

COLLEGE HAPPENINGS

April 3, 2018

FROM THE DEAN

The Engineer's Ring

At the end of last semester I had the opportunity to speak to a small group of graduating NDSU engineering students at the Order of the Engineer Ring Ceremony. At the ceremony the students joined approximately 300,000 engineers around the country who have taken the Obligation of the Engineer oath.

For those of you who haven't participated in this bi-annual event, this is a ceremony where graduating seniors formally accept the Obligation of an Engineer and receive a stainless steel ring to be worn on the pinky finger of their working hand. The Obligation is the formal statement of an engineer's responsibility to the public and to the profession, a personal commitment to uphold the highest ethical standards. The ring symbolizes the unity of the profession in its goal of benefiting mankind. The Order of the Engineer is the roster of engineers in the United States who have publicly accepted the Obligation.

“Although it is simple and short, the ceremony can make a profound impression on new engineering graduates.”

Although it is simple and short, the ceremony can make a profound impression on new engineering graduates as they accept and interpret, with a sense of seriousness and pride, their responsibility to uphold the standards and dignity of the engineering profession.

In the past, the number of students participating in our ceremony has been rather small. This semester, we plan to increase participation and include a graduation reception following the ceremony. You are all invited to our College of Engineering graduation reception and Order of the Engineer ceremony on Friday, May 11. The ceremony will be at 3:00 p.m. in the AG Hill Center Auditorium (room 112), followed by the graduation celebration for students and faculty in the Memorial Union Great Room. There will be refreshments. If you hold an engineering degree and you haven't participated in the ring ceremony yourself, I encourage you to do so; it is an important symbol of our professional responsibilities and a great example to our students. Just let Sheri Eberle know in the CoE office and get measured for your ring by April 19th.

ABET Criterion 3f requires that students display “an understanding of professional and ethical responsibility.” One opportunity to reinforce the ethics lessons we weave into some of our courses is to visually remind students of the ethical dimension of engineering; show them your ring and let them know that you take the values and common purpose of the engineer's responsibilities to the public seriously.



IN THE NEWS

[NDSU researchers present at optics and photonics conference](#)

[Mechanical Engineering students win Innovation Challenge People's Choice Award](#)

[Several College of Engineering teams make 2018 Innovation Challenge finals](#)

[NDSU College of Engineering ranked one of nation's best values](#)

[NDSU engineering students designing, building community center in Guatemala](#)

[AIM honors 2018 industry award winners at Connections Summit](#)

[Comstock Construction announces changes](#)

CANDIDATE SEMINARS

Civil & Environmental Engineering Chair (2 presentations each)

Dr. Halil Ceylan, Iowa State University

- April 3rd @ 4:00 pm in CIE 101 (Teaching & Research Experience and Objectives)
- April 4th @ 11:00 am in CIE 102 (Administrative vision, management style, objectives and goals for NDSU CEE department)

Dr. Panneer Sylvam, University of Arkansas

- April 9th @ 4:00 pm in CIE 101 (Teaching & Research Experience and Objectives)
- April 10th @ 11:00 am in CIE 102 (Administrative vision, management style, objectives and goals for NDSU CEE department)

Industrial & Manufacturing Engineering Chair

Dr. Sencer Yeralan, International University of Sarajevo

- April 16th @ 3:00 pm in CIE 101

Dr. Om Yadav, North Dakota State University

- April 18th @ 3:00 pm in CIE 101

Dr. Douglas H. Timmer, University of Texas Rio Grande Valley

- April 19th @ 3:00 pm in CIE 101

Dr. David A. Grewell, Iowa State University

- April 24th @ 3:00 pm in CIE 101

Civil & Environmental Engineering Geotechnical Faculty

Dr. Tejo Vikash Bheemasetti, University of Texas at Arlington

- April 5th @ 2:30 pm in CIE 101

Dr. Elnaz Esmailzadeh Seylabi, California Institute of Technology

- April 19th @ 2:30 pm in CIE 205

Civil & Environmental Engineering Water Resources Faculty

Dr. Adnan Rajib, U.S. Environmental Protection Agency

- April 6th @ 3:00 pm in CIE 205

Dr. Mukesh Kumar, Duke University

- April 13th @ 3:00 pm in CIE 205

Dr. Habib Ahmari, University of Texas at Arlington

- April 20th @ 3:00 pm in CIE 205

Dr. Trung Le, Medical College of Wisconsin

- April 27th @ 10:00 am in CIE 205

College of Engineering Grand Challenge Initiative Candidates (Mechanobiology)

Dr. Wenjie Xia, National Institute of Standards and Technology

- April, 13th (Presentation time and location TBD)

Dr. Ranganathan Parthasarathy, Tennessee State University

- April, 16th (Presentation time and location TBD)

Dr. Chun-Teh Chen, Massachusetts Institute of Technology

- April 20th (Presentation time and location TBD)

CONGRATULATIONS

Dr. Dilpreet Bajwa's (Department of Mechanical Engineering) promotion to full professor was approved by President Bresciani. On Thursday, May 10, at 3:00 p.m. in the Memorial Union Plains Room, the University community will come together to recognize his promotion at the *Celebration of Faculty Excellence*.

Dr. Kalpana Katti (Department of Civil and Environmental Engineering) was named this year's winner of the Waldron Excellence in Research Award. The award honors faculty who have consistently demonstrated outstanding achievements and contributions to research and scholarship.

Mechanical Engineering chair **Dr. Alan Kallmeyer** was honored with the Chamber of Commerce Distinguished Faculty Service Award. It recognizes faculty who have attained distinction in their profession and have made substantial service contributions to the community and region.

Dr. Achintya Bezbaruah (Department of Civil and Environmental Engineering) has been awarded a Fulbright Specialist Award for “Environmental and Nanotechnology Education, Research, and Outreach for Capacity Building.” He’ll spend 3 months in the fall at the Dehradun Institute of Technology in Dehradun, India.

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

YEARS OF SERVICE RECOGNITIONS

The University is planning its 30th Annual NDSU Staff Recognition Social on April 12th and 6 people from the College of Engineering will be honored:

- **10 YEARS OF SERVICE**
 - Andrew Jacobsen – Electrical and Computer Engineering
- **15 YEARS OF SERVICE**
 - Eric Christianson – Electrical and Computer Engineering
 - Laura Dallmann – Electrical and Computer Engineering
 - Tiffany Neuharth – Mechanical Engineering
- **20 YEARS OF SERVICE**
 - Joel Hanson – Dean’s Office, Engineering
 - Shannon Viestenz – Mechanical Engineering

Marcia Pepper from the Dean’s Office is also being recognized. She retired last summer after 16 years of employment at NDSU.

Everyone is invited to a dessert social starting at 1:30 p.m. in the Memorial Union Great Plains Room. Please RSVP to ndsuh@ndsuh.edu by Monday, April 9.

UPCOMING EVENTS

Monday April 9th, **J.R. Simplot faculty luncheon**. 11:30 am – 1:30 p.m. Memorial Union Mandan Room. [RSVP](#) by Wednesday April 4th.

Monday April 9th, **Becoming Unstoppable in Life!** National speaker Anthony Robles will share his inspiring story of overcoming obstacles. This free event goes from 7-8 p.m. at the (SHAC) Sanford Health Athletic Complex.

Tuesday, April 10th, all faculty members and academic administrators are invited to attend a **Promotion-to-Professor Session**, 11:30 a.m. – 1:00 p.m. in the Memorial Union Prairie Room. Registration is requested and can be completed at https://www.ndsu.edu/pubweb/provostevents/event_20180410p2p.php

Tuesday, April 17th, ND EPSCoR 2018 Annual State Conference, Alerus Center, Grand Forks. **Registration Deadline is Noon, April 3 (TODAY), 2018**
Visit the conference web page <https://www.ndepscor.ndus.edu/news/nd-epscor-state-conf/> for complete details.

Tuesday, April 17th, the **President-elect of the Faculty Senate** is holding an open forum. 12-1:30 p.m. Memorial Union Century Theatre.

Tuesday, April 17th, **57th Faculty Lectureship** entitled “New, New World Order: America's Challenges in a Post-American International System” by **Dr. Thomas Ambrosio**, Professor of Political Science. 7:00 p.m. in the Memorial Union Plains Room. **Registration by April 12 is appreciated but not required.** [Register here.](#)

Tuesday, April 24th, **Conversation with the Provost**, 3 – 4 p.m., Renaissance Hall 102.

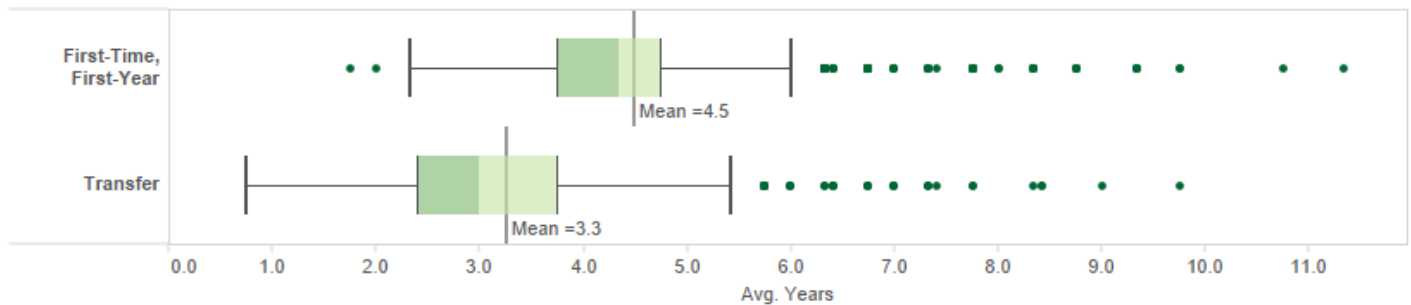
Monday, April 30th, the **President-elect of the Faculty Senate** is holding an open forum. 10:30 am – 12:00 pm Memorial Union Century Theatre.

Friday, May 11th, **CoE graduation reception and Order of the Engineer induction**. Induction ceremony 3:00 p.m., AG Hill Center Auditorium (room 112). Graduation reception for students and faculty will follow in the Memorial Union Great Room.

Saturday, May 12th, **Spring Commencement ceremonies** for the College of Engineering will be held at 2:00 p.m. in the Fargodome. Faculty and staff who wish to participate in the academic processional should complete [the necessary form](#) by Friday, April 27.

BY THE NUMBERS

Time to First Bachelor's Degree Distributions by Admission Type for the College of Engineering:



FULBRIGHT U.S. SCHOLAR PROGRAM

Fulbright is accepting applications to teach and/or research in 137 countries through the [Fulbright U.S. Scholar Program](#). Opportunities are available for faculty and administrators, as well as for professionals, artists, journalists, scientists, lawyers, independent scholars and many others.

The application deadline for most awards is August 1, 2018.

FUNDING OPPORTUNITIES

Funding is still available for the following Research and Creative Activity internal funding programs. NDSU tenured and tenure-track faculty are eligible to apply. Award funds must be spent by May 31, 2018.

RCA Small Grant Program: Research Support Services

Funds of up to \$1,000 may be requested to help defray the costs of support services required for research, creative, or scholarly activity. For example, funds may be used in one of the NDSU Core Facilities, another recharge/service center, or for transcription services.

[Application and Instructions >>](#)

Research Development Travel Awards

The Research Development Travel Award is intended to be an investment in a faculty member's ability to acquire grants in order to establish and continue in a long-term research program at NDSU. Three types of travel opportunities are available: 1) Travel funds to present at a national level conference; 2) Travel to conduct research at an archive or special collection; and 3) Travel to a national lab to develop collaborations.

[Application and Instructions >>](#)

RCA Mentorship Travel Awards

The RCA Mentorship Travel Award is an opportunity for a senior faculty mentor (Professor) and a faculty mentee (+/- 2 years of becoming an Associate Professor) to travel together to meet with funding agency program officers. These awards are intended to promote research and creative activities that will improve competitiveness for external funding.

[Application and Instructions>>](#)

RECENTLY FUNDED GRANTS

- Kenneth Hellevang (PI), Dennis P Wiesenborn (CPI), Ewumbua Monono (CPI). Impact of Storage Environments on Green and Semi-green Soybeans. \$33,316 from the ND Soybean Council. 7/1/2018 – 6/30/2019.
- Long Jiang (PI), Dilpreet Singh Bajwa (CPI). Soy Protein Derived Thermoset Resins for Traditional Molding and 3-D Printing. \$32,732 from the ND Soybean Council. 7/1/2018 – 6/30/2019.
- Dilpreet Singh Bajwa (PI), Long Jiang (CPI). Development of Corn DDGS Based Composite Filament for 3D Printers. \$45,442 from the ND Corn Utilization Council. 7/1/2018 – 7/1/2020.
- Robert Allan Sailer (PI). Prototype Speculoop Development and Testing. \$5,155 from Speculoop, LLC. 1/1/2018 – 12/31/2018.

RECENTLY SUBMITTED PROPOSALS

- Shafiqur Rahman (PI). Odor Reduction and Green Energy Production from Livestock Manure and Other Wastes. \$7,460 from the NDSU Foundation Alumni & Association. 5/1/2018 – 11/30/2019.
- Dean D Steele (PI). Variable-rate Irrigation for Potato Research. \$966,603 from the ND Department of Agriculture. 10/1/2018 – 9/30/2020.
- Xinhua Jia (PI), Thomas Scherer (CPI). Automatic Sensor Controlled Drip Irrigation under Mulches for Tomato and Watermelon Productions. \$81,753 from the Agriculture Marketing Service. 10/1/2018 – 9/28/2020.
- Dean D Steele (CPI). Whole System Approach to Integrated Crop/livestock Production to Enhance Soil Health and Profitability of Cropping and Livestock Systems in the Northern Great Plains. \$199,995 from the University of Minnesota. 10/1/2018 – 10/29/2021.
- Mijia Yang (PI), Zhili Gao (CPI). Understanding the Role of Overburden Mechanics in Pillar Design and Global Ground Stability. \$126,529 from the Alpha Foundation. 9/1/2018 – 3/31/2020.
- Danling Wang (PI). Novel Nanomaterial based Breath Sensor in Application of Diabetes Related Fat-loss Program and Weight Control. \$5,000 from the NDSU Foundation Alumni & Association. 5/1/2018 – 9/1/2019.
- Qifeng Zhang (PI). The Development of a Portable Laboratory to Integrate Demonstrations into the Classroom of Circuit Analysis Courses. \$1,000 from the NDSU Foundation Alumni & Association. 5/1/2018 – 4/30/2019
- Di Wu (PI). A Study of Transmission Network Reinforcement for Renewable Energy Integration. \$5,000 from the NDSU Foundation Alumni & Association. 5/1/2018- 12/31/2018.
- Di Wu (PI). A Study of Optimal Power Outputs of Renewable Energy Generators in Weak Power Grids. \$1,000 from the NDSU Foundation Alumni & Association. 5/1/2018- 12/31/2018.
- Na Gong (PI). RII Track-4: Data-driven Self-recovery Video Memory for High Reliability. \$257,340 from the National Science Foundation. 1/1/2019 – 12/31/2021.
- Xinnan Wang (PI). Three-dimensional Polymer Nanopattern Fabrication by AFM Tip-based Single Scanning. \$5,000 from the NDSU Foundation Alumni & Association. 4/27/2018 – 10/26/2019.
- Alan R Kallmeyer (PI). Bison BEST Robotics Competition. \$1,000 from the NDSU Foundation Alumni & Association. 9/8/2018 – 10/20/2018.

RECENT PUBLICATIONS

For 2018, 23 publications by authors with the College of Engineering affiliation have appeared in various journals, according to the ISI Web of Science. Here are some of the most recent publications:

- Cobb, Bonnie F., Joseph Kallenbach, Clifford A. Hall, and Scott W. Pryor. “Optimizing the Supercritical Fluid Extraction of Lutein from Corn Gluten Meal.” *Food and Bioprocess Technology* 11, no. 4 (April 2018): 757–64. <https://doi.org/10.1007/s11947-017-2052-7>.
- Pan, Hong, Guoqing Gui, Zhibin Lin, and Changhui Yan. “Deep BBN Learning for Health Assessment toward Decision-Making on Structures under Uncertainties.” *KSCE Journal of Civil Engineering* 22, no. 3 (March 2018): 928–40. <https://doi.org/10.1007/s12205-018-1301-2>.
- Sinclair, Alexander, Long Jiang, Dilpreet Bajwa, Sreekala Bajwa, Siwakorn Tangpong, and Xinnan Wang. “Cellulose Nanofibers Produced from Various Agricultural Residues and Their Reinforcement Effects in Polymer Nanocomposites.” *Journal of Applied Polymer Science* 135, no. 21 (June 5, 2018): 46304. <https://doi.org/10.1002/app.46304>.
- Stenger, Brianna L. S., Michaela Horcickova, Mark E. Clark, Martin Kvac, Sarka Condlova, Eakalak Khan, Giovanni Widmer, et al. “Cryptosporidium Infecting Wild Cricetid Rodents from the Subfamilies Arvicolinae and Neotominae.” *Parasitology* 145, no. 3 (March 2018): 326–34. <https://doi.org/10.1017/S0031182017001524>.
- Yodo, Nita, Pingfeng Wang, and Melvin Rafi. “Enabling Resilience of Complex Engineered Systems Using Control Theory.” *IEEE Transactions on Reliability* 67, no. 1 (March 2018): 53–65. <https://doi.org/10.1109/TR.2017.2746754>.

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* are 12:00 pm Fridays.

Contact kyle.bosch@ndsu.edu to submit items for *College Happenings*.

Follow the College of Engineering on social media.

