### February 2019

## February Joint ASCE Seattle Section & Geotechnical Group Dinner Meeting

## Smart Infrastructure & Construction

#### Thursday, February 28

Design, construction, maintenance and upgrading of geotechnical infrastructure requires fresh thinking to minimize use of materials, energy and labor. This can only be achieved by understanding the performance of the infrastructure, both during its construction and throughout its design life, through innovative monitoring. Advances in sensor systems offer intriguing possibilities to radically alter methods of condition assessment and monitoring of infrastructure. In this talk, it is hypothesized that the future of infrastructure relies on smarter information; the rich information obtained from embedded sensors within infrastructure will act as a catalyst for new design construction, operation and maintenance processes for integrated infrastructure systems linked directly with user behavior patterns and city-scale modeling. Some examples of emerging sensor technologies for infrastructure sensing are given. They include distributed fiber-optics sensors computer vision, wireless sensor networks, low-power micro-electromechanical systems, energy harvesting and citizens as sensors.

Speaker: Professor Kenichi Soga

Chancellor's Professor

Civil and Environmental Engineering, UC Berkeley

Best Western Plus Executive
Inn
200 Taylor Avenue N
Seattle, WA 98109
United States

5:30pm Social Hour 6:00pm Dinner 6:30pm Program

\$50 (\$40 early bird) for General Admission

\$25 (\$20 early bird) for students and free agents

Early Bird Registration ends after Friday, February 22

Click Here to Register



ASCE Seattle needs your valuable feedback! Please complete the survey about our Section at the link below. Your answers will help direct the Seattle Section Board with planning future programming and communications.

The survey should take you less than 10 minutes to complete.

Thank you for your continued contributions and involvement in the Seattle Section, your input is greatly appreciated.

Take the Survey Now!

### **February President's Column**

By Eset Alemu, PE, CFM, Seattle Section President

2019 has been an exciting year so far! The Seattle Section unveiled



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Younger Members Forum

MARCH 2019 NEWSLETTER CONTENT DEADLINE: February 20, 2019 the WA Infrastructure Report Card on January 16. This was the cumulative effort of a group of dedicated volunteers from the Seattle and Olympia-Tacoma Sections who authored and complied the assessments and recommendations in the Report Card. ASCE and the Seattle Section extend their thanks and appreciation for the countless volunteer hours that went into this effort.

The **2019 Report Card for WA** gave the State an overall GPA of C. This score is an aggregate of assessment of nine categories of infrastructure including aviation, bridges, dams, drinking water, roads, schools, transit, stormwater and wastewater. Seven of these categories were rated to be in mediocre state (needing attention); while one category, dams, was in good condition and another category, stormwater, was in poor condition. One of the notable findings from this report was the increase in transportation grades since 2013. Proactive investment in our roads and bridges in the past few years has helped improve public safety and strengthen resilience, particularly in earthquake-prone areas of the state. The recently opened SR 520 Bridge as well as the SR 99 Tunnel Replacement are large projects that serve as a reminder of the significant planning and investment in transportation networks in the Puget Sound region which resulted in improved transportation grades. The Seattle area was also notable in leading the nation in highest growth for public transit ridership.

The Report Card also shows that while Washington has made progress in a range of categories, especially in transportation infrastructure, significant funding is needed to meet the needs of a growing population. It underlines what civil engineers and the public intuitively understand that the growth that our state and cities are experiencing is not only adding demands on transportation networks but also on water supply, schools, and wastewater infrastructure.

The Report Card also proposed recommendations for improving the grades for the infrastructure categories evaluated. The recommendations include leveraging sustainable loan programs to finance necessary infrastructure projects; balancing the needs of urban and rural communities; planning for a growing population; and incorporating environmental sustainability and resilience to response to natural disasters.

Now that we have gained an insight to the state of our infrastructure across Washington's varied topographies and communities, ASCE intends to use the Report Card as an advocacy tool to engage residents and policymakers on conversations about where to focus investment and what issues we need to tackle. Over the next year, the Section's Legislative Committee will work with policymakers in Olympia to include Washington State infrastructure funding in this year's legislative calendar. We encourage our members to **contact elected officials** to share the news and your thoughts about Washington's infrastructure.

### DID YOU KNOW?

All ASCE Seattle Members are always invited to join the Seattle Section Board Members at the monthly Board Meeting. Interested in attending? Check the <u>calendar on the ASCE Seattle website</u> for the meeting time and location and email <u>president@seattleasce.org</u> if you plan on joining us!

# Call for 2019-2020 ASCE Seattle Officer Nominations

Deadline for Nominations: March 20, 2019

Have you been thinking about getting more involved in ASCE? Please consider joining the Seattle Section Board. We are a fun and energetic group that seeks to bring value to the ASCE Seattle Section membership. The Seattle Section is seeking nominations for 2019-2020 Board positions. The election will be held in April/May 2019 and terms will begin in October 2019.

Our open positions include:

**President Elect:** The term includes one-year each as President Elect, then President, and Immediate Past President (for a total of 3 years). The President Elect serves as President in the absence of the President and also serves as Membership Chair. The President Elect also attends and acts as the Section's Delegate to the Presidents and Governors Forum generally held in September at ASCE Headquarters and the Workshop for Section and Branch Leaders (WSBL) generally held in January or February. The President Elect also attends the Spring Region 8 Assembly, which is generally held immediately prior to the WSBL.

**Secretary:** The Secretary has an important role in the operations of the Section. The Secretary is responsible for keeping the Section's records, helping with coordination between the many committees and groups of the Section, keeping board meeting minutes, and counting the ballots from the Section's elections. The term of office is 2 years.

**Director of Technical Committees:** This is a 3-year term with responsibilities including making recommendations to the President regarding members who may be willing to serve as chairs, providing training, guidance, and/or assistance to committee leaders, act as committee advocate to the Board, and encourage committee activities that will foster ASCE goals and enhance member activities. Examples of committees that the Director of Technical Committees oversees are Water Resources, Geotechnical Institute, SEAW, and more. Specific duties include preparing a monthly report, participating in monthly Board meetings, and working closely with various committee chairs.

If you are interested in being nominated, would like to nominate someone, or to learn more please contact <a href="mailto:diana@hasegan.com">diana@hasegan.com</a> or (425) 451-4009. The deadline for nominations is March 20, 2019. I hope you will consider becoming actively involved in the Seattle Section because even a small amount of time can make a different in what you and other members get out of ASCE. Member participation is key in continuing to bring you programs, training, community outreach opportunities, and more.

### Submit Your Paper for the 2019 Daniel W. Mead Prize

The 2019 National Mead paper topic is: In 2017, ASCE added a new guiding ethics principle on Treat All Persons Fairly, <u>Canon 8</u>. What value does this Canon add to the civil engineering profession and student chapters? For more details on this question and to submit your paper <u>visit the award page</u>. Submission deadline is February 1, 2019.



### Tunnel to Viaduct 8K Run/Walk



When: February 2, 11:00am - 6:30pm

Where: Sixth Avenue North between John and Mercer streets

The Seattle Section of ASCE is organizing a group run/walk for the grand opening of SR 99! Join your fellow ASCE members for one last chance to be on the Alaska Way viaduct before it's torn down and first run through the new tunnel. The course is 8 kilometers long course that will head south on the upper deck of the new SR 99 Tunnel and return on the lower deck of the viaduct returning north through the Battery Street Tunnel. The Younger Members Forum (YMF) will host a happy hour after the event to replenish all the calories we just burnt off!

You can register at the <u>Tunnel to Viaduct website</u> and use the code **ASCE10** for 10% off! Please contact <u>Leo Moyer</u> if you plan on attending.

### Popsicle Bridge Competition - Volunteer!

Planning Meeting at KPFF Consulting Engineers: Monday, February 4, 5:30pm - 7:00pm

Popsicle Stick Bridge Competition Event: Saturday, February 9th, 8:00am - 2:00pm Where: Museum of Flight

POPSICLE STICK BRIDGE, fondly referred to as PSB, will be held at the Museum of Flight on the morning of February 9th. This is one of the YMF's largest events, and our largest K-12 outreach event all year.

The YMF is looking for volunteers to help plan the event as well as for the day of event. If you would like to help, please plan to attend the volunteer meeting February 4th at KPFF from 5:30-7:00pm. We will discuss roles and expectations for the event.

If you have any additional questions regarding the volunteer positions, please email, please email seattle.asce.ymf@gmail.com with subject line "PSB Volunteering".

# **ASCE PSEC University Mentor Night Volunteer Event**

If you are interested in being a mentor for a night for college students, the Puget Sound Engineering Council (PSEC) needs your help! The purpose of the mentor night activity has been to bring as many practicing engineers together with as many students as possible. We are trying to inspire the students toward a career in engineering. The mentor night allows engineers to relay their experience in the profession and answer questions posed by students. The event will be kicked off with a brief introduction of the engineering disciplines represented by the volunteers followed by open forum where the students visit various tables and converse with the mentors. Mentors are encouraged to bring a sample of work that will fit on a 30"X30" table top for potential discussion with the students. Students will rotate between mentors and tables to get a broad overview of answers to their questions. Pizza and soft drinks will be provided! If you are interested in participating, please sign up online:

## Shoreline Community College Sign Up Online Here

When: Wednesday, February 6, 6:00pm - 8:00pm

Where: Shoreline Community College

# Puget Sound Engineering Council Awards Dinner

When: Saturday, February 16, 6:00pm - 9:30pm

Where: Museum of Flight, Boeing Field, 9404 East Marginal Way S, Seattle, WA 98108

PSEC annually hosts an Awards Banquet, at the Museum of Flight to celebrate our engineering profession - a rewarding profession that makes the world a better place; and to recognize our colleagues who have excelled in their achievements. The Awards Banquet is held every February during Engineer's Week which falls on 2/17 - 2/23 this year. It hosts a week long of STEM events, K-12 education activities and science competitions.

ASCE is proud to have four members that will be receiving awards this year for various categories. Please join ASCE at the PSEC Awards Banquet to celebrate and recognize outstanding engineers within the engineering community.

### ASCE Seattle Student Scholarships Now Open

#### R. H. Thomson Scholarship

The R. H. Thomson Memorial Scholarship is an annual scholarship awarded by the Seattle Section each year to honor the accomplishments of R.H. Thomson. The application must be postmarked by April 20, 2019 and announcement of the recipient will be made by June 30th. The scholarship in the amount of five-thousand dollars (\$5,000) will be awarded for the 2019-2020 school year. The disbursement could be in one year or in four years, depending on the recipient's college career schedule. The aim of the scholarship program is to encourage students to pursue a course of study leading to a Bachelor or a Master of Science degree in Civil Engineering or one of the specialties within the Civil Engineering discipline. It also strives to honor R. H. Thomson, a civil engineer who had a profound and lasting impact on Seattle's infrastructure.

For more information please read the application.

#### **Richard Williamson Jones Scholarship**

The Richard Williamson Jones Memorial Scholarship was established by his wife, Kathie, because Richard often commented that when he was a student, he would have been much better off if he had just had a little more money for books and supplies. The scholarship continues through Kathie Jones' estate.

Richard Jones was a civil engineer and a member of the Seattle Section of ASCE, when he died in an airplane crash at the age of 53. He was a graduate of the University of Washington and was admitted as a Member of the Society in 1949 and as a Fellow in 1959. Mr. Jones joined General Construction Company in 1933 where he worked on many projects in the Seattle and Portland area, including the Bonneville Dam and as Chief Engineer on the Hungry Horse Dam. At the time of his death, he was Executive Vice President of General Construction Company.

The maximum scholarship amount distributed annually is \$2,000. The deadline for the next award is April 20, 2019. For more information please read the <u>application</u> or contact Diana Hasegan at diana@hasegan.com or (425) 516-7626.



# Upcoming ASCE Seattle Events Never miss a Seattle Section event, link our calendar to your Outlook today!

Have you seen our new event calendar? <u>Click here</u> to see what exciting events we have planned!

The best way to stay up to date on Seattle Section happenings is to **add our calendar to your Outlook** or other email manager. All you have to do is **click** here to download a .ics file that you can open and add to your own calendar.

### **Current ASCE Seattle Volunteer Opportunities**



#### **Urban Development & Transportation Committee**

The Seattle Section is currently searching for two motivated members to lead and revamp the Urban Development and Transportation Committee take charge of the committee. The purpose of this committee is to provide a forum for engineers and designers to discuss the intersection between transportation and urban planning and network with professionals with similar interests. This committee

intends to. The committee will host monthly or bimonthly meetings and/or site visits. It can also get additional support from ASCE National's Transportation and Development.

This is a forum for ASCE members and non-members to discuss the issues facing the city and the world today, and how engineering and design are influencing the change. Seattle is going through a rapid and huge transformation of its urban fabric with the arrival of thousands of new employees every month. This has created traffic on the streets and highways, apartment and office space buildings popping up left and right around the city, and new rail systems and bicycle friendly infrastructure.

Please contact <u>Homero Flores</u> if you are interested in leading or participating in this group.

#### **Legislative Committee**

ASCE Seattle Section is searching for volunteers to assist with the Legislative Affairs Committee. The level of Involvement can vary and can include providing engineering judgement on current legislative issues to assisting with lobbying.

The Legislative Committee functions in the political arena with focus on federal, state, county or other governmental issues that are of interest to the civil engineering profession; such as university engineering budget considerations, issues that affect the practice of or employment of civil engineers, and environmental issues of significance to the profession. The committee reviews proposed legislation and comments on it with regards to its effect on the civil engineering profession and may also be called upon to testify at Legislative hearings or for other governmental committees. It is also responsible for disseminating information from the Architects and Engineers Legislative Council (AELC) pertaining to state legislation. The committee typically sends at least one representative to the Society's annual Legislative Fly-In in Washington D.C.

Please contact the Legislative Chair Mark Koelling for more information.

### **Current Job Openings**

- Engineer III Development -Whatcom County Public Works
- Transit Structural Engineer IV/III - King County Metro Transit
- Water Resources Engineer -Mead & Hunt
- Project Engineer City of Wenatchee
- Transportation Engineer II -City of Issaquah

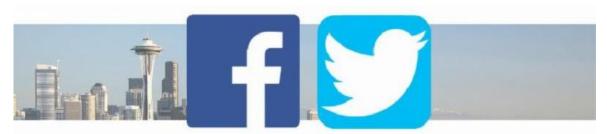
Click to View Job Descriptions & Apply!

## REACH OVER 2,000 ENGINEERING PROFESSIONALS

Click Here to Post Your Employment Ad on the Seattle Section Website

Advertise your current open positions to ASCE Seattle members today for only \$75 for the first month and \$50 for each subsequent month.

Email communications@seattleasce.org to learn more.



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