methodology to Investigate Different Usage Aspects in Toronto Schools Issa, M. H., Attalla, M., Rankin, J. H., and Christian, A. J.	IEMM 055	Hebron - Gravity Based Structure High Performance Concrete Lynch, T. J.		



Friday
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Student Paper
Competition Entry

Session: GC-D3
Miscellaneous Topics: *Salon C*
Chair: TBA.

Session: GC-E3
Environmental Engr: *Salon D*
Chair: B. Chen.

Session: GC-F3
Structural Mechanics: *Garrison*
Chair: M. Tom.

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3:50-4:10

GC
006

Gender Differences in Activity Participation and Duration Choices: New Evidences from Calgary
Zhong, M.

GC
086

Characterization of Parameters Effect on Hydraulic Flow Patterns of Waste Stabilization Pond
Abbassi, R., Khan, F., and Hawboldt, K.

GC
102

Self Healing As Opposed to FRP and Injection Repair Techniques: Myth or Reality?
Gad, G. M., Abou-Zeid, M. N., and Fahmy, E. H.

4:10-4:30

GC
050

Cold Climate Issues Affecting Wind Projects and Associated Mitigation Techniques
Drummond, J.

GC
056

Regression Models for Predicting Water Temperatures and Dissolved Oxygen Concentrations in Newfoundland Rivers
Harvey, R., Lye, L. M., and Khan, A.

GC
212

Assessment of Overhead Line Cascade Using Finite Element Model
Haldar, A., Veitch, M., and Andrews, T.

4:30-4:50

GC
205

Research on the Dynamics of One Dimension TCA Model
Zou, J., Li, S., Zhang, H., and Tang, Z.

GC
051

Absorption and Accumulation of Cadmium in Plant Parts
Daneshmand, T.N., Azimi, A. A., and Azmal, M.

GC
026

Comprehensive Parametric Study on Local Buckling Response of Buried Pipeline
Mahdavi, H., Kenny, S., Phillips, R., and Popescu, R.

4:50-5:10

GC
201

On the Overall Structure Optimization of the Long Life Cement Concrete Pavement
Fu, Z., Wang, D., and Li, H.

GC
130

Mechanical Behaviour of a Natural Rubber
Shi, M., and Selvadurai, A. P. S.

6:00-10:00

Awards Banquet:

6:00-7:00 Cocktails *Sheraton Hotel Newfoundland Court Garden*

7:00-10:00 Dinner and Awards Presentation *Salon A - B*



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Session: GC-G1
Water Resources: *Signal*
Chair: J. J. Sharp.

Session: ICS-C3
Panel Discussion: *Avalon*
Chair: L. Waugh.

Session: EMM-A3
Composites: *Battery*
Chair: H. Marzouk.

Session: EMM-B3
Modelling: *Plymouth*
Chair: A. Hussein.

<p>GC 125</p> <p>Case Study of the Kickuth Engineered Wetland Servicing the Towns of Appleton and Glenwood in Newfoundland. Sharp, R. G.</p>	<p>ICS</p> <p>Improving the Connection between Researchers and Practitioners Waugh, L., Moderator</p>	<p>IEMM 065</p> <p>Long Term Deflection of GFRP Reinforced Concrete Beams Under Uniform Sustained Load Youssef, T., El-Gamal, S., and Benmokrane, B.</p>	<p>IEMM 021</p> <p>Finite Element Analysis of Shear Critical FRP Reinforced Concrete Beams Alam, M.S. and Hussein, A.</p>
<p>GC 193</p> <p>Economic Loss Due to Water Pollution and Habitat Degradation in Coastal Areas of South China Guo, Z-R., and Liu, M.</p>		<p>IEMM 051</p> <p>Behaviour of GFRP Reinforcing Bars Subjected to Extreme Temperatures Mathiey, R., Cousin, P., and Benmokrane, B.</p>	<p>IEMM 052</p> <p>Reliability-Based Management of Fatigue Failures Josi, G. and Grondin, G. Y.</p>
<p>GC 093</p> <p>Evaluation de la Demande en Eau de la Region du Grand Moncton dans un Contexte de Changements Climatiques Pearson, C., and Laroche, A. M.</p>		<p>IEMM 016</p> <p>Influence of Ply Angle on the Fabrication Stresses of Composite Tubes Milburn, G., Akhras, G, and Potvin, M. J..</p>	<p>IEMM 014</p> <p>A Discussion on the Capabilities of Different Methods and Equations Used for Estimating Ice-Induced Forces on Vertical Structures Arunachalam, A. V. M, and Graham, M. E. D.</p>
<p>GC 101</p> <p>Model for Determining Optimum Operation Cost of Biosolids at Small Domestic Wastewater Facilities Martin, J., and Najafi, F. T.</p>		<p>IEMM 050</p> <p>SBS Modified Asphalt in Light of Superpave, Superpaveplus and Multiple Stress Creep and Recovery Tests Ho, S., Macleod, D., and Zanzotto, L.</p>	

Saturday
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am technical 1



Session: GC-D4
Structural 1A: *Salon C*
Chair: TBA.

Session: GC-E4
Structural 2A: *Salon D*
Chair: H. Marzouk.

Session: GC-F4
Hydraulics 1: *Garrison*
Chair: Jim Kells.

8:20-8:40	<p>GC 069 Influence of Fibres in Improving Core Confinement and Cover Contribution in Columns Aoude, H., Cook, W. D., and Mitchell, D.</p>	<p>GC 038 Behaviour of a New Form of Composite Shear Wall System under In-plane Monotonic and Cyclic Shear Loadings Rafei, S., Hossain, K. M. A., and Lachemi, M.</p>	<p>GC 083 Assessment of the Risk of Drowning at Low-Head Dams used as Sea Lamprey Barriers in Ontario Mazurek, K. A., Hallett, A., Thomson, J., Aktar, A., and Katopodis, C.</p>
8:40-9:00	<p>GC 053 Effect of Steel Fibers on the Shear Response of Structural Lightweight Concrete Shoaib, A., Bindiganavile, V. S., and Lubell, A. S.</p>	<p>GC 072 Crack Profile of Thick Reinforced Concrete Plates under Axial Loading Dawood, N., and Marzouk, H.</p>	<p>GC 082 Mitigating the Risk of Drowning at Low-Head Dams used as Sea Lamprey Barriers in Ontario Mazurek, K. A., Hallett, A., Amos, M., and Katopodis, C.</p>
9:00-9:20	<p>GC 046 Shear Behaviour of Concrete Slabs Longitudinally Reinforced with High Performance Steel Desalegne, A. S., and Lubell, A. S.</p>	<p>GC 073 Minimum Shear Reinforcement for Thick Plates and Two-Way Slabs Rizk, E., and Marzouk, H.</p>	<p>GC 084 Flow Behaviour and Residence Time Distribution Assessment in a Water Treatment Plant Clearwell using River2Dmix Yu, X., Mazurek, K. A., Putz, G., and Albers, C.</p>
9:20-9:40	<p>GC 184 Shearing Strengthening and Behavior of Damaged-Reinforced Concrete Beams Retrofitted by CFRP Hatami, F., Rahai, A., and Saberli, M. R.</p>	<p>GC 076 Splice Tests of Bond of Plain Steel Reinforcement and Concrete Hassan, M. N., and Feldman, L. R.</p>	<p>GC 096 Slit Weirs for Very Large Range of Discharges Kai, J., Azmal, M., Daneshmand, T. N., and Ramamurthy, A. S.</p>
9:40-10:00	<p>GC 180 Effect of Carbon Fiber Reinforced Polymer on Steel Plate Shear Wall Hatami, F., and Rahai, A.</p>	<p>GC 108 Design of Double Composite Box Girder over Interior Pier for Flexure and Shear Cho, E. Y., and Shin, D. K.</p>	
10:00-10:20	<p>Coffee Break: <i>Salon A and Prefunction Area</i></p>		





Saturday
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Session: GC-G2
Landfill Design: *Signal*
Chair: M. Tom.

Session: ICS-D1
Construction ICT: *Avalon*
Chair: D. Forgues.

Session: GC-H1
General: *Battery*
Chair: S. Garland.

Session: GC-J1
Infrastructure 1: *Plymouth*
Chair: TBA.

GC 087	Time-Risk Characterization Methodologies for Brownfield Redevelopment Planning Shen, H., and McBean, E.	ICS 043	Mobile Computing Technology - Adoption Issues for Inspectors in the AEC industry Pemberton, E. and Rankin, J. H.	GC 023	Success and Failure in Canadian Civil Engineering History Mackenzie, A. D.	GC 063	Neural Networks Based Structural Condition Assessment of Sewer Pipelines Khan, Z., Zayed, T., and Moselhi, O.
GC 134	The Co-oxidation of Methane and Dichloromethane in Landfill Bio-Cover Dagher, E., Albanna, M., Fernandes, L., and Warith, M.	ICS 046	Construction Monitoring and Visualization Centre (CMVC) to Improve Efficiency and Productivity of Construction Site Environment Ruwanpura, J. Y., Silva, L. P., Wickramaratne, S., and Hewage, K. N.	GC 144	History of Trenchless Technology: The Edmonton Experience Alex, D. P., and Fernando, S.	GC 064	A Decision Support System Framework for Wastewater Treatment Plants Maintenance and Rehabilitation Qasem, A., Zayed, T., and Chen, Z.
GC 151	The Implementation of Artificial Neural Networks to Model Methane Oxidation in Landfill Soil Covers Szeto, A., Albanna, M., and Warith, M.	ICS 064	Photogrammetry in Conjunction with Virtual Reality: An Initial Study Kurylyk, B. L. and Waugh, L. M.	GC 089	The Colonial Government Drydock, St. John's, Newfoundland, Garland, S.	GC 065	A Condition Rating Framework for Wastewater Treatment Plants Qasem, A., Zayed, T., and Chen, Z.
GC 110	Struvite Formation in Leachate Recirculation Pipes of Bioreactor Landfills Somathilake, M.K.P.T., and Hettiaratchi, J. P. A.	ICS 214	An Interactive Decision Support Method for Multi-Project Schedule Coordination Hao, Q., Wang, S., Xue, Y., and Shen, W.	GC	Canadian Bridge Engineering from the 1950s. Dorton, R.	GC 054	Simulating Impact of Factors Affecting Sewer Network Operational Condition Khan, Z., Zayed, T., and Moselhi, O.
GC 095	Removal of Heavy Metal and HOC by Surfactants Ramamurthy, A. S., Aman, Z., and Azmal, M.			GC	A Civil Society Hart, P.	GC 002	Enhanced Algorithm and Observation Code System to Improve the Condition Assessment of Buried Sewerage Infrastructure Islam, M. M., Ali, A., and Purtell, J.

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Session: GC-D5

Structural 1B: Salon C

Chair: A. Hussein.

Session: GC-E5

Structural 2B: Salon D

Chair: TBA.

Session: GC-F5

Hydraulics 2: Garrison

Chair: Kerry Mazurek.

10:20-10:40	<p>GC 032</p> <p>A Novel Retrofit Technique for Strengthening Steel Columns using FRP Karimi, K., Tait, M. J., and El-Dakhakhni, W. W.</p>	<p>GC 071</p> <p>Design of Shear Reinforcement using a Strut and Tie Model Rizk, E., Marzouk, H., and Tiller, R.</p>	<p>GC 123</p> <p>Estimation of the Fluctuating Water Surface Area of the Three Gorges Reservoir in China Lu, H. R., and Li, S. S.</p>
10:40-11:00	<p>GC 169</p> <p>Influence of Non-Metallic Fibres on the Shear Strength of Concrete Beams Reinforced with GFRP Bars Ebrahim, E. A. A., Alam, M. S., and Hussein, A.</p>	<p>GC 075</p> <p>A Theoretical Tension Stiffening Model for Thick Reinforced Concrete Plates under Tension Dawood, N., and Marzouk, H.</p>	<p>GC 020</p> <p>Air Impacts on Flow Transients in Wastewater Pump Stations Zhou, F., Ng, J., Hodgson, J., Porretta, M., and Lodewyk, S.</p>
11:00-11:20	<p>GC 168</p> <p>Shear Strength of Concrete Beams Reinforced with Glass Fibre Reinforced Polymer (GFRP) Bars Alam, M. S., Hussein, A., and Ebrahim, E. A. A.</p>	<p>GC 162</p> <p>Development of Precast Concrete Bridge Barrier Wall System to Accelerate Bridge Construction or Replacement Patel, G., Sennah, K., Kianoush, R., and Lam, C.</p>	<p>GC 106</p> <p>3-D Simulation of Dividing Flows in 90 degree Rectangular Closed Conduits Ramamurthy, A. S., Qu, J., Zhai, C. and Daneshmand, N.</p>
11:20-11:40	<p>GC 070</p> <p>Development of Beams Incorporating Ferrocement Forms Filled with Different Types of Core Materials Fahmy, E. H., Shaheen, Y. B., Abou-Zeid, M. N., and Hazem, N.</p>	<p>GC 208</p> <p>Probability Model of Chloride Ingress and Design Method of Durability Recovery for Reinforced Concrete Bridge in Marine Environment Zhao, S., Zhang, J., and Li, W.</p>	<p>GC 211</p> <p>Leak Detection in Pipelines Based on Inverse Transient Analysis and Mixed Integer Nonlinear Programming Shamloo, H., and Haghghi, A.</p>
11:40-12:00			
12:00-2:00	<p>Closing Luncheon: Salon A-B Presentation of Awards, Student Paper Competition Invitation to Attend CSCE 2010, Winnipeg</p>		





Saturday
30 May **am**

Session: GC-D2
Sustainability: *Avalon*
Chair: W. Shen.

Session: GC-H2
General: *Battery*
Chair: TBA.

	ICS 013	Reducing Construction Waste: A prototype for a design Assessment Based Tool Tetrault, M., and Forgues, D.	GC 090	Sewerage and Water-Works of St. John's, Newfoundland Garland, S.
	ICS 053	Constructing Sustainable Buildings: Challenges with Construction Methodologies Attalla, M. and Yousefi, S.	GC	Bringing Hydroelectricity to St. John's - Petty Harbour Hydroelectric Plant McLean, S.
	ICS 047	A Methodology to Assess the Costs and Financial Benefits of Green Buildings from An Industry Perspective Issa, M. H., Rankin, J. H., and Christian, A. J.	GC	Maintenance and Repair of His- toric Light House Structures Mills, J.
	ICS 066	A Survey of Building Industry Members to Determine Fac- tors Affecting LEED Imple- mentation Scammell, L., and Waugh, L. M.	GC	The Welland Canals - A National Heritage Corridor? Mackenzie, A. D.