

COLLEGE HAPPENINGS

April 17, 2018

FROM THE DEAN

Persistence in Proposal Writing

I recently logged into NSF's FastLane system and took a few minutes to view the status of my previous proposals. Talk about depressing. The vast majority of the 30+ proposals I've submitted to NSF over the years were listed as "Declined." There were also a handful of proposals listed as "Awarded," but even some of these successful proposals were funded on the second or third attempt, after multiple revisions from the previous reviewers' comments.

It's easy to get discouraged when such a large percentage of the proposals submitted to federal funding agencies are rejected. Of course, there are many things that you can do to increase your odds – such as writing error free, articulate, and creative proposals; making sure that the proposal topic is a good fit with the solicitation; and getting feedback from peers in the form of mock reviews (of course this requires getting the proposal done early). It's also a good idea to "diversify" your portfolio of funding, by pursuing projects with industry, and from state or other funding sources.

I also think it's necessary to realize that there is a lot of randomness in the review process. Reviewers don't always see things eye to eye. In his book, *The Drunkard's Walk, How Randomness Rules Our Lives*, Leonard Mlodinow describes a manuscript that was written in the 1950's that was rejected by many publishers. Some of the comments from the publishers included:

- "very dull"
- "a dreary record of typical family bickering, petty annoyances and adolescent emotions"
- "Even if the book had come to light five years ago, when the subject [WWII] was timely, I don't see that there would have been a chance for it"

However, Anne Frank's famous life story, *The Diary of a Young Girl*, which was submitted posthumously by a family member, was ultimately published and went on to sell over 30 million copies, becoming one of the best-selling books in history. This type of randomness in the review process is not an isolated misjudgment. For example, John Grisham's manuscript for *A Time to Kill*, was rejected by twenty-six publishers. Theodor Geisel (Dr. Seuss)'s first children's book, *And to Think That I Saw It on Mulberry Street*, was rejected by twenty-seven publishers. And, J. K. Rowling's first *Harry Potter* manuscript was rejected by nine.^[1] However, what is unique of these successful authors, as well as successful individuals in nearly every field, is that they are people who don't give up.

Take the advice colleagues have given me related to proposal writing:

- Get in the game, because if you don't submit a proposal, its chance of getting funded is 0%.
- Prepare early and seek as much feedback as possible.

^[1] L. Mlodinow, *The Drunkard's Walk, How Randomness Rules Our Lives*, 2008.

- Keep your expectations in check, and celebrate your successes.
- Keep writing, there is no silver bullet, but you can improve your odds.

Happy proposal writing!



IN THE NEWS

[Build robots, race cars and video games at summer STEM Kids camps](#)

[Kindred fiber mill's new felting machine weaves much to be desired](#)

[Engineering Careers: Role Models, Right at Home](#)

[5 questions with...Sarah Lovas, agronomist and farmer from Hillsboro, N.D.](#)

[Mechanical Engineering senior among NDSU students recognized at state competition](#)

[College of Engineering senior earns medals at national marksmanship event](#)

[College of Engineering grad student among 6 awarded fellowships](#)

[NDSU students present at national research conference](#)

[College of Engineering professor named to institute's College of Fellows](#)

CANDIDATE SEMINARS

Industrial & Manufacturing Engineering Chair

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. Elnaz Esmailzadeh Seylabi, California Institute of Technology

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

Civil & Environmental Engineering Water Resources Faculty

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. Chun-Teh Chen, Massachusetts Institute of Technology

- April 20th @ 1:30 pm in CIE 102

CONGRATULATIONS

Dr. Bashir Khoda's (Department of Industrial & Manufacturing Engineering) paper "Assessing printability of alginatecarboxymethyl cellulose hydrogels" has been selected as the winner of the Manufacturing & Design Track Best Paper Award for the 2018 Institute of Industrial & Systems Engineers Conference.

Logeeshan Velmanickam (Department of Electrical and Computer Engineering) has been awarded a College of Graduate and Interdisciplinary Students Doctoral Dissertation Fellowship for the 2018-19 academic year.

AMM Nazmul Ahsan and **Ahasan Habib** (Department of Industrial & Manufacturing Engineering) received a National Science Foundation travel award to attend the SME-NAMRC 46 conference in College Station, Texas this June.

Dr. Kalpana Katti (Department of Civil and Environmental Engineering) was inducted into the American Institute for Medical and Biological Engineering's College of Fellows. The AIMBE College of Fellows is comprised of the top 2 percent of medical and biological engineers.

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

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, **Unmanned Aerial Vehicle Applications and RRV-ASABE Spring Section Meeting**, UAV Presentations set for 3:00 p.m. at the NDSU Alumni Center. Spring Section Meeting starts at 5:30 p.m. at Marlin's Family Restaurant.

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.

Thursday, April 26th, **Industrial and Manufacturing Engineering Capstone Presentations**. 8:00 a.m. – 1:00 p.m. in the Memorial Union Century Theatre.

Friday, April 27th, **Industrial and Manufacturing Engineering Capstone Banquet**. Event begins at 5:00 p.m. at the Radisson in downtown Fargo.

Monday, April 30th, the **President-elect of the Faculty Senate** is holding an open forum. 10:30 a.m. – 12:00 p.m. 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. Faculty wishing to be inducted should contact [Sheri Eberle](#) and get measured for your ring by April 19.

Saturday, May 12th, **Spring Commencement ceremonies** for the College of Engineering will be held at 2:00 p.m. in the Fargodome. Registration and Records now believes their web page registration is not working so they have asked that faculty and staff who wish to participate in the academic processional email Nancy.Kasper@ndsu.edu with the following information to confirm your participation: Name, NDSU Email, Department, Academic Rank, year your RANK was awarded at NDSU, year you were EMPLOYED at NDSU and which ceremony you will attend (10 am, 2 pm or Both). Deadline is Friday, April 27.

Tuesday, May 15th, **Bio Industry Summit 2018: Advances in Biofuels** will be held at the NDSU Memorial Union. This year's summit is focused on advances in corn-ethanol production, soybean oil-based biodiesel, and market development. [Registration is now open](#). Visit the [summit website](#) for more information.

BY THE NUMBERS

NDSU Career Center 2017 First Destination Career Outcomes Report

Since 1995, the Career Center has published an annual employment report of graduates with baccalaureate degrees. This report provides a snapshot of students in every undergraduate major who graduated in August 2016, December 2016 and May 2017.

Data for this report was collected through electronic surveys, telephone calls, academic departments/faculty and LinkedIn. This report is based on responses from 1,935 graduates (84% of the reported 2,295 undergraduate degrees).

COLLEGE OF ENGINEERING

	Degrees Issued	Total % Employed FT	Total % Employed PT	% Military Service	% Continuing Education	% Seeking Continuing Education	% Seeking Employment	% Not Seeking	% No Info Available	Salary Median	% Receiving Bonus	Bonuses Median
Agricultural and Biosystems Engineering	18	88	6	-	-	-	6	-	6	\$55,000	-	-
Civil Engineering	80	71	3	-	3	1	22	-	10	\$52,000	20	\$3,000
Computer Engineering	13	67	-	-	22	-	11	-	31	\$65,000	17	\$5,500
Construction Engineering	5	100	-	-	-	-	-	-	20	\$60,000	50	\$1,350
Construction Management	33	96	-	4	-	-	-	-	21	\$55,000	4	\$1,500
Electrical Engineering	81	77	3	2	8	-	11	-	19	\$65,000	24	\$3,500
Industrial Engineering and Management	26	86	5	-	5	-	5	-	19	\$64,240	22	\$3,750
Manufacturing Engineering	11	90	-	-	-	-	10	-	9	\$55,000	11	\$2,000
Mechanical Engineering	134	67	1	4	9	-	18	2	4	\$62,000	33	\$5,000
Total	401	75	2	2	6	0	14	1	12	\$60,000	23	\$4,000

COMMUNICATIONS CORNER

Employee Advocacy on Social Media

You've probably noticed the College of Engineering has been more active on social media recently, and with good reason. Social media is one of the most effective ways to increase an organizations brand and reach. It's one of the reasons 3M made social media promotion such an important part of its recent Disruptive Design Challenge (won by a group of NDSU mechanical engineering students).

Over the next few months the college plans to start a "CoE Social Media Team." A group of people interested in and excited about helping promote the College on Facebook, Twitter and Instagram. While you may think you only have a small group of followers, that group can be incredibly powerful. In 2015 [Cisco](#) noted that employees' social posts generate 8 times more engagement than posts from their employers. Another study found that people are 16 times more likely to read a post from a friend about a brand than from the brand itself. And when combined with others from around the College your "small group" of friends can have more reach than a Facebook page with hundreds of thousands of followers.

Over the past few years, and months, Facebook has continued to change its algorithm to decrease the visibility of Pages on a user's news feed and this is only expected to continue as it tries to get more and more organizations to spend more and more money on ads and promoted posts (in fact Facebook has said marketers should assume that at some point organic reach will hit zero).

By getting ahead of this change now we believe we can set up the College of Engineering as a social media leader on campus. Which will help us continue to attract the best faculty, students and staff.

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

NSF and USDA-NIFA: Innovations at the Nexus of Food, Energy and Water Systems (INFEWS)

The National Science Foundation (NSF) and the United States Department of Agriculture (USDA) announced a joint funding program: Innovations at the Nexus of Food, Energy and Water Systems (INFEWS). The overarching goal of INFEWS is to catalyze the well-integrated interdisciplinary research efforts to transform scientific understanding of the FEW nexus in order to improve system function and management, address system stress, increase resilience, and ensure sustainability. This program fits within NDSU's strategic research themes. You can view this funding opportunity through the [NSF Solicitation](#), or the [USDA-NIFA RFA](#).

Application Deadline: September 26, 2018.

RECENTLY FUNDED GRANTS

- Matthew J Noah (PI). COE-CSCC Cogi Next Generation Product R&D - Phase I. \$23,163 from Cogi, Inc. 2/12/2018 – 9/30/2018.
- Matthew J Noah (PI). COE-CSCC Cogi Next Generation Product R&D - Phase II. \$68,973 from Cogi, Inc. 3/12/2018 – 6/30/2019.

RECENTLY SUBMITTED PROPOSALS

- Rajesh Kavasseri (PI). 50th North American Power Symposium. \$17,500 from the National Science Foundation. 9/9/2018 – 9/11/2018.

RECENT PUBLICATIONS

For 2018, 35 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:

- Al-Tarawneh, Mu'ath, Ying Huang, Pan Lu, and Denver Tolliver. 2018. "Vehicle Classification System Using In-Pavement Fiber Bragg Grating Sensors." *IEEE Sensors Journal* 18 (7): 2807–15. <https://doi.org/10.1109/JSEN.2018.2803618>.
- Bhattacharjee, Sujal, and Dilpreet S Bajwa. 2018. "Degradation in the Mechanical and Thermo-Mechanical Properties of Natural Fiber Filled Polymer Composites Due to Recycling." *Construction and Building Materials* 172 (May): 1–9. <https://doi.org/10.1016/j.conbuildmat.2018.03.010>.
- Chen, Dongliang, Jonathon Edstrom, Yifu Gong, Peng Gao, Lei Yang, Mark E. McCourt, Jinhui Wang, and Na Gong. 2018. "Viewer-Aware Intelligent Efficient Mobile Video Embedded Memory." *IEEE Transactions on Very Large Scale Integration (VLSI) Systems* 26 (4): 684–96. <https://doi.org/10.1109/TVLSI.2017.2787043>.
- Hossain, Mohammad E., Cody L. Ritt, Talal B. Almeelbi, and Achintya N. Bezbaruah. 2018. "Biopolymer Beads for Aqueous Phosphate Removal: Possible Applications in Eutrophic Lakes." *Journal of Environmental Engineering* 144 (5): 04018030. [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0001347](https://doi.org/10.1061/(ASCE)EE.1943-7870.0001347).
- Khan, Minhaj Ahmad, Tariq Umer, Samee U. Khan, Shui Yu, and Abderrezak Rachedi. 2018. "IEEE Access Special Section Editorial: Green Cloud and Fog Computing: Energy Efficiency and Sustainability Aware Infrastructures, Protocols, and Applications." *IEEE Access* 6: 12280–83. <https://doi.org/10.1109/ACCESS.2018.2805543>.
- Khan, Muhammad Usman Shahid, Assad Abbas, Mazhar Ali, Muhammad Jawad, Samee U. Khan, Keqin Li, and Albert Y. Zomaya. 2018. "On the Correlation of Sensor Location and Human Activity Recognition in Body Area Networks (BANs)." *IEEE Systems Journal* 12 (1): 82–91. <https://doi.org/10.1109/JSYST.2016.2610188>.
- Molla, Shahjahan, Dinesh R. Katti, and Kalpana S. Katti. 2018. "In Vitro Design of Mesenchymal to Epithelial Transition of Prostate Cancer Metastasis Using 3D Nanoclay Bone-Mimetic Scaffolds." *Journal of Tissue Engineering and Regenerative Medicine* 12 (3): 727–37. <https://doi.org/10.1002/term.2492>.
- Padmanabhan, G., Dinesh Katti, Eakalak Khan, Francis Peloubet, and Navaratnam Leelaruban. 2018. "A Unique Civil Engineering Capstone Design Course." *International Journal of Engineering Pedagogy* 8 (1): 56–80. <https://doi.org/10.3991/ijep.v8i1.7667>.
- Shojaeiarani, Jamileh, Dilpreet S. Bajwa, and Nicole M. Stark. 2018. "Spin-Coating: A New Approach for Improving Dispersion of Cellulose Nanocrystals and Mechanical Properties of Poly (Lactic Acid) Composites." *Carbohydrate Polymers* 190 (June): 139–47. <https://doi.org/10.1016/j.carbpol.2018.02.069>.
- Torres, Luisa, Om Prakash Yadav, and Eakalak Khan. 2018. "Risk Assessment of Human Exposure to Ra-226 in Oil Produced Water from the Bakken Shale." *Science of the Total Environment* 626 (June): 867–74. <https://doi.org/10.1016/j.scitotenv.2018.01.171>.
- Yatigala, Nikushi S., Dilpreet S. Bajwa, and Sreekala G. Bajwa. 2018. "Compatibilization Improves Physico-Mechanical Properties of Biodegradable Biobased Polymer Composites." *Composites Part A: Applied Science and Manufacturing* 107 (April): 315–25. <https://doi.org/10.1016/j.compositesa.2018.01.011>.
- Zhang, Yuehong, Yuzhan Li, Vijay Kumar Thakur, Zhenhua Gao, Jiyu Gu, and Michael R. Kessler. 2018. "High-Performance Thermosets with Tailored Properties Derived from Methacrylated Eugenol and Epoxy-Based Vinyl Ester." *Polymer International* 67 (5): 544–49. <https://doi.org/10.1002/pi.5542>.

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.

