

2021 - 2022 Branch Board

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A Message from the President

Fellow North Jersey Branch Members,

As COVID cases decline in number and severity, two years after the start of the pandemic, we are finally returning to in-person technical and social events. I am proud of the virtual technical presentations that we have been able to offer during this time but welcome the opportunity to meet with you face to face again.

My goal for this year was to strike a balance between both virtual and in-person events, and we are well on our way to achieving that. Although we had to pause in person events after our awards dinner, we were able to resume with an in-person event in March and have both virtual and in-person events planned for the spring. The virtual offerings afford us new flexibility and reach by hosting speakers from outside of the region to understand national issues that are still relevant to the North Jersey Branch membership.

I hope that you are taking advantage of our technical offerings for professional development hours, especially since NJ PE's are due for renewal this April. Remember your ASCE national membership also comes with 10 free PDHs.

ASCE NJB scholarship applications are now being accepted. We offer scholarships to graduating high school seniors, undergraduate college students and graduate students. Since college costs are ever increasing, if you know anyone interested, please have them apply. One of our recent scholarship recipients, Yanqing Liang of Stevens Institute of Technology, was selected as one of the 2022 ASCE Collegiate New Faces. We need to continue to help fund the next generation of civil engineers, especially with the need for infrastructure improvements that will be funded from the recent infrastructure bill and other sources.

The Infrastructure Investment and Jobs Act (IIJA), signed into law in November 2021, provides \$1.2 trillion for infrastructure projects over the next 5 years. IIJA is the country's largest investment in infrastructure in nearly a century and addresses all 17 categories in the ASCE 2021 Report Card for America's Infrastructure. IIJA includes a five-year, \$383 billion reauthorization of federal surface transportation, highway safety, transit, and rail programs - a 30% increase above the Fixing America's Surface Transportation (FAST) Act.

This once-in-a-generation investment in our roads, bridges, water and wastewater networks, ports, electric grid, dams, and more is a welcome start toward bridging the \$2.5 trillion infrastructure investment gap identified in the 2021 Report Card. In New Jersey we can expect to see new funding to improve the condition of New Jersey's infrastructure systems and better ensure our infrastructure is prepared for the future. Allocations for NJ include: Aviation, \$25 Billion; Bridges, \$40 Billion; Ports and Inland Waterways, \$17 Billion; Wastewater, \$1 Billion; and Dams, Over \$600 Million.

The next Infrastructure Report Card for NJ is currently underway. See page 6 for information on how you can help to assess the condition of NJ infrastructure and help shape future programs.

With respect to sustainable infrastructure, Anthony Kane, the Executive Director of the Institute for Sustainable Infrastructure (ISI) will be offering a presentation on the Envision Sustainability Rating System to the NJB on April 7. I have the Envision Sustainability Professional Certification and hope you can join the presentation to learn more about Envision. ASCE is one of the founding partners of ISI, which provides a holistic assessment of projects benefits and impacts.

Finally, our election of branch board and officers is approaching. If you are interested in serving on the board in any capacity, please let me or one the current board members know. There are many ways to help serve our profession.

All the Best,

James D. Heeren, PE, ENV SP, M.ASCE
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Upcoming Branch Events

Water Resources and Environmental Technical Group - Sustainable Infrastructure and the Role of Envision

Thursday, April 7, 2022 at 12:00 PM - 1:00 PM (Virtual Presentation via MS Teams)

Please RSVP by April 4 by visiting our website and registering online at:

<https://www.eventbrite.com/e/sustainable-infrastructure-and-the-role-of-envision-tickets-292672550477>



Envision is a holistic sustainability framework and rating system that enables a thorough examination of the sustainability and resiliency of all types of infrastructure. Anthony Kane, ENV SP, Executive Director of the Institute for Sustainable Infrastructure will discuss Envision providing a brief introduction to its origins, organization, and underlying concepts as well as the benefits of using Envision and its current application in the industry.

Utility Engineering and Surveying Institute –
Integration and Interoperability of Data Associated
with GIS, SUE, DIGGS, CAD, and BIM

Thursday, May 19, 2022 at 5:30 PM (Dinner
Presentation, DoubleTree, Fairfield, NJ)



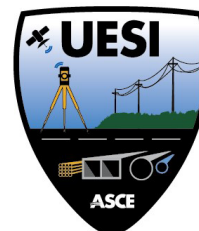
**UTILITY ENGINEERING
& SURVEYING
INSTITUTE**

**New Jersey
Chapter**

Past Branch Events

UESI Virtual Seminar – New Road Contracts 1-3 Jersey City Best Practices –
November 10, 2021

On November 10, 2021, the NJ Chapter of the Utility Engineering and Surveying Institute (UESI) presented a virtual seminar about the “New Road Contracts 1-3 Jersey City Best Practices”. Luis Gaitan, PE of HNTB presented to over 50 attendees about this portion of the Portway program collaboration between the NJ Department of Transportation and Port Authority of New York and New Jersey. As part of the project, three separate contracts were required to construct more than two miles of new roadway designed specifically to receive increased truck traffic brining relief to Tonnelle Avenue. The project had a wide range of complex aspects associated with over 30 utilities, railroads and stakeholders.



**UTILITY ENGINEERING
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**New Jersey
Chapter**

Geotechnical Technical Group Virtual Seminar – Reinforced Soil Slope (RSS) at Yeager International Airport – December 9, 2021

The Geotechnical Technical Group presented a virtual seminar entitled Reinforced Soil Slope (RSS) at Yeager International Airport by Dr. James G. Collin, P.E. of The Collin Group, Ltd on December 9, 2021. This webinar presented an overview of the construction of a 220 ft. high Reinforced Soil Slope (RSS) at Yeager International Airport. After seven years in-service, a tension crack was observed at the top of the slope and in March 2015 this RSS structure catastrophically collapsed. Over 50 people attended to learn about the forensic investigation performed, the causes of the failure, and lessons learned.

Transportation Technical Group – Monmouth County Bridge W-43 – January 20, 2022

On January 20, 2022, the Transportation Technical Group collaborated with the American Society of Highway Engineers (ASHE) North-Central NJ Section for a virtual presentation about Monmouth County Bridge W-43. The subject bridge is a 339 feet long dual leaf bascule span movable bridge crossing the Shark River between of Avon-by-the-Sea and Belmar. Joseph R. Strafaci, PhD, PE of HNTB Corporation discussed the design method utilized to successfully underpin the trunnion and pinion supports, challenges encountered during construction, and the original causation of the repair.

SEI Virtual Structural Seminar – Emerging Developments in Performance- Based Structural-Fire Engineering - February 17, 2022

On February 17, 2022, the North Jersey Chapter of the Structural Engineering Institute (SEI) presented a virtual Structural Seminar by Dr. Spencer Quiel, Associate Professor of Structural Engineering at Lehigh University entitled Emerging Developments in Performance-Based Structural-Fire Engineering. Nearly 40 people attended this event regarding the increased use of performance-based provisions for the design of structures to resist unwanted fire rather than prescriptive methods, which are the current state-of-practice in the US. Dr. Quiel discussed the performance-based methods which examine the changes in demand and capacity that occur as a structural member is heated while also considering the effects of its connection to the surrounding structure. The presentation compared the current state-of-practice with emerging methods in performance-based design, which are now included in Appendix E of ASCE 7-16 and ASCE's new Manual of Practice 138.



**STRUCTURAL
ENGINEERING
INSTITUTE**
**North Jersey
Chapter**

COPRI Technical Dinner Seminar – Hurricane Wind Wave Climate Change Along the New Jersey's Barrier Islands – March 3, 2022

On Thursday, March 3, 2022, the North Jersey Branch chapter of Coasts, Oceans, Ports, & Rivers Institute (COPRI) hosted our first in-person technical dinner seminar in 2 years at the DoubleTree in Fairfield. Reza Marsooli, Ph.D., Assistant Professor in the Department of Civil, Environmental, and Ocean Engineering at Stevens Institute of Technology presented Hurricane Wind Wave Climate Change Along the New Jersey's Barrier Islands. Dr Marsooli is also an active member of the ASCE Central Jersey Branch, where he is currently President-Elect. Dr Marsooli presented the results of a research project that quantifies the response of extreme wave hazards along the New Jersey's barrier islands to hurricane climate change and sea level rise under a high emission scenario. Over 35 attendees gathered to network, reconnect, dine, and enjoy the informative presentation.



**COASTS, OCEANS,
PORTS & RIVERS
INSTITUTE**
**North Jersey Branch
Chapter**

Younger Member Group (YMG) Roundup

YMG Board 2021-2022

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<https://www.facebook.com/ascen-jb-ymg>

Upcoming YMG Events:

Happy Hour / Networking Event
(Egan and Sons – 116 Walnut St. Montclair, NJ)
March 17, 2022

Engineering Your Mind Workshop (Virtual)
March 23, 2022
<https://www.eventbrite.com/e/ascen-jb-ymg-engineering-your-mind-workshop-tickets-288094758177>

Practice PE/FE Exam (Virtual)
April 16, 2022

School 8, K-12 Outreach (Clifton, NJ)
April 2022

Career Carnival for Kids, K-12 Outreach
(Rockaway, NJ)
May 7, 2022

Past YMG Events

Career Carnival for Kids – October 24, 2021 (Roxbury, NJ)

On Sunday, October 24th, Parth Rana and Muhammad Akhtar attended Career Carnival for Kids in Roxbury, NJ. At this event, our members presented their popular Roadway in a Cup activity, in which children of all ages were able to learn and model the various materials that are required for roadway engineering. In addition, students were provided with a live drone demonstration, in which the team explained the civil engineering applications such as site inspection and mapping.





NJIT Resume Reviews – November 3, 2021

A resume review event was held for the NJIT ASCE student chapter. The YMG teamed up with the Young Alumni Association of NJIT for this in-person event! Three industry professionals and alum of NJIT, Christopher Hanna, PE, M.ASCE, Elizabeth DeCarlo, PE, M.ASCE, and Patrick Natale, PE, Dist.M.ASCE (former Executive Director of ASCE national), presented their tips to writing resumes and interviewing. Students then had the opportunity to meet one on one with these professionals where their resumes were reviewed and they were provided with feedback.



Fairleigh Dickinson University: Interview Tips – November 3, 2021

ASCE NJB YMG joined forces with FDU's Engineering Career Development team on an interviewing tips night for FDU's CIAP candidates. FDU Practitioner Advisor Matthew Travilla, with the help of two former ASCE student chapter presidents, discussed ways to prepare for their Construction Industry Advancement Program interviews, including attire, questions to expect, and questions to ask interviewers.

Happy Hour / Networking Event – November 17, 2021 (Chico's in Denville, NJ)

ASCE NJB YMG hosted a happy hour at Chicos in Denville, NJ in November. There were civil engineers from various construction and consulting firms and for many who attended this was the first opportunity to reconnect in person since the start of the pandemic. There were some familiar faces, but many newcomers as well!

Engineers Week at Great Meadows Middle School (6th to 8th Grades) – February 23 & 24, 2022

ASCE NJB YMG celebrated Engineers week with Great Meadows Middle School. On February 23 and 24, Parth Rana, Juan Alfonso, Josh Liviapoma, Muhammad Akhtar, and George Hollerbach presented to the 6th through 8th grade classes on the career path to becoming a civil engineer, as well as sharing personal experience and responsibilities. Although this was a virtual event, our members were able to interact with students and answer additional questions. Thank you to our members and Mrs. Roth for organizing the event.



Engineers Week 2022

Engineers Week 2022 has just concluded, but ASCE will continue to celebrate engineers all year long. ASCE NJB encourages everyone to celebrate engineering more than just one week a year -- help us to promote our profession by imagining tomorrow and how engineering can make a difference.



Volunteer Opportunities

Nominations Open for Branch Leadership Opportunities

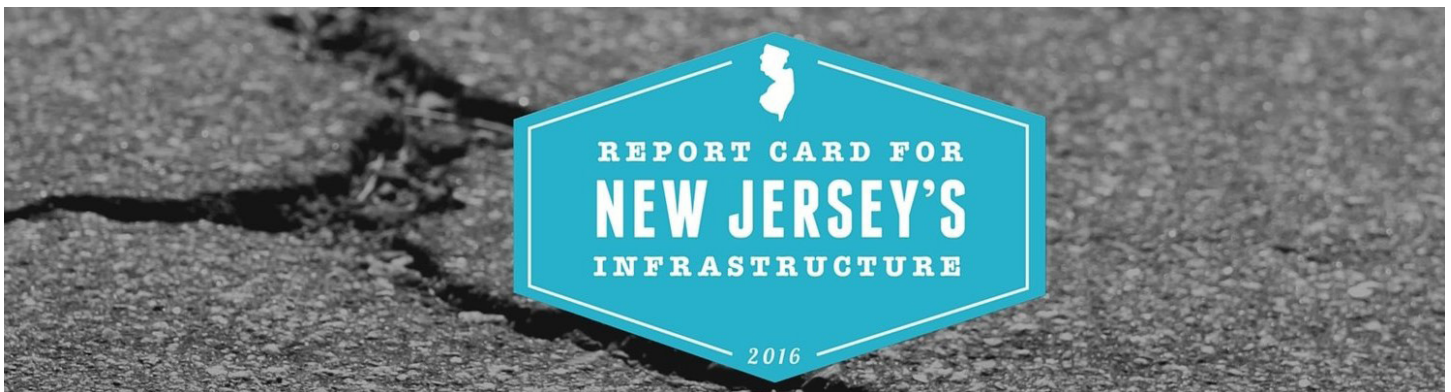
ASCE North Jersey Branch is seeking volunteers interested in serving on the Board of Directors. If you want to become more involved in the North Jersey Branch, please contact us to learn more! Nominations are now open for all positions except President. Available positions include: Director, Secretary, Treasurer, Vice President, and President-Elect.

To learn more about what is involved in being on the NJB Board or to express interest, please contact Christopher Hanna at president-elect@ascenj.org. Nominations are open through early April 5, 2022 (submit nominations to Christopher Hanna at the email above). Ballots will be sent by email in April and the new Board will be sworn in at the Awards Dinner in the fall.

We are always looking for volunteers! Join the board, or just give us a hand at an event. Come say hi, don't be shy!

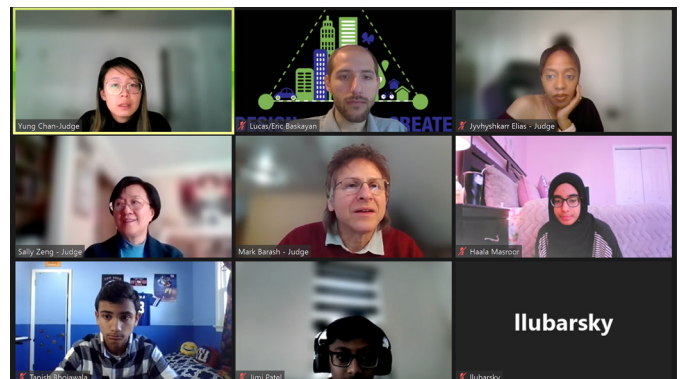
NJ State Report Card

The ASCE New Jersey Section is looking for volunteers to get involved in researching, promoting, and preparing the next NJ Infrastructure Report Card. Please contact Christopher Hanna for more information or if you are interested in participating: jerseyengineer@gmail.com.



Future Cities 2022

The New Jersey Future City Competition returned for a second virtual year of judging! This year's theme was a waste-free city, with teams from all over the state competing in a quest to design and build the best Future City without any form of waste. As they adapted to the virtual format, 33 teams of 6th, 7th, and 8th grade students competed for the grand prize of 1st place and the opportunity to represent all of New Jersey in the National Competition. This year's winners were Team Nystarleg from Iselin, NJ.



North Jersey Branch Scholarships

SCHOLARSHIP APPLICATIONS DUE APRIL 29

www.ascenjb.org/applications

ASCE North Jersey Branch awards scholarships to high school and college students in the field of Civil Engineering. In 2022, the Branch plans to award \$20,000 of scholarships. Please encourage qualified students to apply! Applications and more information are available on our website at ascenjb.org/applications.

2022 Family Member Scholarship

The North Jersey Branch will award a scholarship to a child or grandchild of a member of the ASCE North Jersey Branch currently pursuing a Civil Engineering undergraduate degree. The scholarship will be awarded to a college junior who demonstrates strong academic and extracurricular achievement.

2022 Graduate Scholarship

The North Jersey Branch will award a scholarship to a qualified graduate student who demonstrates academic and extracurricular achievement. The scholarship is for a student who is a member of the North Jersey Branch of ASCE and is enrolled in a graduate level civil engineering-related program. The student must continue in their engineering-related graduate studies for at least one year after being awarded the scholarship. Previous recipients of this scholarship are not eligible.

2022 College Scholarship

The North Jersey Branch has three affiliated colleges/universities in the North Jersey area that have ASCE student chapters or clubs:

- New Jersey Institute of Technology
- Stevens Institute of Technology
- Fairleigh Dickinson University

The North Jersey Branch will award scholarships to qualified students who demonstrate academic and extracurricular achievement. Scholarships are awarded to juniors who attend any of the three affiliated institutions listed above. The junior must be in a civil engineering curriculum and should be in the next to last year of their degree program.

2022 High School Scholarship

The North Jersey Branch will award a scholarship to a high school student who intends to pursue a Bachelor's degree in Civil Engineering or an Associate's degree in Civil Engineering Technology. The student must be a high school senior who resides in the jurisdiction of the North Jersey Branch, namely Sussex, Warren, Morris, Passaic, Bergen, Essex, Union, or Hudson County. The senior must intend to graduate from high school in spring 2022 and must have applied to schools that offer an ABET-accredited Civil Engineering or Civil Engineering Technology program.



Branch Award Nominations

Branch Award Nominations Opening Soon

Shine the spotlight on your colleagues and peers by nominating them for the recognition they deserve. ASCE North Jersey Branch will soon be seeking nominations for its Annual Awards, including:

- Civil Engineer of the Year
- Government Engineer of the Year
- Educator of the Year
- Service to the People
- Project of the Year
- Young Civil Engineer of the Year
- Excellence in Journalism

The nomination form will be available on our website and in the next issue of this newsletter. Awards will be presented at the Annual Awards Dinner, tentatively planned for September 2022. For more information about awards, please visit our website at www.ascenjb.org.



Yanqing Liang of Stevens Institute of Technology, one of ASCE NJB's 2021 scholarship recipients, was selected to be one of the 2022 ASCE New Faces of Civil Engineering – College! This award recognizes and celebrates future leaders for their academic excellence and commitment to serving others. Congratulations Yanqing!

The selection was made by a panel representing several groups within ASCE including the Committee on Student Members, Committee on Younger Members, MOSAIC, and the National Engineers Week/DiscoverE Committee. Yanqing is being featured on the ASCE website and various other ASCE and nationwide media outlets, and we encourage you to celebrate her accomplishment locally as well.



Congratulations to ASCE's 2022 New Faces of Civil Engineering - Professional Division! To meet this year's honorees, visit <https://www.asce.org/career-growth/new-faces-of-civil-engineering>



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