

# Rami Mansour, MAsc.

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rami.g.mansour@gmail.com  
(438) 869 5392

## Skills Summary

**Strong** project management, communication, technical coordination and leadership skills developed as the lead field engineer for Systra-IBT on the \$4.5 billion Champlain Bridge.

**Experienced** in the design of bridge structures, gained as a designer for the Champlain Bridge, research projects, and coursework.

**Thorough** understanding of construction techniques and design related constructibility issues, gained through daily jobsite visits for the Champlain Bridge.

**Proficient** in the use of engineering software including: Strand7, LARSA, SAP2000, AutoCAD, and MATLAB.

**Passionate** about bridge construction, and eager to push the boundaries of the bridge design industry.

## Education

**2013-2016** **Master of Applied Science**, Civil Engineering - The University of Toronto

*Dissertation: Modeling of Membrane Action in Reinforced Concrete Bridge Decks*

*Relevant Coursework: Bridge Design, Prestressed Concrete, Earthquake Design, Mechanics of RC*

**2008-2013** **Bachelor of Applied Science**, Civil Engineering (Co-op) - The University of Waterloo

*Management Science Option, with a Certificate in Structural Engineering (top 15% of class)*

*Relevant Coursework: Advanced Steel Design, Structural Dynamics, Finite Element Analysis*

## Work Experience

**Dec 2015 -** **Systra-IBT, Montreal, Canada**

**Present** *Bridge Designer*

Provided construction support for the superstructure and stay cable installation as the lead field engineer for Systra-IBT on the jobsite of the New Champlain Bridge Project.

Designed the system used for tracking and coordinating the review of over 30000 shop drawings and construction submittals, personally reviewing over 5000 documents.

Led the design of various ancillary structures for the Champlain bridge, including the design of barrier widenings and external component anchorages anchorages, using both hand calculations and finite element analysis.

**Sep 2013 -** **University of Toronto, Toronto, Canada**

**Apr 2015** *Teaching Assistant*

Worked with students during tutorials, helping to apply academic theory to practical design challenges. Courses include: Solid Mechanics, Structures and Materials, and Civil Engineering Graphics.

**Sep -  
Dec 2012**      **Engineering Link, Toronto, Canada**  
*Junior Structural Designer*

Performed the design and analysis for new building projects using Canadian design standards, including the George Brown College addition in Toronto, Ontario.

**Jan -  
Apr 2012**      **Blackwell Partnership Ltd., Toronto, Canada**  
*Junior Structural Designer*

Developed design concepts for building projects, using hand and computer based analysis, including the new Canadian Forces Base in Borden, Ontario.

## Projects

**Jan 2017 -  
Aug 2017**      **The Impact of Globalization on Bridge Aesthetics**  
*Conference Paper and Presentation - 2017 NYC Bridge Conference*

Compiled a timeline of bridge construction in Iran, in relation to political and social changes, and identified the significant historical events that influenced the aesthetics of bridges in Iran.

**Sep 2013 -  
Dec 2015**      **Nonlinear Modeling of Membrane Action in Reinforced Concrete**  
*MASc. Dissertation - University of Toronto*

Developed an original analytical method identifying shortcomings in previously published papers, and successfully validated this model using existing experimental data from three unique experiments.

**Jan 2014**      **Magnetawan River Bridge Design Concept**  
*MASc. Candidate - University of Toronto*

Developed a feasible design concept for an arch stiffened bridge. Design work included detailing the longitudinal and transverse post-tensioning in the deck, developing the profile of the arch using graphic statics, and providing an efficient and economical proposal for the construction procedure.

## Leadership Roles

**Sep 2014 -  
Apr 2015**      **Elected President**, Civil Engineering Graduate Students Association - University of Toronto  
*Enhanced the graduate student community by developing research forums and charity events.*

**Sep 2013 -  
Jun 2014**      **Team Leader**, PCI Big Beam Prediction Competition - University of Toronto  
*Designed, built and tested a post-tensioned, concrete girder. Placed fourth internationally.*

**May 2010 -  
Jun 2013**      **Team Leader**, CSCE Concrete Toboggan Competition - University of Waterloo  
*Managed a team of thirty peers, finishing with two first place awards at the national competition.*

## Scholarships

**Sep 2014**      NSERC Canadian Graduate Scholarship (CGS-M) - University of Toronto  
*One of the most prestigious scholarships offered to graduate students across Canada.*

**Sep 2013**      Queen Elizabeth II Graduate Scholarship in Science and Technology - University of Toronto  
*Merit based scholarship offered to the top graduate students in the province of Ontario.*

**Sep 2012**      NSERC Industrial Undergraduate Research Award - Engineering Link  
*Awarded to the top applicants in Canada conducting research during a co-op placement.*