PE MATTERS STATE NEWS

NSPE-FL

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State News for NSPE Members

Credentials Forgery Continues to Be a Problem for Florida PEs

The risk of credentials forgery is growing, and as a licensed professional engineer, you should be proactive in protecting your professional credentials, which may be used by unlicensed individuals for fraudulent purposes, the Florida Board of Professional Engineers reports.

Maintaining control over your physical or digital seal is your responsibility. Many instances of forgery occur when people who an engineer has worked with in the past retain copies of signed and sealed documents and use the old signing and sealing information on new plans. To help prevent this:

- Do not share unprotected digital copies of signed and sealed documents.
- Store your physical and digital seal in a secure location.
- Refrain from including personal information, such as your professional seal, in public sample plans available on company or personal websites.

One of the simplest ways to prevent misuse of your professional credentials is to periodically check online job platforms and freelance websites for individuals using your name or PE number. Some of the freelance platforms where forgeries have been reported include Fiverr.com, Freelancer.com, Guru.com, PeoplePerHour.com, and Upwork.com. Read more.

Robotic Hands Are the Next Frontier in Astronaut Safety

Drifting silently in the cramped quarters of a spacecraft millions of miles from Earth, an astronaut clutches their side, wincing at a sudden, unfamiliar pain, *UF News* reports. There's no doctor onboard, no emergency room to rush to — only isolation and the ticking clock of a medical crisis in space. Scenarios like this are exactly what Eric Du, Ph.D., and his team are working to address.

While space research often brings up images of distant worlds and cosmic phenomena, Du is focused on a more immediate challenge: safeguarding astronaut health. As NASA and other space agencies prepare for extended missions to the moon and Mars, the ability to diagnose and treat medical issues remotely, including procedures like ultrasounds, is no longer a distant ideal, but a vital necessity for life beyond Earth.

Du's research, supported by NASA, is focused on making sure they don't have to wait that long to act.

Du, a professor in the Herbert Wertheim College of Engineering and a member of the Astraeus Space Institute at the University of Florida, is developing new ways for astronauts to control robotic hands — even when communication delays make real-time operation impossible. His work was recently featured in a BBC Future article examining why robotic hands remain one of the biggest technical hurdles in robotics.

"Human hands are incredibly sensitive and flexible," Du told the BBC. "Replicating that ability in machines, and then allowing humans to intuitively control them under delay, is a huge challenge." Read more.

'Wood You Believe It?' FAU Engineers Fortify Wood with Nano-Iron

Scientists and engineers are developing high-performance materials from eco-friendly sources like plant waste. A key component, lignocellulose – found in wood and many plants – can be easily collected and chemically modified to improve its properties, Florida Atlantic University reports.

By using these kinds of chemical changes, researchers are creating advanced materials and new ways to design and build sustainably. With about 181.5 billion tons of wood produced globally each year, it's one of the largest renewable material sources.

Researchers from the College of Engineering and Computer Science at Florida Atlantic University, and collaborators from the University of Miami and Oak Ridge National Laboratory, wanted to find out if adding extremely hard minerals at the nanoscale could make the walls of wood cells stronger – without making the wood heavy, expensive or bad for the environment. Few studies have investigated how treated wood performs at different scales, and none have successfully strengthened entire pieces of wood by incorporating inorganic minerals directly into the cell walls.

The research team focused on a special type of hardwood known as ring-porous wood, which comes from broad-leaf trees like oak, maple, cherry and walnut.

These trees feature large, ring-shaped vessels in the wood that transport water from the roots to the leaves. For the study, researchers used red oak, a common hardwood in North America, and introduced an iron compound into the wood through a simple chemical reaction. By mixing ferric nitrate with potassium hydroxide, they created ferrihydrite, an iron oxide mineral commonly found in soil and water. Read more.

*Stay up to date on legislative issues through the **NSPE Advocacy Center** .*

Get Involved! NSPE Seeks Volunteers for 2025–26 Committees

NSPE's passionate and dedicated committee volunteers are essential to our mission. ***Why serve?*** In addition to giving back to the professional engineering community, NSPE volunteers form strong connections with committee colleagues, learn new skills, enjoy networking with leaders or hone their own leadership skills. Learn more and apply to NSPE's committees by June 4. *(You must log-in with your NSPE credentials to submit an application.)*

If you do not see an opportunity that interests you in the link above, check out Get Involved throughout the year to learn more about other areas of engagement, including short-term projects.

Build Momentum – NSPECon25 Keynote Speakers

NSPECon25 (Kansas City, Missouri, August 6-8), the prime national event for professional engineers, will feature keynote speakers to provide inspiration and guidance to help elevate your career in addition to putting a spotlight on emerging issues within the industry. Meet your keynote speakers below and be sure to review the full conference program.

Dr. Cindy Frewen, FAIA, urban futurist and architect, will present the session **“A World Gone Sideways: Engineering 2050 in a Post-Normal World.”** She will explore how engineers in 2050 can become not just problem-solvers, but storytellers, system-shapers, and stewards of a better world.

Coach Donnie Campbell will present the session **“What’s Your MVP? Leadership Lessons from the Coach Who Inspired Ted Lasso.”** In his leadership keynote, inspires audiences to discover their “MVP” – their mission, values, and principles to inspire individuals to reach their potential and teams to reach new heights.



A presentation on the **“Government and Private Industries’ Response to the Maryland Key Bridge Collapse”** will explore the coordinated efforts between government agencies and private industries in response to the tragic bridge collapse. **Stephen R. Skippen**, DBIA, CCM, ENV SP (senior project manager,

Skanska USA Civil), **Colonel Estee Pinchasin** (director of logistics, National Security Agency), and **Paul Hankins** (director, salvage operations and ocean engineering, United States Navy), are the presentation panelists.

Early-bird discount rates are available until June 27. NSPECon25 will take place at the Intercontinental Kansas City at the Plaza. The deadline for reserving a hotel room at the discounted conference rate is July 4. We encourage you to make your reservation early since there are a limited number of conference-rate hotels rooms available.

Welcome 2025 Sponsors!
NSPE offers a range of sponsorship packages tailored to meet various goals and budgets, with a special exhibitor discount available for Kansas City-based businesses. Discover more about these opportunities in the Sponsor and Exhibitor section of the conference website.

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Quality Culture

Don’t Miss Out on the 2025 Spring Webinar Series

NSPE offers a live webinar series free to members—"WORKability Wednesdays"—to support their professional development goals. Register now at NSPE's PE Institute to attend the webinar on **May 28**—How Has Technology Shaped Workstyles Across Generations?

Members can access a recording of the recent webinar held on May 14—Using Your Engineering Expertise as a Forensic Expert in addition to the webinars held in March and April. *Members are advised to consult their state licensing board to determine requirements for PDH or CPD credits.

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