

COLLEGE HAPPENINGS

September 28, 2021

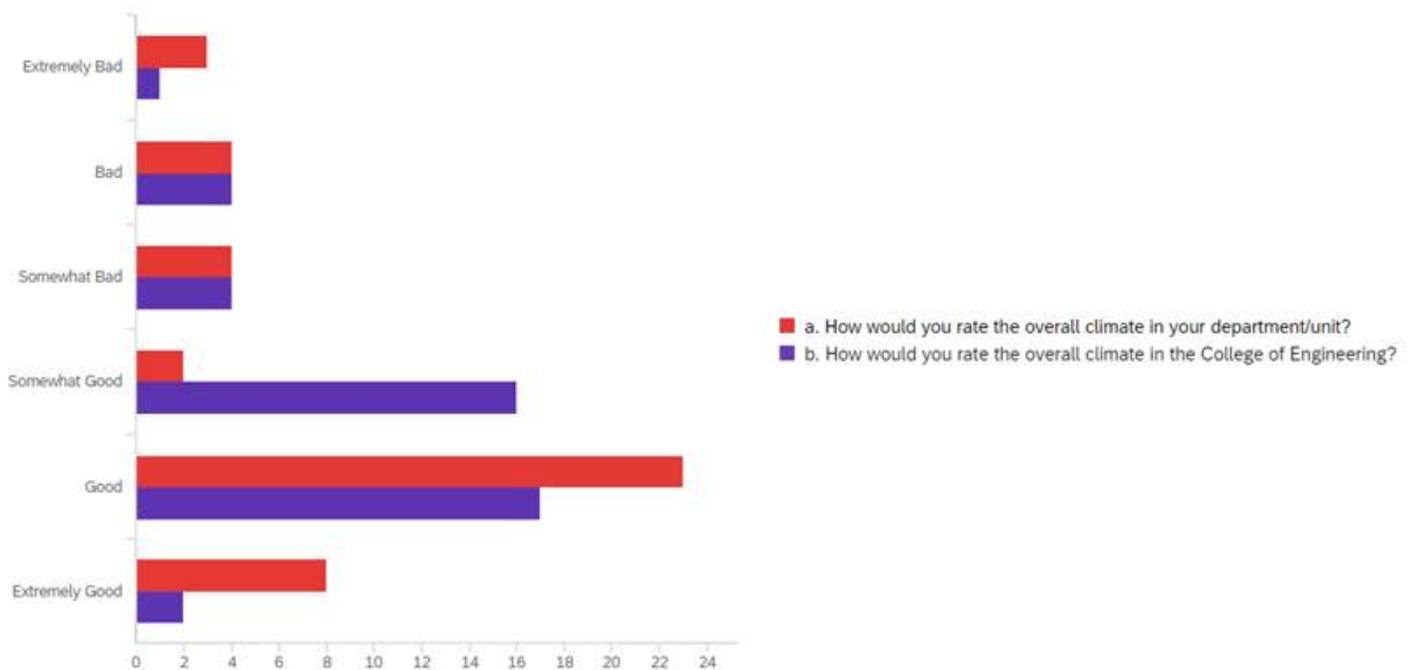
FROM THE DEAN

Culture Survey Results and Donuts with the Deans

Several weeks ago, we sent out a survey asking faculty and staff for feedback on their perceptions of

1. how faculty and staff rate the overall climate in their departments/units and
2. how well the departments/units actively support diverse faculty and staff.

The survey found that 70% (31/44 respondents) rated the overall climate in their department/unit as “Good” or “Extremely Good” (from a 6-point Likert scale with 1=Extremely Bad...6=Extremely Good). The mean rating “How would you rate the overall climate in your department?” and “How would you rate the overall climate in the College of Engineering?” was 4.41 and 4.14 respectively, somewhere between “Somewhat Good (4.0)” and “Good (5.0)”.



The survey also found that 73% of respondents “Agreed” or “Strongly Agreed” (again on a 6-point Likert scale with 1=Strongly Disagree...6=Strongly Agree) that their department/unit actively supports diverse faculty and staff. Both of these metrics related to our organizational culture were higher than when we measured them in 2017. However, we still have work to do to improve these perceptions.

Associate Dean Pryor and I would like to invite you to dialogue with us about our organizational culture and other topics, and create an additional avenue to promote collaborations within the college, by inviting you to “Donuts with the Deans”. The first “Donuts with the Deans” will be with faculty at 9:00 a.m. on Friday, Oct. 8 in the CME Auditorium. The second will be with staff at 9:00 a.m. on Monday, Oct. 11 in CIE 101. I hope you’ll be able to join us to enjoy some coffee and Sandy’s donuts while we discuss our goal of cultivating a culture of collaborative excellence.



IN THE NEWS

[College of Engineering celebrates scholarship recipients and donors](#)

[College of Engineering presents researcher awards](#)

[College of Engineering honors excellence in teaching](#)

[Engineering staff members honored](#)

[‘I’m thankful that I made the decision to transfer to NDSU’](#)

CONGRATULATIONS

Lahcen Akerkouch and **Berkay Koyuncu**, graduate students in the **Department of Civil, Construction and Environmental Engineering**, received travel awards from the American Physical Society to the Annual Meeting of Division of Fluid Dynamics in November. This award is highly selective and aimed for potential researchers in the field of Fluid Mechanics.

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

Thursday, October 7, **Women Also Know Stuff**. This virtual presentation and Q&A with Dr. Nadia Brown is part of the ADVANCE Partnership Project [‘Joining Forces’](#) an NSF-funded collaboration. 6:00 p.m. [Register Here](#).

Wednesday, October 13, **Faculty Council meeting**. 12:00 – 1:00 p.m. CME Auditorium or Zoom.

Wednesday, October 20, **Department of Defense Regional DEPSCoR Day**. The event is hosted by the University of South Dakota. Get more information and register here: www.usd.edu/research/depescor-dod-day

Tuesday, November 9, **Faculty Council meeting**. 12:30 – 1:30 p.m. FLC 122 or Zoom.

ANTI-RACISM COALITION

You are invited to join the [Anti-Racism Coalition \(ARC\)](#), a grassroots group of NDSU employees who affirm the value of our BIPOC (Black, Indigenous, People of Color) students and colleagues.

The ARC recognizes the ways in which predominantly white institutions, such as our own, often perpetuate systemic racism and the injustices that are tied to it. The group is open to any like-minded NDSU employee. [Read more about the group here](#). Please [fill out this form](#) if you would like to join the group.

TEACHING WORKSHOPS FOR INSTRUCTORS

The Learning and Applied Innovation Center (LAIC) staff have developed training opportunities for instructors, most of which are only 30 minutes long to help you enhance your class and teaching. [They have several sessions scheduled in September and October](#) including:

- Making the Grade Center Work for You
- Humanizing Assessments
- Engaging Students
- Universal Design for Learning
- Student Evaluation of Teaching
- Engaging Students with Zoom
- Improve Course Accessibility with Blackboard Ally
- Using Built-in Accessibility Checkers in Microsoft and Adobe
- Mid-semester Assignments of Feedback and Strategies
- Weighting Grades

See the full schedule: <https://kb.ndsu.edu/103166>

WRITING SUPPORT FOR GRAD STUDENTS

Drew Taylor, a doctoral student in the Department of Electrical and Computer Engineering, is the disciplinary writing consultant for the College of Engineering.

As part of the Center for Writers program, Taylor is available to help grad students become better writers through 1-on-1 sessions where they can discuss their thesis, dissertation, manuscripts, grants, CVs, resumés, seminar presentations, or anything else they are working on. [Grad students can schedule an appointment and find more information about the CFW on their website.](#)

NEW TEMPLATES FOR NSF PROPOSALS

The new National Science Foundation (NSF) Proposal and Award Policies and Procedures Guide (PAPPG), [NSF 22-1](#), takes effect October 4, 2021.

Significant changes in this edition include:

- the section on **Biographical Sketches** has been revised to increase the page limit for biographical sketch(es) to three pages. An updated PDF template is available for download from the [NSF Biographical Sketch webpage](#), and a revised template is also available in SciENcv.
- the section on **Current and Pending Support** has been updated to **require that information on objectives and overlap with other projects be provided**, to help NSF and reviewers assess overlap / duplication. An updated PDF template is available for download from the [NSF Current and Pending Support webpage](#), and a revised template is also available in SciENcv.
 - NSF has also implemented updates so that FastLane will automatically trim excess (blank) pages from the fillable PDF upon upload; Research.gov will have this functionality beginning October 4, 2021.
- When completing both the biographical sketch and the Current and Pending Support document, reference NSF's newly developed guide: [NSF Pre-award and Post-award Disclosures](#).

Use of these updated templates will be required for proposals submitted on or after October 4, 2021.

[See the full list of changes in the new PAPPG >>](#)

FUNDING OPPORTUNITIES

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):

- Algorithmic Foundations (AF) program;
- Communications and Information Foundations (CIF) program;
- Foundations of Emerging Technologies (FET) program; and
- Software and Hardware Foundations (SHF) program.

Division of Computer and Network Systems (CNS):

- CNS Core (CNS Core) program.

Division of Information and Intelligent Systems (IIS):

- Human-Centered Computing (HCC) program;
- Information Integration and Informatics (III) program; and
- Robust Intelligence (RI) program.

Office of Advanced Cyberinfrastructure (OAC):

- OAC Core Research (OAC Core) program;

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.

A more complete description of these project classes can be found in Section II. *Program Description* of the solicitation [[NSF 21-616](#)].

Deadline for Medium Projects and OAC Core Projects: December 22, 2022.

Proposals for Small Projects are accepted anytime.

DoD: Young Investigator Program

The Office of Naval Research (ONR) is interested in receiving proposals for its Young Investigator Program (YIP) [[N00014-21-S-F008](#)]. ONR's Young Investigator Program seeks to identify and support academic scientists and engineers who are in their first or second full-time tenure-track or tenure-track-equivalent academic appointment, who have received their PhD or equivalent degree on or after January 1, 2014, and who show exceptional promise for doing creative research.

Proposals addressing research areas which are of interest to ONR Program Officers will be considered. See a full list [here](#).

Applicants are *strongly encouraged* to contact the appropriate Program Officer who is the point of contact for a specific technical area to discuss their research ideas before submitting a proposal. A list of most Program Officers and their contact information can be found [here](#). Please see full text of the [funding opportunity announcement](#) for more details.

Deadline: October 29, 2021

RECENTLY FUNDED GRANTS

- Danling Wang (PI). New functionalized nanocomposites based smart sensing techniques for real-time guidance of cancer treatment and early cancer detection. \$24,884 from ND EPSCoR. 09/16/2021 – 06/30/2022.
- Danling Wang (PI). ND NASA EPSCoR Supplemental Project Funding Award. \$26,932 from ND EPSCoR. 09/17/2021 – 07/31/2022.
- Fardad Azarmi (PI). ND NASA EPSCoR Supplemental Project Funding Award. \$26,025 from ND EPSCoR. 09/17/2021 – 07/31/2022.
- Trung Bao Le (PI). ND-ACES Early Career Faculty award. \$28,268 from ND EPSCoR. 09/14/2021 – 06/30/2022.
- Wenjie Xia (PI). ND-ACES Early Career Faculty award. \$32,770 from ND EPSCoR. 09/14/2021 – 06/30/2022.

RECENTLY SUBMITTED PROPOSALS

- Farhad Shirani Chaharsooghi (PI). PIPP Phase I: A Dakotaland Respiratory Pandemic Readiness Platform for Rapid Prediction, Prevention, and Mitigation. \$114,642 from the National Science Foundation. 8/1/2022 - 1/31/2024.
- Chad A Ulven (CPI). Preliminary Exploration of Poly lignin Biomass for Non-isocyanate Rigid Foams. \$9,998 from Plain Sight Innovations LLC. 9/15/2021 - 3/14/2022.
- Zhibin Lin (PI). Develop Element Level Bridge Performance Measures and Targets. \$161,872 from the MN Department of Transportation. 7/1/2022 - 6/30/2024.
- Xin Sun (CPI). A Novel Soybean Sorting Technology for Producing High-Quality Tofu Products. \$38,299 from the ND Department of Agriculture. 12/1/2021 - 11/30/2022.
- Long Jiang (PI). Initial Investigation of Cotton Plant Derived Synthetic Leather. \$77,015 from Cotton Incorporated. 1/1/2022 - 12/31/2022.
- Jessica Lynne Lattimer Vold (PI). Biobased Packaging Materials from Agricultural Waste. \$150,000 from Johnson and Johnson. 7/1/2022 - 6/30/2025.

RECENT PUBLICATIONS

For 2021, 173 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:

- Abbas, Tauqeer, Tanush Wadhawan, Asad Khan, John McEvoy, and Eakalak Khan. 2021. "Iron Turning Waste: Low Cost and Sustainable Permeable Reactive Barrier Media for Remediating Dieldrin, Endrin, DDT and Lindane in Groundwater." *Environmental Pollution* 289 (November): 117825. <https://doi.org/10.1016/j.envpol.2021.117825>.
- Hazra, Raj Shankar, Debasmita Dutta, Babak Mamnoon, Gauthami Nair, Austin Knight, Sanku Mallik, Sabha Ganai, Katie Reindl, Long Jiang, and Mohiuddin Quadir. 2021. "Polymeric Composite Matrix with High Biobased Content as Pharmaceutically Relevant Molecular Encapsulation and Release Platform." *ACS Applied Materials & Interfaces* 13 (34): 40229–48. <https://doi.org/10.1021/acsami.1c03805>.
- Liao, Yangchao, Zhaofan Li, Sarah Ghazanfari, Fatima, Andrew B. Croll, and Wenjie Xia. 2021. "Understanding the Role of Self-Adhesion in Crumpling Behaviors of Sheet Macromolecules." *Langmuir* 37 (28): 8627–37. <https://doi.org/10.1021/acs.langmuir.1c01545>.

- Maharjan, Manisha, Ujjwol Tamrakar, Zhen Ni, Bishnu Bhattarai, and Reinaldo Tonkoski. 2021. “Overvoltage Prevention and Curtailment Reduction Using Adaptive Droop-Based Supplementary Control in Smart Inverters.” *Applied Sciences-Basel* 11 (17): 7900. <https://doi.org/10.3390/app11177900>.
- Mahmud, Md Sultan, Azlan Zahid, Anup Kumar Das, Muhammad Muzammil, and Muhammad Usman Khan. 2021. “A Systematic Literature Review on Deep Learning Applications for Precision Cattle Farming.” *Computers and Electronics in Agriculture* 187 (August): 106313. <https://doi.org/10.1016/j.compag.2021.106313>.
- Ramzanpour, Mohammadreza, and Simone A. Ludwig. 2020. “Association Rule Mining Based Algorithm for Recovery of Silent Data Corruption in Convolutional Neural Network Data Storage.” In *2020 IEEE Symposium Series on Computational Intelligence (SSCI)*, 3057–64. New York: Ieee. <https://www.webofscience.com/wos/woscc/full-record/WOS:000682772903015?AlertId=6be422b2-ea2e-40c5-8e21-3756db20c6af&SID=7CaF4HFKxucQCjimulC>.
- Velmanickam, Logeeshan, Vidura Jayasooriya, Madhava Sarma Vemuri, Umamaheswara Rao Tida, and Dharmakeerthi Nawarathna. n.d. “Recent Advances in Dielectrophoresis toward Biomarker Detection: A Summary of Studies Published between 2014 and 2021.” *Electrophoresis*. Accessed September 27, 2021. <https://doi.org/10.1002/elps.202100194>.
- Zhang, Dawei, and Ying Huang. 2021. “The Bonding Performances of Carbon Nanotube (CNT)-Reinforced Epoxy Adhesively Bonded Joints on Steel Substrates.” *Progress in Organic Coatings* 159 (October): 106407. <https://doi.org/10.1016/j.porgcoat.2021.106407>.

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.

