

COLLEGE HAPPENINGS

June 1, 2022

IN THE NEWS

[NDSU researchers publish paper on crumpled matter](#)

[Former engineering dean receives Impact Award](#)

[NDSU receives grant to expand Bison Cyber camp](#)

[Where are they now: Troy Stockstad](#)

[Where are they now: Kasey Morelock](#)

CONGRATULATIONS

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

NEW HIRES

Deborah Kvittum joined the **Department of Computer Science** as an Academic Assistant.

UPCOMING EVENTS

Wednesday, August 10, **Academic Leaders Orientation and Retreat for Department Chairs/Heads and Deans.**

Tuesday, August 16, **New Faculty Orientation.** The New Faculty Orientation is intended for faculty that have started at NDSU since last year's conferences. [Register here.](#)

Wednesday, August 17, **Annual Faculty/Academic Staff Conference.** [Register here.](#)

2022-23 PROMOTION, TENURE AND EVALUATION

The 2022-23 Faculty Promotion, Tenure, and Evaluation (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 are due to the Office of the Provost/Faculty Affairs no later than December 30, 2022. If you have any questions regarding PTE, please contact Canan Bilen-Green (canan.bilen.green@ndsu.edu).

FUNDING OPPORTUNITIES

DOE: Foundational Agrivoltaic Research for Megawatt Scale (FARMS)

This funding opportunity announcement (FOA) [[DE-FOA-0002697](#)] is being issued by the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Solar Energy Technologies Office (SETO) to invest in innovative research and development (R&D) that accelerates the large-scale development and deployment of solar technology to support an equitable transition to a decarbonized electricity system by 2035 and decarbonized energy sector by 2050. By investing in research on the co-location of solar photovoltaics (PV) and agriculture ("agrivoltaics"), this FOA will advance the decarbonization of the energy system while providing new economic opportunities to farmers, rural communities, and the solar industry.

Letter of Intent deadline: June 1, 2022

NSF: Engineering of Biomedical Systems

The Engineering of Biomedical Systems program [[PD 20-5345](#)] is part of the Engineering Biology and Health cluster, which also includes: 1) the Biophotonics program; 2) the Biosensing program; 3) the Cellular and Biochemical Engineering program; and 4) the Disability and Rehabilitation Engineering program.

The goal of the Engineering of Biomedical Systems (EBMS) program is to provide opportunities for creating fundamental and transformative research projects that integrate engineering and life sciences to solve biomedical problems and serve humanity in the long term. Projects are expected to use an engineering framework (for example, design or modeling) that supports increased understanding of physiological or pathophysiological processes. Projects must include objectives that advance both engineering and biomedical sciences.

Projects may include: methods, models, and enabling tools applied to understand or control living systems; fundamental improvements in deriving information from cells, tissues, organs, and organ systems; or new approaches to the design of systems that include both living and non-living components for eventual medical use in the long term.

Proposals accepted anytime.

RECENTLY FUNDED GRANTS

- Chad A Ulven (PI). AM Thermoset Composite Process. \$931,192 from the National Center for Manufacturing Science. 01/01/2022 – 06/30/2023.
- Majura Fortunatus Selekwu (PI). Functional Coatings for Vehicle Autonomy – Phase III: Development of a Robotic Vehicle for Testing PPG Coatings. \$203,899 from the Office of the Secretary of Defense. 02/14/2022 – 09/25/2023.

RECENTLY SUBMITTED PROPOSALS

- Michael Richard Kessler (PI), David Grewell (CPI). NSF I-Corps Hub (Track 2): Great Plains Region. \$14,999,946 from the National Science Foundation. 1/1/2023 - 12/31/2027.

- Ying Huang (PI), Zhibin Lin (CPI), Long Jiang (CPI). All-in-One Multifunctional Cured-In-Place Structural Liner for Rehabilitating of Aging Cast Iron Pipelines. \$1,000,000 from Pipeline and Hazardous Materials Safety. 10/3/2022 - 9/30/2025.
- Ying Huang (PI), Zhibin Lin (CPI), Nita Yodo (CPI). Artificial Intelligence Based Risk-informed Decision Support Tool for Replacing and Rehabilitating Natural Gas Distribution Pipelines. \$389,235 from Pipeline and Hazardous Materials Safety. 9/30/2022 - 9/30/2025.
- Umamaheswara Rao Tida (PI). RII Track-4: NSF: Opportunistic MIV-device Placement in Monolithic Three-dimensional Integrated Circuits. \$205,988 from the National Science Foundation. 1/1/2023 - 12/31/2024.
- Harun Pirim (PI) Functional elucidation of virulence associated proteins encoded by *Flavobacterium columnare*, an important fish pathogen. \$109,954 from the National Institute of Food & Agriculture. 8/16/2022 - 7/31/2024.
- Long Jiang (PI), Zhibin Lin (CPI), Ying Huang (CPI). Development of innovative, rapid cured-in-place pipe lining technology to achieve half-day service restoration. \$783,976 from Pipeline and Hazardous Materials Safety. 10/1/2022 - 9/30/2023.
- Ewumbua Monono (PI), Kenneth Hellevang (CPI). Evaluating the Quality of Soybeans Killed at Green and Semi-green Maturities after Field Dry-down Under Different Weather Conditions. \$148,020 from the North Central Soybean Research Program. 10/1/2022 - 3/31/2024.
- Zhibin Lin (PI), Ying Huang (CPI). New integrity management program towards hydrogen pipelines: Threat assessment methodologies, acceptance limit, repair criteria, and preventive and mitigative measures. \$300,000 from Pipeline and Hazardous Materials Safety. 10/1/2022 - 9/30/2024.
- Zhibin Lin (PI) Danling Wang (CPI), Qifeng Zhang (CPI). Advanced sensing technology to detect, locate, and quantify early-stage methane emissions in complex urban environments. \$300,000 from Pipeline and Hazardous Materials Safety. 10/1/2022 - 3/30/2024.
- Omid Beik (PI). Multiphase Converters Using Clamped Integrated Power Electronics Building Block (iPEBB). \$227,625 from the U.S. Navy. 1/2/2023 - 12/29/2023.

RECENT PUBLICATIONS

For 2022, 63 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:

- Bridgelall, Raj, Bhavana Bhardwaj, Pan Lu, Denver D. Tolliver, and Neeraj Dhingra. n.d. "Detecting Sources of Ride Roughness by Ensemble-Connected Vehicle Signals." *International Journal of Pavement Engineering*. Accessed May 23, 2022. <https://doi.org/10.1080/10298436.2022.2069243>.
- Du, Wenfeng, Yannan Zhao, Yingqi Wang, Hui Wang, and Mijia Yang. 2022. "Novel Machine Learning Approach for Shape-Finding Design of Tree-like Structures." *Computers & Structures* 261 (April): 106731. <https://doi.org/10.1016/j.compstruc.2021.106731>.
- Nelluri, Puja, Thulasiraman Venkatesh, Anjineyulu Kothakota, Ravi Pandiselvam, Ramandeep Garg, Vishnu Eswaran, Uday Bhanu Prakash Vaddevolu, Rangaswamy Venkatesh, and Amin Mousavi Khaneghah. n.d. "Recent Advances in Non-Thermal and Thermal Processing of Jackfruit (*Artocarpus Heterophyllus* Lam): An Updated Review." *Journal of Food Processing and Preservation*, e16637. <https://doi.org/10.1111/jfpp.16637>.
- Wu, Jun-jun, Ning Gao, Long Jiang, Gan-ji Zhong, Cong Deng, and Xueqin Gao. 2022. "The Coupling Effect of Cellulose Nanocrystal and Strong Shear Field Achieved the Strength and Toughness Balance of Polylactide." *International Journal of Biological Macromolecules* 207 (May): 927–40. <https://doi.org/10.1016/j.ijbiomac.2022.03.172>.

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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