ASCE NATIONAL CAPITAL SECTION

eNewsletter

National Capital Section

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2021 ASCE-NCS Annual Awards Virtual Celebration

Celebrate our Region's Outstanding Projects and People

By Jameelah M. Ingram, P.E., M. ASCE, ASCE-NCS Vice President

On Tuesday, March 23rd, the National Capital Section (NCS) will gather virtually to celebrate our region's outstanding projects and people. This signature event is an opportunity to recognize and celebrate local excellence in projects, engineers, and students who have contributed to our profession and our community. The importance of community is especially magnified this year, as the world learned to pivot in the pandemic's uncertain times. Please join us on Tuesday evening to celebrate accomplishments; thank members for immeasurable service to the community; and be inspired by award recipients and special guests!

Recognized parties include the ASCE-NCS Outstanding Civil Engineering Project; Sustainable Project of the Year; Meritorious Service and Community Service Award Winners; NCS Member Achievement of Life Member or Fellow status; NCS Student Scholarship Award Recipients; and Outstanding Graduating Seniors from local civil engineering universities. The universities in our Section include Catholic University of America, George Mason University, George Washington University, Howard University, and the University of the District of Columbia. In addition, ASCE NCS will recognize Regional and National award winners from the National Capital Section.

This year's virtual celebration will feature a keynote address by Avery Bang, President and CEO of Bridges to Prosperity (B2P). *Hint: Consider watching (or rewatching) the IMAX film "Dream Big: Engineering Our World" to become familiar with the amazing ways Avery and B2P engage in service to communities throughout the world!*

ASCE-NCS is excited to welcome all on March 23rd at 6:30 pm for this online festivity! Registration details will follow.

About Bridges to Prosperity

Bridges to Prosperity (B2P) works with isolated communities to create access to essential healthcare, education, and economic opportunities by building and advocating for rural transport infrastructure, and more specifically trailbridges, to allow access over impassable rivers. We have directly built more than 350 trailbridges in 21 countries through partnerships with local governments that have provided safe, affordable, year-round connection for over 1.2 million rural residents. B2P is in the midst of a five-year endeavor to meaningfully advance the global prioritization and resourcing of rural transport infrastructure.

Please join us virtually on **Tuesday, March 23rd** from 6:30 pm to 8:00 pm for a virtual celebration of our Annual Awards! The program will approximately consist of the award recipient announcements followed by a keynote speaker in a webinar format. This event will be free for all members, non-members, and students. For questions, please contact president@asce-ncs.org. Please **click here** to register by **Monday, March 22nd**.

About the Speaker

Avery Bang is the President and CEO of Bridges to Prosperity (B2P), a social enterprise that provides isolated communities with access to essential health care, education, and economic opportunities by building footbridges over impassable rivers. Under her leadership, B2P has connected over one million people around the world, while being recognized as one of the top 10 social enterprises in the world by Classy.

Avery was named one of ENR's Newsmakers; was selected as one of American Society of Civil Engineers (ASCE) top ten engineers under 30 and later received the prestigious ASCE

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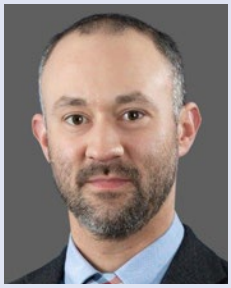
President's Corner



In the month of March the NCS will be continuing our tradition of celebrating our Students and other awards recipients at our Annual Awards Banquet. The Awards Banquet will look a bit different this year and will be held in a virtual format due to the ongoing pandemic, but nonetheless we'll still be taking the opportunity to highlight members and projects throughout our section. We have five local university student chapters located within the NCS, and we'll be presenting Outstanding Student Awards and various scholarships to students from each of our university chapters. In addition to the student awards, we'll be highlighting Project of the Year, Sustainable Project of the Year, as well as recognizing some of our volunteer members. I would encourage the NCS membership to attend this year's Awards Banquet to help honor our awards and scholarship recipients.

Moving forward into the spring and early summer, a bulk of the NCS events will likely remain virtual based on guidance ASCE has provided at the Society level. Notwithstanding the NCS will continue to hold Virtual Section Meetings (lunchtime presentations) through May; please keep an eye out to email announcements for the April and May Section Meetings, as well as various committee activities.

Please feel free to reach-out at president@asce-ncs.org about ASCE NCS related activities, or if you have an idea for a potential future event or activities. I hope everyone is safe during these trying times, and I can't wait until we can once again all meet in person!

Mike Venezia, PE
ASCE-NCS President

2021 ASCE-NCS Annual Awards Virtual Celebration

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President's Medal. She was featured in the IMAX film Dream Big and has spoken on stages ranging from TED to the UN. She has been recognized with the coveted Mulago Foundation Rainer Arnhold Fellowship and the GLG (Gerson Lehrman Group) Social Impact Fellowship and is a member of the Young Presidents' Organization (YPO), Aspen chapter.

Avery is a Distinguished Alumni of The University of Iowa, where she completed degrees in Studio Art and Civil Engineering, and The University of Colorado at Boulder where she completed a MSc in Geotechnical Engineering. She earned an MBA from The University of Oxford, where she was nominated by her peers as a graduation speaker, and she received an honorary doctorate degree from Clarkson University. ■

Upcoming Events

Until further notice, all in-person ASCE NCS events have been cancelled. Opportunities for virtual events will be announced as they are planned.

Newsletter

Maria Raggousis, *Editor*

April 2021 Issue Deadline: March 22, 2021

To Submit Articles: newsletter@asce-ncs.org

NCS eNewsletter Archives: go to www.asce-ncs.org and view along the sidebar.

Address Changes: Call 1-800-548-ASCE, e-mail member@asce.org, visit www.asce.org, or write: ASCE – Membership, 1801 Alexander Bell Drive, Reston, VA 20191. Include your membership number.

National Capital Section

Officers (2020–2021)

Committee Chairs

Please refer to the NCS website for a current list of NCS committees and chairs.

Virginia Centennial Celebration – ASCE Serving the Commonwealth Since 1922

In 1922, a group of Virginia Civil Engineers obtained approval from ASCE to establish the Virginia Section. The Objective, the "Advancement of engineering knowledge and practice, the cultivation of friendly relations with all engineers, the maintenance of high professional standards, and cooperation with other societies, with a view of promoting the general welfare of the engineering profession and the American Society of Civil Engineers." Therefore, in 2022, the Virginia Section will be celebrating one-hundred years of serving the civil engineering needs of the profession and the public in the pursuit of this Objective. Since the Section originally included all of the Commonwealth, to honor this historic support for all Virginia civil engineers, a decision was made to include all Virginia civil engineering accomplishments in the Celebration. Therefore, the Virginia counties in the National Capital Section's (NCS) membership area are invited to be a part of this Centennial Celebration.

One of the first actions of the Centennial Committee was to develop the logo shown above. The Committee also has actions under way to develop a Centennial Pamphlet that can be used as a handout when members are presenting the benefits of pursuing Science, Technology, Engineering, and Math (STEM) to schools and career fairs across the state, including those in the NCS. Also, under development, an interactive map showing ASCE National Historic Civil Engineering Landmarks (NHCEL) and other significant civil engineering projects across the Commonwealth for use by teachers and parents to show future engineers our accomplishments and what we do as civil engineers.

The key event in the Virginia Section's Celebration will be a Centennial Gala. The Section plans to host the Gala at the Omni Richmond on Saturday, March 26, 2022. They have already reached out to the 2022 ASCE President to be our keynote speaker. Plans are still being developed, but they will include a Celebration dinner; keynote speaker; and awards given to ASCE Members, supporting companies, and outstanding civil engineers in the public, private, and education sectors. Since the Gala celebrates all civil engineers in Virginia, NCS members in Virginia are also invited to attend this once-in-a-hundred-year event. So, mark your calendar for March 26, 2022. You do not want to miss this opportunity to honor our profession while we celebrate and socialize with other civil engineers and supporters from across the Commonwealth of Virginia.

The Virginia Centennial logo used the Fink Deck Truss Bridge, an ASCE NHCEL, in Lynchburg, Virginia as an excellent example of historic civil engineering and a true representation for the Centennial Celebration. Below are photographs of the Fink Deck Truss Bridge in Lynchburg's Riverside Park.

As an early Centennial action, the Virginia Section installed a new plaque in coordination with Nelson County Parks and Recreation at the Crozet Tunnel (another NHCEL). This plaque was unveiled in September 2020, but due to COVID-19, attendance was limited to Virginia State Officials only. Therefore, the Virginia Section will be holding a dedication ceremony this year when ASCE members from across the state can attend. As shown in the photographs below, the plaque is mounted on a pedestal with stonework reminiscent of that used for the tunnel.

Borrowing from the NCS's Centennial in 2016, Virginia is planning a Centennial Celebration boat tour of the bridges and other civil engineering projects in the Virginia Tidewater area, providing an opportunity for ASCE members to bring their next generation of civil engineers and family to learn how our profession has served the public for the

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Virginia Centennial Celebration – ASCE Serving the Commonwealth Since 1922

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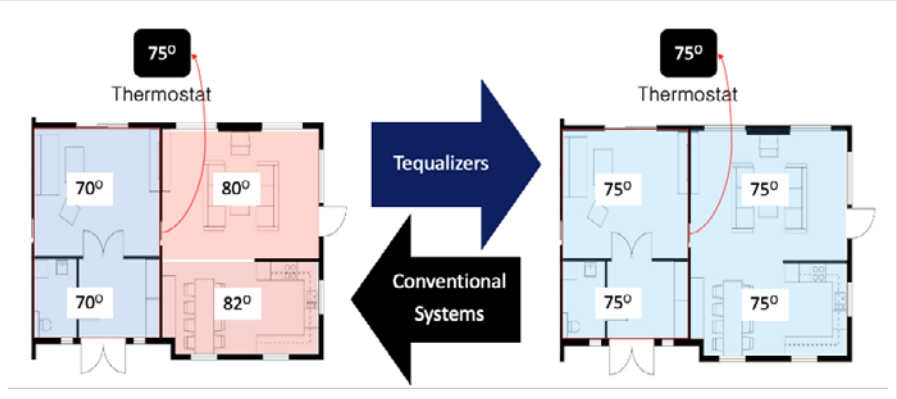
last hundred years. The Virginia Section will also be hosting tours at other ASCE landmarks across the state using the interactive map that will have historical photos and write ups of the projects. In addition, historical information and photos collected for the Centennial will be posted on the Virginia Section's website, similar to what is still posted on the NCS's Centennial webpage. All Civil Engineers in Virginia should be looking forward to this Celebration, and this once-in-a-hundred-year opportunity to not only recognize those civil engineers that have gone before us but to also inspire the next generation of civil engineers through the STEM Centennial Pamphlet, interactive map, and Centennial tours. ■

Dr. Z's Corner

TEQUALIZER: Reinventing HVAC Vents Using Artificial Intelligence (AI)

On a nice Sunday back in 2019, three friends, all engineers and scholars, were enjoying brunch together in a local restaurant, and one of them started complaining about temperature differences across rooms in their houses and workplaces. Instantly, all of them agreed on the problem, started sharing their individual experiences and stories with each other. In the end, they decided to team up to reinvent new HVAC vents through transdisciplinary research.



Problem

Problem

HVAC (Heating, Ventilating, and Air Conditioning) systems are engineered to be integrated into our infrastructure to provide us with a comfortable indoor environment. An HVAC thermostat allows us to choose a desired level of temperature in the associated HVAC zone. In real applications though, we often stay in an HVAC zone with varying temperature across rooms. This is because of several reasons including, but not limited to, the specific activity occurring in each room, the natural environment of each room (e.g., the directions and sizes of windows), the equipment operating in each room, and the distance of each room's vents from the HVAC. Therefore, even if the temperature at the location of the thermostat is maintained within a comfortable temperature range as set, individual rooms can have large deviations in air temperature, creating an uncomfortable indoor environment or incurring wasted energy in heating and cooling.

Suppose that there are two rooms (A and B) in an HVAC zone with the thermostat located in Room A. Further suppose that, while the HVAC is running, Room A reaches the set temperature sooner than Room B. Because the thermostat is in Room A, the HVAC stops running – Room B is still uncomfortable. On the other hand, if the thermostat is installed in Room B instead, the HVAC would continue to run based on the air temperature of Room B, overheating or overcooling Room A. Micro HVAC zoning is mostly prohibitive due to cost, complexity, and a variety of other reasons (e.g., rental properties or businesses in commercial buildings).

Approach

Such limitations of conventional HVAC systems led some businesses to the invention of smart vents in recent years. However, existing smart vents are complex to set up and use, not adequate for commercial buildings, and require additional devices, such as smart thermostats, additional sensor

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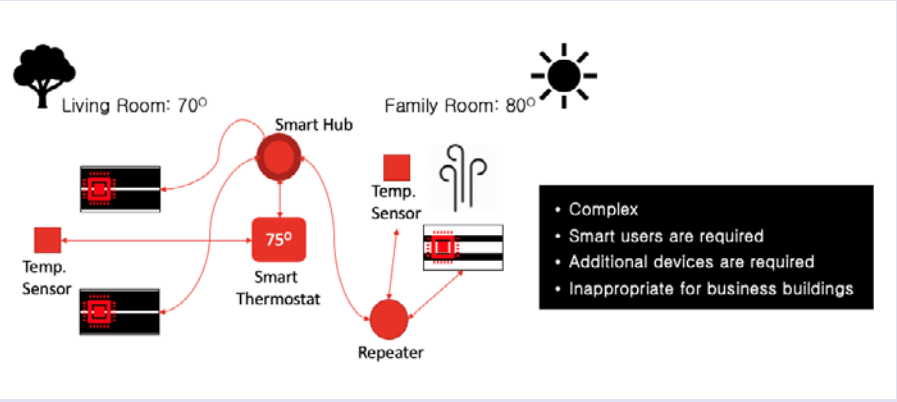


Approach

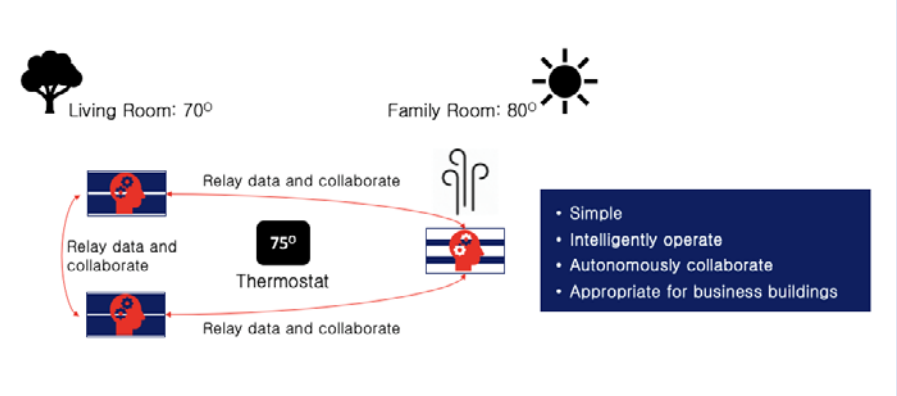
Dr. Z's Corner, continued

modules, and smart hubs. Therefore, they are not scalable and not applicable to a wide spectrum of customers.

By combining modern technological advancements made in computer science and information technology, we can design more intelligent HVAC vents that can do more for the convenience of human users, ideally providing a "simply drop-in & forget" solution that requires no additional devices or complicated human involvements. In particular, recent advancements in Artificial Intelligence (AI), Internet of Things (IoT), and tiny embedded computers, combined with the increasingly faster data communications and cloud computing, enable us to devise a new human-centered approach in reinventing HVAC vents. Such HVAC vents should be able to improve the quality of our indoor living environment while saving energy, all in a human-friendly and cost-efficient way.

Prototype

Through our interdisciplinary research, we have developed a new type of HVAC vents that we call Tequalizer (a short for Temperature Equalizer). We designed Tequalizer to be an energy-efficient and human-centered solution for making the temperature set on a central HVAC thermostat to be the actual temperature everywhere inside the HVAC zone.



Prototype

Here, the key idea is to embed an AI (Artificial Intelligence) and sensors into each vent to enable them to autonomously collaborate, sense, and share their local environment with each other. Tequalizer vents actually register and collaborate in real time with each other to collectively control all dampers in such a way that the heating/cooling is dynamically redirected among the vents to reach and maintain uniform temperatures across rooms. A provisional application for patent has been submitted.

Co-authored by Byunggu Yu, Ahmet Zeytinci, and Junwhan Kim

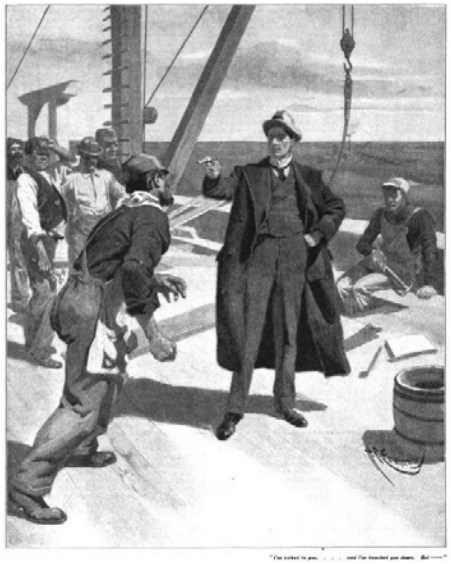
The Abridged Calumet "K": Episode 5

The fascinating novel Calumet "K" by Samuel Merwin and Henry Webster was published in 1901. Its hero? An efficacious engineer.

Since his first day on the job the attitude of the men had worried Bannon a little. There was something in the air he did not like. Peterson, accustomed to handling smaller bodies of men, had made the natural mistake of driving the very large force employed on the elevator with much too loose a rein. The men were still further demoralized by the episode with the walking delegate, Grady, on Thursday night. Bannon knew too much to attempt halfway measures, so he waited for a case of insubordination serious enough to call for severe treatment.

In the office about the middle of Saturday morning, Miss Vogel handed Bannon two letters. The one from Brown stated that Page & Co. were fighting to break the corner in December wheat. To do so, they needed to store 22,000 bushels of wheat in Calumet K before January 1, no matter what the cost. The other from Sloan advised Bannon that the remainder of the cribbing would be in Chicago within a week. Bannon got up, buttoned his coat and said to Miss Vogel, "Well, I've got to go out on the job."

An elevator is a giant warehouse of bins to store grain. The cupola, which Bannon was about to frame, is a five-story building perched atop the bins to house machinery to weigh and distribute the grain. When Bannon climbed out on top of the bins, he found carpenters preparing the flooring for the cupola framework. Below the bins, like bees in a honeycomb, laborers were taking



"I've talked to you," he said, "and I've knocked you down. But..."

down scaffolding that had been used to build the bins. At the south of the building, a group of laborers was rigging a boom hoist to lift timbers for framing the cupola.

While Bannon stood watching, one of the carpenters sawed off the end of a plank and dropped it down into the bin. There was a low laugh, and one or two of the men glanced uneasily at Bannon. He spoke to the offender. "Don't do that again if you want to stay on this job." Then: "Look here," he called, getting the attention of all the carpenters, "every-man that drops anything into the bins gets docked an hour's pay. If he does that twice, he leaves the job just as quick as we can make out a time-check. I want you to be careful."

He was picking his way over to the group of men about the hoisting pole, when a fellow named Reilly, who, trying to suppress a smile, was peering with mock concern down into the dark bin. "My hammer slipped," Bannon heard him say in a loud aside to the man nearest him. Then, with a laugh: "Accidents will happen."

"I guess we won't take the trouble to dock you," Bannon said. "Go to the office and get your time." "Not me. My hammer just slipped. How're you going to prove I meant to do it?" "I'm not. You ain't laid off, you understand; you're fired." "You don't dare fire me," the man said, coming nearer. "You can't come it on the union that way." Then, without any preparatory gesture whatever, Bannon knocked him down. The man seemed to fairly rebound from the floor. He rushed at the boss, but before he could come within striking distance, Bannon whipped out a revolver and dropped it level with Reilly's face. "I've talked to you," he said slowly, his eye blazing along the barrel, "and I've knocked you down. But..." The man staggered back, then walked away very pale, but muttering. Bannon shoved back the revolver into his hip pocket. "It's all right, boys," he said, "nothing to get excited about."

Bannon called Pete and Max to office and showed them the letter from the

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The Abridged Calumet "K": Episode 5

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office. At the current pace of work he estimated 120 days to complete the job. "That takes us to March 1," said Max. "You haven't divided by three yet," said Bannon. "We'll get three eight-hour days in 24-hours, and 21 of 'em into every week." "Why, that gets us two weeks ahead of time," said Pete. "I'm figuring on it as our hard luck margin. We'll have a strike here and Page & Co. are likely to spring something on us before we get through," said Bannon.

Five minutes after the noon whistle blew, on Saturday, every carpenter and laborer knew that Bannon had "pulled a gun" on Reilly. And every man, during the afternoon, kept his eyes more closely on his work. Some were angry, but these dropped from muttering into sullenness; the majority were relieved, for a good workman is surer of himself under a firm than under a slack hand; but all were cowed. And Bannon knew too, that the incident might in the long run make trouble. But trouble was likely in any case, and it was better to meet it after he had established his authority than while discipline was at loose ends.

One morning, after dictating letters to Hilda, Bannon asked, "You haven't been on the job yet, have you?" "No, I haven't." "Now that we're framing the cupola, the view ain't bad," he went on, "when you get up there. You can see down into Indiana, and all the way around." "Why Mr. Bannon," she said; I'd like to go very much."

As Bannon reached the elevator and began to climb the ladder, halfway up he met Max, who was coming down, time-book in hand. "I've asked your sister to come up and see the framing," said Bannon. Max glanced down at the loose boards on the landing. "I don't know," he said, "I don't believe she could climb up here very well." "She won't have to. You're going to build a passenger elevator between now and thee o'clock that's big and strong enough to carry her." Max grinned. "Say, that's alright. She'll like that. I can build most of it at noon.

Bannon inspected the "elevator" and the tackle that would carry it up, soon after the afternoon work started. "You better go for your sister," said Bannon.

"Well, Miss Vogel, how do you like it?" asked Bannon after they reached the top. She was looking eagerly about; at the frame, a great skeleton of new timber, some of it still holding so much of the water of river and millyard that it glistened in the sunlight; at the moving groups of men; at the straining hoist, trembling with each new load that came swinging from somewhere below, to be hustled off to its place, stick by stick; and then out into the west, where the November sun was dropping, and around at the hazy flats and the strip of a river. She drew in her breath quickly and looked up at Bannon with a nervous little gesture. "I like it," she said.

The next day a lot of cribbing came from Ledyard, and Bannon at once set about reorganizing his forces so that work could go on night and day.

It took a few days to get the new system running smoothly – new carpenters and laborers had to be taken on, and new foremen worked into their duties – but it proved to be less difficult than Max and Hilda had supposed from what Peterson had to say about the conduct of the work. The men all worked better than before; each new move of Bannon's seemed to infuse more rigor and energy into the work; and the cupola and annex began rapidly, as Max said, 'to look like something." Bannon was on hand all day, and frequently during a large part of the night. He had a way of appearing at any hour to look at the work and keep it moving. Max, after hearing the day men repeat what the night men had to tell of the boss and his work, said to his sister: "Honest, Hilda, I don't see how he does it. I don't believe he ever takes his clothes off."

Novel's condensed text by

Ranjit Sahai, ASCE-NCS Past President (2013–14), is a principal with RAM Corp serving State DOTs on projects in traffic engineering design, stormwater facility inspections, and information technology. ■

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Employment Clearinghouse

The NCS provides the Employment Clearinghouse as a free service to its membership. The Clearinghouse allows members to post short notices for available positions or candidates seeking employment. All employers listed herein are equal opportunity employers. If you have questions, are seeking employment or would like to post a position please contact the newsletter editor.

Digital Twins: Stormwater Control

The third in a series of articles on digital twins in civil engineering, written by Ranjit Sahai, PE, F.ASCE.

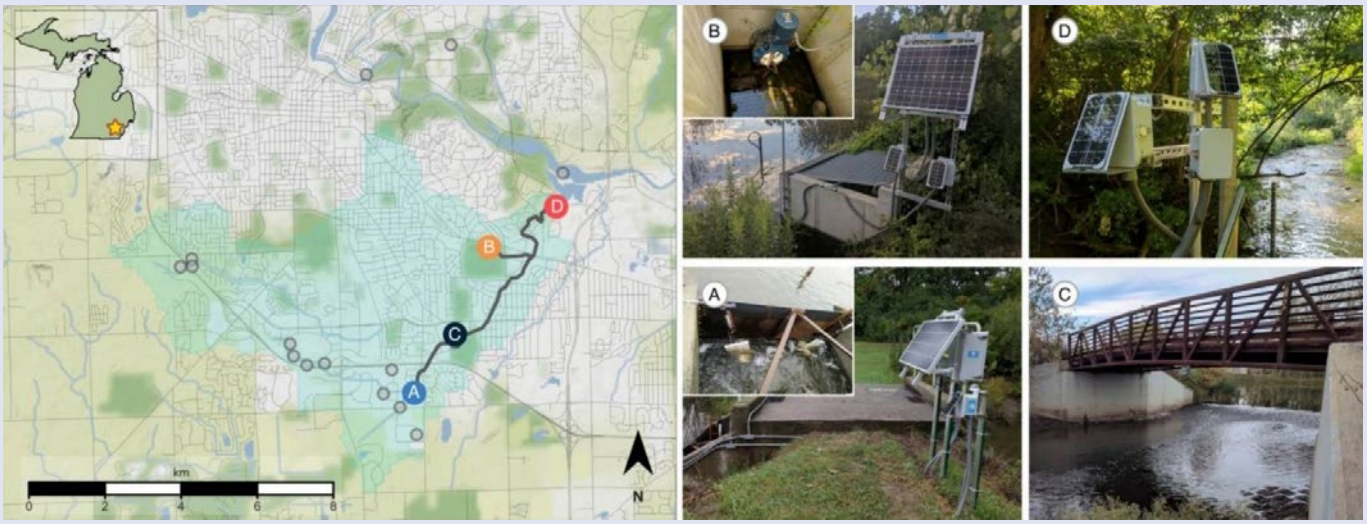


Figure of the study area is from this article link: Shaping Streamflow Using a Real-Time Stormwater Control Network (nih.gov)

A digital twin of a municipal stormwater control network is its digital representation that:

- Receives sensor data
- Analyzes the data received
- Provides tools to review/act on data
- Interacts with other contextual data

Most stormwater systems are static. The inlets, pipes, retention basins, outfalls, and other elements of the system were designed for anticipated conditions. The capacity and flow characteristics of the system remains static, regardless of the size and nature of the stormwater event.

Prevalent "smart" stormwater management systems enable the monitoring and control of existing static systems by regulating discharge from basins to shape streamflow. This improves the performance of the localized system. Studies are now emerging to demonstrate the benefits of connecting localized systems into a control network that span watersheds. [See figure for a reference to such a study.]

The Future SWM Control Network

It's a steady low-intensity drizzle. It's been raining the past few days and groundwater levels are high. It's afternoon. Your out-of-town meeting just ended. You have a 2-hour drive ahead of you to get home before sundown – assuming the low-lying segment of the narrow winding road, one lane each way, isn't flooded over. It's the only drivable way home.

The last time, a few years ago, when it had rained like this, you'd been stranded at home for a week because that road had flooded. Then you remember that your municipality had undertaken a project called Tempest Buster to manage stormwater runoff that caused the roadway serving your neighborhood to flood after several days of steady rain.

Before pulling out from the parking lot, you turn on your local radio for traffic and weather updates. Sure enough, Tempest Buster is in the news. It will keep your neighborhood accessible despite precipitation having exceeded past levels that always flooded the road. So how does the system work? Here's what you find out.

The Tempest Buster

The hypothetical Tempest Buster project is an interconnected digital representation of hydrologic, geologic, hydraulic and weather models.

Think of it as Google Maps, but in 3D. Finite element meshes represent several pertinent surfaces: surface water, earth surface, subsurface, groundwater.

These surfaces are coupled with mathematical models that control their behavior. The mathematical model parameters are in turn connected to data from weather models and stormwater control models. If you select a weather model representing a thirty-year storm event and a specific stormwater control model, the surface water and groundwater finite element meshes adjust to represent conditions appropriate for that selected event. This allows one to iterate between stormwater control options for a specific storm event to arrive at an optimal solution.

Though such modeling is still years away – with advances in quantum computational algorithms and in hardware and software systems yet to come – fascinating research that couples the HydroGeoShphere terrestrial model & Weather Research and Forecasting data (WGS-WRF) is paving the way.

About the Author

Ranjit, a Past President (2013–14) of ASCE-NCS, is a principal and founder of RAM Corporation, a firm serving State DOTs with a focus on traffic engineering design, stormwater facility inspections, and IT solutions for engineering workflows.

ASCE-NCS Committee and Branch News and Updates

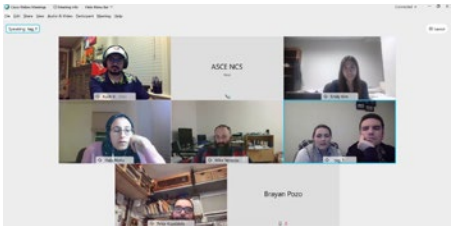
ASCE NATIONAL CAPITAL SECTION
YOUNGER MEMBER FORUM

Younger Members Forum

By Kush Vashee, P.E., CAPM, M. ASCE

Monthly Happy Hour. The NCS Younger Members Forum (YMF) holds monthly happy hours, alternating between Arlington, VA and Washington, DC. Happy hours are usually the first Wednesday of each month unless a holiday falls during that week.

On February 3rd the NCS YMF held their second virtual happy hour of the year on Webex! We had a solid turnout but hope for even more when the group hosts their next virtual happy hour starting at 6PM on March 3rd on Webex and scheduled to hold their following virtual happy hour on April 7th at 6PM. Look out for some emails soon with registration details. We hope to see you there!



Professional Development: We have some exciting events planned for the coming months. Look out for an email soon about the first two-parts of a five-part webinar series on Career Development. Part One & Two will be geared towards Professional Skills in Leadership and Management and will be held on March 31st on Webex. Additionally, we have a Diversity and Inclusion themed webinar learning about D&I within the AEC industry scheduled for April 8th from 12–2PM. Hope you all are as excited as we are about these upcoming events.

If you have suggestions for professional development meeting topics or would like to become more involved with the YMF in other areas, please contact the YMF President at ncsymfpresident@gmail.com.

Stay Connected! Check out photos and stay up-to-date with YMF events by visiting the new YMF Facebook page (ASCE National Capital Section Younger Members Forum), following us on Twitter (@ASCE_NCS_YMF), LinkedIn (ASCE National Capital YMF), and Instagram (@asce_ncs_ymf)

Get Involved! Are you interested in getting involved with more Younger Members activities? Do you have ideas for social events or volunteering activities? The NCS Younger Members Group is always looking for new members! Let us know if you are not already on our mailing list! If you would like to become more active with the YMF or would like more information on our events, please email the YMF President.

G-I GEO-INSTITUTE National Capital Chapter

Geo-Institute, National Capital Chapter

Now accepting applications for the annual **DMV area's Geo-Institute Student Essay Contest**! Download the submission form at this link.

The Prompt:
What are the positive and negative aspects of Geotechnical Engineering that shape your desire to pursue a career in the field?

Why should you participate?
First Place Winner will receive a prize of $1,000 and free attendance at our next Annual Geotechnical Symposium where you will have the opportunity to network with geotechnical professionals in the DC metro area. Second Place Winner will receive a prize of $500

Rules:
1. Your essay must be original and address the topic of your vision of the future of geotechnical engineering and be a minimum of 300 words. Essays may be longer than 300 words.
2. Without exception, submissions are due to scarroll@dwkozera.com by midnight on March 15, 2021.
3. The winner will be notified on March 31, 2021.
4. A complete submission form must accompany your entry. Please do not list your name on your essay as they will be judged without regard to any identifying information.

Eligibility:
You must be a full-time student studying engineering at an ABET accredited school located in The District of Columbia, Maryland, or Virginia.

ASCE-NCS Reston Branch

By Christopher J. Friend, P.E., Reston Branch Vice President

For the February meeting, the Reston Branch hosted Renée Hamilton, CEO of TRIP II, the owner and operator of the Dulles Greenway.

Renée N. Hamilton was appointed as Chief Executive Officer of the Toll Road Investors Partnership II, L.P. (TRIP II), the owner and operator of the Dulles Greenway, in June 2020. Ms. Hamilton is responsible for leading the TRIP II business and management team while overseeing the relationship between the Dulles Greenway and the Commonwealth of Virginia. Prior to joining TRIP II, Ms. Hamilton worked at Virginia Department of Transportation (VDOT) for over three decades and served as the Northern Virginia as Deputy District Administrator since 2013. During her time at VDOT, Ms. Hamilton managed high-level transportation issues and oversaw the maintenance of over 7,800 miles of roadways. She also led the transportation team that brought Amazon's new headquarters to Northern Virginia, served as executive manager of the Transform I-66 projects, and collaborated on the Silver Line Metro project. Ms. Hamilton served on the National Capital Region Transportation Planning Board at the Metropolitan Washington Council of Governments for nine years representing the Commonwealth of Virginia. Ms. Hamilton currently serves as a board member on the Northern Virginia Transportation Alliance. She studied Civil Engineering at South Carolina State University and holds a Master's degree in Civil Engineering Management from Old Dominion University.

Ms. Hamilton provided an overview of the history of the Greenway, their community and government partnerships, sustainability projects, charity run, and upcoming capital improvement

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projects. She discussed how the Greenway has adapted to an ever-changing transportation landscape to meet the needs of commuters and spur development and growth in the region. She also discussed how commuting behaviors have changed due to the COVID-19 pandemic and how this will affect the region's transportation infrastructure in the long term. Overall, the presentation was very informative and well received by our Branch!

On March 10th from 12 PM to 1 PM, the Reston Branch will be hosting Michelle Bolding, P.E., from Schnabel Engineering for a virtual meeting.

Michelle Bolding joined Schnabel's Charlottesville office in 2010 and relocated to the Richmond office in the fall of 2014. She obtained her BS & MS degrees from Virginia Tech and specializes in geotechnical design and project management for commercial, transportation, and municipal projects. She is currently the chair for the Organizational Member Council of the Geo-Institute and active with ASCE.

She will present on Geotechnical Challenges in Roadway Design and Construction, covering topics that include: desk studies, planning and scoping work, environmental considerations, geotechnical investigation requirements, and the development of geotechnical recommendations.

Given the current nature of the pandemic, the ASCE Reston Branch is planning to have our technical meetings in a virtual format continuing into the spring. As the situation develops in the spring, the Board will continually reevaluate the situation and will schedule virtual or in-person meetings as appropriate.

The Reston Branch has launched a group on LinkedIn to provide regular updates for the Granch as well as offer a place for branch members to connect. See the following link for additional information: https://www.linkedin.com/groups/13759693/.

Upcoming Events:
March 10th, 2021 at 12 PM – Geotechnical Challenges in Roadway Design and Construction – Michelle Bolding, P.E., Schnabel Engineering

Education Committee

By Jameelah Muhammad Ingram, P.E., M. ASCE

ASCE Student Conferences are on the horizon! From April 8th through 10th, 2021, the Virginias Conference will be hosted virtually by the ASCE Student Chapter at Fairmont State University. Many competitions are being planned, including society and regional conference events. The conference will be hosted on ZOOM and will also use the Kahoot! platform.

Society Conference Events include the: Concrete Canoe Competition; UESI Surveying Competition; and Sustainable Solutions Competition. Regional Conference Events include the: Marr Technical Paper; Hardy Cross Presentation; Infrastructure Trivia; Surveying Jeopardy; and Engineering Scavenger Hunt.

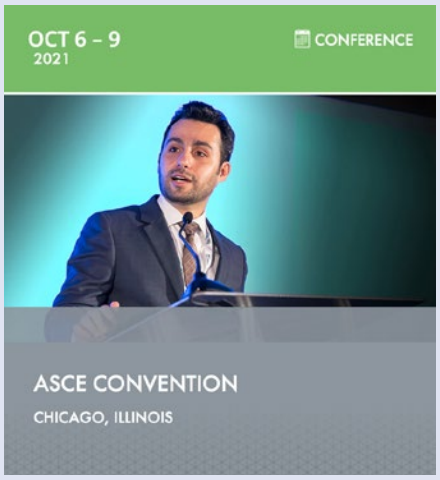
Rules and registration information are located at the following website: https://studentconferences.asce.org/virginias/. ■

Save the Dates

March 18, 2021
SEI Standards Series
- ASCE/SEI 43 Seismic Design Criteria For Structures, Systems, and Components In Nuclear Facilities
- Virtual Event

March 22–26, 2021
Virtual ASCE Week March 2021
- Virtual Event

March 22–24, 2021
Engineering Mechanics Institute International Conference 2021
- Virtual Event



May 20, 2021
SEI Standards Series
- ASCE/SEI 49 Wind Tunnel Testing for Buildings and Other Structures
- Virtual Event