

COLLEGE HAPPENINGS

February 8, 2022

FROM THE DEAN

Public Policy Colloquium

This week, I'm in Washington, DC, for the ASEE Engineering Deans Council Public Policy Colloquium. The Public Policy Colloquium brings together deans of engineering colleges from around the country to hear from leaders at various federal agencies. We are also discussing how engineering schools and colleges can help build equitable innovation ecosystems that enable our national competitiveness.

Later today, we'll hear from the new leader of the National Science Foundation's Directorate for Engineering and how we can get involved in helping to shape future investments for Engineering at NSF. Then tomorrow, we'll break up into states and visit members of Congress and their staff. I'll pair up with the dean of engineering at the University of North Dakota. Together we'll meet with North Dakota's congressional delegation and their staff to build relationships and advocate for engineering and computer science research and education.

The thing I most appreciate about this annual meeting is the chance to connect with other engineering deans and to hear about their experiences in that role. From those interactions, I gain valuable council and creative ideas that I can use to improve in my own leadership.



IN THE NEWS

[NDSU receives \\$6 million research infrastructure award](#)

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, February 9, **Spring Career Expo**. 11:00 a.m. – 3:00 p.m. at the FargoDome.

Wednesday, February 16, **NDSU Day of Honor**. The NDSU Day of Honor commemorates the lives of NDSU students, faculty, and staff who have passed away during the previous calendar year. 2:00 p.m. in the Oceti Sakowin Ballroom.

BUDGET REDUCTION RECOMMENDATIONS

Each of the Phase II Budget Reduction Committees will be holding campus discussions to present their recommendations and gather input. These sessions will be also offered via Zoom to NDSU faculty and staff. You will need to log in using your NDSU credentials.

Thursday, February 10, 2022, 2:00-3:00 pm, Memorial Union Anishinaabe Theatre and via zoom: Shared Services ([Join Zoom Meeting](#))

Thursday, February 10, 2022, 3:30-4:30 pm, Memorial Union Anishinaabe Theatre and via zoom: Evaluation of Expectations/Load Equivalencies ([Join Zoom Meeting](#))

Tuesday, February 15, 3:00-4:00 pm, MU Anishinaabe Theatre and via zoom: Evaluation of Academic Offerings (Zoom Link to Follow)

Wednesday, February 16, 2:00-3:00 pm, MU Anishinaabe Theatre and via zoom: Online/Hybrid Degree Programs (Zoom Link to Follow)

Friday, February 18, 3:00-4:00 pm, MU Anishinaabe Theatre and via zoom: Department/College Mergers (Zoom Link to Follow)

TRAINING OPPORTUNITIES FOR ADMINISTRATIVE PROFESSIONALS

Mark your calendars for Academic Affairs administrative professionals training opportunities via Zoom.

- Monday, March 14, 2022, 1:00-3:00 pm: [Searching for Excellence, Training for Administrative Support staff in assisting search committee's](#) (note: this is not a recruitment solutions training)– Given by the Office of Vice Provost for Faculty and Equity
- Tuesday, March 15, 2022, 10:00-11:30 am: [Hiring Graduate Assistantships](#): The ins and outs – given by the Graduate School
- Wednesday, March 15, 2022, 1:30-3:00 pm: [Things to know in the PTE and Onboarding process](#) – given by the Office of Vice Provost for Faculty and Equity

Register here: <https://www.ndsu.edu/facultyaffairs/recruitment/>

STUDENT RESEARCH DAY

NDSU Student Research Day is a one-day event on April 19, 2022, that is dedicated to providing NDSU graduate and undergraduate students an opportunity to present their research and creative works. Both oral and poster presentation options are available. This is an inaugural event resulting from a collaboration among NDSU EXPLORE, Gamma Sigma Delta, and the Graduate Student Council.

[Learn more and register to participate in Student Research Day >>](#)

Registration closes Tuesday, March 22, 2022

FUNDING OPPORTUNITIES

ND NASA EPSCoR: Suborbital Flight Opportunity CAN Pre-Proposals

In response to the FY 2022 [NASA Notice of Funding Opportunity \(NOFO\) EPSCoR Suborbital Flight Opportunity \(SFO\) Announcement Number: NNH22ZHA002C](#), the [North Dakota NASA EPSCoR](#) (Established Program to Stimulate Competitive Research) is soliciting pre-proposals from faculty at [affiliate institutions](#) specifically designed to promote and expand NASA research in North Dakota. Following preliminary proposal selection by ND NASA EPSCoR, the selected pre-proposal team will work directly with the ND NASA EPSCoR office to submit a full proposal to NASA via NSPIRES.

The full RFP, online submission form, and budget sheet can be found in the [RFP announcement on the ND NASA EPSCoR website](#).

Deadline: February 22, 2022; Noon

NSF: Expeditions in Computing

The National Science Foundation's (NSF) Directorate for Computer and Information Science and Engineering (CISE) established the *Expeditions in Computing (Expeditions)* program [[NSF 20-544](#)] to build on past successes and provide the CISE research and education community with the opportunity to pursue ambitious, fundamental research agendas that promise to define the future of computing and information.

Pre-proposal deadline: June 16, 2022

NSF: Smart and Connected Communities

The goal of the NSF Smart and Connected Communities (S&CC) program solicitation [[NSF 22-529](#)] is to accelerate the creation of the scientific and engineering foundations that will enable smart and connected communities to bring about new levels of economic opportunity and growth, safety and security, health and wellness, accessibility and inclusivity, and overall quality of life.

Proposals accepted anytime, until April 1, 2024

RECENTLY FUNDED GRANTS

- Dean D Steele (CPI). Performance of drought-tolerant corn hybrids under varying irrigation strategies. \$26,110 from the ND Corn Utilization Council. 7/1/2022 - 6/30/2023.
- Ghodrat Karami (PI). NASA Human Exploration Rover Challenge. \$4,000 from the University of North Dakota. 1/10/2022 - 4/1/2022.
- Xinhua Jia (PI). Assessing subsurface drainage systems using electromagnetic induction. \$52,166 from Ellingson Companies. 1/1/2022 -12/31/2023.
- Lokesh Karthik Narayanan (PI), David Grewell (CPI). Closed-loop control for strengthening 3D printed (FDM) parts through ultrasonic welding. \$40,359 from the Center for Bioplastic and Biocomposites. 1/3/2022 - 12/31/2022.

RECENTLY SUBMITTED PROPOSALS

- Dharmakeerthi Nawarathna (PI), Umamaheswara Rao Tida (CPI). PFI-TT: Point-of-care sensor based on electric fields and machine learning for detection of circulating microRNA to identify early pancreatic cancer. \$250,000 from the National Science Foundation. 5/2/2022 - 5/1/2024.
- Kelly Ann Rusch (PI). NSF INCLUDES Alliance: Cultivating Indigenous Research Communities for Leadership in Education and STEM (CIRCLES) Alliance. \$2,083,198 from the National Science Foundation. 7/1/2022 - 6/30/2027.
- Xinhua Jia (PI), Thomas Scherer (CPI). Food security solution: Demonstration, education, and research via hydroponic for vegetable productions. \$103,765 from the Agricultural Marketing Service. 10/1/2022 -9/30/2024.

- Xiangqing Wang Tangpong (PI), Zhibin Lin (CPI), Danling Wang (CPI), Majura Fortunatus Selekwa (CPI), Fardad Azarmi (CPI). MRI: Acquisition of a Polytec PSV QTEC Scanning Vibrometer. \$349,362 from the National Science Foundation. 9/1/2022 - 8/31/2025.
- Danling Wang (PI), Juan Li (CPI). RII Track 2 FEC: Building Research Infrastructure and Workforce in Edge AI. \$1,483,582 from the National Science Foundation. 10/1/2022 - 9/30/2026.
- Qifeng Zhang (PI), Umamaheswara Rao Tida (CPI). RII Track-2 FEC: Convergence Research On Precision Agriculture Innovations. \$441,161 from the National Science Foundation. 10/1/2022 - 9/30/2026.
- Jeremy A Straub (PI). MRI: Development of An Analog Computing Capability. \$1,007,725 from the National Science Foundation. 7/1/2022 - 6/30/2027.
- Mijia Yang (PI). "Impact Testing to Support the Development of an Artificial Bird Material for Aircraft Certification". \$98,542 from the National Aeronautics and Space Administration. 7/1/2022 - 6/30/2023.
- Omid Beik (PI). A Series Hybrid Electric Propulsion for an eVTOL Using a Fault Tolerant 9-phase Generator. \$100,000 from the National Aeronautics and Space Administration. 8/15/2022 - 8/15/2023.
- Achintya Bezbaruah (CPI). Development of RNA Fungicides for Management of Sclerotinia Sclerotiorum on Canola. \$19,906 from the Agricultural Research Service. 7/1/2022 - 6/30/2023.

RECENT PUBLICATIONS

For 2022, 19 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:

- Bazrkar, Mohammad Hadi, and Xuefeng Chu. n.d. "Development of Category-Based Scoring Support Vector Regression (CBS-SVR) for Drought Prediction." *Journal of Hydroinformatics*. Accessed January 25, 2022. <https://doi.org/10.2166/hydro.2022.104>.
- Wang, Ke, Raj Shankar Hazra, Qian Ma, Long Jiang, Zhaohui Liu, Yuanming Zhang, Shudong Wang, and Guangting Han. n.d. "Multifunctional Silk Fibroin/PVA Bio-Nanocomposite Films Containing TEMPO-Oxidized Bacterial Cellulose Nanofibers and Silver Nanoparticles." *Cellulose*. Accessed February 7, 2022. <https://doi.org/10.1007/s10570-021-04369-6>.
- Zhang, Zhiming, Jin Yan, Liangding Li, Hong Pan, and Chuanzhi Dong. 2022. "Condition Assessment of Stay Cables through Enhanced Time Series Classification Using a Deep Learning Approach." *Smart Structures and Systems* 29 (1): 105–16. <https://doi.org/10.12989/sss.2022.29.1.105>.

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 to submit items for *College Happenings*.

Follow the College of Engineering on social media.

