

University of Manitoba Steel Bridge (UMSB) Society

## Sponsorship Package 2020/2021



CSCE/CISC Canadian National Steel Bridge Competition (CNSBC)



University of Manitoba Steel Bridge Team 2020-2021

Nov.14, 2020

**RE: 2020/2021 Request for Financial Support**

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MESSAGE FROM THE TEAM CAPTAIN

Dear Sir/ Madame,

The University of Manitoba Steel Bridge (UMSB) Society would like to formally request for financial support from you/ your organization in order to facilitate the day-to-day operations of our team, and ensure the continued growth and development of our members.

The UMSB Society is a group of students whose primary focus is on bridge design and construction, as well as steel design. We are also interested in project management, construction safety, and the best practices towards general design and construction. We are a competition team that participates in the Canadian National Steel Bridge Competition (CNSBC) organized by the Canadian Society of Civil Engineers (CSCE). This year's in-person competition has been replaced with a virtual competition due to the COVID-19 outbreak. UMSB provides an excellent opportunity for our members to apply the theoretical knowledge that they have gained in academia towards a hands-on project and we achieve this by designing and constructing a steel bridge.

The following package contains a statement from the UMSB faculty advisor, Professor Young-Jin Cha, Ph.D., P.Eng. and personal statements from the Team Leads, highlighting their personal and professional backgrounds as well as why they chose to be involved with the team. Details regarding the competition and the request for funding are also presented. Over the years, we have strived to increase awareness of our activities and expand our reach to more students on campus. This year, we have observed a large turnout of new and returning members even despite that challenges brought upon by the COVID-19 pandemic. To ensure that our members are getting a well-rounded experience, we have established a monthly technical presentation series with guest speakers from industry and academia. If you are interested in being a guest speaker at one of our events and you haven't already been contacted, please feel free to respond to the distribution of this package with your expression of interest.

To our sponsors for the 2019/2020 academic year:

We would like to express the utmost gratitude to you for your support of our team and for helping to promote the growth of UMSB. We are future professionals that will carry on the legacy of excellent design, engineering, and construction. Your support was an investment in the future of the engineering and construction industry. The financial support last year was used to fund several purchases that guaranteed the smooth operation of the team. Due to the cancellation of last year's competition, some expenses were never realized; the remaining funds provided were carried over into this year's budget. To further recognize your support, your logos will be proudly brandished on the team website and t-shirts for the 2020/2021 year, as the carried over funds have been extremely helpful in maintaining our operations to date.

MESSAGE FROM THE TEAM CAPTAIN

We are pleased to submit, on behalf of the UMSB Society, one (1) electronic PDF application for financial support from you/ your organization. The team's anticipated expenses for 2020/2021 total five thousand dollars (\$5,000) to support our regular operation. Any amount that could be donated to the team would be greatly appreciated. Should you have any questions or concerns, please feel free to visit our website at <http://steelbridge.umes.mb.ca/> or contact us directly.

Sincerely,



Isaac Orah (Co-Captain)  
Cell: (204) 801-8706  
Email: orahi@myumanitoba.ca



Quinn Desrochers (Co-Captain)  
Cell: (204) 955-6768  
Email: desrochq@myumanitoba.ca

Hello,

I am Young-Jin Cha, the advisor of our University of Manitoba Steel Bridge (UMSB) team in the Department of Civil Engineering at the University of Manitoba. Our team UMSB has participated in the Student Steel Bridge Competition (SSBC) in the Canadian Society of Civil Engineers (CSCE) since 2018, followed by a fifth consecutive year of participating the international SSBC in American Society of Civil Engineer (ASCE).

The outlines of the SSBC are described as: The Canadian National Steel Bridge Competition (CNSBC) is an annual competition that was created in partnership between Canadian Institute of Steel Construction (CISC) and the Canadian Society for Civil Engineering (CSCE) in response to a need within the industry to give students a domestic alternative to the American Institute of Steel Construction (AISC)/ASCE National Student Steel Bridge Competition. The CNSBC challenges students to participate in a comprehensive project that involves conception and design, fabrication, erection, and testing of a steel bridge structure that meets client specifications and optimizes performance and economy. The competition increases students' awareness of real-world engineering issues. The competition is modelled after the AISC/ASCE National Student Steel Bridge Competition, with modifications so that students may use the bridge design in both competitions. Reference: <https://www.cisc-icca.ca/canadian-national-steel-bridge-competition/>

I have worked with our team members who are mostly undergraduate students in our department. They have worked together to design and fabricate a steel bridge for the SSBC through extensive discussions, numerical analyses, and experiments for the competitive design of steel bridge system. Through these students' activities, they have learned practical engineering design methods and expanded their understanding about collaboration, teamwork, and engineering ethics, which also stimulated the students' curiosity and interest to practice their technical knowledge. Through the competitions, students can get a chance to meet the students from other universities from the other provinces in Canada with varieties of different designs of steel bridges. Students have been exposed to these excellent learning environments. Your financial support for this team activities has been the critical role for the success of this team. Your financial supports are appreciated.



Young-Jin Cha, Ph.D., P.Eng.

## Team Leads

### Isaac Orah (Team Co-Captain)

Isaac is a fifth-year student in the Civil Engineering Program at the University of Manitoba. He has previously served as the Treasurer and has also been a member of the Drafting and PR/ Social sub-teams within UMSB. He is primarily interested in project management and structural engineering.

Isaac is passionate about teaching, mentorship and promoting cultural diversity. He is a co-owner of “ZICLA Primary School” that is located in his home country of Nigeria. He has worked for 3 terms as a Teaching Assistant in “Graphics for Civil Engineers” at the University of Manitoba, and he has mentored an international student through the International Center at the University of Manitoba.

Isaac is a member of the Co-op/IIP program at the University of Manitoba and a student member of Engineers Geoscientists Manitoba (EGM). He has gained practical engineering experience by spending one term as a Project Coordinator at Graham Construction and Engineering, two terms as a Site Observer at Stantec Consulting Ltd, one term as a Field Engineering Student at PCL Constructors Canada and one term as an Engineering Student at Terracon Development Ltd.

In his spare time, Isaac enjoys playing soccer, watching TV, listening to music, weightlifting, and learning about financial management.



### Quinn Desrochers (Team Co-Captain)

Quinn is a fifth-year civil engineering student at the University of Manitoba. It is his fourth year participating in the Steel Bridge Team and has attended the competition twice. He previously served the team as Construction Lead and has been a member of the Drafting, Analysis and Design sub-teams. Quinn’s focus in school has been in the area of water resources engineering.

Outside of school, Quinn is an avid member of the sporting community as a Bison’s Track and Field team athlete, triathlon coach with the Windburn Multisport Academy, and President of the University of Manitoba Climbing Club. Quinn is also the CEO of his latest endeavour, Particuleye Technologies, a start-up company that sells laboratory devices capable of automatically counting and classifying microplastic particles in flowing water samples.





Quinn is a member of the Co-op/IIP program at the University of Manitoba and a student member of Engineers Geoscientists Manitoba. He has hands on experience working as an engineering intern with Ducks Unlimited Canada for two summers and an additional summer at Terracon Development Ltd.

In his spare time, Quinn enjoys outdoor pursuits including rock climbing, cycling, hiking, and skiing.

### **Renato Palma Jr. (Treasurer)**



Renato is in his fourth year of Civil Engineering, Minor in Management Program at the University of Manitoba. He has an interest in both structural engineering and project management. This year, he became a Certified Associate in Project Management (CAPM) through the Project Management Institute (PMI). He is also a member of the Association for the Advancement of Cost Engineering (AACE) International and the Institute for Sustainable Infrastructure (ISI).

Renato has spent 16 months working in the industry. He has spent most of his work terms with BBE Hydro Constructors LP at the Keeyask Generation Infrastructure Project as a Field Engineer. He has also spent four months working with JR Cousin Consultants Ltd. as a Project Supervisor and with the City of

Winnipeg as a Summer Student for another four months.

During his free time, Renato enjoys watching football (European term for soccer) and follows FC Barcelona.

### **Yu Yan Li (Design and Analysis Co-Lead)**

Yu Yan Li is in her fifth year of civil engineering at the University of Manitoba. She has previously served as a member of the Analysis and Drafting sub-teams in UMSB. This year, Yu Yan is taking on the role of Design and Analysis Co-Lead. She is excited to apply her knowledge of structural design and analysis using SAP2000 to the team.

During her spare time, Yu Yan enjoys reading and playing badminton.



## Israa Kanan (Design and Analysis Co-Lead)

Israa Kanan is a 4th year Civil Engineering student at the University of Manitoba. She joined the team last year and was a member of the design, analysis and drafting sub-teams. Israa is also a member of the Co-op/IIP at the University of Manitoba, and a student member of the Canadian Society for Civil Engineering and Engineers Geoscientists Manitoba.

Israa is interested in structural engineering and architecture. She is also completing a management minor and has project management experience from working with Ernst Hansch Construction Ltd.

Personal interests include travelling, learning languages, watching soccer, and listening to music.

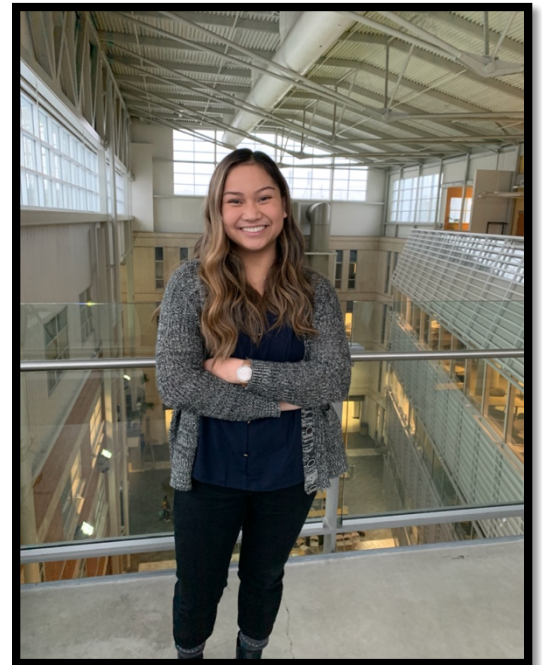


## Ashley Victoria (Aesthetics Co-Lead)

Ashley Victoria is a fifth year Civil Engineering student at the University of Manitoba. This will be Ashley's second year on the team with it also being her second year filling the position as the Aesthetics Co-Lead. She is also a member of the Co-op/IIP at the University of Manitoba and Engineers Geoscientists Manitoba.

Ashley decided to pursue Civil Engineering as she worked with her family on various projects in the Philippines and believes in the improvement of project safety and access to technology. This transverse into her passion towards working in team environments as she was previously on a robotics team in the past and is excited to contribute her knowledge to this year's UMSB team.

On her free time, she enjoys going on hikes, canoeing and walking her dog!



## Jeisela Evangelista (Aesthetics Co-Lead)

Jeisela is a fifth-year student in the Civil Engineering Program at the University of Manitoba. This is her third year on the UMSB team where she was a member of the analysis team and Co-Lead for the aesthetics team. This year she is excited to be returning as the Aesthetics Co-Lead.



Jeisela has spent the last two summers working with J5 Construction Ltd. where she was able to further enhance her skills in project management and estimating. She also has a passion for working with the youth and young adults as a Youth Leader for the River of Life Church of the Nazarene where she leads lessons and is an active volunteer for outreach events. This past summer she also assisted in the organization of relief-packages for small towns in the Philippines which successfully helped over 180 families during the ongoing COVID-19 pandemic.

In her spare time, Jeisela enjoys bike rides, learning more about digital graphics, and capturing memories through photos and videos.

## Lucas Coldwell (Drafting Co-Lead)

Lucas Coldwell is in his fourth year of civil engineering at the University of Manitoba and is primarily interested in structural engineering. This is his second year on the University of Manitoba Steel Bridge Team and was previously a member of the drafting team. During the past two summers, Lucas has worked a co-op placement at River City Detailers where he gained experience in creating part drawings, assembly drawings, and erection diagrams, all in Tekla Structures. Lucas hopes to use these experiences to further the drafting team and to have a successful year.

In his free time, Lucas enjoys playing golf, playing games, and reading books.





## **Katrina Carter (Drafting Co-Lead)**

Katrina Carter is a third year Civil engineering student at the University of Manitoba. She has been on the Drafting team for the last two years and this year she shares the position of Drafting Lead.

Katrina pursued engineering due to her love of architecture, building, and crafting. First learning traditional drafting methods and then AutoCAD, Katrina has become very familiar with drafting techniques. She was able to use some of this knowledge at BellMTS for a co-op term.

Personal interests include crafting, skiing, and gaming.



## **Jesse Adamson (Construction Lead)**

Jesse is currently in his fifth year of Civil Engineering at the University of Manitoba. This is his third year on the University of Manitoba Steel Bridge Team. As Construction Lead, he plans to keep the members of UMSB active throughout the year. Most important, Jesse will teach members methodologies as to how to prepare prior to competition constructing the bridge effectively and efficiently for the competition next year.

Jesse plans to use his previous experience from the 2019 CNSBC in Montreal and being on the construction team in previous years to allow next year's members to be successful. He is a student member of Engineers Geoscientists Manitoba (EGM), the Canadian Society for Civil Engineers (CSCE), and aesthetics and technical exhibition lead for the University of Manitoba Concrete Canoe (UMCC) team.

In his spare time, Jesse enjoys reading philosophy, playing badminton and chess.



## Ayobami Runsewe (SPEB Representative)

Ayobami Runsewe is a third year Civil Engineering student at the University of Manitoba. This is his second year as a member of the UMSB team. He was on the design and analysis team for his first year and this year he is taking the role of the SPEB Representative.

Ayobami wanted to pursue Civil Engineering because of his enthusiasm for the design and creation of infrastructures in the society with complex challenges and innovative solutions.

Some of his personal interest include painting, soccer, guitar, dancing, and graphic design.



## Saleem Baraty (PR/Social Lead)

Saleem Baraty is a fourth year Civil Engineering student at the University of Manitoba. He has been a part of the UMSB team for two years as a drafting member and as the PR/Social Lead. This is his third year on the team and is taking on the role of the PR/Social Lead once again.

Saleem wanted to pursue Civil Engineering because he was curious as to how the infrastructure of our society is built around us. Taking this into consideration, he was able to use this curiosity in his previous co-op term at Manitoba Hydro as an Engineering Student in the Transmission Line and Civil Construction Department. He was also introduced to geotechnical engineering while working as a geotechnical assistant for eight months at Trek Geotechnical.

Some of his personal interests include playing soccer, guitar and financial investing.



## Alumni Advisors

Daniel Szara, Daly Penner

## Faculty Advisors

Dr. Young-Jin Cha, P.Eng

## Information About CNSBC

The Canadian National Steel Bridge Competition (CNSBC) was initiated in 2016 as an opportunity for engineering students to practice solving real-world engineering issues. Since then, Canadian and international universities have gathered yearly to compete against one another in an attempt to construct the most optimal steel bridge based on constraints, safety, aesthetics, and much more.

Through this competition, students are exposed to real-world engineering issues such as spatial constraints, strength, fabrication and erection processes, project management, and costs. Success in competition demands effective teamwork and applying correct engineering principles and theory. Teams are inspired to think creatively, practice professionalism, and use structural steel efficiently.

Students are expected to design and erect a steel bridge by themselves however, they may consult with faculty and other advisors for advice and technical experience. If universities do not have metal fabrication laboratories, then it is permissible to work with a metal fabricator from industry. The Canadian National Steel Bridge Competition provides design and management experience, opportunity to learn fabrication processes, and the excitement of networking with and competing against teams from other colleges and universities.

<https://www.cisc-icca.ca/canadian-national-steel-bridge-competition/>

## 2021 Virtual Competition

Due to the unexpected events regarding COVID-19, all in-person gatherings including competitions for technical student groups have been cancelled. This includes the annual steel bridge competition hosted by CNSBC. Throughout the universities in Canada, technical student groups involved in steel bridge construction still participate in providing their members an authentic student group experience similar to previous years. Therefore, CNSBC contacted various universities on whether they would be interested in a virtual competition taking place at the end of the year. The University of Manitoba Steel Bridge Team was ecstatic upon hearing the news and voted within the student group to participate if a virtual competition takes place.

CNSBC has not published an explicit document in regard to the guidelines and rules pertaining to this virtual competition however, they have given a general concept as to what the competition would likely entail. This involves teams designing, analyzing, and developing the construction sequence for a scale-model bridge without physically constructing the bridge. The deliverables would consist of a written report involving the design, analysis, and construction sequence, along with a 10-minute live video presentation.

The University of Manitoba Steel Bridge Team is anticipating the virtual competition to take place and is working towards designing a bridge.



## The UMSB Society is requesting funding for the following activities:

- **Competition Expenses** – We will be participating in the 2021 Virtual Competition which has membership and registration fees.
  - Expense: \$500 (Estimated)
- **Team-Bonding Events** – We are planning to hold multiple events for our members to connect and get to know one another. Online studies and secluded living can hurt a student's mental health which is why these events are important.
  - Expenses: \$600
- **Apparel Expenses** – A requirement of the competition is to have a distinct team uniform. We will order t-shirts that include recognition for all team sponsors and supporters.
  - Expense: \$2,400
- **Miscellaneous Expenses**– Throughout the year, the Steel Bridge Design Team realizes expenses relating to technical presentations from companies, creating technical posters and other documents, and organizing events for student outreach.
  - Expense: \$1,500 (Estimated)

Total anticipated expenses are \$5,000

## Sponsorship Levels:

Level	Sponsor Receives
<b>Title Sponsor (Negotiable)</b>	Recognition as UMSB's Title Sponsor. First company logo to appear on posters and team t-shirts. Company logo and profile on UMSB website. <i>(Sponsor must request consideration this sponsorship level)</i>
<b>Gold (\$2000 and above)</b>	Large-sized Company Logo on posters, website, and team t-shirts. Company profile on UMSB website.
<b>Silver (\$1000 - \$1999)</b>	Medium-sized Company Logo on poster, website, and team t-shirts.
<b>Bronze (\$250 - \$999)</b>	Small-sized Company Logo on poster, website, and team t-shirts.





**OFFICIAL UMSB SPONSORSHIP FORM FOR 2020/21**

**COMPANY NAME:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**CONTACT:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_

**E-MAIL:** \_\_\_\_\_

We wish to endorse the University of Manitoba Steel Bridge (UMSB) Society of 2020/21 with this sponsorship donation in the amount of \$\_\_\_\_\_.

This sponsorship is to be used solely for the purpose of the CSCE/CISC Canadian National Steel Bridge Competition (CNSBC) and any funds that are not used may be left to assist future UMSB Society events.

On behalf of the University of Manitoba Steel Bridge (UMSB) Society, thank you for your generous contribution.

**Our Company is interested in providing an educational presentation for the team**

☐ **YES**

☐ **NO**

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Cheques should be made payable to:

**“UNIVERSITY OF MANITOBA STEEL BRIDGE SOCIETY”**

**CHEQUES SHOULD BE SENT TO:**

U of M Steel Bridge Team C/O Beata Chartrand  
Room E1-368A Engineering, 15 Gillson Street  
University of Manitoba  
Winnipeg, MB, R3T 5V6  
Canada