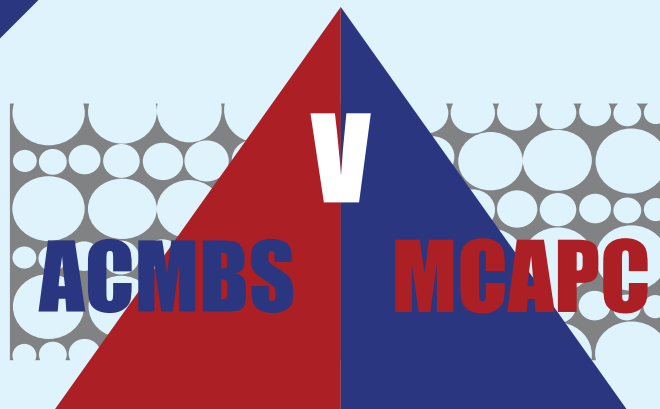


Technical Program

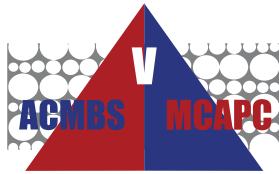
ACMBS-V 2008

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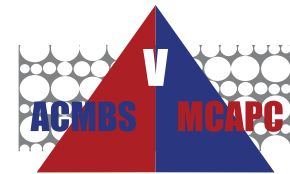
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**22-24 September 2008
Fairmont Hotel
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The 5th International Conference on
ADVANCED COMPOSITE MATERIALS IN BRIDGES AND STRUCTURES
MATÉRIAUX COMPOSITES D'AVANT-GARDE POUR PONTS ET CHARPENTES



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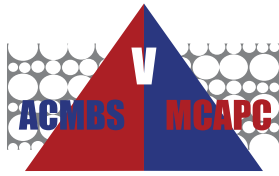


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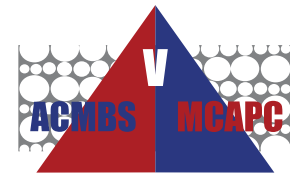
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Daily Schedule

	Sunday 21 September	Monday 22 September	Tuesday 23 September	Wednesday 24 September
Registration Desk	6:30 - 8:30 pm Registration Desk Open Convention Foyer	8:00 am - 4:00 pm Registration Desk Open Convention Foyer	8:00 am - 4:00 pm Registration Desk Open Convention Foyer	8:00 am - NOON Registration Desk Open Convention Foyer
Keynote Presentations		8:30 am - 10:00 am Welcome Keynote Presentation: <i>Delivering Successful Innovation: Key Challenges in Research and Practice</i> S.R. Denton, Parsons Brinckerhoff's, Director of Bridge and Structural Engineering, Bath, United Kingdom Midway Ballroom	11:00 am - 12:00 pm Tribute to Professor Urs Meier, Honorary Chair of the ACMB-S-V Conference Keynote Presentation: <i>Sustainable Bridges - A European Integrated Research Project - Background, Overview and Results</i> B. Täljsten, Denmark Technical University, Lyngby, Denmark, & L. Elfgren, Luleå University of Technology, Luleå, Sweden Midway Ballroom	1:30 pm - 4:00 pm Keynote Presentation: <i>A Burning Issue for FRP: Structural Performance in Fire</i> M. Green, Queen's University, Kingston, Canada Young Researchers' Forum Closing Midway Ballroom
Technical Conference		Session M-AM-2-A: Material Properties Session M-AM-2-B: Innovative Structural Systems with FRPs Session M-AM-2-C: Near-Surface Mounted FRPs Session M-PM-1-A: FRP in RC beams and columns Session M-PM-1-B: Practical applications & structural case histories Session M-PM-1-C: Advanced design methods and modelling Session M-PM-2-A: Material properties Session M-PM-2-B: Innovative structural systems with FRPs Session M-PM-2-C: Near-surface mounted FRPs	Session T-AM-1-A: FRP in RC beams and columns Session T-AM-1-B: Innovative Structural Systems with FRPs Session T-AM-1-C: Structural monitoring methods & their applications Session T-PM-1-A: Material properties Session T-PM-1-B: Large scale testing Session T-PM-1-C: Prestressed concrete and prestressing with FRPs Session T-PM-2-A: FRP in RC beams and columns Session T-PM-2-B: Innovative structural systems with FRPs Session T-PM-2-C: Advanced design methods and modelling	Session W-AM-1-A: RC slabs and steel-free decks Session W-AM-1-B: Interface, bond and anchors Session W-AM-1-C: Joints and seismic loads Session W-AM-2-A: Material properties Session W-AM-2-B: Innovative structural systems with FRPs Session W-AM-2-C: Prestressed concrete and prestressing with FRPs
Special Events	6:30-9:30 pm Welcoming Reception East Ballroom	6:30 -10:00 pm ACMB-S-V Social Evening Royal Crown Revolving Restaurant	6:30-10:00 pm Reception & Banquet West Ballroom	

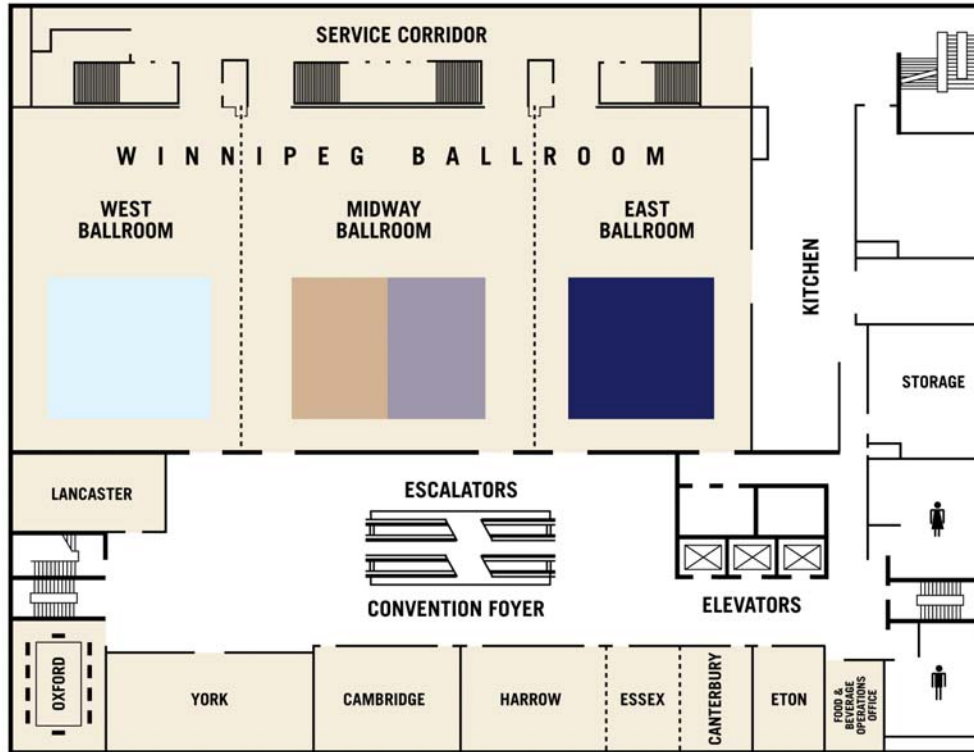
Sunday

21 September

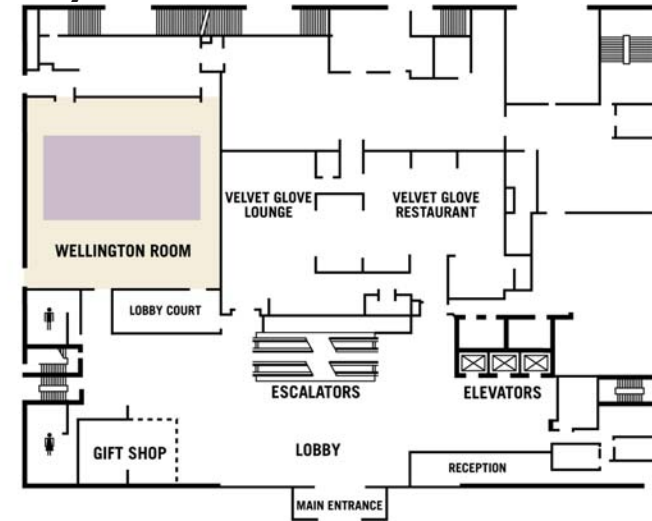
6:30 -8:30 pm **Registration** West Ballroom

6:30 -9:30 pm **Welcoming Reception** West Ballroom

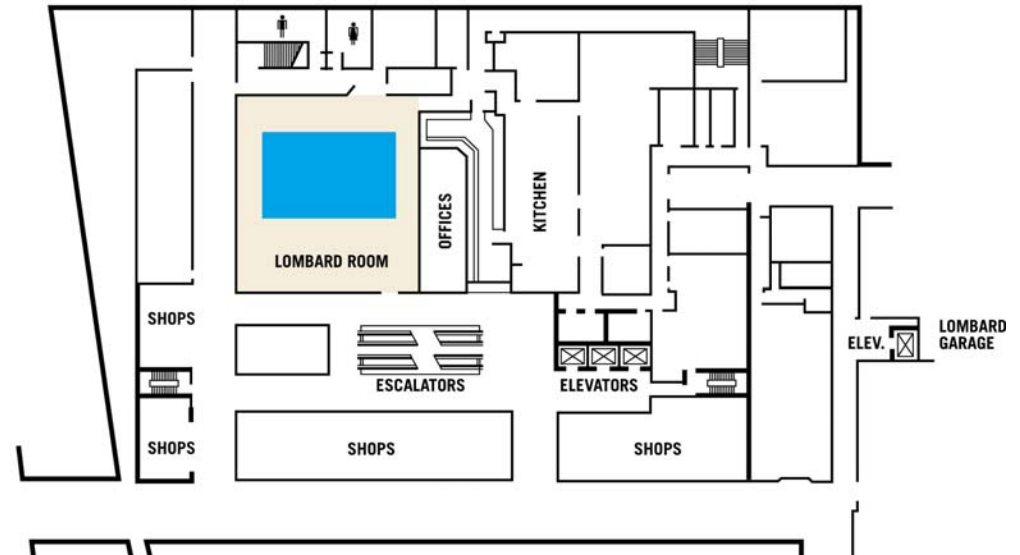
Mezzanine Level



Lobby Level



Concourse Level



Monday

22 September

8:30 -10:00 am

Opening Session Midway Ballroom

Chair: Pierre Labossière

Welcome

Conference Co-Chairs, A.A. Mufti and K.W. Neale
 Government of Manitoba Minister of Transportation and Infrastructure, Ron Lemieux
 University of Manitoba V.P. Research, Dr. Joanne Keselman

Keynote Presentation: Delivering Successful Innovation: Key Challenges in Research and Practice
 - S.R. Denton, Parsons Brinckerhoff's, Director of Bridge and Structural Engineering, Bath, United Kingdom

10:00-10:30 am

Coffee Break

East Ballroom

	Session M-AM-2-A: Material Properties Chair: S. Sheikh Wellington Room	Session M-AM-2-B: Innovative Structural Systems with FRPs Chair: T. Ibell West Ballroom	Session M-AM-2-C: Near-Surface Mounted FRPs Chair: K. Harries Midway Ballroom
10:30-10:50 am	SIM test results for aramid fibres - I.P. Giannopoulos & C.J. Burgoyne Page No. 105	Function-integrated GFRP sandwich roof structure - T. Keller & C. Haas Page No. 59	Experimental and numerical investigation of RC beams strengthened in bending with near-surface-mounted CFRP bars - S.M. Soliman, E. El-Salakawy, B. Benmokrane & H. Abdel Baky Page No. 83
10:50-11:10 am	Corrosion problems in bridge construction - Alternative solutions using glass fibre reinforcement - C. Witt & B. Jütte Page No. 106	TSCB - Twin Shape Composed Beam - W. Amaro, E. Cadoni, L. Diviani, F. Brogginì & A. Pedretti Page No. 60	Experimental study of bond behavior between NSM FRP and concrete - R. Kotynia Page No. 91
11:10-11:30 am	Performance of jute/epoxy curved laminate subjected to flexural tensile loading - A.A. Khalid Page No. 107	A composite housing system for use in northern communities of Canada - D. Polyzois & D. Philopoulos Page No. 61	Preliminary investigation into the bond of prestressed near surface mounted CFRP rods in concrete - N. Wahab, K.A. Soudki & T. Topper Page No. 85
11:30-11:50 am	Bond characteristics of micro-composite multi structural formable steel reinforcement - J.M.I. Soliman, T.K. Hassan, A. S.A. Fayad & S.H. Rizkalla Page No. 108	Development of latticed structures using advanced composite materials - A. Ochonski, D. Polyzois & I.G. Raftoyiannis Page No. 61	Flexural behaviour of partially bonded near-surface-mounted CFRP strengthened concrete T-beams - H.T. Choi, J.S. West & K.A. Soudki Page No. 86
11:50-12:00 pm	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP

12:00-1:30 pm

Lunch sponsored by Halsall Associated Ltd.

Lombard Room

	Session M-PM-1-A: FRP in RC beams and columns Chair: S. Rizkalla Wellington Room	Session M-PM-1-B: Practical applications & structural case histories Chair: M.A. Erki Midway Ballroom	Session M-PM-1-C: Advanced design methods and modelling Chair: R. Seracino West Ballroom
1:30-1:50 pm	Design of concrete structures reinforced with FRP bars: A critical review of codes and standards - J.F. Davalos, Y. Chen & I. Ray <i>Page No. 23</i>	Innovative repair and monitoring of an unbonded, post-tensioned concrete building using CFRP tendons - L. Amato, E. Murison, M. Green, C. MacDougall, S. Trepanier & G. Fallis <i>Page No. 141</i>	Ductility design of FRP retrofitted RC structures - D.J. Oehlers, M. Ali M.S., M. Haskett & M.C. Griffith <i>Page No. 11</i>
1:50-2:10 pm	Repair and strengthening of severely damaged concrete beams with externally bonded CFRP - D. Byrne & T. Tikka <i>Page No. 30</i>	Pultruded GFRP posts for railway noise barriers - F. Riebel, T. Vallée & T. Keller <i>Page No. 142</i>	Flexural stiffness modelling of RC slab strengthened by externally bonded FRP - L. Michel, E. Ferrier & P. Hamelin <i>Page No. 12</i>
2:10-2:30 pm	Shear strength of large-size concrete beams reinforced with glass FRP bars - S. Steiner, A.K. El-Sayed, B. Benmokrane, F. Matta & A. Nanni <i>Page No. 32</i>	Field application on strengthening two-way reinforced concrete floor slab using externally bonded SRP sheets - R. El-Hacha & M. Gaafar <i>Page No. 143</i>	Numerical aspects concerning the accuracy of finite element simulations of concrete beams strengthened in flexure using FRP sheets - H. Abdel Baky, U.A. Ebead & K.W. Neale <i>Page No. 13</i>
2:30-2:50 pm	Strength of reinforced concrete beams rehabilitated for flexure using externally bonded FRP - S.R. Salib & G. Abdel-sayed <i>Page No. 29</i>	Parametric optimization of the strengthening of gulfport 230kV transmission structures with glass fibre reinforced polymer (GFRP) wrap - A. Shahi, J.S. West & M.D. Pandey <i>Page No. 145</i>	Comparison of interface elements to simulate the interfacial behaviour of FRP shear-strengthened beams - A. Godat, P. Labossière & K.W. Neale <i>Page No. 19</i>
2:50-3:00 pm	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP
3:00 - 3:30 pm	Coffee Break East Ballroom		

Monday

22 September

Session M-PM-2-A: Material properties
Chair: C. Burgoyne
 Wellington Room

Session M-PM-2-B: Innovative structural systems with FRPs
Chair: P. Hamelin
 Midway Ballroom

Session M-PM-2-C: Near-surface mounted FRPs
Chair: Y.J. Kim
 West Ballroom

3:30-3:50 pm	Parametric study of temperature distribution in CFRP strengthened beam-slab assembly under fire conditions - Y. Liu & J. Jia Page No. 114	Development of an FRP deployable bridge - A. Xie, R.G. Wight & M.A. Erki Page No. 63	Study of RC beams strengthened in flexure with near surface mounted CFRP strips by numerical and analytical modeling - M.Z. Kabir & H.Y. Omran Page No. 87
3:50- 4:10 pm	Durability of mechanical properties of pultruded GFRP materials under several deterioration test conditions - I. Nishizaki, T. Tomiyama & Y. Kato Page No. 113	Static and dynamic behavior of multi-cell jointed GFRP wind turbine towers - D. Polyzois, I.G. Raftoyiannis, N. Ungkurapinan & A. Ochonski Page No. 64	Anchorage and bond behaviour of near surface mounted carbon fibre reinforced polymer bars - W.K.K.G. Perera, T.J. Ibell, A.P. Darby & S.R. Denton Page No. 88
4:10-4:30 pm	The effect of elevated temperatures on half and fully CFRP wrapped concrete cylinders - C.A. Issa Page No. 115	Development of GFRP stay-in-place open structural form system for concrete girders - H. Honickman & A. Fam Page No. 65	Monotonic tests and modeling for NSM prestressed strengthened beams - M. Badawi & K. Soudki Page No. 89
4:30-4:50 pm	Comparative performance of externally-bonded and near surface mounted FRP strengthening systems at high temperatures - L.A. Bisby, P.J. Burke & M.F. Green Page No. 116	Use of pultruded FRP I-sections in composite concrete sections - A.M. Fadel & G.M. Elmahdy Page No. 66	Durability of various NSM FRP strengthening systems for RC flexural members - M. Derias, R. El-Hacha & S. Rizkalla Page No. 90
4:50-5:10 pm	Behaviour of CFRP-strengthened cantilever hollow-core panels - M.K. Rahman, I.A. Mahmoud & M.H. Baluch Page No. 100	Innovations in GFRP bridge deck systems - E. Shehata, A. Fam, S. Rizkalla & A. Mufti Page No. 70	Shear strengthening of reinforced concrete beams with NSM CFRP systems - R. Kotynia Page No. 92
5:10-5:15 pm	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP

6:30 -10:30 pm **ACMBS-V Social Evening** Royal Crown Revolving Restaurant

(Meet in the Hotel's front lobby at 6:00 pm.
 Walking Maps or City Bus tickets available.)

Tuesday

23 September

	Session T-AM-1-A: FRP in RC beams and columns Chair: T. Ueda Midway Ballroom	Session T-AM-1-B: Innovative Structural Systems with FRPs Chair: D. Polyzois West Ballroom	Session T-AM-1-C: Structural monitoring methods & their applications Chair: A. Fam Wellington Room
8:45-9:05 am	Strengthening of structures with changes in section properties using externally bonded FRP - A.P. Darby, T.J. Ibell & S.R. Denton Page No. 31	Direct load transfer in hybrid FRP-concrete sandwich structure for bridge decks - E. Schaumann, T. Keller & T. Vallée Page No. 68	Considering the effect of uncertainty in the existing structure on the reliability of FRP repair schemes - R. Atadero Page No. 25
9:05-9:25 am	Shear strength of RC beams reinforced with FRP stirrups - E.A. Ahmed, E. El-Salakawy & B. Benmokrane Page No. 33	Effective bridge engineering design guidelines for FRP honeycomb sandwich decks - J.F. Davalos, B. Zou & J.D. Plunkett Page No. 69	Measuring performance of concrete bridges strengthened with FRP-structural systems - K.C. Crawford Page No. 135
9:25-9:45 am	Effective moment of inertia for concrete beams reinforced with fiber reinforced polymer (FRP) - H. Vogel & D. Svecova Page No. 34	Finite element analysis of hybrid FRP-concrete composite girders - A. Elmahdy, N. Shrive & R. El-Hacha Page No. 67	Structural health monitoring of CFRP reinforced concrete one way slabs by acoustic emission - S. Degala, K.N. Ramanathan, P. Rizzo & K.A. Harries Page No. 136
9:45-10:05 am	Numerical investigation of failure localization and stress concentrations in FRP wrapped concrete cylinders - M. Tabbara & G. Karam Page No. 39	Addressing uncertainty and complexity when designing for sustainability and life cycle costs - G. Sparks, K. Kostuk, P. Christensen & G. Tadros Page No. 24	The use of random decrement technique for health monitoring of structures - A.A. Elshafey, M.R. Haddara & H. Marzouk Page No. 137
10:05-10:25 am	Evaluation of damage index factor for short RC columns retrofitted by externally bonded CFRP - G. Promis, E. Ferrier & P. Hamelin Page No. 40	Crashworthy design of concrete highway bridge railing reinforced with advanced composite bars - F. Matta Page No. 71	Quantitative monitoring of damage progression in FRP strengthened bridge systems through modal testing - V.M. Karbhari & K.K. Ghosh Page No. 138
10:25-10:30 am	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP

10:30-11:00 am **Coffee Break** East Ballroom

11:00-12:00 pm **General Session** Midway Ballroom

Chair: Aftab Mufti

Tribute to Professor Urs Meier, Honorary Chair of the ACMBS-V Conference

Keynote Presentation: Sustainable Bridges - A European Integrated Research Project - Background, Overview and Results
B. Täljsten, Denmark Technical University, Lyngby, Denmark, & L. Elfgren, Luleå University of Technology, Luleå, Sweden

12:00-1:30 pm **Lunch** Lombard Room

	Session T-PM-1-A: Material properties Chair: G. Wight Midway Ballroom	Session T-PM-1-B: Large scale testing Chair: R. Kotynia Wellington Room	Session T-PM-1-C: Prestressed concrete and prestressing with FRPs Chair: A. Ilki West Ballroom
1:30-1:50 pm	Performance of FRP for use in concrete structures under freeze-thaw cycles and sustained load - S. Tam & S.A. Sheikh <i>Page No. 109</i>	Finite element modelling of a composite cladding wall panel under simulated wind pressure - T. Sharaf & A. Fam <i>Page No. 129</i>	Flexural strengthening of steel-concrete composite girders using prestressed FRP - R. El-Hacha & M. Ali <i>Page No. 95</i>
1:50-2:10 pm	Thermal limits for external bonding repair method on structural surfaces exposed to the environment - L.F.P. Juvandes, P. Costeira Silva, M. Alpalhão, J. Moreira & M. Silva <i>Page No. 110</i>	Rapid construction and rehabilitation of box-girder decks using FRP stay-in-place structural formwork - A. Pridmore & V.M. Karbhari <i>Page No. 130</i>	Effect of type of FRP tendon on prestress losses - G.M. Elmahdy & A.M. Fadel <i>Page No. 96</i>
2:10-2:30 pm	Water uptake detection in concrete structures strengthened with fibre reinforced polymers - A.A. Nassr & W.W. El-Dakhkhni <i>Page No. 111</i>	Performance evaluation and FRP repair of concrete T-beam bridges - J.F. Davalos, C. Lin, I. Ray, W. Sasher, G. Parish & K.E. Barth <i>Page No. 131</i>	Evaluation of deformability index for concrete beams prestressed with aramid fiber reinforced polymer (AFRP) tendons - Y.J. Kim <i>Page No. 97</i>
2:30-2:50 pm	Adhesion evaluation between CFRP-concrete after highthermic cycles - M. Kliem, L.F.P. Juvandes, J. Magalhães, F. Cardoso & P. Costeira <i>Page No. 112</i>	Emergency repair of damaged bridge columns using fiber reinforced polymer (FRP) materials - A. Vosooghi, J. Gutierrez, M.S. Saiidi, S.F. Arnold & J. Khabra <i>Page No. 132</i>	Integrated strengthening of structures with bonded prestressed FRP reinforcements - Z. Wu, K. Iwashita & X. Wang <i>Page No. 98</i>
2:50-3:00 pm	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP
3:00 - 3:30 pm	Coffee Break East Ballroom		

Tuesday

23 September

	Session T-PM-2-A: FRP in RC beams and columns Chair: B. Benmokrane Wellington Room	Session T-PM-2-B: Innovative structural systems with FRPs Chair: R. El-Hacha Midway Ballroom	Session T-PM-2-C: Advanced design methods and modelling Chair: D. Oehlers West Ballroom
3:30 - 3:50 pm	Reliability analysis of RC columns strengthened with CFRP laminates - Z. He, D. Zhang & X. Li <i>Page No. 41</i>	FRP composite reinforcements for improving shear performance of glued-laminated timbers - T.R. Gentry, J.D. Schwartz, S.M. Hensey & B.Y.C. Chang <i>Page No. 72</i>	Analytical model for plate-end debonding of near-surface mounted FRP strips in concrete flexural members - D. Vásquez & R. Seracino <i>Page No. 16</i>
3:50 - 4:10 pm	Strength of reinforced concrete filled FRP tube slender columns - H. Mohamed, H. El Zefzafy & R. Masmoudi <i>Page No. 42</i>	Mechanical performance of new hybrid glulam beams with FRPs - E. Ferrier, M. Behloul, G. Chanvillard, P. Labossière & K.W. Neale <i>Page No. 73</i>	Comparison of finite element approaches for modeling unbonded FRP shear reinforcement - N.A. Hoult & J.M. Lees <i>Page No. 17</i>
4:10 - 4:30 pm	Numerical investigation of the behaviour of FRP-wrapped RC slender columns under eccentric loading - M.Z. Kabir & A. Mansouri <i>Page No. 43</i>	Performance of an externally bonded CFRP system for strengthening steel structures - M. Dawood, M. Guddati & S. Rizkalla <i>Page No. 74</i>	Fully coupled closed form solution for interfacial stresses in slender plated structures - P. Coudor, J.F. Destrebecq & A. Beakou <i>Page No. 18</i>
4:30 - 4:50 pm	Comparison of the circular and rectangular RC bridge piers retrofitted using fiber-reinforced polymer (FRP) jacket - M.A. Shayanfar & M.S. Zarrabian <i>Page No. 44</i>	Analytical model for predicting the monotonic response of damaged steel beams repaired by ultra-high modulus CFRP - A. Fam & C. MacDougall <i>Page No. 75</i>	Numerical study for the parameters affecting CFRP plate strengthening of full scale RC beam - A.I.M. Al-Janabi, S.A. Ahmed & A.R. Safi <i>Page No. 15</i>
4:50 - 5:10 pm	A preliminary investigation of the use of CFRP for internal or external reinforcement of RC beams in Bulgaria - E. Abdulahad, D. Panichkov & F. Rangelova <i>Page No. 35</i>	Flexural behaviour of a polymer encased concrete wall system - K. Soudki, A. Rteil & D. Richardson <i>Page No. 79</i>	Numerical investigation on shear strengthening of two-way slab-column connection with FRP strips and rods under cyclic and monotonic loading - M.Z. Kabir & H. Ghaednid <i>Page No. 20</i>
5:10 - 5:15 pm	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP
6:30 - 10:00 pm	Reception & Banquet sponsored by ISIS Canada		Midway Ballroom

Wednesday

24 September

	Session W-AM-1-A: RC slabs and steel-free decks Chair: E. Ferrier West Ballroom	Session W-AM-1-B: Interface, bond and anchors Chair: K. Soudki Midway Ballroom	Session W-AM-1-C: Joints and seismic loads Chair: H. Marzouk Wellington Room
8:30 - 8:50 am	Numerical analysis of punching failure mechanism and debonding of slabs strengthened with externally bonded FRP - A.S. Farghaly & T. Ueda <i>Page No. 53</i>	Shear strength and behaviour of FRP spike anchors in FRP-to-concrete joint assemblies - S.T. Smith & S.J. Kim <i>Page No. 123</i>	Seismic retrofit of beam-column joints with FRP sheets - A. Ilki, I. Bedirhanoglu & N. Kumbasar <i>Page No. 47</i>
8:50 - 9:10 am	Effect of flexural reinforcement on punching shear resistance of steel and FRP-reinforced slabs - D.D. Theodorakopoulos & R.N. Swamy <i>Page No. 54</i>	Analysis of mechanically fastened FRP-strengthened concrete structures - W. Elsayed, U. Ebead & K.W. Neale <i>Page No. 124</i>	Shear strengthening of beam-column joints using steel-reinforced polymers - M. Elbadry & R. Izi <i>Page No. 50</i>
9:10 - 9:30 am	Effects of confinement from lateral restraints in steel-free deck models under static loading - M.R. Alam, G. Mediwake, A.A. Mufti & N. Rattanawangcharoen <i>Page No. 55</i>	Testing and finite element analysis of delamination in RC beams strengthened in bending by FRP laminate - A.A.B. Mostafa & A.G. Razaqpu <i>Page No. 125</i>	Seismic rehabilitation of RC beam-column corner joints using CFRP sheet - S.H. Alsayed, Y.A. Al-Salloum, T.H. Almusallam & N.A. Siddiqui <i>Page No. 48</i>
9:30 - 9:50 am	Degradation of GFRP-reinforced concrete bridge deck slabs subjected to lifetime-equivalent accelerated fatigue loading - A. El-Ragaby, E. El-Salakawy & B. Benmokrane <i>Page No. 56</i>	SEM analysis of CFRP strand for use in high capacity permanent ground anchors - M. Sentry, R. Al-Mahaidi, A. Bouazza, F. Collins, D. Loidl, & L. Carrigan <i>Page No. 126</i>	Performance of FRP-repaired seismically deficient exterior RC joint versus ACI-based designed joint - Y.A. Al-Salloum, T.H. Almusallam, S.H. Alsayed & N.A. Siddiqui <i>Page No. 49</i>
9:50 - 10:00 am	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP
10:00-10:30 pm	Coffee Break East Ballroom		

Wednesday

24 September

	Session W-AM-2-A: Material properties Chair: T. K. Hassan Midway Ballroom	Session W-AM-2-B: Innovative structural systems with FRPs Chair: G. Razaqpur Wellington Room	Session W-AM-2-C: Prestressed concrete and prestressing with FRPs Chair: E. Ferrier West Ballroom
10:30-10:50 am	Composite rebars in RC members in case of fire - A. Weber, C. Witt & A. Nadjai Page No. 117	Tensile response of GFRP-reinforced high strength concrete panels - T.B. Sabrah, H. Marzouk & A. Hussein Page No. 77	Classical laminate theory and failure criteria for prestressed CFRP sheets for strengthening prestressed concrete beams - Y.J. Kim, M.F. Green & R.G. Wight Page No. 99
10:50-11:10 am	Effect of corrosion on CFRP confined bond under repeated loading - A. Rteil, K. Soudki & T. Topper Page No. 119	Ductility and shear capacity of reinforced concrete members retrofitted with continuous fiber rope - T. Shimomura, S. Kawana & Y. Tanaka Page No. 78	Innovative system to strengthen reinforced concrete beam with prestressed NSM FRP technique - M.A. Gaafar & R. El-Hacha Page No. 84
11:10-11:30 am	Evaluation of properties of continuous fibre rope - K. Sekijima & J. Izumo Page No. 119	Deflection-based design of composite sheet pile walls - Y. Shao & Z. Bdeir Page No. 80	Flexural behaviour of precast, prestressed hollow-core concrete slabs strengthened by CFRP - I.A. Mahmood, M.K. Rahman & M.H. Baluch Page No. 101
11:30-11:50 am	Study on the durability of adhesive properties of continuous fiber sheet reinforcement with concrete - Y. Kato, T. Tomiyama & I. Nishizaki Page No. 120	Experimental and numerical investigation of in-plane shear behaviour of CFRP-strengthened masonry walls with door openings - Q. Gu, W. Zhang, B. Peng & S. Peng Page No. 76	
11:50-12:00 pm	SESSION WRAP-UP	SESSION WRAP-UP	SESSION WRAP-UP

12:00 - 1:30 pm **Lunch** Lombard Room

1:30 -4:00 pm

General Session and Closing Midway Ballroom
Chair: K.W. Neale

Keynote Presentation: A Burning Issue for FRP: Structural Performance in Fire
- M. Green, Queen's University, Kingston, Canada

Young Researchers' Forum
- L. Bisby, J. Lees, S.T. Smith

Announcement of ACMBS-VI and Closing of ACMBS-V