

COLLEGE HAPPENINGS

July 11, 2023

FROM THE INTERIM DEAN

Building Project Update

As we have now passed the midpoint of our summer break, I would like to provide an update on the status of our planning for the new Engineering and Computational Sciences facility. Due to the abbreviated timeline we were given to develop a conceptual plan for the building, we have accelerated our design phase through the summer months, with the target of having a conceptual design completed by the end of August. We have made great progress since the building was authorized just a few months ago, and we remain on track to reach our goal by the end of the summer.

In early May, the architectural design team of Zerr|Berg Architects and BWBR was hired to complete the conceptual design of the facility. This group is very familiar with NDSU, having designed numerous buildings on campus including the AG Hill Center and Sugihara Hall. The college leadership team has been meeting regularly with the architectural design team to discuss the vision and goals for the facility, identify and prioritize critical space needs, and review ideas from other engineering institutions, including both current and aspirational peers. As part of this process, a small group of us recently spent two days visiting four other institutions across the US with recently-completed engineering facilities. We learned a great deal about what has worked, and has not worked, to foster interdisciplinary collaboration and innovation in engineering education and research at those institutions.

We continue to solicit feedback from all of our constituent groups, including faculty, staff, students, alumni, and industry partners. The department chairs have been integral in collecting and prioritizing space needs for each department, and working with the architects to define space and utility requirements for laboratories, classrooms, shop areas, student support spaces, and administrative/office areas. Our alumni and industry partners have been providing their perspectives on future industry needs and trends, to help us ensure that the facility will prepare our graduates to meet future workforce needs. Please continue to provide your thoughts and ideas to your department chairs, or directly to me, so that we can incorporate those ideas into the design of the new building.

As we develop plans for the new facility, we recognize that none will come to fruition without the generous support of our philanthropic partners, including both private donors and industry supporters. We are seeking to raise approximately \$30M in 18 months to provide the required cash match and interest for loan financing in order to unlock the \$59M guaranteed by the state. While this is certainly a challenge, the team at the NDSU Foundation is devoting significant resources to this top priority of NDSU. Our initial conversations with both private and industry partners have been extremely positive, and we are all very optimistic that we will reach this fundraising goal.

In the coming months, please do not hesitate to reach out to me with your ideas for the new facility. I welcome your thoughts and feedback. I will continue to provide updates on our progress, and I look forward to sharing the design concepts with all of you early in the fall semester. In the meantime, enjoy the rest of the summer break!

Alan R. Kallmeyer, Ph.D.
Interim Dean | College of Engineering

IN THE NEWS

[NDSU professor named RCA uncrewed autonomous systems faculty fellow](#)

[Student engineering team wins competition](#)

[Challey Spotlight: Dr. Jeremy Straub](#)

CONGRATULATIONS

Ying Huang, professor of **Civil and Environmental Engineering and Welch Faculty Fellow**, was awarded Best Paper at the 8th International Conference on Civil, Structural, and Transportation Engineering held in Ottawa, Canada, in June. Huang received the recognition for her paper entitled "**Weather Impact on Pipeline Temperature Distribution.**" ICCSTE is one of the leading conferences in fields related to civil, structural, and transportation engineering. The goal of the annual event is to gather scholars from all over the world to present advances in the relevant fields and to foster an environment conducive to exchanging ideas and information.

The **NDSU Bison Pullers** earned first place in the durability category during the American Society of Agricultural and Biological Engineers **International Quarter-Scale Tractor Student Design Competition** in Peoria, Illinois. The team also earned third place in overall performance across all events. Team members are Evan Oberg, Robert Stephany, Michael Ritchie, Nathan Schilling, Lawson Kraft, Emma Arstein, Brandon Kasper and Nicholas Kuhlmann.

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

July 10-13, **STEM Kids Camp Session 1.** Students in grades K-8 will be on campus for a variety of summer kids camps focused on topics in STEM. Morning sessions will run from 9 a.m. - 12 p.m., and afternoon sessions will run from 1 p.m. - 4 p.m.

July 17-20, **STEM Kids Camp Session 2.** Students in grades K-8 will be on campus for a variety of summer kids camps focused on topics in STEM. Morning sessions will run from 9 a.m. - 12 p.m., and afternoon sessions will run from 1 p.m. - 4 p.m.

July 24-27, **STEM High School Camp.** Mornings will be spent on campus working with NDSU faculty in the labs and afternoons students will be going out on engineering industry visits.

Friday, August 4, **Summer Research Poster Session.** You are invited to attend a public poster session featuring more than 60 high school and undergraduate students who have been participating in summer research experiences at NDSU this summer. 1:00 – 3:00 p.m. A. Glenn Hill Center Main Hallway.

Wednesday, August 9, **Academic Leaders Orientation and Retreat** for Department Chairs/Heads and Deans.

Tuesday, August 15, **New Faculty Orientation.** This event is intended for faculty that have started at NDSU since August 16, 2022. [Register Here](#)

Wednesday, August 16, **Annual Faculty/Academic Staff Conference.** Presentations by NDSU faculty and staff demonstrating best practices for research, instruction, advising, assessment, campus climate, inclusion, mentoring, leadership, and classroom technologies. [Register Here](#)

SEARCHING FOR EXCELLENCE: SEARCH COMMITTEE TRAINING

Anyone who plans to be a chair of an academic search (this includes faculty, lecturers and postdocs) is required to attend the in person (or via zoom when offered in zoom will be considered in person) training within three years prior to your position being posted. The training is also open and recommended to any and all search committee members. The training will include information on procedural aspects of the search process, as well as research-based information addressing the ways that bias can influence the recruitment and screening of applicants in a search and strategies for overcoming bias. Upcoming trainings:

- Monday, August 21 from 1:00-3:00 pm in the Hidatsa Room, Memorial Union
- Wednesday, September 27th, from 9:00- 11:00 am in the Hidatsa Room, Memorial Union

Please go to the following link to register for the training:

https://www.ndsu.edu/facultyaffairs/recruitment/search_committee_training/

If you have any questions or concerns please contact Angela Fowler at angela.fowler@ndsu.edu or 1-7150.

PTE INFORMATION SESSIONS

The NDSU Provost Office is hosting several information sessions for Fall 2023 PTE Candidates:

- Thursday June 22, 10:00-11:00 am, via Zoom
- Thursday July 27, 10:00-11:00 am, via Zoom
- Wednesday August 30, 1:00-2:00 pm, MU Nueta
- Thursday September 7, 2:00-3:00 pm, MU Nueta

The 2023-24 PTE Materials are now available to download from the Promotion and Tenure website at:

<https://www.ndsu.edu/facultyaffairs/pte/>

This website contains the NDSU PTE Timeline, Guidelines for Promotion and Tenure Portfolio Preparation, Probationary Period Extension Form (per NDSU Policy 352, 3.6), Policy and Procedure Checklist, the Portfolio Cover Sheet, and Information on University-Wide PTE Advisory Committee.

Portfolios for ranked faculty are due to the Office of the Provost/Faculty Affairs no later than December 29, 2023. If you have any questions regarding PTE, please contact Canan Bilen-Green (canan.bilen.green@ndsu.edu, 1-7040).

FUNDING OPPORTUNITIES

NDSU Foundation Impact Grants

The NDSU Foundation Grants Committee is accepting applications for the 2023 Impact Fund Grant Program. [Apply today!](#)

The application deadline is **Wednesday, August 2, 2023, by 4:30 p.m.**

The Impact Fund Grant Program provides funding for projects that make a significant impact on excellence and the educational experience for students at North Dakota State University. This program is supported by annual contributions from alumni and friends of the University.

Applications are accepted from faculty, staff, and recognized student groups. The Impact Fund Grant Program offers grants of \$20,000 to \$75,000. Find more information on the [NDSU Foundation website](#).

NSF: Research Experiences for Undergraduates

The Research Experiences for Undergraduates (REU) program [[NSF 23-601](#)] supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for supporting student research:

- REU *Sites* are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme.
- REU *Supplements* may be included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSF-funded research projects.

Research experience is one of the most effective avenues for attracting students to and retaining them in science and engineering and for preparing them for careers in these fields. The REU program, through both Sites and Supplements, aims to provide appropriate and valuable educational experiences for undergraduate students through participation in research. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. REU projects feature high-quality interaction of students with faculty and/or other research mentors and access to appropriate facilities and professional development opportunities.

Recent modifications to solicitation:

- Increased total project costs
- Non-PI faculty/professionals no longer need a BioSketch but require a COA

Deadline: September 27, 2023

RECENT PUBLICATIONS

For 2023, 131 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:

- Ahmad, Salman, Asad Ali, Hafiz Usman Ahmed, Ying Huang, and Pan Lu. 2023. "Evaluating Traffic Operation Conditions during Wildfire Evacuation Using Connected Vehicles Data." *Fire-Switzerland* 6 (5): 184. <https://doi.org/10.3390/fire6050184>.
- Ahmed, Mehreen, Rafia Mumtaz, Zahid Anwar, and Syed Mohammad Hassan Zaidi. 2023. "Assessment of the Monsoonal Impact of Air Pollutants and Meteorological Factors on Physicochemical Water Quality Parameters Using Remote Sensing." *JOURNAL OF WATER AND CLIMATE CHANGE*, June. <https://doi.org/10.2166/wcc.2023.500>.
- Das, H., A. A. Haidous, S. C. Smith, and N. Gong. 2023. "Approximate Memory for Low-Power Video Applications." *IEEE ACCESS* 11: 57735–44. <https://doi.org/10.1109/ACCESS.2023.3283409>.
- Kayani, Hajra, Muhammad Asif Rasheed, Wadi B. Alonazi, Farrukh Jamil, Annam Hussain, ChangHui Yan, Raza Ahmed, and Muhammad Ibrahim. 2023. "Identification and Genome-Wide Analysis Provide Insights into the Genetic Diversity and Biotechnological Potentials of Novel Cold-Adapted Acinetobacter Strain." *EXTREMOPHILES* 27 (2): 14. <https://doi.org/10.1007/s00792-023-01301-7>.
- Lou, Ding, Hang Chen, Jinyuan Liu, Danling Wang, Congzhou Wang, Bharat K. Jasthi, Zhengtao Zhu, Hammad Younes, and Haiping Hong. 2023. "Improved Anticorrosion Properties of Polyurethane Nanocomposites by Ti₃C₂T_x MXene/Functionalized Carbon Nanotubes for Corrosion Protection Coatings." *ACS APPLIED NANO MATERIALS*, June. <https://doi.org/10.1021/acsanm.3c02316>.
- Manga, Sharanya, Neha Muthavarapu, Renisha Redij, Bhavana Baraskar, Avneet Kaur, Sunil Gaddam, Keerthy Gopalakrishnan, et al. 2023. "Estimation of Physiologic Pressures: Invasive and Non-Invasive Techniques, AI Models, and Future Perspectives." *SENSORS* 23 (12): 5744. <https://doi.org/10.3390/s23125744>.

- Muhammad, Zia, Zahid Anwar, Abdul Rehman Javed, Bilal Saleem, Sidra Abbas, and Thippa Reddy Gadekallu. 2023. "Smartphone Security and Privacy: A Survey on APTs, Sensor-Based Attacks, Side-Channel Attacks, Google Play Attacks, and Defenses." *TECHNOLOGIES* 11 (3): 76. <https://doi.org/10.3390/technologies11030076>.
- Rasuleva, Komila, Keerthi Priya Jangili, Alfred Akinlalu, Ang Guo, Pawel Borowicz, Chen-zhong Li, and Dali Sun. 2023. "EvIPqPCR, Target Circulating Tumorous Extracellular Vesicles for Detection of Pancreatic Cancer." *ANALYTICAL CHEMISTRY*, June. <https://doi.org/10.1021/acs.analchem.3c01218>.
- Sapkota, Ranjan, John Stenger, Michael Ostlie, and Paulo Flores. 2023. "Towards Reducing Chemical Usage for Weed Control in Agriculture Using UAS Imagery Analysis and Computer Vision Techniques." *SCIENTIFIC REPORTS* 13 (1). <https://doi.org/10.1038/s41598-023-33042-0>.
- Yadav, Himani, Md Rakib Hasan Khan, Mohiuddin Quadir, Kelly A. A. Rusch, Partho Pritom Mondal, Megan Orr, Elvis Genbo Xu, and Syeed Md Iskander. 2023. "Cutting Boards: An Overlooked Source of Microplastics in Human Food?" *Environmental Science & Technology* 57 (22): 8225–35. <https://doi.org/10.1021/acs.est.3c00924>.

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*.

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