

Curriculum Vitae for Ian MacPhedran

1. Personal

Ian MacPhedran
Administrative Info Svcs (ITS)

2. Academic Credentials

1983	B.E. (Great Distinction), University of Saskatchewan, Civil Engineering.
1989	M.Sc., University of Saskatchewan, Structural Engineering. Thesis: Development of an Educational Three-Dimensional Structural Analysis and Design Package.
2009	Ph.D., University of Alberta, Structural Engineering. Thesis: Frame Stability Considering Member Interaction and Compatibility of Warping Deformations.

3. Other Credentials

Credentials

1990 to current	P.Eng., Association of Professional Engineers and Geoscientists of Saskatchewan
2004-05 to 2009-04	P.Eng., Association of Professional Engineers, Geologists, and Geophysicists of Alberta

Certification

2010-07 to current	CLS User, Canadian Light Source
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4. Appointments and Promotions

Nil

5. Associate Memberships

5.1 Associate Memberships In Other Departments at the U of S

2010-02 to 2019-06 Professional Affiliate, Civil & Geological Engineering,
University of Saskatchewan

5.2 Associate or Adjunct Appointments at Other Institutions While Employed at the U of S

Nil

6. Leaves

Nil

7. Honours and Awards

Personal

2009-04-01 Vinnakota Award for best student paper at SSRC
Annual Stability Conference, Structural Stability
Research Council
*Comment: Paper "A Proposed Simplified Canadian
Beam Design Approach" Coauthor G Y Grondin*

8. Previous Positions Relevant to U of S Employment

Nil

9. Teaching Record

9.1 Scheduled Instructional Activity

YEAR	COURSE	INST	ENRL	YIH	YCSH
2017-18	CE805.3, Structural Stability	LEC	8	39	
2017-18	CE470.3, Design in Structural Steel	LEC, PRC	44	57	

YEAR	COURSE	INST	ENRL	YIH	YCSH
2016-17	CE470.3, Design in Structural Steel	LEC, PRC	58	57	
2015-16	CE805.3, Structural Stability	LEC	8	39	
2015-16	CE470.3, Design in Structural Steel	LEC, PRC	43	57	
2014-15	CE470.3, Design in Structural Steel	LEC, PRC	49	57	
2013-14	CE805.3, Structural Stability	LEC	2	39	
2012-13	CE805.3, Structural Stability	LEC	3	39	
2011-12	CE898.3, Structural Stability	LEC	6	39	
2010-11	CE898.3, Structural Stability	LEC	4	39	
2009-10	CE898.3, Structural Stability	LEC	5	39	
2005-06	ENV E471.4.5, Elements of Structural Design	LEC, PRC	20	60	

9.2 Unscheduled Instructional Activity

Nil

9.3 Postgraduate Students Supervised or on Their Committee

Nil

9.4 New or Revised Teaching Materials Developed or Authored

Nil

9.5 Substantially Revised or New Courses Developed and Approved

2014-15 CE470.3, Design in Structural Steel. Revision of course
- new lecture material and course notes generated.

2009-10 C E898.3, Structural Stability. New course. (There was a previous offering "Elastic Stability" that was discontinued.). Increased number of structural engineering offerings for graduate students. Introduced stability and metal structures design concepts.

9.6 Publications in Journals or Books Related to Teaching Methods

Nil

9.7 Attendance at Teaching Improvement Workshops and Conferences

Nil

9.8 Teaching Awards or Recognitions Received

Nil

9.9 Other Teaching Related Activities

Nil

10. Theses Supervised

In Progress: Supervisor, Co-Supervisor, Advisory Committee Member, Chair, Other

2016-11 to current Advisory Committee Member, Cordova, Pedro, M Sc,
Structural Engineering, Civil, Geological and
Environmental Engineering

11. Books, Chapters in Books, Expository and Review Articles

Chapter in Book, Non-Peer Reviewed

- 2010 Surovek, A., Foley, C., Ziemian, R. D., & MacPhedran, I. (2010). Chapter 16, "Frame Stability". In R. D. Ziemian. (Ed.), *Guide to Stability Design Criteria for Metal Structures, 6th ed.* Hoboken, NJ: John Wiley & Sons.
Comment: ISBN: 978-0-470-08525-7

12. Papers in Refereed Journals

Published

- 2011-02 MacPhedran, I., & Grondin, G. (2011, February). A simple steel beam design curve. *Can. J. Civ. Eng.*, 38(2), 141-153. DOI: 10.1139/L10-114.

13. Papers in Non-Refereed Journals

Nil

14. Invited Papers/Abstracts in Published Conference Proceedings

Nil

15. Contributed (Non-Invited) Papers/Abstracts in Published Conference Proceedings

Papers, Published

- 2010 MacPhedran, I., & Grondin, G. Y. (2010). *Simplified Monosymmetric Beam Design*. Paper presented at Structural Stability Research Council Annual Stability Conference, Orlando, FL.

- 2010 Surovek, A., MacPhedran, I., Palaniswamy, V., & Bradford, M. A. (2010). *A Comparison of International Design Standards for Assessing Lateral Stability of Steel Beams*. DOI: 10.3850/978-981-08-6218-3_SS-Th036. Paper presented at 4th International Conference on Steel & Composite Structures, Sydney, NSW, AU.
- 2009 MacPhedran, I., & Grondin, G. Y. (2009). *A Proposed Simplified Canadian Beam Design Approach*. Paper presented at Annual Stability Conference of the Structural Stability Research Council, Phoenix AZ.
Comment: Awarded 2009 Vinnakota Award for best student paper
- 2008 MacPhedran, I., & Grondin, G. Y. (2008). *A Simpler Steel Beam Design Strength Curve*. Paper presented at Canadian Society for Civil Engineering's Second International Structural Specialty Conference, Québec, QC.
- 2007 MacPhedran, I., & Grondin, G. Y. (2007). *Out-of-plane instability considering frame-member interaction*. Paper presented at Structural Stability Research Council Annual Stability Conference, New Orleans, LA.
- 2007 MacPhedran, I., & Grondin, G. Y. (2007). *A brief history of beam-column design*. Paper presented at Canadian Society for Civil Engineering's 2007 Annual General Meeting and Conference, Yellowknife, NT.

- 2006 Grondin, G. Y., & MacPhedran, I. (2006). *Prying action in bolted tension joints loaded at service load*. Paper presented at Tenth East Asia-Pacific Conference on Structural Engineering and Construction (EASEC-10), Bangkok, Thailand.
- 2006 MacPhedran, I., & Grondin, G. Y. (2006). *Fatigue of high strength bolted connections in tension*. Paper presented at 7th International Conference on Short and Medium Span Bridges, Montréal, QC.
- 2006 MacPhedran, I., & Grondin, G. Y. (2006). *Effects of plasticity on steel beam stability considering partial warping restraint*. Paper presented at Structural Stability Research Council Annual Stability Conference, San Antonio, TX.
- 2005 MacPhedran, I., & Grondin, G. Y. (2005). *Warping Restraint and Steel Frame Instability*. Paper presented at Structural Stability Research Council Annual Stability Conference, Montréal, QC.
- 1984 MacPhedran, I., & Hosain, M. U. (1984). *Use of computers in teaching a basic course in steel design*. Paper presented at American Society of Civil Engineering 1984 Spring Convention, Atlanta, GA.

16. Technical Reports Relevant to Academic Field

MacPhedran, I., & Grondin, G. Y. (In Press). *University of Alberta Department of Civil & Environmental Engineering Structural Engineering Report No. 283 "Frame stability considering member interaction and compatibility of warping deformations"*.
<http://hdl.handle.net/10402/era.17211>.

17. Book Reviews

Nil

18. Invited Lectures (Outside the U of S) and Invited Conference Presentations

2016-05-12

MacPhedran, I. (2016, May 12). *CISC Spring Steel Event - Bolted Connections: Getting the best from your bolted connection designs* Asked by the Canadian Institute for Steel Construction to speak about bolts and bolted connections..
Innovation Place

19. Contributed (Non-Invited) Papers/Abstracts at Conferences

Nil

20. Patents Granted

Nil

21. Research Grant and Contract Information

Nil

22. Artistic Exhibitions or Performances

Nil

23. Professional Practice

Nil

24. Consulting Work Undertaken

Nil

25. Departmental and College Committees

Nil

26. University Committees

Nil

27. Professional and Association Offices and Committee Activity Outside University

Professional Associations and Societies

2010-09 to current	Member, American Institute of Steel Construction
2006 to current	Member, Structural Stability Research Council
2006 to 2010	Member, Task Group #4, Frames, Structural Stability Research Council (SSRC)

28. Public and Community Contributions

University Related

2015-07 to current	Chair of committee to edit Chapter 8, Beam Columns, in the next edition of "Guide to Stability Design Criteria for Metal Structures". Structural Stability Research Council (SSRC)
2011-01 to 2014-01	Associate Member of the Technical Committee for CSA S16, Limit States Design of Steel Structures. Canadian Standard Association <i>Comment: Chair of several subcommittees in the development of the new national standard on structural steel design</i>

Non-University Related

2016-06 to current

Member, Technical Committee on Steel Structures for Buildings S16-19. Canadian Standards Association
Comment: Comment: Chair of Working Group 3, Beams and Beam-Columns

29. Extension Publications and Activities

Nil