

Underwood tours NIU research lab

Northern Illinois University microelectronic space awarded \$1.5M in federal funds



Mark Busch – mbusch@shawmedia.com U.S. Rep. Lauren Underwood, D-Naperville, (left) and Northern Illinois University President Lisa Freeman talk to students after Underwood toured the semi-conductor lab Friday at the NIU College of Engineering and Engineering Technology building in DeKalb. Underwood was visiting NIU to celebrate the university receiving \$1.5 million in federal funding to upgrade its microchips manufacturing lab.

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DeKALB – U.S. Rep. Lauren Underwood on Friday toured Northern Illinois University's Microelectronic Research and Development Lab, which is the recipient of a \$1.5 million grant meant to modernize the space.

Underwood, D-Naperville, was in DeKalb on Friday to view the lab after she helped procure the funding, which was secured through the Department of Education's Community Project Funding Grant Program.

According to a document provided by university officials, the funding will help turn NIU's 4,200-square-foot cleanroom lab space into a fabrication lab dedicated to design, workforce development, small-business innovation, and

prototyping and research of microchips.

Speaking to a crowd gathered outside the lab on NIU's campus, Underwood praised the university's faculty for creating a space that prepares students to enter the workforce of an industry the country is trying to put its weight behind.

Underwood said the students who have an opportunity to work in the lab will "have a leg up" when it comes to working with the associated technology in their careers.

"And, obviously, as we know, we've had some real shortages in computer chips and semiconductors – global shortages," Underwood said. "And so now for our community here in northern Illinois to be leaders in the development of the actual products, but also innovating for the next product, is tremendous, and I think it will really spur growth in this region to have this kind of lab available for the community."

Semiconductor and microchips have become a national security concern, as well as an inflationary concern, for the past couple of years because of a global shortage of the products.

The products are used for technology all the way from computers and automobiles to appliances and some of the military's most advanced weapons and defense systems, The Associated Press reported.

To address that issue, President Joe Biden signed the CHIPS and Science Act into law in the fall. That act of Congress will provide \$52.7 billion worth of funding for American semiconductor research and workforce development. Although the \$1.5 million in funding doesn't come from the CHIPS and Science Act, the effort by Underwood to get NIU the funding is tied to a national push to reduce the country's dependence on foreign sources of computer chips.

Mohammed Moghimi, an assistant professor in NIU's Department of Electrical Engineering, said the funding also will help the department modernize the lab.

"We already have equipment, [but] it was time to renew the lab and make a new front in the research, so this funding will enable us to buy new equipment," Moghimi said.

With the new equipment, Moghimi said the university will be able to offer more classes that use the lab while focusing on new innovative technologies.

Among those already using the lab is Courtney Bradley, a graduate student wrapping up her master's program, who hopes to become one of the first students to enroll in the university's new Ph.D. program affiliated with the Microelectronic Research and Development Lab.

For her master's program, Bradley said she's characterizing actuators for use in a flexible, noninvasive hearing aid device for young children. Bradley said the lab has deposition and lithography tools that allow her to fabricate the new device on NIU's campus.

Bradley said she's very passionate about using her electrical engineering skill set to give disadvantaged infants and young children better tools to understand their surroundings, but she didn't expect to work on a project with such impact while still in school.

Bradley said "it was amazing" to have Underwood tour the lab she works in.

"It really made it feel like it's important and we're making a difference when you have Congress recognizing that," Bradley said. "It makes us feel like our research is even more worthwhile."

Donald Peterson, the dean of NIU's College of Engineering and Engineering Technology, said Friday was "a tremendous opportunity" to host Underwood, who he called a great partner of the university.

Peterson said Friday marked the second time Underwood had toured the lab, after she visited once before when the university reached out to her office to request aid in procuring funding for its work.

"We see this as playing a key role, especially in the Midwest, not only of research and development of this technologies but also for development of the workforce," Peterson said. "So that the students, whether they be undergraduate or graduate students, they're going to be able to hit the ground running – they'll be shovel-ready – when they go out to work with these companies."

Underwood said recent redistricting has brought NIU and the city of DeKalb into Illinois' 14th Congressional District, which means she now has the opportunity to work with the largest educational entity in DeKalb County.

"I hope to be able to work with the students and the folks that live in the city of DeKalb, and throughout the county, to meet their needs as well," Underwood said.