



Guide to Bridge Hydraulics: An Overview of Hydrotechnical Planning, Design & Operations

This course examines bridge hydraulic considerations from a full lifecycle perspective and within an integrated infrastructure context. Planning and design issues anchor the course as key topics are addressed such as boundary conditions, waterway design, scour protection and channel control as well as hydraulic aspects of construction, inspection and maintenance. Creating awareness of available tools for bridge hydraulics and key resources such as the Transportation Association of Canada's *Guide to Bridge Hydraulics*.

The course is aimed at practitioners responsible for addressing bridge hydraulic considerations and issues in the planning, design, operations and maintenance infrastructure lifecycle from consulting, contracting and construction firms, municipal, provincial and federal governments.

The speaker, **Marcel Chichak, P.Eng.**, has some thirty years experience in bridge planning, water resources and river engineering. This course draws on his extensive experience with bridges and bridge hydraulic performance problems.



Course Overview

- 1 **Overview**
- 2 **Bridge Hydraulics**
- 3 **Bridge Hydraulics Engineering**
Information Requirements & Data Issues
Local Influences
Methodology
- 4 **Bridge Hydrotechnical Planning**
Planning Process
Optimization & Constraints
- 5 **Bridge Hydrotechnical Design**
Span Arrangements; Hydraulic Capacity & Discharge
Skew, Drift, Scour, Ice, Geotechnical Issues
Approvals
- 6 **Monitoring and Inspection**
River Alignment, Training and Protection

VENUES

WINNIPEG April 10, 2012
Holiday Inn Winnipeg South
Portage Ballroom
1330 Pembina South
Winnipeg, MB R3T 2B4
204-452-4747

MONTREAL 18 avril 2012
Hôtel Maritime Plaza – Le Grand Mât
1155, rue Guy
Montréal, QC H3H 2K5
514-932-1265

OTTAWA April 11, 2012
Chimo Hotel
Franklin Room
1199 Joseph Cyr St.
Ottawa, ON K1J 7T4
613-744-1060

ST. JOHN'S April 19, 2012
Memorial University
Eng. Board Room (EN4002)
S. J. Carew (Eng.) Bldg
St. John's, NL A1B 3X5

TORONTO April 12, 2012
Four Points By Sheraton
Windsor A & B
6257 Airport Road
Mississauga, ON L4V 1E4
905-678-1400

MONCTON April 20, 2012
Université de Moncton
Campus de Moncton
Moncton, NB E1A 3E9

QUEBEC 17 avril 2012
Château Bonne Entente
Salle Dubé
3400, chemin Sainte-Foy
Québec BC G1X 1S6
418-650-4500



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As a national centre of transportation expertise, and a not-for-profit association, TAC's goal is to provide a neutral forum to gather and exchange relevant ideas and information on technical guidelines and best practices. TAC actively promotes the importance of transportation to Canada's economic well-being, as well as safe, secure, efficient and environmentally and financially sustainable transportation services.

The *Guide to Bridge Hydraulics* Manual (2001) can be obtained through the TAC Bookstore at www.tac-atc.ca

REGISTRATION

Please click to register online:

7:45 Registration – 8:30 Start of Session – 10:00 Coffee Break – 12:00 Lunch – 15:00 Coffee Break – 16:30 – End of Session
 Dates refer to receipt of registration by CSCE. Payment must be received to confirm your place. Fees include tax.

	By March 14, 2012			After March 14, 2012		
	MB	ON/NB/NL	QC	MB	ON/NB/NL	QC
CSCE Members	\$400 + T = \$448.00	\$452.00	\$459.90	\$450 + T = \$504.00	\$508.50	\$517.38
New Members	\$425+\$95+T = \$582.40	\$587.60	\$597.86	\$475 +\$95+T= \$638.40	\$644.10	\$655.35
Non-members	\$500 + T = \$560.00	\$565.00	\$574.87	\$550 + T = \$616.00	\$621.50	\$632.36
Students	\$100 + T = \$112.00	\$113.00	\$114.97	\$100 + T = \$112.00	\$113.00	\$114.97

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

Cancellation & Substitution Cancellation requests received more than 14 calendar days before the start of the course will receive a full refund minus a \$100 administration fee.
 Cancellation requests received within the 14 days prior to the start of the course will be non-refundable.
 CSCE reserves the right to cancel any course and will, in such event, fully refund all registration fees.
 Any registrant may substitute another person eligible for the same fee at any time prior to the start of the course.

For group rates and any additional information, please contact: Mahmoud Lardjane mahmoud@csce.ca 514-731-7859

CSCE MEMBERSHIP APPLICATION

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Name _____ Date of Birth _____ Sex _____

Indicate Desired Mailing Address

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Employer _____ **Bus. Title** _____

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Are you a member of any other Engineering Societies? If so, give details _____

SOCIETY	PROVINCE(S)	MEMBERSHIP GRADE
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TECHNICAL DIVISION MEMBERSHIPS — Select up to three fields in order of preference, (i.e. 1, 2, 3)

- | | | | |
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| <input type="checkbox"/> Cold Regions | <input type="checkbox"/> Eng. Mechanics/Materials Eng. | <input type="checkbox"/> Hydrotechnical | <input type="checkbox"/> Computer Applications |
| <input type="checkbox"/> Structural | <input type="checkbox"/> Transportation | <input type="checkbox"/> Construction | <input type="checkbox"/> Environment |
| <input type="checkbox"/> Infrastructure Renewal | | <input type="checkbox"/> Sustainable Dev. | |

Signature _____ Date _____