



FRIDAY, MAY 30th

CSCE MEETINGS

7:00AM – 8:00AM	Outgoing Board of Directors Sable and
3:00PM – 4:30PM	IAC Committee Halifax

YOUNG PROFESSIONALS PROGRAM

9:00AM – 5:00PM	Capstone Competition Atlantic Suite
9:00AM – 10:30AM	Bridging the Gap Discussion Panel Halifax
2:00PM – 3:30PM	Student Leaders Round Table Halifax
5:00PM – 7:00PM	Dinner (RSVP Required) Your Father Moustache 5686 Spring Garden Rd.
7:00PM – 10:30PM	Brewery Tour (RSVP Required) Alexander Keith Brewery 1496 Lower Water St.
10:30PM	Pub Night Lower Deck Bar & Grill 1887 Upper Water St.

SOCIAL EVENTS AND MEALS

7:00AM – 8:00AM	Continental Breakfast Nova Scotia Ballroom
8:00AM – 9:00AM	Conference Speciality Speaker Nova Scotia Ballroom
10:30AM – 11:00AM	Refreshment Break Second Floor Foyer
12:00PM – 1:50PM	Student Awards Luncheon Nova Scotia Ballroom
3:30PM – 4:00PM	Refreshment Break Second Floor Foyer
5:30PM – 6:30PM	Banquet Reception Second Floor Foyer
6:30PM – 10:00PM	Honours and Awards Banquet Nova Scotia Ballroom
10:00PM	President's Cocktail (Invitation Only) Sable and

SESSIONS/TOURS

8:15AM – 9:00AM	Plenary Session Nova Scotia Ballroom
10:00AM – 10:30AM	Technical Sessions
11:00AM – 12:00PM	Technical Sessions
2:00PM – 3:30PM	Technical Sessions
2:00PM – 4:00PM	Historical Site Dedication Meet in Main Lobby
4:00PM – 5:30PM	Technical Sessions

Plenary Session Details

Keynote address: Nova Scotia Challenges and Opportunities – Paul LaFleche, Ph.D., P.Geo., FGC, Deputy Minister, Department of Transportation and Infrastructure Renewal

GENERAL

General Conference

ENVIRONMENTAL

13th International Environmental Specialty Conference

STRUCTURAL

4th International Structural Specialty Conference

TRANSPORTATION

10th International Transportation Specialty Conference

Acadia A

G25 CONSTRUCTION

Time: 9:10 AM - 10:30 AM

Organizational-Level Information Management Measurement in Construction Owner-Organizations

Ferzon Aziz, University of New Brunswick (Canada) (34)

Experimental Study on Concrete Beam Damage Detection Using Random Decrement Technique

Rana Morsy, Ryerson University (Canada) (38)

Agent-Based Simulation for Earthmoving Operations

Ahmad Jabri (Canada) (50)

Lessons Learned on the Utilization of LADAR for Progress Tracking

Ali Montaser, Concordia University (Canada) (67)

G33 EMERGING TECHNOLOGY AND INNOVATION

Time: 11:00 AM - 12:00 PM

Performance Assessment of Oil/Grit Separators for Stormwater Management in Road Applications

Liliana Malesevic, City of Edmonton (Canada) (159)

Solar Thermal Buffer Zone Modelling: Experimental and Numerical Results

Ghani Razaqpur, McMaster University (Canada) (167)

G41 ENGINEERING MATERIALS

Time: 2:00 PM - 3:20 PM

Assessing Driven Steel Pile Capacity on Rock Using Empirical

Timothy Morton, Stantec (Canada) (114)

Predicting the Mechanical Properties of Concrete Containing Metakaolin Using Statistical Analysis

Hossam Al-alaily, Memorial University (Canada) (118)

Influence of Construction Defects on Standardized Performance Tests

Michelle Nokken, Concordia University (Canada) (157)

G65 SUSTAINABLE INFRASTRUCTURE FP2

Time: 4:00 PM - 5:00 PM

A Comparative Study of Remote Sensing Technologies for Bridge Condition Assessment

Salam Yaghi, Concordia University, BCEE (Canada) (51)

Trunk Water Main Failure Consequence Modeling of Hydraulic Failure and Fire Flow

Victoria Giangrande, Queen's University (Canada) (92)

Moving From Planning to Action Towards Healthier Communities (Region of Peel, Ontario)

Steve Ganesh, Region of Peel (Canada) (183)

Acadia B

G26 SUSTAINABILITY

Time: 9:10 AM - 10:30 AM

A Review of Research Investigating Buildings' Indoor Environmental Quality and its Relation to their Energy Performance

Ahmed Radwan, University of Manitoba (Canada) (49)

A Methodology for Estimating Greenhouse Gas Emissions in Construction Road Transportation

Mona Amiri, University of Calgary (Canada) (62)

A Literature Review to Investigate Indoor Environmental Factors Causing Workplace Stress

Abdul-Manan Sadick, University of Manitoba (Canada) (72)

Operationalizing Sustainability for Civil Engineering

Edwin Tam, University of Windsor (Canada) (74)

G34 CONSTRUCTION ENGINEERING

Time: 11:00 AM - 12:00 PM

Electronic Kanban in Construction Using Building Information Modeling

Iloabuchi Alex Ocheoha, Concordia University (Canada) (77)

Lifetime Oriented Multi-Objective Cost Optimization of Structural Maintenance Considering the Safety of the System

Sayed Madeh Piryonesi, University of Tehran (Iran) (88)

Cost Objective Model for Construction Equipment Replacement Policies

Raji Al-Ani, Seth Estim Consultancy (Canada) (98)

G42 SUSTAINABLE INFRASTRUCTURE

Time: 2:00 PM - 3:20 PM

Sustainable Community-Based Drinking Water Systems

Dominic Frigon, McGill University (Canada) (123)

Sustainability in Municipal Storm Water Drainage Systems: Designing, Replacement and Rehabilitation of Culverts

Nima Aghniaey, R.V.Anderson Associates Limited (Canada) (125)

Use of Hydromedia Pervious Concrete Sidewalks for Efficient Stormwater Control to Regulate Rainwater Access to Tree Roots - A Toronto Case Study

Anto Susic, Lafarge Canada Inc. (Canada) (139)

A Fuzzy Logic-Based Assessment Framework for Infrastructure Projects' Sustainability in Developing Countries

Mohamed Elbarkouky, University of Alberta (Canada) (115)

G66 SUSTAINABLE INFRASTRUCTURE FP2

Time: 4:00 PM - 5:00 PM

Road Safety Analysis and Guiderail Evaluation for Highway 60 Rehabilitation Project

Teba Al-Ansari (Canada) (102)

Construction Manager General Contractor, Innovative Delivery Model for a Bridge Project in Ontario

Kevin Bentley, Ministry of Transportation, Ontario (Canada) (184)

Acadia C

G27 ENGINEERING MATERIALS

Time: 9:10 AM - 10:30 AM

Interaction of Limestone Portland Cement and Chemical and Mineral Admixtures in Concrete

Fatma Beder (Egypt) (58)

Performance of Portland Cement Concrete Containing E-Waste

Marwan Abdelbary (Egypt) (59)

Properties of High Strength/High Ductility Concrete

Karim Kamel (Egypt) (89)

Fresh and Mechanical Properties of Semi-Lightweight Self-Consolidating Concrete Containing Slag Aggregate

Mohamed Ismail, Memorial University of Newfoundland (Canada) (99)

G35 SUSTAINABLE INFRASTRUCTURE

Time: 11:00 AM - 12:00 PM

"Em-Procure": A Sustainable Procurement Tool for Building Construction

Rajeev Ruparathna, University of British Columbia (Canada) (73)

Advanced Pressure Management Utilizing Automated PRV Control in a Dual Supply DMA

Carl Yates, Halifax Water (Canada) (172)

An Inventory Theory Model to Determine the Optimal Work Program for Bridges

Zanyar Mirzaei, ETH Zurich (Switzerland) (83)

G43 CONSTRUCTION

Time: 2:00 PM - 3:20 PM

Reducing the Number of Decision Variables in Ready Mixed Concrete for Optimally Solving Small Instances in a Practical Time

Mojtaba Maghrebi, The University of New South Wales (UNSW) (Australia) (120)

Automated Site Data Acquisition Technologies for Construction progress Reporting

Ali Montaser, Concordia University (Canada) (121)

Applying of Efficient Frontier Analysis on Selection of Sustainable and Conventional School Buildings

Othman Alshamrani, University of Dammam (Saudi Arabia) (130)

Understanding and Modeling Invoicing Challenges in Construction

Riphay Al-Hussein (Canada) (132)

G67 SUSTAINABLE INFRASTRUCTURE FP2

Time: 4:00 PM - 5:00 PM

Comparison of Sustainability Rating Systems

Sarah Young (Canada) (161)

Monorails for sustainable transportation

Patrick Miller, Steer Davies Gleave (Canada) (181)

Halifax A

S10-FA1: STRUCTURES - CONCRETE DESIGN AND ANALYSIS 1

Time: 9:10 AM - 10:30 AM

Shear Strength of Semi-Lightweight Self-Consolidating Concrete Beams

Ahmed Abouhussien, Memorial University of Newfoundland (Canada) (87)

Design of Shear Tab to Tubular Column Connections

Yanglin Gong, Lakehead University (Canada) (15)

Behaviour of Unstiffened Extended Shear Tabs under Shear Load

Pouya Salem, University of Alberta (Canada) (23)

Experimental Study of Structural Insulated Panel under Lateral Load

Hassan Abbasi, Ryerson University (Canada) (22)

S11-FA2: STRUCTURES - LOADING

Time: 11:00 AM - 12:00 PM

Determining Snow Loads on Buildings with Solar Arrays

Albert Brooks, Rowan Williams Davies & Irwin Inc. (Canada) (49)

West Don Lands Storm Water Conveyance System - Pre-Cast Post-Tensioned Storm Water Overflow

Tyler Lahti, R.V. Anderson Associates Limited (Canada) (115)

Performance of Building Facades

Saviz Moghtadernejad, McGill University (Canada) (103)

S16-FP1: STRUCTURES - FLOORING SYSTEMS / DYNAMIC ANALYSIS

Time: 2:00 PM - 3:20 PM

Composite Action of Open-Web Steel Joist with Metal Deck and Concrete Slab Floor System

Amr El Ragaby, University of Windsor (Canada) (176)

Flax Fiber Composite Sandwich Beam for Structural Applications

Kenneth Mak, Queen's University (Canada) (169)

Experimental Floor Response Spectra for Seismic Evaluation of Operational and Functional Components in Buildings

Amin Asgarian, McGill University, Civil Department (Canada) (44)

Dynamic Analysis of Heavy Equipments on Steel Skid Beams

Mahmoud Hassan, AMEC Americas Limited (Canada) (9)

G70 SUSTAINABILITY

Time: 4:00 PM - 5:00 PM

Design Predictions for Aluminum Bolted Connections

Therese Tajeuna, Université de Sherbrooke (Canada) (188)

Reliability and Sustainability through Infrastructure Analysis

Benny Wan, Aecom (Canada) (210)



Sable A

E5 STORM WATER QUALITY AND MANAGEMENT

Time: 9:10 AM - 10:10 AM

Managing Highway Stormwater with LID: Highway 404 Extension
Bogoja Trajceski (Canada) (3)

West Don Lands Stormwater Quality Facility, Toronto, Ontario
Peter Langan, R.V. Anderson Associates Limited (Canada) (37)

Edward Gardens, a Sustainable Parking Lot
Peter Langan, R.V. Anderson Associates Limited (Canada) (39)

E6 CONTAMINATED SOILS REMEDIATION

Time: 10:10 AM - 10:30 AM

Examining the Feasibility of Portland Limestone Cement for Cement-Based Stabilization and Solidification Applications
Zahra Pirani (Canada) (19)

E7 WATER POLLUTION CONTROL ENGINEERING S1

Time: 11:00 AM - 12:00 PM

Fenton's Oxidation Process for Remediation of Produced Water Containing PAHs
Baiyu (Helen) Zhang, Memorial University (Canada) (35)

Mathematical Modeling of Aeration for Restoration of Eutrophic Lakes
Azita Najafi-Nejad-Nasser, Concordia University (Canada) (22)

Application of Biofilm Bacteria in the Removal of Aqueous Cu and Pb
Ryan Black, University of Ottawa (Canada) (26)

E8 WATER AND WASTEWATER TREATMENT S1

Time: 2:00 PM - 3:00 PM

Confirmation of Ammonia and Biological Oxygen Demand Removal Models in a Biological Aerated Filter Using Composite Sample Data from an Operating Treatment Plant
Rajan Ray, University of Windsor (Canada) (1)

Performance of Novel Thermophilic Sludge-Bed Anaerobic Membrane Bioreactor (SB-AnMBR) Treating Prehydrolysis Liquor
Mayur Kale, UNB (Canada) (2)

Reclamation of Vegetable Processing Wastewater with a Sequencing Batch Reactor
Ka Yee Lam (Canada) (45)

E9 RECYCLE, REUSE AND OTHER SUSTAINABLE ENVIRONMENTAL PRACTICES

Time: 3:00 PM - 3:20 PM

Water Supply System Simulation and Water Resource Management for the Gaza Strip
Bing Chen, Memorial University (Canada) (48)

Sable B

T32 TRANSPORTATION IV

Time: 9:10 AM - 10:30 AM

Temporary Closure of the Macdonald Bridge in Halifax: Modeling Mode Shift Behaviour of Cyclists and Pedestrians
MD Nazmul Hasan Arefin Khan, Dalhousie University (Canada) (14)

Airport Access Travel Choice Behaviors Associated with Distinct User Groups
Hyuk-Jae Roh, City of Regina (Canada) (19)

Paved Shoulders as Active Transportation Corridor
Vanessa Skelton, AECOM (Canada) (48)

The Role of the Built Environment and Lifestyle Choices on Active Transportation for Home Based Weekly Non-Work Trips: Evidence from Halifax Regional Municipality, Nova Scotia, Canada
Naznin Daisy, Dalhousie University (Canada) (53)

T40 TRANSPORTATION V

Time: 11:00 AM - 12:00 PM

Identifying Road Sections with Similar Truck Axle Loading & Distribution Patterns Using a Freight Demand Model and Vehicle Classification Count Data
Eradius Rwakarehe, University of New Brunswick (Canada) (15)

Flexible Pavement Evaluation Using Non Destructive Testing
Hozayen Hozayen, Cairo University (Egypt) (24)

G69 SUSTAINABLE INFRASTRUCTURE FP1

Time: 2:00 PM - 3:20 PM

Performance Assessment Framework for Small to Medium Sized Water Utilities – A Case for Okanagan Basin
Husnain Haider, UBC Okanagan (Canada) (209)

New Heart for Sydney in Wake of Tar Ponds and Coke Ovens Cleanup
Diane Ingraham, Stantec Consulting Ltd (Canada) (212)

Data Infrastructure for Sustainability at Cityscale
Gary Wong, OSISOft, LLC. (United States) (213)

Effect of Embedment Depth on the Seismic Response of Culverts
Hany El Naggar, University of New Brunswick (Canada) (90)

Sable C

S12-FA1: STRUCTURES - CONCRETE NDT

Time: 9:10 AM - 10:30 AM

Modeling Reinforced Concrete Bridge Decks as Conductive Media for GPR-Based Condition Evaluation
Adam Sketchley, Dalhousie University (Canada) (79)

Evaluation of Reinforced Concrete Deck Deterioration using GPR through Asphalt Overlays
Tye Minion, Dalhousie (Canada) (81)

Non Destructive Evaluation Methods for Bridge Condition Assessment
Marwa Hussein Ahmed, Concordia University (Canada) (117)

Identification of the Structural Damage in RC Beams using Digital Image Correlation
Amr El Ragaby, University of Windsor (Canada) (177)

S13-FA2: STRUCTURES - CONCRETE MATERIAL

Time: 11:00 AM - 12:00 PM

Properties of Concrete Containing Reclaimed Concrete Aggregate of Controlled Quality
Jonathan Andal, Ryerson University (Canada) (102)

Developing of Test Methods to Evaluate the Potential Damage in Concrete containing Sulphide-Bearing Aggregate
Bassili Guirguis (Canada) (175)

Effect of Time and Curing Temperatures on Chloride Migration Coefficient and Age Parameter
Alkailani Omer, Dalhousie University (Canada) (72)

S18-FP1: STRUCTURES - COMPOSITES 2

Time: 2:00 PM - 3:20 PM

Early-Age Cracking of GFRP-Reinforced Concrete Bridge Deck Slabs under Different Environmental Conditions
Amir Ghatefar, University of Manitoba (Canada) (45)

Ultimate Behavior of a Developed UHPC-Filled Precast Deck Joint in Bulb-Tee Bridge Girder System Reinforced with Sand-Coated GFRP Bars
Imad Eldin Khalafalla, Ryerson University (Canada) (34)

Shear Resistance of High-Strength Concrete Continuous Beams Reinforced with GFRP Bars and Stirrups
Karam Mahmoud, University of Manitoba (Canada) (21)

Axial Load Behaviour of ECC-Filled Steel Tube Columns
Katie Chu (Canada) (38)

S19-FP2: STRUCTURES - CONCRETE FRC

Time: 4:00 PM - 5:00 PM

Optimization of UHP-FRC Inverted Umbrella Shell Structures
Hesham Othman, Ryerson University (Canada) (70)

Behaviour of Composite Connections Under Push-Out Loading
J.J. Roger Cheng (Canada) (123)



Sable D

S14-FA1: STRUCTURES - COMPOSITES 1

Time: 9:10 AM - 10:30 AM

Flexural Behavior of New Partially Concrete-Filled Filament-Wound Rectangular FRP Tube Beams
Ahmed Abouzied Soliman (Canada) (171)

Behavior of FRP-Reinforced Concrete Beams under Torsion
Hamdy M. Mohamed, University of Sherbrooke (Canada) (158)

Effect of Flexural Reinforcement Type on the Punching Shear Strength of GFRP-RC Edge Slab-Column Connections
Mohammed El-Gendy, University of Manitoba (Canada) (116)

Physical and Mechanical Properties of FRP Composites Tubes Under Different Environmental Conditions
Abdelkader Boumarafi (Canada) (172)

S15-FA2: STRUCTURES - SEISMIC 2

Time: 11:00 AM - 12:00 PM

Seismic Performance of Composite Plate Shear Walls
Anjan Bhowmick, Concordia University (Canada) (124)

A Practical Approach to Capacity Design of Controlled Rocking Steel Braced Frames
Taylor Steele, McMaster University (Canada) (141)

S20-FP1: STRUCTURES - SEISMIC / VIBRATION

Time: 2:00 PM - 3:20 PM

Numerical Investigation of the Steel-Concrete Load Transfer Mechanisms in Earthquake Resistant Hybrid Coupled Shear Walls
Lylia Madouni (Belgium) (147)

Vibration of Rectangular Sectioned Large Industrial Ducts
Ali Rezaiefar, Concordia University (Canada) (138)

Operational Modal Analysis of Low Rise Buildings in Montréal, Canada
Farshad Mirshafiei (Canada) (46)

Criticality Analysis for the Post-Earthquake Functionality Assessment of Hospitals in Montreal
Youance Suze, Département de Génie de la Construction, École de Technologie Supérieure, Université du Québec (Canada) (33)

S21-FP2: STRUCTURES - DYNAMIC ANALYSIS

Time: 4:00 PM - 5:00 PM

Optimum Configuration of Large-Span Arch Tunnels
Hany El Naggar, University of New Brunswick (Canada) (143)

Coupled Flexural -Torsional Response of Harmonically Excited Monosymmetric Thin-Walled Vlasov Beams - I. Analytical Solution
Mohammed Ali Hjjaji, University of Tripoli, Tripoli, Libya (Canada) (29)

Coupled Flexural -Torsional Response of Harmonically Excited Monosymmetric Thin-Walled Vlasov Beams II. Finite Element Solution
Mohammed Ali Hjjaji, University of Tripoli, Tripoli, Libya (Canada) (30)

