

State News for NSPE Members

USU Center to Focus on Electrified Transportation

The National Science Foundation has awarded Utah State University a five-year, \$26 million grant, renewable to 10-year, \$50.6 million, to develop an international research center dedicated to advancing sustainable, electrified transportation. The center is expected to raise more than \$200 million over the next decade in government and industry support. The grant establishes an Engineering Research Center focused on developing new infrastructure that facilitates widespread adoption of electric vehicles. The center is named **ASPIRE** — Advancing Sustainability through Powered Infrastructure for Roadway Electrification. The other center partners are Purdue University, the University of Colorado, and the University of Texas at El Paso.

Navajo Nation's Water Supply Problem

The *Salt Lake Tribune* reports that more than 40% of Navajo Nation households in Utah's San Juan County do not have running water. Some of those with water connections fear the water is tainted by nearby uranium mining. And some livestock owners prefer to wait in line at the public tap and haul the water back to their herd instead of filling troughs at home and paying expensive bills to the Navajo Nation Tribal Utility Authority.

Now a bill introduced by Senator Mitt Romney and passed by the Senate would provide legal water rights and hundreds of millions of dollars in funding to build water projects on the Utah portion of the Navajo Nation, including in Monument Valley, which could bring water to an additional 300 households.

One *Tribune* source recently returned to the Navajo Nation after almost 30 years in California as a pipe fitter and welder. He said he has seen impressive feats of engineering across the country. "But when it comes to running water mains to communities on the Navajo Nation, he said, there is always an excuse: too rocky, too far, too expensive. Still, he said, the water rights bill would be a major step

forward if it passes into law.”

Can Communications Technology Make Our Roads Safer?

UDOT has launched a five-year program to deploy and test V2X communications systems on some of Utah’s most hazardous roadways to see if driver and passenger safety can be improved, according to the [Deseret News](#). V2X, reports the News, “allows automobiles to communicate to each other and the outside world details about what’s happening in the vehicle. Those include things like speed, location, if the windshield wipers are on, whether anti-lock brakes or anti-skid mechanisms have been engaged and outside ambient temperatures. This information, when gathered from multiple vehicles in a particular area can then be processed to pinpoint in real-time approaching accident scenes, inclement weather, hazardous road conditions or even the erratic maneuvers of an impaired or aggressive driver.”

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)

Building for the Future, with US Rep. Bruce Westerman, P.E. (R-AR)

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