

# COLLEGE HAPPENINGS

August 6, 2024

## IN THE NEWS

[NDSU hosts hundreds of kids for STEM Kids Camp](#)

[Grant funds NDSU development of e-commerce packaging that could decompose in your garden](#)

[Earn Your NDSU Degree Online](#)

[Bison Cyber camp scheduled](#)

## CONGRATULATIONS

Please let [College Happenings](#) know about honors, awards, new grants and other announcements so we can share them with other faculty and staff.

## UPCOMING EVENTS

Wednesday, August 7, **Records Management Information Session**. If you've wondered about records management you're welcome to join a virtual conversation of NDSU's records management program. [1:30 until 2:30 p.m. on Zoom](#). Information on NDSU's records management program is available at <https://kb.ndsu.edu/99044>.

Monday, August 26, **Meet Your Academic Community**. Join us as we welcome the College of Engineering Class of 2028! 8:30 a.m. at the Bentson Bunker Field House. Event followed by "Walk Through the Gates" at the southeast entrance to campus.

Thursday, September 19, **College of Engineering Scholarship and Awards Reception**. Join the College of Engineering as we acknowledge our scholarship recipients and donors, and recognize the accomplishments of outstanding faculty and staff. 3:00 - 4:30 p.m. in the Memorial Union Oćeći Őakowiń Ballroom.

Friday, September 20, **Richard Offerdahl '65 Engineering Complex Groundbreaking**. Join us for a transformational day for NDSU and the College of Engineering! The ceremony is set to start at 2:00 p.m.

Wednesday, September 25, **Fall Career Expo**. The Fall Career Expo is a great opportunity to connect with employers both locally and from around the country. Whether you are looking for an internship, full-time employment, or want to learn from leaders in your industry, the Expo has opportunities for you. 11:00 a.m. – 3:00 p.m. at the Fargodome.

## WELCOME WEEK VOLUNTEER OPPORTUNITIES

We are a few weeks away from students moving into the residence halls and beginning their NDSU experience! Move-In and Welcome Week are a time when our entire NDSU community can come together to help incoming students know they belong here. To make this transition a positive experience for students and their guests, we need your help.

A variety of offices have come together to develop Welcome Week volunteer opportunities from August 24-September 7, 2024. [Select your volunteer shift\(s\) here](#) and [visit the volunteer website](#) here for more information.

### **Additional Welcome Week Engagement Opportunities:**

- Walking Through the Gates | Monday, August 26, 2024 at 10:10am
- This year we will continue the Focus on 5 initiative that began in 2021. “Focus on 5” means connecting with five students, for five minutes each, for the first five days of the academic year. This small act of outreach has the potential to make a big positive impact on a student’s NDSU experience! We would like to challenge you to “Focus on 5” during the first week of the semester.

### **NDSU Volunteer Passport:**

Be a volunteer champion! Complete 5 of the 9 volunteer experiences during the academic year to be recognized as a volunteer champion on our campus! Volunteers Experiences include:

- [Move In Experience/Welcome Week \(August 24-September 7, 2024\)](#)
- Career Fair (**September 25, 2024 and February 5, 2025**)
- [Homecoming \(September 16-21, 2024\)](#)
- Late Night Breakfast (**December 16, 2024 & May 12, 2025**)
- Commencement (**December 20, 2024 & May 17, 2025**)
- Orientation (**Summer 2025**)

We are grateful for your willingness to volunteer and thankful for the impact your support has on our campus.

## **COLLEGE OF ENGINEERING STAFF AWARD NOMINATIONS**

Nominations for our 2024 College of Engineering Staff Awards are still open. Any NDSU staff member, faculty member, or student may submit a nomination. The nomination consists of just a letter of two pages or less describing the nominee’s contributions to the success of the College of Engineering.

Nominations for outstanding staff awards can be submitted to [alissa.k.kuntz@ndus.edu](mailto:alissa.k.kuntz@ndus.edu) until 5:00 p.m. on Friday, August 9, 2024.

The College of Engineering introduced an Outstanding Staff Award in 2019 to honor dedication and outstanding contributions by staff members to the success of the college. Each year two staff members are recognized, one at the paraprofessional/office support level and one at the professional level.

## **OFFERDAHL HALL CONSTRUCTION UPDATES**

We’ve received some updates regarding the Engineering Administration building demolition and construction timelines. Here are the latest tentative dates:

- **Week of August 5<sup>th</sup>** – Skywalks are demolished.
- **Week of August 12<sup>th</sup>** – Engineering Administration Building is demolished.

## 2024 FARGO-MOORHEAD AREA DIVERSION PROJECT CONFERENCE

The Fargo-Moorhead Area Diversion Project provides an active local learning environment for faculty and students conducting research related to water resources. The project will provide a permanent solution to protect our communities and is expected to be completed in 2027. More information can be found at: [Home | Metro Flood Diversion Authority \(fmdiversion.gov\)](https://www.fmdiversion.gov).

Brought to you by the North Dakota Water Resources Research Institute, the 2024 Fargo-Moorhead Area Diversion Project Conference on Monday, August 19, will bring together a multi-discipline audience of experts from agencies, industry, and academia to learn about the project's status, social impact, and unique engineering design.

### AGENDA HIGHLIGHTS

- 7:30 – 8:00 am **Breakfast and Registration**
- 8:30 - 9:15 am **Overview of FM Diversion Engineering**
- 9:15 - 10:15 am **FM Diversion Social Impact**
- 12:00 -1:15 pm **Lunch and keynote** - Karen Ryberg, Deputy Director of USGS Dakota Water Science Center
- 1:30 - 2:00 pm **Industry Partner Lightning Talks**
- 2:00 - 2:30 pm **Academia Lightning Talks**
- 3:15 - 4:15 pm **FM Diversion Innovations**
- 4:45 - 5:00 pm **Recap and follow-up actions**

The 2024 Fargo-Moorhead Area Diversion Project Conference will be a great opportunity for students and faculty researchers in water resources, engineering, and natural resources to discover more about the project. While there is no cost for the event, seating is limited, and [registration is required](#).

## 2024 BIOSCIENCE SUMMIT

You are invited to attend the BioScience Summit at the Avalon Events Center in Fargo on September 17 and 18. The event is a chance to meet some of the nation's leading bioscience and medical device innovators, explore opportunities for collaboration, and find partnerships that will help to build out one of the nation's fastest growing bioscience ecosystems.

NDSU's Office of Research and Creative Activity is a sponsor of the 2024 BioScience Summit and will be hosting a panel called *Leveraging Higher Education Relationships*:

- (Moderator) Cindy Graffeo, Innovation and Economic Development Director, NDSU
- Teresa Connor, Dean of Health and Human Services, NDSU
- John McEvoy, Professor and Head of Microbiological Sciences, NDSU
- Alan Kallmeyer, Professor and Interim Dean of the College of Engineering, NDSU

The event is organized and co-hosted by the Greater Fargo Moorhead Economic Development Corporation (GFMEDC), Bioscience Association of North Dakota (BioND), North Dakota Department of Agriculture, and the North Dakota Department of Commerce.

[Get the full agenda and register for the Summit >>](#)

## FUNDING OPPORTUNITIES

### [Developing and Demonstrating Nanosensor Technology to Detect, Monitor, and Degrade Pollutants \(U.S. Environmental Protection Agency\)](#)

Continued exposure to certain PFAS, even at low levels, can cause harmful health effects. Rural and underserved communities specifically face barriers to frequent and rapid PFAS monitoring.

- This funding opportunity is soliciting research to develop and demonstrate nanosensor technology with functionalized catalysts that have the potential to degrade selected contaminants in addition to detecting and monitoring pollutants.
- Specifically, EPA is seeking proposals that use nanotechnology to detect, monitor, and degrade PFAS in groundwater or surface water that may be used as drinking water sources.

#### **Award and Eligibility Information:**

- \$1,500,000
- Public, private, nonprofits/institutions/organizations, public and private institutions of higher education.

*Application deadline: Wednesday, November 13, 2024 (11:59:59 pm ET)*

#### **NSF Computer and Information Science and Engineering (CISE): Core Programs**

The NSF CISE Directorate supports research and education projects that develop new knowledge in all aspects of computing, communications, and information science and engineering, as well as advanced cyberinfrastructure, through the following core programs:

- Division of Computing and Communication Foundations (CCF)
- Division of Computer and Network Systems (CNS)
- Division of Information and Intelligent Systems (IIS)
- Office of Advanced Cyberinfrastructure (OAC)

Proposers are invited to submit proposals in several project classes, which are defined as follows:

- Small Projects -- up to \$600,000 total budget with durations up to three years: projects in this class may be submitted to CCF, CNS, and IIS only;
- Medium Projects -- \$600,001 to \$1,200,000 total budget with durations up to four years: projects in this class may be submitted to CCF, CNS, and IIS only; and
- OAC Core Projects -- up to \$600,000 total budget with durations up to three years: projects in this class may be submitted to OAC only.

*Deadlines: Small projects: July 18-Sept. 30, 2024; Medium/OAC Core projects: Oct 1 - Oct 23, 2024*

#### **RECENTLY AWARDED GRANTS**

- Long Jiang (Principal Investigator), Marc L Bauer (Co-PI). Soy-based Bailing Twine with High Digestibility Further Development Extension. \$13,231 from the ND Soybean Council. 7/1/2024 - 12/31/2024.
- Xin Sun (Principal Investigator), Thomas Joseph Peters (Co-PI), Mohamed F R Khan (Co-PI). SSBRI Intelligence On-farm Sugarbeet Weed Management Solution Based on Edge AI and Unmanned Automation Systems (UAV and UGV). \$94,100 from the Agricultural Research Service. 9/1/2023 - 12/30/2025.

#### **RECENTLY SUBMITTED PROPOSALS**

- Jessica Lynne Lattimer Vold (Principal Investigator). CAREER: Advanced Materials Creation from Local Resources in Extreme Environments. \$579,387 from the National Science Foundation. 9/1/2025 - 8/31/2030.
- Harun Pirim (Principal Investigator), Ajay Kumar Jha (Co-PI). Developing a Smartphone App and Free Software for Nutritionally Optimized, Minimum-Cost Fish Feed Formulation Using Local Ingredients in Nigeria. \$480,577 from the U.S. Agency for Intl Development. 9/15/2024 - 8/15/2027.
- Umamaheswara Rao Tida (Principal Investigator). CAREER: Process Technology - based Electronic Design Automation Framework Development for Efficient Monolithic 3D Integration. \$553,560 from the National Science Foundation. 6/1/2025 - 5/31/2030.

- Sumitha George (Principal Investigator). CAREER: Multi Level Cell Driven Computing System Design. \$492,603 from the National Science Foundation. 8/1/2025 - 7/31/2030.
- Youjin Jang (Principal Investigator). CAREER: Predictive and Adaptive Robot Control Framework for Safe and Productive Human-Robot Collaboration in Construction. \$527,023 from the National Science Foundation. 2/3/2025 - 2/2/2029.
- Inbae Jeong (Principal Investigator). CAREER: Collaborative Framework of Multiple UAVs and UGVs for Continuous Operation of Automated Construction Equipment. \$573,947 from the National Science Foundation. 2/1/2025 - 1/31/2030.
- Lu Liu (Principal Investigator). CAREER: Engaging Underserved Populations in Molecular Biology through Bioinformatics: Computational Methods and Education on 3D Genome Organization. \$522,790 from the National Science Foundation. 1/1/2025 - 12/31/2029.
- Francis Casey (Principal Investigator), Xinhua Jia (Co-PI). Controlled Environment Agriculture. \$429,812 from the Agricultural Research Service. 10/1/2024 - 9/30/2025.
- Juan Li (Principal Investigator). EAGER: NAIRR Pilot: A Conversational AI for Cybersecurity Education of Older Adults. \$299,999 from the National Science Foundation. 1/1/2025 - 12/31/2026.
- Anne Denton (Principal Investigator). Internship at Kirkwall. \$3,780 from Kirkwall Defense, Inc. 7/15/2024 - 8/31/2025.
- Zhulu Lin (Principal Investigator), Leon George Schumacher (Co-PI), Clairmont Clementson (Co-PI). Preparing Students for Modern Agriculture by Establishing an Electric Motor Laboratory in the Agricultural and Biosystems Engineering Department. \$66,618 from the NDSU Foundation. 11/1/2024 - 10/31/2025.
- Igathinathane Cannayen (Principal Investigator), Shuning Lu (Co-PI). Educational and Research Outcomes Communication Using LaTeX for NDSU Community and Students. \$23,828 from the NDSU Foundation. 11/1/2024 - 10/31/2026.
- Jiale Xu (Principal Investigator). Building an Integrated Platform to Enhance Education and Research on Controlling Forever Chemicals at ND. \$74,905 from the NDSU Foundation. 11/1/2024 - 10/31/2025.
- Syeed Md Iskander (Principal Investigator). Forever Chemical PFAS Contamination in North Dakota's Agricultural Lands: A Comprehensive Statewide Study. \$47,810 from the NDSU Foundation. 1/1/2025 - 3/30/2026.
- Ying Huang (Principal Investigator). Next-Generation Wheel Tracker for Asphalt Analysis and Slab Compactor for Material Test Sample Preparation. \$74,978 from the NDSU Foundation. 9/3/2024 - 9/3/2026.
- Jennifer Lynn Momsen (Principal Investigator), John Brian Buncher (Co-PI), James M Nyachwaya (Co-PI), Stacy Duffield (Co-PI), Lisa Marie Montplaisir (Co-PI), Carrie Anne Platt (Co-PI), Ali Amiri (Co-PI), Matthew T Smith (Co-PI). AID DCL: Tapping the Herd: Developing a TA professional development program to promote a culture of teaching excellence at NDSU. \$1,967,898 from the National Science Foundation. 1/31/2025 - 12/31/2029.

## RECENT PUBLICATIONS

*For 2024, 83 publications by authors with the College of Engineering affiliation have appeared in various journals, according to the ISI Web of Science and submissions from faculty. Here are some of the most recent publications:*

- Cervato, Cinzia, Stephanie Peterson, Carrie Ann Johnson, Canan Bilen-Green, Carla Koretsky, Adrienne Minerick, and Gul Okudan Kremer. "Department Chairs as Change Agents: A Virtual Cross-Institutional Professional Development Model for Chairs." *INNOVATIVE HIGHER EDUCATION*, June 14, 2024.  
<https://doi.org/10.1007/s10755-024-09714-8>.
- Owor, Neema Jakisa, Yaw Adu-Gyamfi, Armstrong Aboah, and Mark Amo-Boateng. "PaveSAM - Segment Anything for Pavement Distress." *ROAD MATERIALS AND PAVEMENT DESIGN*, July 12, 2024.  
<https://doi.org/10.1080/14680629.2024.2374863>.
- Rizvi, Syed, Ibrahim Aladhyani, Yi Ding, and Qifeng Zhang. "Recent Advances in Doping Na<sub>3</sub>Zr<sub>2</sub>Si<sub>2</sub>PO<sub>12</sub> (NASICON) Solid-State Electrolyte for Sodium-Ion Batteries." *NANO ENERGY* 129 (October 2024): 110009.  
<https://doi.org/10.1016/j.nanoen.2024.110009>.

See your name on this list? Help us get the word out about your amazing work by submitting it as a **Breakthrough Alert**. [This online form](#) is an easy, step-by-step guide for summarizing published research for the general public.

*College Happenings* is distributed to the NDSU College of Engineering staff and faculty every other Tuesday.

Read past issues of *College Happenings* [here](#).

Deadline for submissions to *College Happenings* is 12:00 p.m. Fridays.

Contact [kyle.bosch@ndsu.edu](mailto:kyle.bosch@ndsu.edu) to submit items for *College Happenings*.

Follow the College of Engineering on social media.

