

2019 ASCE-NCS Annual Awards Banquet

Celebrate Our Region's Outstanding Projects and People

By Kelly Cronin, PE, ASCE-NCS Vice President

Join us on Tuesday, March 19th at the Hilton Arlington for the National Capital Section's (NCS) signature event of the year. This event gives us an opportunity to recognize and celebrate local excellence in projects, engineers, and students who have contributed to our profession and our community. Recognized parties include the ASCE-NCS Outstanding Civil Engineering Project, Sustainable Project of the Year, Meritorious Service and Community Service Award winners, NCS Student Scholarship Award recipients, Outstanding Graduating Seniors from local civil engineering universities, and members of the NCS who have achieved Life Member or Fellow status during the past year.

During the banquet, monetary scholarships will be awarded to students from our Section's five universities – Catholic University of America, George Mason University, George Washington University, Howard University, and the University of the District of Columbia – acknowledging Outstanding Graduating Seniors from each university, and recognizing Regional and National award winners from the National Capital Section.

Service awards will be presented to members who have gone above and beyond their dedication and commitment to the Section. In addition, the Project of the Year will be presented.

This year's banquet will feature a keynote address by Terry Neimeyer about ASCE's Future World Vision. Future World Vision is a 50 year look forward of what the civil engineer will be doing



in a Future World. Using state of the art 3 dimensional visual technology, the engineer will be able to work in up to five worlds, from a 10 years from now Mega City to a 20 years from now Rural City to a 30 years from now Floating City to a 40 years from now Frozen City to a 50 years from now Off Planet City. This platform will allow for users to update and add to what these Cities will look like in the future. ASCE's Board has approved the initial funding using a Los Angeles based consultant to have a working prototype for the ASCE Miami convention this fall.

About the Speaker

Our speaker Terry Neimeyer, PE, ENV SP, F.ASCE, BCEE is Chairman of the Board of KCI Technologies, a multi-disciplined engineering firm headquartered in Baltimore, MD, with 47 offices in 24 states in the US. KCI has over 1500 employees and over \$250 million in annual revenues and is ranked number 67 on the *Engineering News Record* (ENR) top 500. Terry is a past national Chairman of the American Council of Engineering Companies and past Chairman of the Institute for Sustainable Infrastructure. He serves



Please join us on **Tuesday, March 19**, at the Hilton Arlington, 950 North Stafford Street, Arlington, VA, on the second floor in the Gallery Ballrooms. Parking is available at the hotel (\$10), at the Ballston Mall garage (\$1 after 6 pm), and on the street (free after 6 pm). The Hilton is on the same block as the Ballston Station on Metro's Orange and Silver lines. Registration, networking and light hors d'oeuvres will be from 5:30 to 6:30 pm, followed by dinner. The program will end by 8:30 pm. The cost is \$55 for those preregistering, \$20 for students and \$65 for walk-ins, as space allows. For questions, please contact [Emily Dean](#). Please click [here](#) to register by **March 14**.

Note that no-shows will be charged the full registration fee. We welcome walk-ins, including any registrations made after the guaranteed number of guests is provided to the hotel. However, the cost for walk-ins is higher because the Section is charged accordingly by the hotel for late registrations.

as past Chairman of ASCE's Industry Leaders Council and is a past section President for ASCE Delaware, is a Fellow of ASCE and currently sits on the national Board of Direction as an At Large Director. Terry earned a B.S. in civil engineering from the University of Delaware, a M.S. in environmental engineering from Johns Hopkins University, and a M.B.A. from Wilmington University and is a registered professional engineer in six states. ■

President's Corner

Greetings, National Capital Section!

This month we are celebrating our Students and Projects from across our region at our Annual Awards Banquet. We really hope you will join us for a night of networking, celebration, and fun.

We have five local student chapters and will be awarding scholarships and Outstanding Senior Awards to students from each university. In addition, we will be giving awards for Project of the Year and Sustainability Project of



the Year. Lastly, we will be honoring volunteers from our membership who have dedicated their time and talents to furthering our chapter's mission and tirelessly supported our events. It's sure to be a fun and rewarding evening!

Looking ahead to the spring, we have a bunch of events planned and hope to get outside more as the weather warms up. Our Sustainability Committee is looking to host another Boat Tour as well as a Day of Service with the National Park Service. We

are also planning outreach events at both the collegiate level and the K-12 level, so keep an eye on your email and please plan to join us at the events that interest you.

As always, please don't hesitate to reach out if you have an idea for an event or would simply like to get more involved.

See you soon!



Emily Dean
ASCE-NCS President

Order of the Engineer

By Phillip Melville, Ph.D, P.E., F. ASCE, Chair of Life Members Forum

Our February meeting during Engineers' Week had an event of note. Preceding the presentation on Engineers Without Borders – USA, we welcomed into the Order of the Engineers some 17 Engineers. The ceremony was impressive under the leadership of Engineer John Casana, P.E., and National Director of ASCE. He was joined by Engineer Emily Dean, P.E., president of our ASCE-NCS Chapter. PE and President of our ASCE Chapter to present the Order of the Engineer and explain the meaning of this important ceremony. Both

officiating Engineers were previously inducted Members of the Order and wearing their ring previously received. Each candidate was provided with a copy of the Obligation of the Engineer to make sure that he or she clearly understood the commitment he or she was about to make. Then, Engineer John read the names, one at a time, of all candidates and, taking turns, each candidate placed his or her "working" hand through the Ceremonial Ring to receive his or her Ring as a token of acceptance of the Obligation. ■



Newsletter

Sumon Chatterjee, Editor

April 2019 Issue Deadline: March 18, 2019

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

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Please refer to the [NCS website](http://www.asce-ncs.org) for a current list of NCS committees and chairs.

Multi-Region Leadership Conference 2019

By Brian Barna, P.E., M.ASCE, NCS Past President, Joe Whartneby NCS YMF President and Shainur Ahsan, P.E., Reston Branch Vice President

On January 24–26, Brian Barna (NCS Past President), Shainur Ahsan (Reston Branch Vice President), and Joe Whartneby (NCS YMF President) represented the National Capital Section at ASCE’s Multi-Region Leadership Conference in Orlando, Florida. Brian and Shainur attended the Workshop for Section, Branch, and Institute Leaders (WSBIL), and Joe attended the Eastern Regional Younger Members Conference (ERYMC). The Workshop for Student Chapter Leaders (WSCL) was also held simultaneously at this event. The conference included combined sessions of all groups, and smaller breakout sessions with specific information for section/branch leaders, younger member groups, and student groups.



The WSBIL featured several lectures and workshops designed to inform and inspire. 2019 ASCE National President Robin Kemper spoke on the topic of embracing change. She explained that the ability for organizations to adapt and change is essential for vibrancy. However, she cautioned that change just for change’s sake could be counter-productive. Change must be intentional, have a rational purpose, and that purpose must be clearly communicated to get buy-in from the other leaders and members of your organization.

Another highlight was Terry Neimeyer’s Keynote speech titled, “What Makes a Leader.” During his hour, Mr. Neimeyer focused on the leadership exhibited by Captain Chesley “Sully” Sullenberger during his fateful flight in 2009 where he successfully landed his plane in the Hudson River after losing both of his

engines to bird strikes shortly after take-off. Sully saved the lives of all 155 passengers aboard the plane with his quick thinking and steady, calm leadership in the most dramatic of circumstances. As we become leaders in our companies and organizations, we will all eventually experience a “Sully Moment” where our peers will be looking to us for guidance in a time of crisis. How we respond in difficult circumstances in many ways defines us as leaders.

The WSBIL also featured several small breakout sessions focused on specific ways to improve the functionality and governance of our sections and branches. The website and social media breakout session focused on how section and branches can create and manage a website using new online platforms and how newsletters can be modernized. The New Hampshire

section shared their experience with two platforms, Wix and Joomag, and how they were able to significantly reduce their origination and maintenance efforts. Wix allowed the section to easily learn how to build a website by clicking and dragging desired elements and using templates. Wix both reduced the time to learn how to manage the website, as well as the time to make changes and updates. The platform cost is relatively low compared to professional design fees. The New Hampshire Section used Joomag to organize their newsletter in an electronic format. The section had still been relying on traditional mail to send out their newsletter up until a few years ago. The electronic format is more than simply a PDF file. The platform offers the ability to embed media and links while presenting the newsletter as a virtual magazine. The

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cost of the platform is a few hundred dollars per year and represented a dramatic change for the section's newsletter format.

The breakout session for organizing an event focused on how the East Central Branch (Orlando) of the Florida Section successfully attracts high member participation at their events. A tried and true method used by the section was to co-host large events with other professional societies in the area. One of their largest events which was also a fundraiser is their annual ice-breaker social which had an attendance of above 400 professionals this year. At the social, the hosting branch holds fundraising raffles with prizes including tickets to the local sports teams. The branch is able to get tickets by contacting the individual team's community relations departments. The presentation also offered advice to smaller branches and section on how to attract higher attendance. ASCE offers a tool called eSpatial which creates a "heat map" showing member locations based on zip code. Events can be strategically located so as to be accessible by a large number of members. Smaller groups can also check to see which time works best for their members as not all members can attend evening events. The East Central Branch also shared a number of logistical considerations which may be overlooked during planning, such as volume of music during networking events. The session provided valuable information for branch and section leaders to take

back to their respective members to more efficiently organize events.

The focus of the ERYMC was to encourage younger members to continue to seek out leadership roles throughout the course of their career, both within and outside of the organizations we work for. As civil engineers we have the opportunity to directly impact the future of the United States of America and the world, by designing environmentally friendly and sustainable projects. One such project presented on at the conference was the Smart Transportation Project at the University of Central Florida (UCF). This project is incorporating autonomous vehicles, "connected" vehicles, and additional pedestrian safety notification systems. These advances are part of an effort to ease some of the traffic congestion problems facing central Florida and reduce the amount of traffic related crashes. Some of the autonomous vehicles that will be tested on the UCF campus will be electric autonomous buses which will provide transportation to students throughout the campus. The "connected" vehicles will be communicating with a controller installed at signalized intersections. The controller will then recommend to the approaching cars how to best adjust their speed as they approach intersections to avoid crashes and accidents. This speed adjustment coming from the controller will replace the need to come to a complete stop, so that traffic will move more efficiently through intersections. Having controllers at intersections

recommending speed changes is a very interesting, and also terrifying solution to traffic congestion. The pedestrian safety notification system is envisioned to be a preventative notification system. By collecting data on the users, through their smart phones, the notification system will be able to predict the movements of the user, and warn them against making poor decisions, such as crossing a street when there is a car speeding through – about to run through the red light. This notification system is currently being developed in an effort to increase pedestrian safety along roadways.

During the "Why Not Us?" presentation, speaker Mark Mongeau pointed out the majority of elected officials in the United State of America are lawyers, and explained lawyers are trained to provide legal representation. In contrast, engineers are trained to clearly identify and solve complex problems. Would we benefit from having more people who are trained to solve complex problems holding government offices? The presenter encouraged us as civil engineers to use the resources provided by ASCE to develop and hone our technical and leadership skills. Some of the resources available to us as ASCE Members are continuing education courses, conferences, seminars, and webinars. Many of the courses available to us are included in our ASCE Membership and available through <https://www.asce.org/continuing-education/free-pdh/>. ■

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Transportation Mobility: Indicators & Apps

By Ranjit S. Sahai, PE, F.ASCE

Transportation mobility indicators are a necessary tool for guiding policy and investment decisions in transportation, much like economic indicators are for the economy. Their scope is national, even global. However, smartphone apps focused on end-user mobility have been impacting transportation in ways that were unforeseen by planners and owners of transportation infrastructure. That's changing. Transportation mobility indicators and apps are poised to work in tandem to better serve both long-term global and short-term end-user needs.

This article summarizes the concept of mobility indicators, identifies situations that spawned mobility apps, and explores what their collaboration might look like.

Indicators

Given that transportation is a system of conveyance, and mobility is the ability to move easily, what is a transportation mobility indicator? It measures the ease of movement in a transportation system.

Mobility indicators can be classified broadly into two categories:

- System indicators that measure characteristics of the transportation system, such as highway capacity or volume; and
- User indicators that measure characteristics of user movement, such as travel time and travel time variability.



For transportation planners with a nationwide scope, indicators that compare mobility across geographic boundaries and those that display a trend over time are useful for policy development and investment decision making. These include indicators such as: average daily hours of travel per passenger, and average minutes per mile.

For transportation system users, indicators that provide real-time information on current mobility for a route of interest are useful for getting from point A to B. These include indicators such as: Congestion Index, and Travel Temperature Index (travel time contours).

Apps

Congestion relief solutions focus on a combination of adding capacity and managing demand. Examples of what's being planned or being built

includes adding designated truck lanes on interstate highways; adding bus-only lanes for BRT (Bus Rapid Transit) systems; and managing travel demand with ITS systems through pricing incentives.

ITS systems provide real-time mobility data, but for a specific managed route. That's where mobility apps come in. They leverage user smartphones to gather and publish real-time mobility data for all routes, not just specific ones, within a map-based location-aware environment.

Mobility apps, such as Uber and Waze, have tapped a significant unmet need for ride-sharing and congestion relief in real-time. Their use *en masse* has impacted systems in unforeseen ways. For instance, vehicles now crowd serene residential streets when urban byways get congested. This has led DOTs to implement road-diets (lane reduction for safety improvements).

Indicators & Apps: Smart

This article continues next month to explore what the collaboration of indicators and apps might look like. In the meantime, checkout [ICTD](#).

About the Author

Ranjit is a past president of ASCE-NCS and a principal at RAM Corp that serves State DOTs with engineering and IT solutions.



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Ethan Grossman
Engineering

More Rigorous Structural Design Procedures Create Debate Structural Engineering (SE) vs. Professional Engineering (PE)

This month, we would like to start our article with good news. According to *U.S. Bureau of Labor Statistics*, new jobs for engineers projected for 2016–2026, Civil Engineers placed at the top of the list with 32,200 new jobs with a median annual wage of \$83,540. Mechanical Engineers, Industrial Engineers, and Electrical Engineers followed Civil Engineers.

Engineers of all disciplines in the United States are charged with “protecting the safety, health, and welfare of the general public.” Because of this responsibility, all 50 states currently require a PE licensure to practice engineering within their geographic bounds.

In the last decade, there has been a movement across the nation to better the life safety of our structures by requiring a separate licensure for structural engineers. A failure in a structural system, as evidenced by Hyatt Regency Hotel Walkway disaster in 1981 that killed 114 people or the I-35 W Minneapolis Bridge Collapse in 2007 that killed 13 people, are just two examples of numerous accidents. Over the years, engineers and code officials have learned from these failures and implemented more rigorous structural design procedures.

Advances in understanding the impact of natural forces on buildings have led to more complicated requirements for structural analysis. The failures of buildings due to earthquakes, hurricanes, and tornados have resulted in new approaches on how we design buildings to respond to seismic and wind events. Engineers now incorporate these lessons learned in the design of structures to prevent catastrophic failures under extreme events; some structures such as hospitals, police stations, and fire stations must remain operational even after an event.

Due to the risk involved and the increased complexity of structural design requirements, several states

have begun to recognize structural engineers separately from professional engineers and increase their licensing requirements. Because each state has its own licensing board, there is a large variation in the requirements to obtain an SE license and the significance an SE license carries. While an effort is underway to develop a national SE certification, one of the most common questions from some professional engineers (PE) looking to market their expertise across state lines is to know which states recognize the Structural Engineering (SE) license. While licensing clearly protects the public, the specifics of how licensing is carried out are often debated. Nowhere is this clearer than in the debate between NSPE and other structural engineering groups such as the Structural Engineering Institute of the American Society of Civil Engineers (SEI-ASCE), the National Council of Structural Engineers Associations (NCSEA), the Structural Engineering Certification Board (SECB), and the American Council of Engineering Companies (ACEC) formed the Structural Engineering Licensure Coalition. Since its formation, there has been considerable legislative activity pertaining to whether, or not, there should be a separate license for Structural Engineers.

Brief Overview of NCEES Structural (SE) Exams

Unlike the computer-based Fundamentals of Engineering (FE) exam, the Structural Engineering (SE) exam is still administered in a pencil-and-paper format and is an open-book test. The SE exam consists of two modules BREADTH and DEPTH and is offered in two 8-hour components on two successive days. It includes integrated design, analysis and detailing questions. No single component of the exam is a sufficient stand-alone exam for any purpose. We recommend our readers to review the NCEES.ORG for exact specifications.

The 16-hour SE exam uses separate vertical and lateral components to test

the applicant's ability to safely design buildings or bridges, especially in areas of high seismicity and high wind. It is important to remember that the exam uses the US Customary System (USCS) of units only.

The 8-hour **Vertical Forces** (Gravity/ Other) and Incidental Lateral component is offered only on a Friday. It focuses on gravity loads and lateral earth pressures. The 8-hour **Lateral Forces** (Wind/Earthquake) component is offered only on a Saturday and focuses on wind and earthquake loads.

BREADTH Modules (Morning Sessions)

The BREADTH modules are in the morning sessions. These modules contain questions covering a comprehensive range of structural engineering topics and all questions in the morning are multiple-choice.

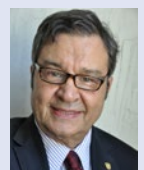
DEPTH Modules (Afternoon Sessions)

The DEPTH modules are in the afternoon sessions. These modules focus on a single area of practice in structural engineering. The examinee will choose either buildings or bridges, but must work the same topic area on both components. All questions in the afternoon depth modules are **essay-type** problems, constructed response.

The examinees are required to obtain acceptable results on both 8-hour components of the SE exam in a single exam administration. It is acceptable to sit for and obtain acceptable results on one component, and then sit for and obtain acceptable results on the second component at a later date. We will continue discussing the current SE exam specifications in our next month's article.

Until next time,

Ahmet Zeytinci (Dr.Z.)
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February Section Meeting Recap

By Brian Barna, P.E., M.ASCE, NCS Past President

On Tuesday, February 19th, the National Capital Section welcomed speakers from two organizations that provide vital civil structures and volunteer engineering services to disadvantaged areas both internationally and domestically. Engineers Without Borders USA – Washington DC Chapter (EWB-DC) and George Mason University’s Engineers for International Development (EfID) shared the spotlight as our main presenters of the evening.

which can have a transformative effect on improving the lives of its inhabitants. Without the engineered water supply, many people in these partner communities would spend several hours every day simply retrieving water from the nearest source which could be miles away. EWB partners with communities for a minimum of 5 years, ensuring that the civil improvements are operating and being maintained properly. Current projects include clean

projects while in school. EfID has approximately 30 active student members and 10 Professional Engineers acting as mentors to guide the designs. EfID typically has at least one active international project and one domestic project per year, recognizing that not all students have the ability to travel internationally. EfID has completed water supply projects in Peru, Nicaragua, and Ecuador, and several domestic bridge projects along the Appalachian Trail. EfID is also conducting promising research in the use of crushed glass as filtration media rather than sand. EfID welcomes any PE’s willing to volunteer their time to act as design mentors, and sponsorships are greatly appreciated as well. Please visit www.gmu-efid.org to connect with the organization.



Prior to the main presentations, Sarah Shay (President, Student Chapter) and Kledi Mita (Program Coordinator) of George Mason University gave us an update on GMU’s ASCE Student Chapter activities for the 2018–19 year. In November, GMU hosted the Region 2 Assembly, focused on fostering leadership and professional development for Section, Branch and Student members, Faculty Advisors, and Practitioner Advisors. Region 2 represents ASCE members from Washington, DC, and parts of Northern Virginia, Maryland, Delaware and Pennsylvania. Next month, GMU will host the Virginias Student Conference, welcoming students from 14 schools in Virginia, DC, and West Virginia for professional and technical presentations, an awards banquet, social activities, and competitions including the always-popular concrete canoe competition, and new competitions in sustainability and innovative ideas. Each of these conferences is a major event. Planning one of these events is a huge undertaking; planning two in the same school year is an incredible achievement. GMU is in urgent need of sponsors for the Virginias Student Conference. If your company may be interested in sponsoring the event, please contact GMU’s ASCE Faculty Advisor, [Dr. Liza Durant](mailto:Dr.Liza.Durant@gmu.edu). ■

Jonathan Mead, Vice President of EWB-DC, presented on the history of the organization and past and future projects EWB-DC has led. Engineers Without Borders started in 2000 in Boulder, CO with 8 members and a single project, to provide a water supply system to a small village in San Pablo, Belize. Now, EWB has over 14,000 members working on 650+ active projects in 45 countries. The Washington DC Chapter is one of the largest chapters in the country, with approximately 70 members and 4 active programs. EWB provides civil structures that ideally can be built primarily with local materials and basic construction techniques to locations with major needs. Projects types include water resources, sanitation, energy, bridges, buildings, and agriculture. The majority of the projects involve improving the clean water supply to impoverished villages,

water supply projects in Cameroon and Peru, a vehicle bridge in Burkina Faso, and a technology center for an indigenous group in Panama. If you are interested in volunteering or sponsoring a project, please visit www.ewb-dc.org for more information.

Andrew Simpson (President) and Omar Azizi (Vice President) are current students at George Mason University that are active in EfID. EfID is a student-run organization that was founded at the university in 2010. Its mission is similar to EWB’s: to volunteer their engineering talents to provide transformative engineering projects to developing communities that would otherwise not have those resources. The communities receive the benefit of sustainable and cost-effective infrastructure, and students gain valuable experience designing and constructing real-world

ASCE-NCS Committee and Branch News and Updates

ASCE-NCS Reston Branch

By Shainur Ahsan, PE, M. ASCE, Reston Branch Vice President and Lisa Anderson, F. ASCE, Reston Branch President

On February 12th, the Reston branch hosted Kent Holland from Construction Risk, LLC, at its Branch Meeting to discuss the legal aspects and challenges associated with design-builds and other forms of project delivery through an examination of lessons learned from past projects.

The next Reston Branch meeting will be on March 12th at the ASCE Headquarters in Reston. Scott Newhouse will present on the Saluda Dam project – the 2006 OCEA Award winner. Scott is a senior engineer with Bechtel corporation whose expertise is in heavy civil projects, earthwork, and site-work. The presentation will discuss aspects of a renovation project in the 2000's to address deficiencies for the high-hazard dam located near Columbia, South Carolina. One PDH will be awarded to attendees.



The Reston Branch Board would like to announce recent changes to the Board to complete the 2017–2019 term. Chris Friend, previously an At-Large Director will now serve as the Branch's Secretary. He will take over for Matt Bechtel, who has relocated out of the area. On behalf of the Reston Branch Board of Directors, I would like to thank Matt for his service to the Branch and to the Reston Committee prior to the Branch formation. Michael Magyarics, PE, who had been serving on the branch's bylaws committee, has been appointed as an At-Large Director and was unanimously approved by the Board of Directors. Michael was installed at the branch's February meeting by Vic Crawford. Welcome



Michael Magyarics to the board and congratulations to Chris on his new role! Lisa Anderson (President), Manuel Rosario (Treasurer), David Vanaman (At-large Director), and myself (Vice President) will continue in our current officer roles.

I was recently in attendance at the Multi-Regional Leadership Conference in Orlando, FL last month to learn about leadership development, tools available to ASCE members, and to network with section and branch leaders on the east coast and Midwest. Matt Bechtel was recognized as an outstanding volunteer for the National Capital Section. Congratulations to Matt and thank you for your contributions to the community!

Upcoming Events:

- **March 12th:** Reston Branch Meeting – Scott Newhouse, PE, Senior Civil Engineer at Bechtel Corporation

ASCE NCS Education Committee – Collegiate

By Jameelah M. Ingram, PE, M. ASCE
March Madness is a staple of the month of March for college students around the nation. Beyond basketball, the ASCE Student Conference, midterm exams, and a well-deserved coffee break are on the horizon this spring for students in the ASCE National Capital Section. There are opportunities for professionals to engage as well. Please find out more below:

1. 2019 Virginias' Conference*

The 2019 Virginias' Section Regional Student Conference will be held from Thursday, March 28th through Friday, March 29th at George Mason University. Local engineer volunteers are needed

to judge the Concrete Frisbee and Blue Sky Competition on Friday, March 29th. Additional assistant judges may also be needed for the Concrete Canoe Competition, which will be hosted at Fountainhead Regional Park on Friday, March 29th. Please contact the student event planning committee at asce@gmu.edu if you are interested in volunteering!

**Information contributed by Sarah Shay (GMU ASCE President) & Andres Izquierdo (GMU ASCE Vice President).*

2. Midterm Exams

Here are some helpful tips for college students gearing up to take midterm exams in March:

- **Group Study** – Practicing engineering problems in a group setting can help to expand your knowledge for an upcoming exam. Group study is an opportunity to learn methods for problem solving, different from your own, and to share knowledge with others. Remember to come to the study session prepared, by reviewing course material on your own, beforehand.
- **Office Hours** – Use office hours with your professor or teaching assistants to gain a clearer understanding of concepts. This can help you to gain a better understanding of the subject matter prior to the exam.
- **Sleep** – Get plenty of rest before the exam. When preparing your study schedule, be sure to slot in enough hours to sleep. Your mind will function more efficiently and you will be able to recall information readily. Try placing a designated time on your calendar with an alert and creating a routine.

3. ASCE NCS Coffee and Connections (Networking Event for Students and Professionals)

The ASCE NCS Education Committee will host "Coffee and Connections" this spring, on Thursday, April 11, 2019. This event is an opportunity for students across ASCE NCS chapters to interact with other students and professionals, outside of the career fair environment – over crafted coffee, *continued on page 9*

ASCE-NCS Committee and Branch News and Updates

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tea, and hot chocolate. Please save the date! The event will take place on Thursday, April 11, 2019, from 6 pm to 8 pm at Slipstream (a café in the Navy Yard neighborhood at 82 I Street SE, Washington, DC 20003). Details on how to register will follow.



Younger Members Forum

By Maria Raggousis, EIT, YMF Secretary/ Newsletter 2018–2019 and Haralamb Braileanu, MS, EIT, CSSBB, YMF Co-Secretary/Newsletter 2018–2019

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

The NCS YMF enjoyed some food and drinks at the November ASCE YMF happy hour at [Willie's](#) in Washington, DC, on February 6th, 2019. Originally planned for Blue Jacket, it had to change at the last moment. Several members attended the event and shared great conversation over appetizers.



Join us for our next ASCE Happy Hour sponsored by the Younger Members Forum at [Four Courts](#) on Wednesday March 6th, 2019 with free appetizers and drink specials. Can't make next month's happy hour? Be sure to look out for emails for the upcoming April 3rd, happy hour at [District Commons](#).

Social Events: Any one interested in social running? A group from Water P. Moore, in Washington, DC, take part in Friday afternoon runs and they would like to have others from nearby offices join them. Runs begin at 1747 Pennsylvania Ave NW, Washington, DC, at 4:30 pm. If you are interested, please reach out to Mia Jimenez (mjimenez@walterpmoore.com).

Professional Events: The YMF board is planning upcoming professional development events for 2019.

- **Fairfax County Regional HS Science Fair.** Saturday March 16th, 2019, 7:30 am – Noon, Robinson Secondary School, Fairfax, VA. Please contact [Chris Gorman](#) to sign up and volunteer to be a judge for high school county finalists to determine which go to the State level.
- **Archdiocese of Arlington Regional MS Science Fair.** This Fair is for the top qualifiers from all of our schools' local competitions. Roughly 300 students from 30 schools will compete on Saturday, April 13, 2019, at St. Paul VI High School in Fairfax. Judges will be needed from 8:00 am until 12:00 noon. Please contact: hiliary.mil-drew@arlingtondiocese.org.

Stay Connected! Check out photos and stay up-to-date with YMF events by visiting the new [YMF Facebook](#) page. Also, follow us on [Twitter](#) (@asce_ncsYMF).

Get Involved! Are you interested in getting involved with more Younger Members activities? Do you have ideas for social events or volunteering activities? Would you like to be a board member? 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](#).

Educational Committee K-12

By Victor I. Crawford, P.E., M.ASCE

Thanks to President Robin Kemper, and the Volunteers from Bechtel, ASCE Headquarters, the Bull Run and Reston Branches, and of course, the National Capital Section, We Promoted Our Profession to the Next Generation.

Discover Engineering Family Day at the National Building Museum allowed us to demonstrate how civil engineers benefit the public, as we reached out to thousands of students from the DC area. With the Dream Big movie kits going out to schools across the area in 2019, students and their parents were doing the exercise Windy City, taken directly from the movie. This exercise challenged to students to build a structure that can remain standing in a strong wind, while teaching them about how our civil engineering profession benefits the public.

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President Robin Kemper with Volunteers from Bechtel and the National Capital Section Discover Engineering Family Day 2019



Students and Parents Building Towers to Wind Test Discover Engineering Family Day 2019

Now Available!

Preliminary Program | Exhibit & Sponsor Opportunities



AEI 2019 CONFERENCE

April 3 – 6, 2019 |
Tysons, VA



PennState
College of Engineering
**ARCHITECTURAL
ENGINEERING**

The Architectural Engineering Institute (AEI) of ASCE, in partnership with Penn State College of Engineering, is pleased to announce the **2019 AEI Conference: "Integrated Building Solutions – The National Agenda."** This conference offers an opportunity for members of the building construction industry to learn about and discuss advanced strategies and state-of-the-art practices of building technology. Network with industry experts, emerging professionals, and future leaders while earning valuable PDHs!

Please visit the following links to register or to be a key sponsor today!

[Conference Registration](#)

[Sponsorship Information](#)

We look forward to your participation!



Plenary Keynote Speaker:

Kevin Kampschroer,
Chief Sustainability Officer,
and the Director, Office of
Federal High-Performance

Buildings, US General Services
Administration



Thursday Luncheon Keynote Speaker:

Scott Radevic,
LEED®AP, Populous

*Integrating Data and
Design: The Future Stadium*



Friday Luncheon Keynote Speaker:

Heather Wishart-Smith,
P.E., PMP, LEED AP BD+C,
F.ASCE, Jacobs

*What If? Design Attitude in the Age of
Digital Disruption*

Upcoming Events *(Also available on the NCS website under the Events tab.)*

March 6

YMF Happy Hour, 6–8 pm, Four Courts, Arlington, VA. Celebrate our monthly happy hour and network with members. Look for an email announcement for upcoming happy hours and YMF events.

March 12 to 13

Legislative Fly-In. Washington, DC. The 2019 Legislative Fly-In is a younger member program that provides participants with an inside look at the public policy process, advocating for infrastructure.

March 12

Reston Branch Meeting by Scott Newhouse, PE, Senior Civil Engineer at Bechtel Corporation.

March 19

NCS Awards Banquet, 6:30–8:30 pm, Hilton Arlington. The annual NCS Awards Banquet gives us an opportunity to recognize and celebrate local excellence in projects, engineers and students who have contributed to our profession and our community. This year's banquet will also feature a keynote address by Terry Neimeyer about ASCE's Future World Vision.

March 28 to 29

Virginia Regional Student Conference. Local engineer volunteers are needed to judge the Concrete Frisbee and Blue Sky competition at George Mason University.

April 3 to 6

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April 11

ASCE-NCS Coffee & Connections, 6 pm to 8 pm, Networking Event for Students & Professionals at Slipstream, Washington, DC.

June 9 to 12

T&DI Conference, The Transportation & Development Institute (T&DI) of ASCE is hosting its flagship conference in the national capital region at the Hilton Mark Center in Alexandria, Virginia. The Conference Steering Committee is seeking a local representative to participate as a member of the Conference Steering Committee. The local representative sets up a Local Organizing Committee (LOC), that helps recommend and organize technical tours for the conference, and also helps promote the conference for sponsorships and exhibits by local organizations. Through the course of the next few months, T&DI will need National Capital Section's help to promote the conference at its events, and through its newsletter, eblasts, and other means of outreach and promotion. The immediate need for promotion is for the call for abstracts which was recently released. Further information is available on the conference website at www.asce-ictd.org.

ASCE-NCS Committee and Branch News and Updates

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So we want to thank all the volunteers who joined the President of ASCE, Robin Kemper, P.E., LEED AP, F.SEI, F.ASCE, as we provided a learning experience for students and parents that highlighted how we do engineering in order to inspire the next generation.



ASCE President Robin Kemper with the National Capital Section President Emily Dean

The National Capital Section also wants to thank Bechtel for sponsoring the Dream Big movie and to thank ASCE Headquarters staff for supplying the material for the Windy City exercise.

For those that have more time, we are continuing to work with the American Association for the Advancement of Science (AAAS) program for STEM, which has been bringing engineers and scientists into classrooms for over eleven years (<https://www.aaas.org/>

[programs/STEM-volunteers/senior-scientists-and-engineers-science-volunteer-programs](#)). Please consider becoming an AAAS volunteer in supporting STEM in the school districts in the DC metro area, including surrounding counties in both Virginia and Maryland. If you are interested in giving back to the profession, while sharing the joy of engineering to eager young minds, please contact Victor I. Crawford at victor.crawford51@gmail.com. ■

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](#) and visit our [jobs page](#).