Networking and Learning at the 2020 Virtual PECon

Across the nation, NSPE members didn’t let the challenges of a pandemic get in the way of an opportunity to network, learn, and celebrate the profession. The 2020 Virtual Professional Engineers Conference filled the week of August 3–7 with education sessions on topics such as sustainable design, artificial intelligence, technical writing, and successful virtual teams.

Although in-person networking wasn’t possible, video coffee talks were held each morning, and each afternoon ended with happy-hour chats centered around the day’s sessions. Two sessions featured a NSPE-CA member and US House member.

NSPE-CA Member Presents on Water Reuse
NSPE-CA member Medi Sinaki, P.E., presented on “RO Concentrate Management: Challenges of Expanding Potable Reuse in Santa Clara County” during the 2020 Virtual Professional Engineers Conference on August 4.

Valley Water continues towards expansion of potable reuse in Santa Clara County, which generates Reverse Osmosis Concentrate (ROC). Due to the sensitive nature of the San Francisco Bay and lack of access to an ocean outfall, proper management of ROC requires thorough analysis and innovative solutions. During the session, Sinaki provided participants with the information on the master plan for potable reuse expansion and well as the challenges of ROC management and the next steps.
Medi Sinaki, P.E., is a senior engineer in the Valley Water's Recycled and Purified Water Unit with more than 24 years of experience in water/wastewater, stormwater, recycled water, chemical manufacturing, and Environmental Health and Safety (EH&S). He currently leads the Reverse Osmosis Concentrate Management program and manages the research, special studies, and projects pertinent to the expansion of recycled and purified water. Sinaki has a master’s of science in engineering with a concentration in water resources from San Jose State University and a bachelor’s of art in chemistry and a minor in engineering from San Francisco State University.

**CA Congressman Speaks on Fighting for the Profession**

During the Virtual PECon on August 7, US Rep. TJ Cox, P.E., (D-CA) was the featured presenter in the closing session focused on NSPE members as vital partners in the fight to protect licensure and ensure a robust profession for the future.

The “Building the Team and Fighting for the Profession” session was moderated by NSPE Manager of Government Relations and Advocacy Stephanie Hamilton. She spoke about the latest legislative and advocacy issues and outlined how NSPE’s newly redesigned Advocacy Center can help members amplify their voices.

Rep. TJ Cox, P.E., shared with attendees what it means to be a professional engineer serving in Congress and how his engineering career has helped him navigate the public-service experience. He expressed his support for legislation to support STEM education and infrastructure projects, and he’s interested in starting an Engineers Caucus in the House.

Before his election to Congress in 2018, Cox was a developer and built rural health clinics, job training facilities, a community multiuse sports complex, a clean bioenergy plant, and community learning centers. He holds a chemical engineering
Layle Lopez Nelson, senior vice president of public affairs at CRAFT | Media/Digital, also spoke during the session about the NSPE-led Alliance for Responsible Professional Licensing and its mission to educate the public and legislators about professional engineering and licensure standards. She discussed the recent challenges to professional licensure and the actions taken to fight attempts at weakening licensure.

Welcome New Members!

Esther Margarita Ramirez Aguilar

**Rejoining**
Dale Richard Dunlap, P.E.
David Chack-Tin Lin, P.E.

**Students**
Payam Dowlatyari
Ivy Yin-Mei Kwok
Mack Sowers
Joshua Taylor Szpynda
Thalia Griselda Telles
Jeffrey Arthur Terziyan

Bay Area Engineer Accused of Falsifying Building Inspection Reports
Federal prosecutors unsealed mail fraud and aggravated identity theft charges against former Bay Area engineer Peter Schurman in connection with an alleged scheme to issue fraudulent building inspection reports, according to a SFGate article. The alleged crimes happened between July 2015 and October 2019, according to prosecutors, when Schurman knowingly used the name and engineer stamp of other licensed engineers without their knowledge to create falsified special inspections reports.

According to the article, Schurman was an engineering technician at the engineering firm Santos and Urrutia and focused on special inspection reports, which are used to ensure public safety and that buildings are made in accordance with approved specifications and designs.

Read more.

CA Universities Respond to NAE Call to Action on COVID-19

The National Academy of Engineering’s initiative on developing engineering solutions to combat COVID-19 is seeing its first rollout of innovative ideas. Teams representing California universities have contributed to the NAE’s incubator of ideas.

The COVID-19 Call for Engineering Action was launched to facilitate crowdsourcing and brainstorming of ideas that could protect public health and the economy during the pandemic. The initiative has attracted individuals ranging from university-level students enrolled in the NAE Grand Challenges Scholars Programs to seasoned engineers and other experts.

A University of Southern California-based team has created an online dashboard designed to identify and monitor unreliable, misleading, or malicious information about COVID-19 posted on social media platforms. The dashboard uses multiple analytical tools to detect and track misinformation while simultaneously educating the public using facts about COVID-19.

A team from the University of California, San Diego, pitched a small, bandage-like device that could remotely and continuously monitor a diagnosed patient’s key vital signs: temperature, heart rate, blood pressure, respiratory rate, and oxygen saturation.

Read more.
At Virtual PECon, NTSB Chair Discusses Florida Bridge Collapse

In a session on August 5, National Transportation Safety Board Chairman Robert Sumwalt III explained the role of the NTSB and the agency’s investigation and report on the deadly pedestrian bridge collapse at Florida International University in Miami.

In March 2018, a pedestrian bridge under construction at FIU collapsed—claiming six lives. Despite evidence of severe cracking, the engineer of record insisted that the cracking did not pose a safety problem, according to the NTSB report. The university wanted to enhance pedestrian safety by constructing the bridge over a multilane highway that had been the scene of a pedestrian fatality. It would also serve as a unique gathering place for students, faculty, and university visitors.

“We all know that cracking in concrete is going to happen. That’s acceptable. But in this case, we saw structural cracks that were 40 times larger than is typically acceptable,” Sumwalt stated. The bridge was designed using an “accelerated bridge construction” design method.

The NTSB identified three critical errors: 1) The bridge was under-designed. 2) The peer review was insufficient; and 3) There was a failure to close the bridge to traffic and workers.

During the session, Sumwalt outlined how failures at all levels to stop work on the project or to close the highway to vehicle traffic and pedestrians played a significant role in the tragedy. He emphasized the responsibility to speak out for public safety no matter what.

“I saw those crushed cars. Six people lost their lives because of what I will call hubris and professional arrogance,” he stated. “I don’t care where you fit on the totem pole, if something doesn’t look right, you have an ethical and moral obligation to wave the flag.”

Access Virtual PECon Webinars

NSPE members who registered for an all-access pass and individual sessions can access webinar recordings at their convenience. Members who were unable to attend PECon can purchase and access some individual sessions at a discounted member price.
Coming Soon: ‘Fireside Chat’ Series

NSPE is hosting a set of fireside chat style webinars on legislative issues affecting the future of the engineering profession, as well as the here and now.

Monday, August 31 (TBD)
**Diversity is the Future of Engineering: Opportunities in STEM Education**

Monday, September 14 (3 p.m. ET)

Be on the lookout for more information!

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