

College of Engineering
North Dakota State University
Faculty Council Meeting
Monday, September 23, 2024, 3 - 4pm
Dolve 118

Attending

CoE: Alan Kallmeyer

ABEN: Clairmont Clementson

CCEE: Xuefeng Chu, Trung Le, Yao Yu

CS: Ajay Jha, Simone Ludwig

ECE: Jacob Glower

IME: Kambiz Farahmand

ME: Ali Amiri, Jordi Estevadeordal, Yildirim Bora Suzen, Yechun Wang, Xingfa Wu, Yan Zhang

1. Call to Order

The meeting was called to order at 3:06pm

2. Approval of Minutes from Last Meeting

Quorum was not met, so approval of the minutes from April 5, 2024 was postponed until the next meeting.

3. Announcements

(Le): Since the last CoE Faculty meeting, several awards have come in.

- CoE Excellence in Teaching Award: Pratap Kotala
- Early Career Teaching Award: Syeed Iskander
- Graduate Teaching Assistant of the Year: Tofatun Jannat
- Excellence in Research Award: Dinish Katti
- Early Career Research Award: Trung Le
- Graduate Research Assistant of the Year: Sharad Jaswandkar
- Outstanding Staff Award Professional: Guy Hokanson
- Outstanding Staff Award Paraprofessional: Francisco Valenzuela

Kennety Hellevang is the recipient of the 2024 G.B. Gunlogson Countryside Engineering award

CoE has also received approximately \$2.2 million in funding over the past four months

- Ewumbua Monono (Principal Investigator), Niloy Chandra Sarker (Co-PI), Ademola Monsur Hammed (Co-PI). Design and testing of a pilot scale sugarbeet diffuser and press to evaluate optimum microbial control mechanisms. \$176,200 from the Agricultural Research Service. 6/1/2024 - 12/30/2025.
- Ewumbua Monono (Principal Investigator), Xin Sun (Co-PI). Application of sensors and image analysis to improve phenotyping throughput of sunflower germplasm. \$65,000 from the Agricultural Research Service (Supplement). 8/1/2023 - 7/31/2025.
- Ewumbua Monono (Principal Investigator), Mijia Yang (Co-PI), Niloy Chandra Sarker (Co-PI). Improve the Physical Properties of CoRncrete and its Application as a Preform. \$14,475 from the ND Corn Utilization Council. 7/1/2024 - 6/30/2025.

- Jiale Xu (Principal Investigator). Novel Carbon Quantum Dots (CQD) for Efficient and Low-cost Remediation of Brine Spills to Protect Soil and Water Qualities. \$142,746 from the Natural Resources Conservation Service. 9/1/2024 - 8/31/2027.
- Jiale Xu (Principal Investigator). Removal of Herbicide Carryover by Safeners under Sunlight Irradiation. \$4,900 from the NDSU Foundation. 5/7/2024 - 10/31/2025.
- Jiale Xu (Principal Investigator). Extra Benefit of Herbicide Safeners in Controlling Carryover to Protect Corn. \$44,136 from the ND Corn Utilization Council. 7/1/2024 - 6/30/2025.
- Jiale Xu (Principal Investigator). Remediation of brine spills by soybean fiber-activated materials. \$43,900 from the ND Soybean Council. 7/1/2024 - 6/30/2025.
- Pinjing Zhao (Principal Investigator), Changhui Yan (Co-PI). Rational Design of Nickel Catalysts for Directing Group-Assisted Alkyne Hydrofunctionalization. \$431,400 from the National Institutes of Health. 9/1/2024 - 8/31/2027.
- 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
- Xin Sun (Principal Investigator). Palmer Amaranth UAS Grant Program. \$93,840 from the Department of Treasury. 3/1/2024 - 12/31/2024.
- Yan Zhang (Principal Investigator), Jordi Estevadeordal (Co-PI), Yildirim Bora Suzen (Co-PI), Yechun Wang (Co-PI). MRI: Acquisition of A Research Ultrasound System for Multidisciplinary Flow and Fluid-Structure Interaction Studies. \$236,193 from the National Science Foundation. 5/1/2024 - 4/30/2027.
- Long Jiang (Principal Investigator), Marc L Bauer (Co-PI). Soy-based Baling Twine with High Digestibility Further Development Extension. \$13,231 from the ND Soybean Council. 7/1/2024 - 12/31/2024.
- Long Jiang (Principal Investigator), Mohiuddin Abdul Quadir (Co-PI). SSBRI Using Nanotechnology to Enhance Fungicide Efficacy and Duration for Sugarbeet Disease Control. \$200,000 from the Agricultural Research Service. 9/1/2023 - 12/31/2025.
- Long Jiang (Principal Investigator), Qian Ma (Co-PI). Transforming Soymeal and Soyhull into Building Materials. \$22,418 from the ND Soybean Council. 7/1/2024 - 6/30/2025.
- Long Jiang (Principal Investigator), Raj Shankar Hazra (Co-PI). Starch-based, long-lasting bactericide for crop disease management. \$45,120 from the ND Corn Utilization Council. 7/1/2024 - 6/30/2025.
- Md Mukhlesur Rahman (Principal Investigator), Joao Paulo Cassol Flores (Co-PI). Harnessing Data for Accurate Yield and Oil Content Prediction. \$76,413 from the National Institute of Food & Agriculture (Continuation). 6/15/2022 - 6/14/2024.
- Adam Curtis Gladen (Principal Investigator). Ammines for Energy Storage and Ammonia Production Enhancement. \$7,360 from the Bank of North Dakota. 6/24/2024 - 5/31/2026.
- Minwei Xu (Principal Investigator), David J Boehm (Co-PI), Changhui Yan (Co-PI). A Novel Soybean Selection Method for Tofu Production Using Machine Learning. \$18,019 from the ND Soybean Council. 7/1/2024 - 12/1/2024.
- Mijia Yang (Principal Investigator), Yao Yu (Co-PI), Qifeng Zhang (Co-PI). Harness of Sunlight through Solar Snow Fence: Implementation. \$40,020 from the MN Department of Transportation. 6/30/2022 - 3/31/2025.
- Lokesh Karthik Narayanan (Principal Investigator), Chad A Ulven (Co-PI). Sustainable Natural Fiber-Based Packaging for e-Commerce Application. \$299,954 from the National Institute of Food & Agriculture. 7/1/2024 - 6/30/2026.
- Syeed Md Iskander (Principal Investigator). PFAS in landfill leachate. \$1,000 from the NDSU Foundation. 5/7/2024 - 10/31/2025.

- Shuvashis Dey (Principal Investigator). Microwave Rectenna and Cellulose Nano Fiber (CNF) Thin Film Based Wireless Drug Delivery System for Therapeutic Treatment. \$5,000 from the NDSU Foundation. 5/7/2024 - 10/31/2025.
- Shuvashis Dey (Principal Investigator). Towards an Inexpensive, Ubiquitous Wireless Soil Salinity and Nutrient Sensing System for Precision Agriculture. \$19,800 from the NDSU Foundation. 5/7/2024 - 10/31/2025.
- Anne Denton (Principal Investigator). Internship at Kirkwall. \$7,787 from Kirkwall Defense, Inc. 5/20/2024 - 5/20/2025.
- Carrie Miranda (Principal Investigator), Joao Paulo Cassol Flores (Co-PI). SOYGEN3: Building Capacity to Increase Soybean Genetic Gain for Yield and Composition through Combining Genomics-Assisted Breeding with Characterization of Future Environments. \$54,644 from the North Central Soybean Research Program. 10/1/2023 - 9/30/2024.

(Kallmeyer): Congratulations to all of these faculty. Just last week it came out that NDSU hit an all-time high in new funding awards received in FY24. A new high by a wide margin. Every college across the university had seen an increase in new awards received – so that's just fantastic. We're still waiting on the data for research expenditures for last year, but these will probably be similarly impressive.

Just a few updates. For the new building, we had our ground-breaking ceremony last Friday in a well attended event. Thank you to everyone who came out. We're off and running on the construction project. This has created challenges with respect to building and door closures, isolating electrical engineering for example. As we progress, it is going to be even more of a challenge. Beginning next year (AY25/26) because of the extensive renovations planned for the CIE building, that building will be taken off-line for a year. This means we have to reseat the entire CCEE department as well as all of their labs for a year. We will be working over the next year to identify where all of these activities will be moved. The renovations should be complete by Fa26 for CCEE faculty and labs to move back.

Positive news: Enrollments are up in CoE. The official results should be available at the end of the day (9/20/24). The college looks to be up about 80 students total: 50 undergraduates and 30 graduate students, approximately. This is the largest enrollment gain of any college at NDSU. In the long term, this will help our budget. In the short term, this year, we're still dealing with another budget reduction. Based upon the preliminary estimates, CoE was about \$3 million over budget (anticipated expenditures vs. tuition revenue coming in). This sounds worse than it is. We were able to carry over some funding from last year. We're holding some positions unfilled. We have some reserve funding through the foundation. This should get us through this year. Next year the increase in enrollment should result in a bump up in our budget. At that point, we can start re-investing in our programs.

Graduate Tuition Waivers Process: We made some changes to our graduate tuition waiver process last year and these changes went into effect this year. There have been a lot of questions coming up from graduate students related to these changes. We're trying to minimize the impact this has on students. Looking ahead, these policies are up on the CoE website – so make sure your graduate students are not surprised.

Thank you for all your hard work – it's greatly appreciated.

4. Committee Announcements/Reports

Executive – no report

Promotion and Tenure – no report

Academic Affairs (Zhang): The CoE Academic Affairs Committee has met twice. Course Leaf is open from now through March 14th for course proposals for Fall 2025. CoE AA meets every Friday to expedite proposal approval. We are also working on simplifying the teaching award criteria. We are also looking at drafting a teaching guideline for CoE. The idea is to provide everyone with basic teaching expectations.

Research and Graduate - no report

University Senate (Amiri): The Senate Executive Committee meets next week or the week thereafter to set the agenda for the year. If there are any issues you would like the Senate to address, please contact one of our Senators.

5. Old Business

6. New Business

Policy 352: Post-Tenure Review (Glower): Each department should be reviewing and revising their PT&E documents with regards to post-tenure review. The time line is that by October 1st, each department should have started this review and revision process. By December 15th, these revisions should be completed at the departmental level and forwarded to the CoE PT&E committee for approval.

This is a mandate from the State Board of Higher Education as well as the State Legislature – so it's something that needs be done. For more details, please refer to Policy 352 and/or contact your representative on the CoE PT&E committee.

7. Adjournment

The meeting was adjourned at 3:42pm

Respectfully Submitted

Jake Glower

9/25/24