

## State News for NSPE Members

### California PE Named 2022 FEYA Finalist

**Robert Zueck, Ph.D., P.E.**, was named a top 10 finalist for NSPE's [Federal Engineer of the Year Award](#). He works in the US Department of the Navy's Naval Facilities Engineering Systems Command (NAVFAC), Expeditionary Warfare Center at Port Hueneme, California.

Zueck and the other finalists will be recognized prior to the announcement of a winner during a virtual awards event on **February 24** at noon EST. The event can be viewed on the NSPE [website](#) or on NSPE's [Youtube](#) channel.

The Federal Engineer of the Year Award, sponsored by the Professional Engineers in Government, honors engineers employed by a federal agency that employs at least 50 engineers worldwide. These nominees have made extensive contributions to their organizations and also to the public that PEs ultimately serve.



### Naval Engineer Applies New Vibration Research to Military Projects

In a basic research project conducted several years ago, **Robert Zueck, Ph.D., P.E.**, discovered how geometrically complex vibrations initiate, grow, and sustain themselves, often limiting higher performance for many combat systems. For example, when airflow induces excessive vibrations, aircraft can fly no faster. Similarly, when water flow induces strong vibrations, submarines become

acoustically visible. Using this new knowledge of vibrations, defense engineers can now design beyond the speed, agility, and stealthiness limits of many military sensors, weapons, and platforms. In a 2020 applied research project, Zueck used this new vibration knowledge to improve the Expeditionary Warfare Center's modeling capability for designing, analyzing, and deploying towed sensors, ship moorings, sub-sea arrays, and other slender naval structures.

For nearly 15 years, Zueck's structural engineering expertise helped NAVFAC develop a program for inspecting, repairing, and maintaining the tall towers that support communications, control, and other naval missions. The engineering team's workload greatly expanded in 2018 to include more than 100 annual tower inspections. Equally noteworthy, Zueck has managed extensive waterfront engineering projects for more than a decade, including piers, wharves, dry docks, breakwaters, and other critical naval facilities.

---

## **Attorney General Calls for EPA to Expand Clean Waters Protections**

California Attorney General Rob Bonta is leading a multistate coalition to urge the Biden Administration to repeal a Trump Administration rule that curtails protections under the Clean Water Act. Under the 2020 rule, more than half of all wetlands and at least 18% of all streams across the US were left without federal protections, according to [a news release](#). Western states like California were even harder hit, with 35% of all streams deprived of federal protections as a result of the rule.

In [a letter](#), the coalition expressed its support for the Biden Administration's proposed regulation to restore the 1980s definition of "waters of the United States" and urges the Environmental Protection Agency and the US Army Corps of Engineers to take swift action to develop a more expansive definition that is consistent with science and the law, addresses the impacts of climate change, and serves environmental justice communities.

---

## **STEM Academies Bill Introduced in the State Legislature**

A bill seeking to create academies dedicated to high-quality science, technology, engineering, and math education was introduced in the California Legislature on February 9.

If passed, the legislation ([A.B. 1923](#)) will issue grants to school districts to establish up to 100 partnership academies to train students for STEM occupations. The legislation cites that only 16% of American high school seniors are proficient in mathematics and interested in a STEM career.

The bill states that "All young people should be prepared to think deeply and critically so that they can become innovators, educators, researchers, and leaders capable of solving the most pressing challenges facing the nation and world, both today and tomorrow. However, currently, not enough of our youth have access to quality science, technology, engineering, and mathematics (STEM) learning opportunities, and too few pupils see these disciplines as springboards to their careers."

The STEM occupations that the academies will target includes, but is not limited to, application software developer, computer programmer, computer hardware engineer, industrial engineer, civil engineer, architectural engineer, aerospace engineer, medical scientist, microbiologist, general medical practitioner, and chemist.



NSPE's **Job Board** is your one-stop resource for professional engineering employment. Whether you are on the hunt for your next career move or looking for today's top engineering leaders and talent, you will find it here.

The latest California jobs are pulled from the NSPE Job Board and appear on the NSPE-CA website. New career opportunities are also posted through NSPE-CA social media profiles on [Twitter](#), [LinkedIn](#), and [Facebook](#).

### **Featured Jobs**

[Public Works Director](#)

Palo Verdes Estates, CA

[Electrical Engineering Manager](#)

Truckee, CA

[Principal Civil Engineer – Roads and Airports](#)

San Jose, CA

*Find more job openings or reach the right employees on the [NSPE Job Board](#).*

*Stay up to date on legislative issues through the [NSPE Advocacy Center](#).*

---

## Virtual Federal Engineer of the Year Award Ceremony



The 2022 Federal Engineer of the Year Award winner will be announced on February 24 (noon) during a virtual awards event on NSPE's website and [YouTube](#) channel. The Society recently announced the [top 10 finalists](#) who have made extensive contributions to their organizations and also to the public that PEs ultimately serve.

The Federal Engineer of the Year Award, sponsored by the Professional Engineers in Government, honors engineers employed by a federal agency with at least 50 engineers worldwide.

---

## Education Foundation Gifted \$30,000 for Diversity Scholarship

The [NSPE Education Foundation](#) is honored to announce a \$30,000 donation from NSPE member Om P. Popli, P.E., PLS, the president and founder of Popli Design Group in Penfield, New York. This generous donation will establish a new scholarship to promote diversity in the profession by encouraging and supporting minority female students pursuing an engineering degree.

The *Swadesh and Om P. Popli, P.E., P.L.S. Scholarship* will be a multi-year scholarship, providing \$5,000 each year for the recipient's four-year education. Applicants must be a female high school senior from an ethnic minority pursuing a

degree in engineering at an ABET-accredited program.

The scholarship recipient will be required to reconfirm eligibility at the beginning of each year of study via a minimum GPA and proof of enrollment. This requirement not only establishes eligibility each year, but also serves as a continual “touch point” for the Education Foundation and the student, allowing for additional support and relationship-building throughout the student’s academic career.

### **Supporting the Future of the Profession**

The NSPE Education Foundation is dedicated to fostering the next generation of engineering talent through its scholarship program. This new scholarship is a generous addition to other Education Foundation scholarships focused on creating a diverse profession. It also reaffirms the commitment of NSPE, the Education Foundation, and NSPE members to promoting diversity and tomorrow’s engineer.

A new [online submission platform](#) for the 2022 scholarships is now live. All applications must go through this platform for consideration. Students can apply for the following scholarships by **April 1**:

The [\*Maureen L. and Howard N. Blitman, P.E., Scholarship to Promote Diversity in Engineering\*](#) is awarded annually to a high school senior from an ethnic minority who has been accepted into an ABET-accredited engineering program at a four-year college or university.

The [\*Auxiliary Legacy Scholarship\*](#) is awarded annually to a female undergraduate entering or continuing their junior year of a four-year ABET-accredited engineering program.

The [\*Steinman Scholarship\*](#) is awarded annually to undergraduates entering or continuing their junior year in a four-year ABET-accredited engineering program.

The [\*George B. Hightower, P.E. Fellowship\*](#) is awarded annually to a current engineering undergraduate or graduate student who is enrolled in, or graduated from, an ABET-accredited engineering program.





EDUCATION FOUNDATION  
NATIONAL SOCIETY OF  
PROFESSIONAL ENGINEERS

## Congratulations to the 2021 Scholarship Winners!



**Markie Ash**  
Auxiliary Legacy  
Scholarship  
George B.  
Hightower, P.E.  
Fellowship



**Michael  
Kadus**  
Steinman  
Scholarship



**Robert  
Schneider**  
Steinman  
Scholarship



**Annabel  
Sharnowski**  
Steinman  
Scholarship



**Noah  
Struck**  
Steinman  
Scholarship



**Jacob  
Witlin**  
Steinman  
Scholarship

*Congratulations also to Blitman Scholarship Recipient: Justin Sivasothy*

## Reimagining the Possible During EWeek

As a member of the DiscoverE coalition, NSPE's mission includes outreach to young students and a call to engage, educate, and inspire more children and young adults to consider a career in engineering.

Visit NSPE's Engineers Week [web page](#) for information and links to all of the various programs happening for this year's celebration. This page also provides access to downloadable resources for individuals, state societies, and chapters to assist in planning and promoting events. Some of these items include program logos, ads, printable posters, and an Engineers Week Zoom background featuring the NSPE and DiscoverE logos.

NSPE will also be featuring women members/engineers on its social media channels to celebrate Girl Day ([Introduce a Girl to Engineering Day](#)) on February 24. This event is an excellent way to highlight the work and voices of female PEs to highlight them as role models for girls interested in engineering as a career. If you know of any women engineers who would be good to feature, please contact [Stacey Ober](#) or [Sean Woods](#).

You received this e-mail because you are subscribed to *PE Matters* e-newsletter.

To update your e-mail address, visit [www.nspe.org](http://www.nspe.org) and login to manage your account.

If you do not wish to receive any more issues of *PE Matters*, [click here to unsubscribe](#).

Share with your network



**National Society of Professional Engineers | 1420 King Street | Alexandria, VA  
22314**

