

COLLEGE HAPPENINGS

August 7, 2018

FROM THE DEAN

Benefiting from Professional Service

I'm writing today's dean's message from the University of Pennsylvania in Philadelphia, where I'm attending the North American Thermal Analysis Society (NATAS) annual conference. As the president of NATAS this year, I have more responsibilities at the conference than I do most years, including running the executive committee meeting, coordinating the society business meeting, and introducing speakers at the plenary lectures, conference banquet, and awards ceremony. While serving in this role is a fair amount of work, I feel that the benefits to me and to NDSU far outweigh the costs.

At NDSU's College of Engineering we strive for name recognition. In fact, that is one of the reasons the college has prioritized a new website (check it out at www.ndsu.edu/coe/), establishing a distinctive and compelling public image for the college. It is an advantage if students, prospective employers of our students, funders, and other audiences recognize our brand, and even more so if they associate it with a high standard of competence and quality.

We are working hard to keep the College of Engineering in the public eye through a number of different avenues, but there is one particular factor that has a disproportionate impact on the impression that the college creates: The reputations of our individual faculty among their peers, constitute the largest single impact on the reputation of the college as a whole. For that reason, it is important to the college for every member of our faculty to be visible in their respective professional arenas. Of course, there are benefits to the individuals, too, since career advancement often goes along with professional recognition.

Professional reputations are built, first and foremost, on a foundation of outstanding professional work, but individual reputations are also amplified — often very considerably — through involvement in professional societies. Some universities are exceptionally well represented on the governing boards and committees of the professional societies and I would like faculty from our college at NDSU to join that group. This would significantly benefit the individual careers of our faculty, and by extension it would also help our name recognition.

Organizing conference symposia and serving on awards committees, for example, are usually done on a volunteer basis, and it is easy to justify avoiding such burdens if you only consider the short-term costs. Nevertheless, the longer term benefits to the societies and associations also have great value. More particularly, though, you can observe for yourself how involvement in activities of this kind has had positive effects on the careers of your peers and a significant positive impact on the reputations of their home institutions.

I encourage you to engage actively in service to the professional community. It benefits your society, you as an individual, and NDSU. Professional service opportunities exist at every rung of the professional ladder, from student to emeritus, and they are usually very rewarding. If you have an area of interest, whether it is awards, public outreach, symposium organization, or any other aspect of your society's mission, contact the chair of the relevant committee and ask how you can get involved.



IN THE NEWS

[Kids learning how to use 3D printers at NDSU STEM Kids summer camp](#)

[NDSU Engineering grad named Military Person of the Year](#)

[New public works director named in North Mankato](#)

CONGRATULATIONS

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

ABEN FACULTY SEARCH SEMINAR

Tuesday, August 7: **Mohammadmehdi (Reza) Maharlooei, Shahid Bahonar University, Iran**

- Teaching seminar – 10:00 a.m. ABEN building room 224
- Research seminar – 2:00 p.m. ABEN building room 224

UPCOMING EVENTS

Wednesday, August 8th, **Interim Provost Search feedback**. Faculty Senate President Erin Gillam will be in the MU Coffee Shop from 8:00 a.m. – 4:00 p.m. to listen to your input.

Friday, August 17th, **NDSU Faculty Conference**. [Register here](#). The opening session will feature a presentation on “**Beyond SROIs: Creating Feedback Loops in the Classroom.**” At 11:30 a.m. the luncheon session will feature a talk on “**Learning Organizations as a Model for Shared Governance: Energizing Faculty, Thinking Differently, and Setting Collective Priorities.**”

CALL FOR PAPERS

NDSU's Center for the Study of Public Choice and Private Enterprise is holding a conference, **RAP on Blockchain**, on **October 27**. The goal of this conference is to bring together researchers, entrepreneurs, and policymakers who are interested in the development and uses of blockchain technology for new and existing industries.

The deadline to submit proposals is **August 15**. More details [here](#). Submit papers [here](#).

FUNDING OPPORTUNITIES

NSF/NSFC DCL: Joint Research on Environmental Sustainability Challenges

The NSF Engineering and Geosciences Directorates ([ENG](#) and [GEO](#)) and the National Natural Science Foundation of China ([NSFC](#)) Department of Engineering and Material Sciences (DEMS) and Department of Geosciences are partnering to encourage joint research by U.S.-China teams collaborating on fundamental research that addresses critical environmental sustainability challenges.

This call is for research proposals from joint U.S.-China teams in the environmental sustainability themes of:

"Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS: U.S.-China)"

1. quantitative and computational modeling of a FEW system
2. innovative human and technological solutions to critical FEW systems problems.

[Read the full letter >>](#)

NSF: Research Experiences for Undergraduates

The National Science Foundation (NSF) [Research Experiences for Undergraduates \(REU\) program](#) 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 support of student research:

- (1) 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. Proposals with an international dimension are welcome.
- (2) 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.

Application deadline: August 22, 2018

RECENTLY SUBMITTED PROPOSALS

- Ravi Kiran Yellavajjala (PI). Assistance for the Upgrade of Civil Engineering Computer Cluster. \$51,410 from the NDSU Foundation and Alumni Association. 10/01/2018 - 10/02/2019.
- Ravi Kiran Yellavajjala (PI). CAREER: Machine Learning Based Scaling Relationship for Additive Manufactured Steel Models to Predict Fracture in Full-scale Steel Structures under Seismic Loads. \$500,000 from the National Science Foundation. 05/15/2019 - 05/14/2024.
- Ravi Kiran Yellavajjala (PI). Acquisition of Advanced Non-contact Strain Measuring System for Updating the Skills Set of NDSU Students. \$49,000 from the NDSU Foundation and Alumni Association. 10/01/2018 – 10/01/2021.
- Nita Yodo (PI). Resilient Design Towards Mix-degradation Cyber-physical Systems. \$173,784 from the National Science Foundation. 04/01/2019 – 03/31/2020.
- Yan Zhang (PI). Enhancement of Left Atrial Appendage Flow using Artificial Superhydrophobic Surface. 150,887 from the American Heart Association. 01/01/2019 – 12/31/2020.
- Chad A Ulven (PI). Harnessing the Lignocellulosic Components of Wheat Bran to Develop Thermoplastic Biocomposite. \$200,000 from the U.S. Department of Agriculture. 09/01/2018 – 08/31/2021.
- Chad A Ulven (PI). High Performance Bio-based Polymers for Coatings and Additive Manufacturing. \$7,638,673 from the Department of Defense. 01/01/2019 – 12/31/2021.
- Dilpreet Singh Bajwa (PI). Engineering Distillers Dry Grain with Solubles to Develop Formaldehyde-free Binderless Biocomposites. \$182,458 from NIFA. 01/02/2019 – 12/31/2020.
- Robert Allan Sailer (PI). High Strength, High Accuracy 3D Printing for the Campus Community. \$49,370 from the NDSU Foundation and Alumni Association. 09/29/2018 – 09/29/2019.
- Robert Allan Sailer (PI). High Torque Ring Winder and Fixturing Tool Development. \$10,585 from Weave Got Maille LLC. 08/01/2018 – 07/31/2019.
- Shafiqur Rahman (PI). Potential of Biochar from Agricultural Wastes and Byproducts as Soil Amendment in the Northern Great Plains. \$498,156 from NIFA. 09/29/2018 – 09/28/2021.

RECENT PUBLICATIONS

For 2018, 76 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:

- Bora, Ganesh C., Rohit Pathak, Mojtaba Ahmadi, and Purbasha Mistry. 2018. "Image Processing Analysis to Track Colour Changes on Apple and Correlate to Moisture Content in Drying Stages." *Food Quality and Safety* 2 (2): 105–10. <https://doi.org/10.1093/fqsafe/fyy003>.
- Chitemere, Ruvimbo, Shane Stafslie, Long Jiang, Dean Webster, and Mohiuddin Quadir. 2018. "Soy-Based Soft Matrices for Encapsulation and Delivery of Hydrophilic Compounds." *Polymers* 10 (6): 583. <https://doi.org/10.3390/polym10060583>.
- Hou-Yan, Cheng, Luo Jun, Huang Li-Qun, Li Jia-Ke, Yang Zhi-Sheng, Guo Ping-Chun, Wang Yan-Xiang, and Zhang Qi-Feng. 2018. "Preparation of Flexible Dye-sensitized Solar Cells Based on Hierarchical Structure ZnO Nanosheets." *Journal of Inorganic Materials* 33 (5): 507–14. <https://doi.org/10.15541/jim20170325>.
- Khan, Muhammad Usman Shahid, Mazhar Ali, Assad Abbas, Samee U. Khan, and Albert Y. Zomaya. 2018. "Segregating Spammers and Unsolicited Bloggers from Genuine Experts on Twitter." *IEEE Transactions on Dependable and Secure Computing* 15 (4): 551–60. <https://doi.org/10.1109/TDSC.2016.2616879>.
- Lofton, Charles Davis, Michele Barbato, Yasser Bigdeli, Jongwon Jung, JungYeon Jang, Kelly Rusch, and Maria Teresa Gutierrez-Wing. 2018. "Estimating Sulfate Effective Diffusion Coefficients of Stabilized Fluorogypsum for Aquatic Applications." *Journal of Environmental Engineering* 144 (9): 04018083. [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0001419](https://doi.org/10.1061/(ASCE)EE.1943-7870.0001419).
- O'Brien, Peter L., Thomas M. DeSutter, Francis X. M. Casey, Abbey F. Wick, and Eakalak Khan. 2017. "Evaluation of Soil Function Following Remediation of Petroleum Hydrocarbons-a Review of Current Remediation Techniques." *Current Pollution Reports* 3 (3): 192–205. <https://doi.org/10.1007/s40726-017-0063-7>.
- Sunoj, S., S. N. Subhashree, S. Dharani, C. Igathinathane, J. G. Franco, R. E. Mallinger, J. R. Prasifka, and D. Archer. 2018. "Sunflower Floral Dimension Measurements Using Digital Image Processing." *Computers and Electronics in Agriculture* 151 (August): 403–15. <https://doi.org/10.1016/j.compag.2018.06.026>.
- Wu, Di, Gangan Li, Milad Javadi, Alexander M. Malyscheff, Mingguo Hong, and John Ning Jiang. 2018. "Assessing Impact of Renewable Energy Integration on System Strength Using Site-Dependent Short Circuit Ratio." *IEEE Transactions on Sustainable Energy* 9 (3): 1072–80. <https://doi.org/10.1109/TSTE.2017.2764871>.
- Zhong, Hai, and Mijia Yang. 2018. "Prestress Loss Identification Based on Dynamic Vehicle Responses." *Journal of Engineering Mechanics* 144 (9): 04018088. [https://doi.org/10.1061/\(ASCE\)EM.1943-7889.0001514](https://doi.org/10.1061/(ASCE)EM.1943-7889.0001514).
- Zhong, Hai, and Mijia Yang. 2018. "Effect of Prestress on Bridge-Vehicle Interactions." *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems Part B-Mechanical Engineering* 4 (3): UNSP 031003. <https://doi.org/10.1115/1.4038340>.

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.



