

## UPCOMING EVENTS

**Tech Talk & Social**  
December 4, 2019

**2019 Executive Lunch Session**  
December 5, 2019

**Further Details Inside**



## Northeastern University ISEC Pedestrian Bridge

by Patrick McCafferty, PE, Associate Principal and Michael Shearer, PE, Senior Engineer, Arup

In April 2017, Boston's Northeastern University cemented its reputation as a global research institution with the opening of the Interdisciplinary Science and Engineering Complex (ISEC)—a LEED Gold-certified learning hub designed by Payette Associates and Arup. The ISEC complex is now complemented by the recently opened ISEC Pedestrian Bridge.

Opened in June 2019, this striking, 500-foot-long, steel footbridge runs over four active rail lines, which bisect Northeastern's Columbus Avenue and Huntington Avenue Campuses. In addition to providing a critical link between the two campuses, the ISEC bridge also serves as a conduit between the neighborhoods of Roxbury and the Fenway and helps to promote engagement between the university and neighboring residents.

Arup provided a range of engineering and consulting services for the Payette-designed project, including structural, mechanical, electrical, plumbing, and geotechnical engineering, fire protection, and façade and lighting consulting.



View of the newly constructed bridge from the Interdisciplinary Science and Engineering Complex (ISEC) building

### Key challenges

Achieving the footbridge's unique form presented a number of technical and logistical challenges to the design team. The goal was to create a bridge

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that felt like a natural extension of the area's existing landscape while providing clear views of the ISEC and the Boston skyline beyond it. This needed to be accomplished while accommodating a complex array of existing urban infrastructure and utilities, without compromising active rail operations in the area.

*continued on page 2*

## President's Report

by Richard Maher, PE, Managing Associate, Perry Associates, LLC



BSCES has been reviewing its budget for 2020 and it has reminded me of the breadth and depth of BSCES offerings, member volunteer efforts, and our passion for civil engineering.

A condensed subject list of BSCES offerings is below with expanded descriptions of BSCES's communications with members and K–12 STEM and public outreach activities:

- Communications with Members
- Professional Activities
- Awards, Scholarships, and Mentoring
- Technical Committees
- Government Relations
- College Outreach
- K-12 STEM and Public Outreach

### Communications with Members

BSCES is continuously seeking feedback from its members and improving its communications by the utilization of various technology platforms.

**Website**—[www.bscs.org](http://www.bscs.org) is user-friendly and is supported on mobile platforms. The website provides valuable information to BSCES members as well as anyone inquiring about the society and its undertakings. The website is easy to navigate and provides links to technical resources, membership services, volunteer opportunities, news and publications, award applications, and event registrations. The website also includes links to the committees, institute chapters, technical groups, and ASCE's website.

**Broadcast Emails**—BSCES sends broadcast emails approximately twice weekly to inform members of BSCES/ASCE-sponsored events and activities and to request their action in support of local civil engineering initiatives.

**Newsletter**—*BSCESNews*, the Society's membership newsletter, is produced as a PDF document and distributed via email with a website hyperlink ten times each fiscal year. *BSCESNews* includes articles covering an array of professional and technical topics including project overviews, industry trends, legal issues, legislative matters, member profiles, Society events, and outreach activities. This year, BSCES will be working on improving the user experience of the newsletter.

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**Institute Chapter & Technical Group Chairs**

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Construction Institute Boston Chapter: Andrew Giocondi, PE

Engineering Management Group: Daron G. Kurkjian, PE

EWRI Boston Chapter: Marc J. Gabriel, PE

Geo-Institute Boston Chapter: Laurie A. Gibeau, PE

SEI Boston Chapter: Michael A. Cruz, SE

T&amp;DI Boston Chapter: Kayla (Arruda) Sousa, EIT

Younger Member Group: Elisa K. Yung

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**Northeastern University ISEC Pedestrian Bridge***continued from page 1***Distinctive design**

The gently curving ISEC bridge crests over the rail tracks, expanding into a curved observation platform at its south abutment and continuing eastward to provide access to the ISEC complex. To the north, the bridge widens into a monumental feature stair, which touches down near Snell Library.

The bridge's most prominent features are two asymmetric parapet barriers that flank the structure along its west and east edges. Both parapets lean outwards by 10 degrees from vertical to afford views skyward while respecting the rail operators' strict geometric requirements.

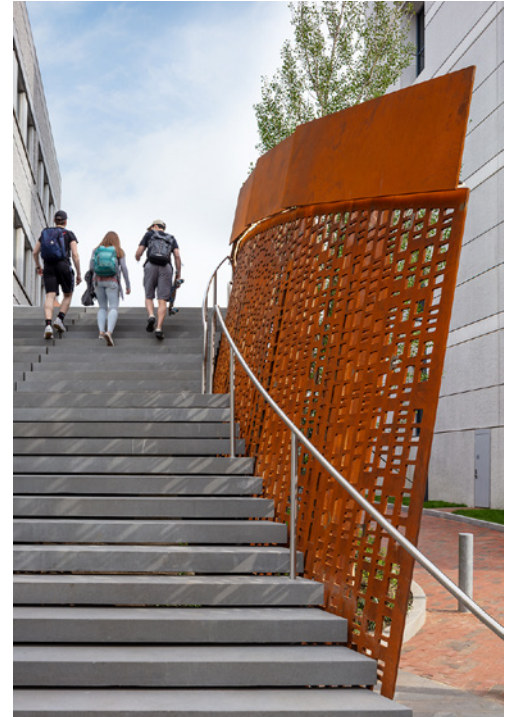
Rising to a height of 18-feet, the western parapet is formed from overlapping panels of solid steel plate. This barrier protects the rail tracks below while shifting views towards the ISEC and Boston skyline to the east. The eastern parapet is formed from narrower panels of steel plate, which are staggered to direct views towards the complex. The space between the offset steel panels is in-filled with high-strength laminated glass to satisfy the barrier requirements without obstructing views.

The entire bridge is formed from weathering (COR-TEN) steel. The weathering steel imbues the footbridge with an organic reddish-brown patina, which nicely complements the surrounding infrastructure and the ISEC. Because it is inherently corrosion resistant, the steel also works to reduce on-going maintenance requirements, thereby helping to minimize future disruptions to rail operations.

Arup lighting designers developed an all-LED nighttime lighting solution that accents the bridge's unique structural composition while providing for the comfort and safety of users. An intelligent lighting control system is integrated into the structure to optimize brightness in an energy efficient manner.

**A tailored structural solution**

The bridge's asymmetric form presented a unique structural engineering challenge. Because of the bridge's curves, the structure's tendency is to lean and twist inwards. This effect was intensified when the structural depth was shifted towards the western half of the bridge to provide unencumbered eastern facing views from deck level. To mitigate this inward twisting effect, a large, hollow, structural steel box girder runs along the bridge's western edge to provide



*Accessing the ISEC pedestrian bridge from Northeastern University's Snell Library*

additional support. This box girder is configured as an upstand beam relative to deck level and serves double-duty as the bridge's main support member and the backbone to the opaque western parapet. The bridge deck is thus made to cantilever from the box girder towards the eastern edge.

**Construction challenges**

On-going work at the neighboring Massachusetts Bay Transportation Authority (MBTA) Ruggles Station Commuter Rail Platform made for complicated engineering and construction logistics throughout the project. To ensure that both projects met rigorous quality standards and did not lead to unplanned disruptions to rail operations, Arup coordinated closely with the Ruggles design and construction teams and with MBTA and Amtrak. After careful planning, construction commenced with the installation of two pre-assembled spans, which were installed over the right-of-way using one of the largest cranes on the East Coast during a three hour window after rail service ended. Students and faculty from Northeastern gathered with the bridge's engineers and designers at midnight to witness the intricate construction process first-hand.

*continued on page 3*



## Northeastern University ISEC Pedestrian Bridge

*continued from page 2*

### A collaborative success

To successfully meet the ISEC Bridge's aggressive design and construction schedule while staying within the targeted budget, the Arup team collaborated closely with a number of stakeholders.

In addition to being a worthy complement to the ISEC, the new bridge is a stunning piece of urban architecture that provides a much-needed campus conduit for students and residents alike. The Arup and Payette ISEC pedestrian bridge team was joined by fellow design team members, including general contractor Skanska, landscape architects Stephen Stimson Landscape Architects, and fabricators/erectors Atlantic Bridge & Engineering.



The ISEC Bridge connecting the Northeastern University campus and Roxbury and Fenway communities

## Presidents Report

*continued from page 1*

**Social Media**—BSCES continues to increase activity and membership on social media sites such as Facebook, LinkedIn and Twitter. The Facebook page “Boston Society of Civil Engineers Section—ASCE” includes basic information about the society and lists events. The LinkedIn group also lists events and has over 1,900 members. BSCES also posts videos related to projects and outreach activities on YouTube and tweets events at @BSCES. Separate LinkedIn group and Twitter accounts are maintained for several BSCES volunteer groups including the Younger Member Group and the Public Awareness & Outreach Committee.

**TV Program**—Since 2006, BSCES has hosted a monthly television program, *Civil Engineering Today*, through the Boston Neighborhood Network with a focus on promoting the profession of civil engineering, educating the public about civil engineering projects and issues, and creating public awareness of the importance of civil engineers.

### K–12 STEM (Science, Technology, Engineering, Mathematics) and Public Outreach

Members of the BSCES Public Awareness & Outreach Committee are continuously engaged in K–12 STEM outreach providing Boston Bridge Tours, the Model Bridge Competition, Future City Competition and Dream Big

resources. Committee members have started advertising events through [www.Meetup.com](http://www.Meetup.com) to increase public engagement.

**Bridge Tours**—BSCES conducts Boston Bridge Tours geared to both students and adults. These four-hour walking tours of bridges and other structural landmarks focus on the historical bridges around Boston's Fort Point Channel and the recently constructed Leonard P. Zakim Bunker Hill cable stayed bridge.

**Model Bridge Competition**—BSCES invites high school and upper elementary through middle school students to explore the engineering process as they build a scale bridge out of wacky materials and compete to carry the most weight. Now its 23rd year, past model bridge competitions involved building bridges out of pasta, chopsticks, and plasticware.

**Future City Competition**—BSCES coordinates the New England Regional Competition of this DiscoverE program with over 40 schools participating. This contest requires teams of 6th, 7th and 8th graders to design a fictitious city encompassing a STEM-related theme, which changes every year. Students use SimCity software, build a physical model, and present their design to a judging panel comprised of engineering professionals. Part of the competition also requires the students to write an essay to describe an element of their city. This annual event will be held at Worcester Polytechnical Institute in January 2020.

**Dream Big**—BSCES provided funding for a DVD of the film to be distributed to each public school in the Commonwealth. School packets include the documentary *Dream Big: Engineering Our World* and a toolkit with a teacher's guide and educational videos to promote greater interaction between engineers, educators and students.

BSCES activities influence individuals throughout their lifetime and leaves an inspiring legacy for generations to come. These activities could not be possible without the efforts of volunteers and fundraising support like the financial contribution of Keller—our newest 2019–2020 BSCES Society Sponsor. Giving Tuesday is December 3rd. Please consider making an [online donation](#) to BSCES today.

For more information about donating to BSCES, please visit the [BSCES website](#) or email BSCES at [fundraising@BSCES.org](mailto:fundraising@BSCES.org).

Thank you for your support of BSCES, since 1848!

The theme of this month's newsletter is “Structural Design” and its featured group is the ASCE Structural Engineering Institute Boston Chapter. Be sure and read the page 7 article about the group which was written by Michael Cruz from Green International Affiliates, Inc., who is the chair of the SEI Boston Chapter.

## Panel Bridge Truss Returns for a New Use in Haiti

by Kamila O'Neill, PE, Project Engineer and Brian Brenner, PE, Principal Engineer, Tighe & Bond, Inc. and Gabe Sullivan, Cashman Family Foundation

In July of 2019, the Cashman Family Foundation constructed a new bridge in Perches, Haiti. The Cashman Family Foundation is a charitable subsidiary of the Jay Cashman Inc., a group of construction companies who's mission is to facilitate economic development through infrastructure improvements. The Foundation looks to partner with resource-constrained communities to build new bridges and roads. This mission was exemplified in the bridge that was constructed in Haiti this summer.

The rural town of Perches, located in the northeast highlands, can only be reached by crossing the Riviere Cochon Gras. The river crossing acts as the only means for the community of approximately 20,000 residents who live in the town and many more in the surrounding area to leave the remote and isolated region on a regular basis. Perches is also home to the area's largest weekly market which residents and market vendors access via an unpaved roadway or walking and driving through the river. In addition to the market, residents rely on the dirt road to access facilities to the north, including a local hospital. The road crosses the river at grade level, which is satisfactory during the dry season. However, during the three or four rainy months, the crossing was frequently impassable and sometimes dangerous. This posed a great hardship to area residents, who did not have reliable access for health care at the hospital, to schools, to the market, and to the industrial area at Cap-Haitien.

The Cashman Family Foundation assisted the town in providing construction services for the new highway bridge to cross the river while Tighe & Bond provided the design for the bridge. The bridge superstructure consists of an Acrow pony truss panel bridge, owned by the Cashman Family Foundation and donated to the site in Haiti. The prefabricated components were shipped from storage in Quincy, Massachusetts, to Perches for reassembly and bridge launching.



Constructing the new bridge over the Riviere Cochon Gras

Previous geotechnical exploration work was done by volunteers on behalf of Engineers Without Borders (Portland, Maine professional chapter), and the Foundation worked with local officials to secure right-of-way access for a new bridge and connecting roadways. Tighe & Bond worked with the Foundation to contribute design services for new abutment walls and supports for the bridge. The abutments were designed as gravity retaining walls.

During the spring, the engineering and construction team worked closely together to optimize the design and coordinate it with construction procedures. The project needed to consider local constraints such as available materials, equipment, and site conditions. The abutment walls for the prefabricated bridge were completed in July of 2019, and the bridge superstructure was launched across the river.

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## BSCES Honors 2018 and 2019 Award Winners

by Emily Devane, Membership Associate, BSCES

At the 170th BSCES Annual Awards Dinner, which was held at the Royal Sonesta Boston in Cambridge on July 16, 2019, the BSCES Board of Government honored the following 2018 and 2019 award winners. Presiding over the dinner was BSCES Past President Geoffrey Schwartz, PE.

### 2018 BSCES Section and Employer Recognition Award Winners

**Government Civil Engineer Award**—presented to a BSCES member who is serving as a paid public sector engineer at a federal, state, or municipal agency, department, or Massachusetts authority.



This award was presented to **Linda Hager, PE**, of the Massachusetts Bay Transportation Authority, for outstanding leadership and continuous contributions to the civil engineering profession, locally and nationally.

**Large Employer Recognition Award**—presented to an organization with more than 50 employees that encourages its engineers to actively participate in ASCE and BSCES activities; allows engineers time off to attend Society meetings and seminars; supports and encourages technical and professional growth; encourages engineers to prepare articles for publication in Society professional and technical journals; and, assists in the payment of Society dues.



This award was presented to **GZA GeoEnvironmental, Inc.** for its longstanding support of ASCE and BSCES. Patrick Sheehan, CEO, accepted this award on behalf of the firm.

### 2019 BSCES Section and Employer Recognition Award Winners

**Citizen Engineer Award**—presented to a BSCES member or registered professional engineer for outstanding public involvement in local or national legislation, education at all levels, non-profit volunteer organizations, community activities and similar activities improving the image of ASCE, BSCES and civil engineering.



This award was presented to **Alyson Stuer, PE** of Alfred Benesch & Company, for her contributions to the Future City competition and various other mentoring roles.

**Clemens Herschel Award**—recognizes those individuals who have published papers, not necessarily published in the BSCES Journal, that have been useful, commendable, and worthy of grateful acknowledgment.



This award was presented jointly to **Mehrdad Sasani, PhD, PE** and **Matthew Joyner** of Northeastern University, in recognition of their paper "Multihazard Risk-Based Resilience Analysis of East and West Coast Buildings Designed to Current Codes."

**College Educator Award**—This award is presented to a member of the academic community who inspires and encourages civil engineering students through exceptional teaching and mentorship. Educators empower students to realize full potential and exemplify the profession in their classroom.



This award was presented to **James Kakkamanos, PhD** of Merrimack College, for his inspirational teaching of geotechnical engineering courses, mentorship, and other support of his engineering students.

**Government Civil Engineer Award**—presented to a BSCES member who is serving as a paid public sector engineer at a federal, state, or municipal agency, department, or Massachusetts authority.



This award was presented to **Alex Bardow, PE**, of the Massachusetts Department of Transportation, for significant achievement and a dedicated career at a MA state agency.

**Horne/Gaynor Award**—presented to a BSCES member or registered professional engineer for unpaid public service in a municipal, state or federal-elected or appointed post for philanthropic activities in the public interest.



This award was presented to **David Westerling, PhD, PE, PLS**, for recognizing the need for and creating a capital planning committee in his town of Berlin, MA and serving as chair of that committee.

**Journalism Award**—presented to an individual who writes about engineering topics, particularly civil engineering, in a manner that benefits the profession.



This award was presented to **Adam Vaccaro** of *The Boston Globe*, for numerous news articles covering transportation issues in the Boston area that raise awareness of the importance of the civil engineering industry.

**Pre-College Educator Award**—presented to a member of the K-12 education community who integrates engineering topics, particularly civil engineering, in a manner that benefits the profession and may promote students to pursue an engineering career.



This award was presented to **Suzanne Collins** of Birchland Park Middle School, East Longfellow, MA, for her dedication to teaching and for introducing students to engineering through involvement in Future City and BSCES outreach.

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## 2018 and 2019 Award Winners

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**Large Employer Recognition Award**—presented to an organization with more than 50 employees that encourages its engineers to actively participate in ASCE and BSCES activities; allows engineers time off to attend Society meetings and seminars; supports and encourages technical and professional growth; encourages engineers to prepare articles for publication in Society professional and technical journals; and, assists in the payment of Society dues.



This award was presented to **Kleinfelder** for its longstanding support of ASCE and BSCES. Daniel W. Dwyer, PE, geotechnical engineer at Kleinfelder accepted the award on the firm's behalf.

**Project of the Year Award**—This award is presented to a BSCES member and her/his project team who has served in a major role on an innovative, challenging, unique, and/or complex project located in the Commonwealth of Massachusetts. The majority of the work should have been completed by engineers located within Massachusetts.



This award was presented jointly to **MassDOT District 6** and **Walsh Construction** for the Commonwealth Avenue Bridge Replacement Project for innovation using an accelerated approach to successfully replace the eastbound side and westbound side of the bridge each to minimize disruption to traffic, improve pedestrian and bicycle accommodations, increase safety, and improve travel within the area.

**Sustainability in Civil Engineering Award**—intended to recognize a Massachusetts civil engineering infrastructure project constructed within the last three years that exemplifies the principles of sustainability espoused by the Institute of Sustainable Infrastructure (ISI). Awards were given in two categories differentiating project scale.



The Large Project Award was presented to the **NB Development Group** for the New Boston Landing Station Project, which was designed by STV and constructed by Skanska USA. Paul S. Pedini, PE, a vice president at Skanska accepted this award.



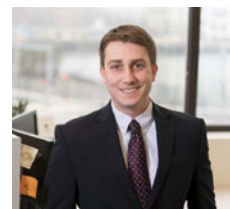
**The Small Project Award** was presented jointly to the **Massachusetts Department of Conservation and Recreation** and the **Lawrence and Lillian Solomon Foundation** for the Greenough Boulevard Greenway Expansion Project. Rick Corsi, a senior planner at MassDCR accepted the award.

**Younger Member Award**—intended to recognize a member, 35 years of age or less on February 1st in the year of the award, who has made an outstanding contribution to the society.



This award was presented to **Gregory Mirliss** of AECOM for his outstanding contributions to the engineering profession within BSCES, other member organizations, his workplace, and his community.

**President's Award**—presented at the discretion of the President to Section Members for their contributions to the engineering profession and especially to the Boston Society of Civil Engineers Section/ASCE. Two Presidents Awards were presented this year.



The first award was presented to **Brian P. Paula, PE**, of HNTB Corporation, for his outstanding leadership and service as chair of the BSCES Younger Member Group.



The second President's Award was presented to **Mehrdad Sasani, PhD, PE**, of Northeastern University, for his dedicated and tireless contributions to the creation of the Massachusetts Architects and Engineers Emergency Response Task Force.

## Become a BSCESNews Contributor

Would you like to contribute to the newsletter of the oldest civil engineering society in the country? The BSCES Newsletter Editorial Board is seeking members who are willing to write articles for publication in BSCESNews or to join the Editorial Board.

Typically 400 to 900 words, BSCESNews featured articles are about technical topics or professional matters of interest to civil engineers. The January 2020 issue of the newsletter for example, will highlight the Engineering Management Group and feature one or more articles on the theme of Innovative Technologies.

Editorial Board members meet monthly via conference call to plan upcoming issues of the newsletter. They also solicit, write and/or review newsletter articles.

For more information on how you can become a BSCESNews contributor contact BSCES Newsletter Editorial Board Chair Sean Horan at [Sean.Horan@gza.com](mailto:Sean.Horan@gza.com) or BSCES Association Manager Rich Keenan at [rkeenan@engineers.org](mailto:rkeenan@engineers.org) or at 617/305-4110.

## Featured Group

### Structural Engineering Institute (SEI) Boston Chapter

by Michael Cruz, PE, SE, Bridge Design Group Leader at Green International Affiliates, Inc. and SEI Boston Chapter Chair

Structural Engineering Institute (SEI) is one of nine specialty institutes of the American Society of Civil Engineers (ASCE). There are now more than 50 SEI Chapters of ASCE Section/Branches nationwide that serve SEI members locally, including SEI Graduate Student Chapters.

Locally, our Boston Chapter, continues to support and promote the SEI Vision for *"A vibrant future for structural engineering where we lead and innovate to improve the safety and well-being of the global population. We create and use innovative technologies to design inspiring, resilient structures while ensuring the economic and sustainable use of natural resources. We are the best and brightest, and have rewarding opportunities to advance and be recognized throughout our careers."*

SEI Boston helps support that vision by providing learning and networking opportunities for local structural engineers and students throughout the year. This year we held a number of events including a technical lecture on modifications to the ASCE/SEI 7 Minimum Design Loads Standard in March, a networking event based on

the Family Feud TV Show in June and a look behind the Complete Streets design elements of the North Washington Street Bridge in September. SEI Boston also held our biennial Lecture Series, a popular and long-standing tradition, of presenting a series of five lectures by prominent speakers in October. This year, the 24th Lecture Series, *Resilience and Sustainability for Structural Engineers*, included topics such as "Key Roles that Engineers Must Play in the Development and Integration of Future-Ready Infrastructure," "Offshore Wind and the Transition to Renewables," "Resilient Design-A New Paradigm in the High Performance Building Movement," "Building Performance and Design for Multi-Hazard Resilience," and "Current Efforts in Boston for Sea-Level Rise."

The current committee is comprised of structural engineers with a wide range of experience, and includes professionals with building, bridge, and academic backgrounds. The committee has steadily grown in recent years and currently has over 25 members. The size of the committee has allowed us to continue to

focus on our key functions through our subcommittees, which include:

- Lecture Series
- Programs
- Membership
- External Affairs

We are in the process of planning a number of events for the upcoming year which will include a joint event on High-rise Concrete Use with SEAMass, and a roundtable with the MBTA. So, keep an eye on the BSCES Events Calendar for more information on these upcoming events.

If you have a question regarding SEI Boston, want to attend an event, or get involved, please feel free to contact any member of the current executive committee leadership:

Michael Cruz, PE, Chair  
[mcruz@greenintl.com.com](mailto:mcruz@greenintl.com.com) or [sei@bsces.org](mailto:sei@bsces.org)

Brent Vollenweider, PE, LEED AP, Vice Chair  
[bvollenweider@thorntontomasetti.com](mailto:bvollenweider@thorntontomasetti.com)

Scott Brusco, PE, Secretary  
[brusos@wseinc.com](mailto:brusos@wseinc.com)

## Recent News and Updates

### BSCES Welcomes New Members

The BSCES Board of Government is pleased to welcome the following new members who joined BSCES during September and October 2019:

#### Affiliate:

Alexander Kiriakidis

#### Associate Member:

Stephen Delgrosso  
 Shawn Demeule, Parsons  
 Katherine Jennings, VHB  
 Matthew Head  
 Colin Milberg  
 David Morczinek, AirWorks  
 Stephanie Morris  
 Theresa O'Riordan

#### Member:

Wilfred Morin, PE  
 Michael Plumb, PE  
 Christopher Hendrix, PE  
 Alessandra Keller, PE

#### Student Members:

Behzad Abdinozari, University of Massachusetts Dartmouth  
 Justin Aguilar, Worcester Polytechnic Institute  
 Rohan Anisetti, University of Massachusetts Amherst  
 Alec Bacon, Northeastern University  
 Michael Barone, Tufts University  
 Clarice Barros, Wentworth Institute of Technology  
 Liam Bernier, University of Hartford  
 Wilson Bikaba, Arizona State University  
 Anthony Bilantuono, Northeastern University  
 Lauren Boehnert, Wentworth Institute of Technology  
 Peter Brown, Merrimack College  
 Sophia Calandrello, Worcester Polytechnic Institute  
 Jennifer Capistano, University of Massachusetts Lowell  
 Elana Chan, Tufts University  
 James Chang-Davidson, Northeastern University  
 Peter C Chea, University of Massachusetts Lowell  
 Yinduo Chen, Worcester Polytechnic Institute  
 Tyler Cierpich, Worcester Polytechnic Institute  
 Ryan F Coelho, University of Massachusetts Lowell  
 Tyler Cosma, Wentworth Institute of Technology

Miles T Cramer, University of Massachusetts, Lowell  
 Samantha T. Cripps, Texas A&M University  
 Michel Daher, Wentworth Institute of Technology  
 Paul P Dion, University of Massachusetts Lowell  
 Marino R Dipietrantonio, University of Massachusetts, Lowell  
 Benjamin Ditrollo, University of Massachusetts Dartmouth  
 Daniel Divecchia, Worcester Polytechnic Institute  
 Ashley Domogala, Northeastern University  
 Halley Douglas, Santa Clara University  
 Shane M Duarte, Roger Williams University  
 Steven Durocher, University of Massachusetts Lowell  
 Morgan Emery, Worcester Polytechnic Institute  
 Kate Engler, Northeastern University  
 Zachary Ferreira, University of Massachusetts Dartmouth  
 David Fisher, University of Massachusetts Lowell  
 Chase Gaudino, Worcester Polytechnic Institute  
 Katelyn Gendron, Northeastern University  
 Arixander Germosen, University of Massachusetts Lowell  
 Grant Gilbert, Worcester Polytechnic Institute  
 Jacqueline Girard, Purdue University At West Lafayette  
 Ian J Godcik, University of Massachusetts, Lowell



## Recent News and Updates *(continued from page 7)*

Andrew Golden, Purdue University At West Lafayette  
 John Gontowski, Northeastern University  
 Jelitza Gonzalez, University of Massachusetts Amherst  
 Graham Green, Northeastern University  
 Annika Han, Tufts University  
 Christina Heer, Rensselaer Polytechnic Institute  
 David Henao Rodriguez, Northeastern University  
 Derek Holmes, University of Massachusetts Lowell  
 Matthew Holt, University of Massachusetts Dartmouth  
 Jonathan R Hovor, University of Massachusetts, Lowell  
 Zichen Huang, Tufts University  
 Frederico Jardim, Wentworth Institute of Technology  
 David Hinkley, Jr, Worcester Polytechnic Institute  
 Sonam Katira, Northeastern University  
 Ryan Scott Kelloway, University of Massachusetts Lowell  
 Matthew Kibaru, University of Massachusetts Dartmouth  
 Wolfgang G Kirstein, University of Massachusetts Lowell  
 Geoffrey Klafeta, New Jersey Institute of Technology  
 Sarah Kwatinetz, Worcester Polytechnic Institute  
 Benjamin J Lee, University of Massachusetts Lowell  
 Grace E Leonard, University of Massachusetts Lowell  
 Ryan Leong, Rensselaer Polytechnic Institute  
 Nicholas A Leverone, University of Massachusetts Lowell  
 Justin Lin, Northeastern University  
 Ross Lipiner, Northeastern University  
 Heather Lohrey, Worcester Polytechnic Institute  
 Brendan Lombard, University of Vermont  
 Tamara Lord, University of Massachusetts Amherst  
 Andy Louissaint, Wentworth Institute of Technology  
 Taryn Lowe Ross, Northeastern University  
 Noah Lussier, University of Massachusetts Amherst  
 Christian J Maliyungu, University of Massachusetts, Lowell  
 Erin McCabe, Wentworth Institute of Technology  
 Keith Mei, University of Massachusetts Lowell  
 Laura Mogannam, Tufts University  
 Haley Morgan, Pennsylvania State University–University Park  
 Sean Mullin, University of Massachusetts Dartmouth  
 Zhamilya Nazrybayeva, Tufts University  
 Cameron Niemiec, University of New Haven  
 Isabela Oliveira Mahoney, Northeastern University  
 Declan Page, California Polytechnic State University, San Luis Obispo  
 Briana Pasache, Northeastern University  
 Edgardo Paz, University of Massachusetts Lowell  
 Hannah Perkins, Wentworth Institute of Technology  
 Julie Pham, Worcester Polytechnic Institute  
 Indianara Prates, Wentworth Institute of Technology  
 Cole W Radke, University of Massachusetts Lowell  
 Drew Rival, Northeastern University  
 Tiara C. Robinson, University of Massachusetts Lowell

Owen Ryan, Western New England University  
 Reza Salatin, Northeastern University  
 Andrew Salvatori, Worcester Polytechnic Institute  
 Thomas Scanlon, Northeastern University  
 Jared B Seligman, University of Massachusetts Lowell  
 David Shapkin, University of Hartford  
 Billy Somebane, University of Massachusetts Lowell  
 George Tzortzinis, University of Massachusetts Amherst  
 Rica Ueda, Northeastern University  
 Melody Veldorale, University of Massachusetts Dartmouth  
 Charles H Vo, University of Massachusetts Lowell  
 Jakob Wabrek, Virginia Military Institute  
 Zhen Wang, Northeastern University  
 April Weintraub, Tufts University  
 Maya Wilk, Western New England University  
 Owen J Williams, University of Massachusetts Lowell  
 Desmond Woodson, Worcester Polytechnic Institute  
 Joe-Yee Yip, Worcester Polytechnic Institute

### Renew Your 2020 ASCE and BSCES Membership Today!

By acting now to ensure your ASCE membership continues through 2020, you will be able to enjoy all your Society benefits and resources uninterrupted. Early renewal will enter you into drawings for Amazon.com gift cards. The earlier you renew, the more chances to win. [Click here](#) to renew and enter now. When renewing your ASCE membership, please don't forget to also renew your BSCES membership to continue to receive the numerous member benefits that BSCES has to offer.

### Call for Abstracts

The 2020 ASCE-EWRI International Low Impact Development (LID) Conference Steering Committee is looking for dynamic speakers to deliver innovative and informative educational talks to the EWRI membership and special guests attending the conference. Are you involved in a LID research effort that incorporates green infrastructure, sustainability, engineering or a related field, and want to share your ideas with your fellow engineers and academia? Your ideas may help with "Setting the Vision for the Next 20 Years!" [Click here](#) for more information including how to submit an abstract.

### Learn More About Your ASCE Member Benefits

ASCE has launched a variety of new and expanded benefits in 2019. Many are geared to helping young engineers get their careers off to good starts. These include:

**ASCE Career by Design**, an online portal with a variety of tips, resources, opportunities and member discussions.

**ASCE Mentor Match**, a tool that brings together mentors and mentees to develop workplace and technical abilities, find a proper work/life balance, resolve dilemmas and in the process perhaps even become friends.

**10 free PDHs**, a doubling of this member benefit to coincide with the recent doubling of the number of on-demand webinars available to earn those PDHs.

**Student Loan Refinancing**, an ASCE partnership with the online personal finance company SoFi that can reduce the payback burden by thousands of dollars.

### Apply for the \$10,000 Rossiter Family Scholarship by December 2nd!

The Rossiter Family Scholarship, made available through the generosity of Allen and Selina Rossiter, is offered for the benefit of women and minority students currently enrolled in an undergraduate or graduate program in civil or environmental engineering. This scholarship has a total value of \$10,000 which will be awarded to one eligible student this year.



## Upcoming Events

For more information and to register for events, please visit [www.bsces.org](http://www.bsces.org)

To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password.

If you do not know your BSCES member login information, call 617/227-5551.

### Tech Talk & Social

Sponsored by the Younger Member Group

**Wednesday, December 4, 2019**

AECOM, Boston, MA

5:30 PM – 8:00 PM

Speakers:

Marc Gabriel, PE, Nitsch Engineering

Brian MacDonald, PE, HNTB

Richard Prior, PE, AECOM

Buvana Ramaswamy, PG, CDM Smith

Join the BSCES Younger Member Group for a set of presentations from project managers working in the greater Boston area about unique and interesting projects followed by a Q&A. Topics will include: Transforming Campus Planning with Linear Asset Mapping, The South Coast Rail Project, Reconstruction of Route 6/10 Interchange, and Full-scale Loading Test at the MFN Regional Wastewater District Infiltration Basins for Assessing Maximum Capacity.

Please see the Insert at the end of this month's newsletter for further details.

### 2019 Executive Lunch Session

Sponsored by the Engineering Management Group and the Younger Member Group

**Thursday, December 5, 2019**

Kleinfelder, Boston, MA

11:45 AM – 1:30 PM

Speaker: Brian P. Sullivan, PE, President,

Tetra Tech Infrastructure Northeast

Gain insights into engineering leadership and business operations from Brian Sullivan, President of Tetra Tech INE. Mr. Sullivan will

offer insights on engineer career development, leadership, and management drawing from his experience and unique perspective leading nearly 200 engineers and architects in New England and New York.

This lunch program will include brief prepared remarks followed by a Q&A session. Bring your questions for Mr. Sullivan who can offer his insights and experience from a distinguished career as a regional and national engineering leader.

Please see the Insert at the end of this month's newsletter for further details.

### ASCE Webinars

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For a full listing of ASCE Webinars, [click here](#).

### Upcoming ASCE and Technical Institute Conferences

Register for one of these upcoming ASCE and Technical Institute Conferences today!

#### 2020 Construction Institute Summit

February 19–22, 2020, Los Angeles, CA

#### G-I Geo-Congress 2020

February 25–29, 2020, Minneapolis, MN

#### ASCE Week Orlando 2020

March 22–27, 2020, Orlando, FL

#### Structures Congress 2020

April 5–8, 2020, St. Louis, MO

#### World Environmental & Water Resources Congress 2020

May 17–21, 2020, Henderson, NV

### Suggest a Seminar Topic

Is there an engineering topic that you would like BSCES to feature in an upcoming seminar? If so, members of the BSCES Program Committee would like to hear from you.

Charged with developing technical training programs that address members' professional development needs, the Program Committee oversees the Society's National Highway Institute training, spring and fall Professional Engineer Refresher Courses and other topical workshops. If you have a technical topic that you would like the Program Committee to consider, send your suggestion to BSCES Program Committee Chair Jeff Lewis at [jlewis@garofaloassociates.com](mailto:jlewis@garofaloassociates.com) or BSCES Association Manager Rich Keenan at [rkeenan@engineers.org](mailto:rkeenan@engineers.org).

### 2019–2020 BSCES Sponsors

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## Classifieds



### University of Massachusetts Lowell Assistant Teaching Professor—Civil Engineering

The Department of Civil & Environmental Engineering at the University of Massachusetts Lowell (UMass Lowell) invites applications for an Assistant Teaching Professor position for the 2020-2021 academic year. Primary teaching responsibilities will include Capstone Design, Construction Management, and Introduction to Engineering. The successful candidate will also be involved in advising undergraduate students, service and outreach activities, and active participation in continuing efforts to improve the department's educational mission. The appointment is for 9 months starting in September 2020.

**Minimum Qualifications (Required):**

- Undergraduate and Master's degrees in Civil Engineering
- Registration as a Professional Engineer and relevant civil engineering design and construction management experience
- The ability to work effectively with diverse groups

**Preferred Qualifications:**

- Doctoral degree in Civil Engineering
- Record of successful teaching experience at the college level

**Special Instructions to Applicants:**

- This is a non-tenured teaching faculty position.

Review of applications will begin immediately and will continue until the position is filled. However, the position may close when an adequate number of qualified applications are received.

**[CLICK HERE](#)** TO LEARN MORE OR TO APPLY.

*The University of Massachusetts Lowell is an Equal Opportunity/Affirmative Action, Title IX employer. All qualified applicants will receive consideration for employment without regard to race, sex, color, religion, national origin, ancestry, age over 40, protected veteran status, disability, sexual orientation, gender identity/expression, marital status, or other protected class.*





YOUNGER MEMBER GROUP



Boston Society of Civil Engineers Section  
American Society of Civil Engineers



# TECH TALK & SOCIAL

**WHEN:** Wednesday,  
December 4<sup>th</sup>

5 PM Registration

6 PM Presentations  
& Dinner

**WHERE:** AECOM, 1  
Federal St., 8th Floor  
Suite 300, Boston, MA

**REGISTRATION FEE:**  
\$20 Member  
\$30 Non-Member  
\$15 Public Sector  
Member  
\$20 Public Sector  
Non-Member  
\$10 Student Member



## MARC GABRIEL, PE

PROJECT MANAGER, NITSCH: MARC HAS OVER 14 YEARS OF EXPERIENCE AS A CIVIL ENGINEER AND SPECIALIZES IN PROVIDING SUSTAINABLE STORMWATER MANAGEMENT.

**SPEAKING TOPIC:** TRANSFORMING CAMPUS PLANNING WITH LINEAR ASSET MAPPING  
THE USE OF LINEAR ASSET MAPPING ALLOWS CIVIL ENGINEERS TO CREATE A COMPREHENSIVE MAP THAT ALLOWS FACILITY PROFESSIONALS TO MAKE DATA-DRIVEN DECISIONS ABOUT INVESTMENTS AND MAINTENANCE FOR MORE EFFICIENT CAMPUS IMPROVEMENTS.



## BRIAN MACDONALD, PE

RAIL DEPARTMENT MANAGER, HNTB (MA): BRIAN HAS BEEN WITH HNTB FOR OVER 12 YEARS AND HAS BEEN IN THE RAIL CONSULTING INDUSTRY FOR OVER 24.

**SPEAKING TOPIC:** THE SOUTH COAST RAIL PROJECT  
THE SOUTH COAST RAIL WILL RECONNECT THE SOUTHERN REGION TO JOBS AND GENERATE ECONOMIC DEVELOPMENT. THE GROUNDBREAKING MARKED A SIGNIFICANT MILESTONE FOR SOUTH COAST RAIL, AS EARLY CONSTRUCTION PROJECTS ARE UNDERWAY FOR PHASE 1.



## RICHARD PRIOR, PE

VICE PRESIDENT, AECOM: RICHARD HAS 26 YEARS OF EXPERIENCE WITH A FOCUS ON MANAGING LARGE TEAMS OF ENGINEERS TO DELIVER FAST-PACED DESIGN/BUILD TRANSPORTATION PROJECTS.

**SPEAKING TOPIC:** RECONSTRUCTION OF ROUTE 6/10 INTERCHANGE  
THE INTERCHANGE SERVES AS A CRITICAL EAST-WEST REGIONAL LINK FOR TRAFFIC WITH NEARLY 100,000 VEHICLES/DAY. THE RECONSTRUCTION IS THE LARGEST DESIGN-BUILD PROJECT IN RIDOT HISTORY WITH A DESIGN CONSTRUCTION VALUE OF \$250 MILLION.



## BUVANA RAMASWAMY, PG

PROJECT MANAGER & GEOLOGIST, CDM SMITH: BUVANA HAS MORE THAN 20 YEARS OF EXPERIENCE IN PROJECT MANAGEMENT, ENVIRONMENTAL SCIENCE AND WATER RESOURCES WORK, INCLUDING GROUNDWATER MODELING; FATE AND TRANSPORT MODELING AND ANALYSIS; FIELD INVESTIGATIONS; WASTEWATER MANAGEMENT AND REUSE STUDIES; AND ENVIRONMENTAL MONITORING AT LANDFILLS AND HAZARDOUS WASTE SITES.

**SPEAKING TOPIC:** FULL-SCALE LOADING TEST AT THE MFN REGIONAL WASTEWATER DISTRICT INFILTRATION BASINS FOR ASSESSING MAXIMUM CAPACITY

## DESCRIPTION:

JOIN US FOR A SET OF PRESENTATIONS FROM PROJECT MANAGERS WORKING IN THE GREATER BOSTON AREA ABOUT UNIQUE AND INTERESTING PROJECTS FOLLOWED BY A Q&A.

REGISTRATION:

<http://bit.ly/>

**YMGTechTalk201**

Registration Fee Includes

Dinner. Space Limited,

Register Today! Registration

Deadline: Monday,

December 2, 2019

Cancellations received after

Monday, December 2, 2019

and no-shows will be billed.

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Department of Civil and Environmental Engineering, Northeastern University | Patrick Engineering | PMA Consultants, LLC | Simson Gumpertz & Heger  
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## 2019 Executive Lunch Session

**Brian P. Sullivan, P.E.**

*President – Tetra Tech Infrastructure Northeast (INE)*

**Thursday, December 5, 2019**

**Kleinfelder, One Beacon Street, Suite 8100, Boston, MA**

**11:45 am Registration**

**12:00 – 1:00 pm Lunch Presentation and Q&A**

**1:00-1:30 pm Networking Session**

Gain insights into engineering leadership and business operations from Brian Sullivan, President of Tetra Tech INE. Mr. Sullivan will offer insights on engineer career development, leadership, and management drawing from his experience and unique perspective leading nearly 200 engineers and architects in New England and New York.

This lunch program will include brief prepared remarks followed by a Q&A session. Bring your questions for Mr. Sullivan who can offer his insights and experience from a distinguished career as a regional and national engineering leader.

**Registration Deadline: Friday, November 22, 2019**

**Registration Fees \$25 Members, \$20 Public Sector Members**

**\$30 Non-Members and Public Sector Non-Members**

**\$10 Senior Members (65+) and Student Members**

### Information/Registration:

Register to attend this meeting and pay by credit card online at [bit.ly/BSCSEExecutiveLunch](http://bit.ly/BSCSEExecutiveLunch). To register online for an event at the BSCES member rate you must login using your BSCES assigned username and password. If you do not know your BSCES member login information call 617/227-5551. You can also register for this event by mail or email. To do so, download and complete a [BSCES Event Registration Form](#) and follow the submission instructions. Cancellations received after Friday, November 22, 2019 and no-shows will be billed.