

State News for NSPE Members

From the NSPE-DE President

By K. James Taylor, Jr., P.E.



NSPE-DE would like to announce the 2022 Delaware Engineer of the Year and Young Engineer of the Year. **Holly Rybinski, P.E., PTOE**, of Rybinski Engineering, has been selected as the 2022 Engineer of the Year. **Nicholas Dean, P.E., MCE**, of the Delaware Department of Transportation's Bridge Section, has been selected as the 2022 Young Engineer of the Year. Congratulations!

Holly and Nicholas will join last year's award winners for recognition during the 2022 Engineers Celebration. ACEC-DE will present the Engineers Excellence Awards and DAPE will acknowledge those who have recently passed their PE Exam.

Typically held during Engineers Week, this year's Engineers Celebration has been postponed to the Spring. Planning for this event is currently in the works. If you and anyone you know would like to help plan this event, please reach out to me (jtaylor@verdantas.com). We are looking forward to having an in-person event and gathering engineers across the industry together.

DAPE Ethics Webinar: Challenges for Innovation, Technology, and Society

The Delaware Association of Professional Engineers will sponsor a free webinar to provide engineering ethics training for DAPE members on March 31. Individuals should [register by March 29](#). Registration will be limited.

The webinar will provide a review of the Codes of Ethics of the National Society of Professional Engineers and DAPE, focusing particularly on the duties of the engineer to employers; the engineering community; and the public. The webinar will also address how criteria such as scientific advancement, economic empowerment, international development, environmental protection, and public health should guide ethical decision-making and priorities for technological investment.

Sujata K. Bhatia, Ph.D., MD, P.E., will serve as the presenter for this webinar. Bhatia is a physician, bioengineer, and licensed chemical engineer. Her experience spans industry and academia, including work engagements at the DuPont company, Drexel University, Harvard University, Rowan University, and the University of Delaware.

DAPE will record the training and make it available online to members that are not able to participate live.

EDGE Grants for Small Businesses Competition Accepting Applications

Encouraging Development, Growth, and Expansion is a matching grant program from the state's Division of Small Business that is open to businesses in multiple industries, including renewable energy. Applications for grants are being accepted throughout March. Companies less than five years old with less than 10 employees are eligible.

Elyte Energy, which uses patent-protected hydrogen technology to build a highly efficient power supply for generators and portable devices, was awarded a \$100,000 STEM EDGE grant in the [last round of funding](#). The company is using its grant to acquire laboratory space and equipment to develop a commercial prototype of its hydrogen-based system to power generators for the outdoor industry.

Businesses should visit the [Division of Small Business website](#) for eligibility requirements, to download the grant application, and to connect with a regional business manager for application assistance.

Sustainably Sourcing Coal Waste

In the fight against climate change, one of the biggest challenges is addressing the potential economic and social impacts of shutting down greenhouse-gas producing operations. That's why it's so important to find a variety of alternative technologies that can help move communities toward more sustainable futures.

Thanks to \$1 million in Department of Energy funding—supplemented by another \$250,000 in funding from the University of Delaware—Department of Mechanical Engineering Professor Kun (Kelvin) Fu and Department of Chemical and Biomolecular Engineering Professor Feng Jiao will spend the next three years working with students to find efficient and effective ways to use graphene particles from domestic coal wastes in Fused Deposition Modeling (FDM) 3D printing, accord to [a UDaily report](#).

The idea is to convert coal to a carbon material, which can then be added to filaments or resins used in the materials needed to feed these high-tech 3D printers.

Artesian Water Takes Over

Artesian Water Company Inc. has signed a \$5 million deal to acquire the water system of the Kent County town of Clayton, according to [the Delaware Business Times](#). The city has a 15-year relationship with Artesian, which assisted local officials with their water supply and fire protection.

Artesian, which doubled its sewer footprint through a \$6.4 million acquisition deal in August, has been working to spread its service network throughout the state and acquire various cities' water and sewer systems. The company was one of two bidders in the Clayton acquisition, under which Artesian will serve 1,500 customers.

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

Meet the 2022 Federal Engineer of the Year

Robert Zueck, Ph.D., P.E., was named NSPE's [Federal Engineer of the Year](#) during a [virtual awards event](#) on February 24 for his discoveries and contributions in the engineering field. 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.

Zueck works in the US Department of the Navy's Naval



Facilities Engineering Systems Command (NAVFAC), Expeditionary Warfare Center at Port Hueneme, California. He is heralded for applying his vibration research to military defense projects for which engineers can now design beyond the speed, agility, and stealth limitations of many military sensors, weapons, and platforms.

“Every success for me has come out of the hard teamwork of many fellow engineers and scientists,” Zueck stated. “I thank them all—particularly those who provided valuable constructive criticism of my rather unique research results.”

In a basic research project conducted several years ago, Zueck discovered how geometrically complex vibrations initiate, grow, and sustain themselves, often limiting higher performance for many combat systems. He 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.

“This basic science discovery could be very useful for modeling, simulating, and testing in many other fields of engineering and science,” he said.

[Read more.](#)

Mark Your Calendars: 2022 Professional Engineers Conference



August
1-3
2022
Philadelphia, PA
Sheraton Philadelphia
Downtown

The 2022 NSPE [Professional Engineers Conference](#) will bring together professional engineers across disciplines from August 1–3, in Philadelphia at the

Sheraton Philadelphia Downtown. Registration for the conference opens in April.

PECON attendees can access specialized content from experts as they discuss issues and trends impacting the profession, develop power skills and life skills not taught in school, and advance their careers by expanding their expertise and preparing for future developments in the industry.

The seventh annual [PE Day](#) will coincide with the conference's culmination on August 3. These two events allow PEs to join their peers in celebration of the profession and advocacy for licensure.

NSPE will continue to monitor health and safety guidelines while we proceed toward hosting this in-person event.

2022 NSPE Student Scholarships Available

Students can apply for the 2022 NSPE Education Foundation scholarships through a new [online submission platform](#). The following scholarships have an **April 1** application deadline:

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.

Coming soon! 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.

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