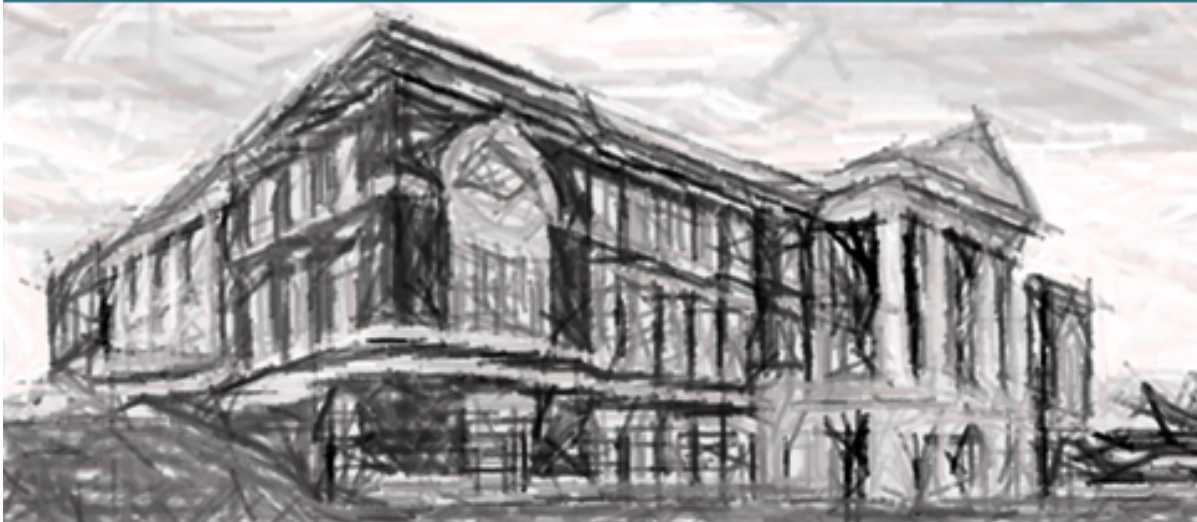




UNC CHARLOTTE

The WILLIAM STATES LEE COLLEGE *of* ENGINEERING

Contracts and Grants Office Newsletter



GREETINGS from the **DIRECTOR**

Happy New Year!

The Contracts and Grants Office welcomes you to the Spring 2020 issue of our newsletter. A new year arrives with a sense of optimism and countless opportunities for positive changes that make an impact. Undoubtedly, this year will bring transformation to UNC Charlotte leadership, software systems and renewed business processes and procedures. We are delighted to share some of the recent and forthcoming developments within research administration, as well as highlight some outstanding achievements in research and scholarly activities within the College of Engineering.

Thank you for your commitment to UNC Charlotte and the efforts that each of you has made toward advancing sponsored programs activity within the college. All the best to you for a healthy and prosperous new year.

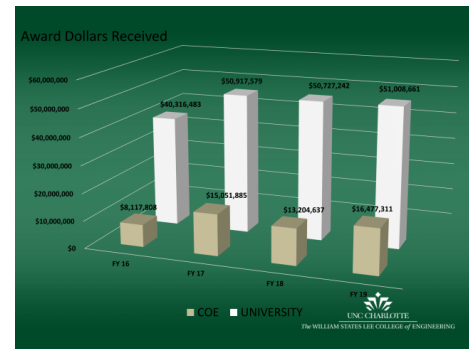
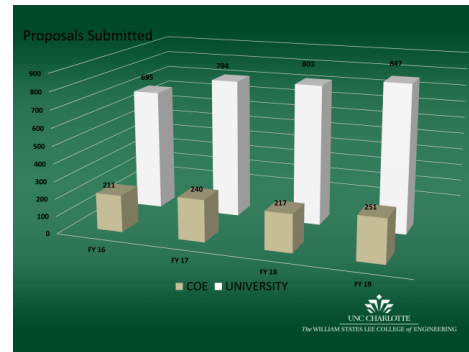
*Sincerely,
Shanda L. Wirt
Director, Contracts and Grants Office*

PROPOSAL AND AWARD ACTIVITY

From July 1, 2019 to December 31, 2019, the **College of Engineering** has received **78 awards** totaling **\$11.2 million**. This is a **29% increase** in award dollars received from the same time frame in 2018.

From July 1, 2019 to December 31, 2019, the **College of Engineering** processed and submitted **122 proposals**, an **11% decrease** from the same time frame in 2018.

Note that, for the last three years, the **College of Engineering** has led UNC Charlotte in research award dollars totaling **\$15M for FY 17**, **\$13.2M for FY 18**, and **\$16.4 for FY 19**.



UNIVERSITY PROGRAMS & POLICY UPDATES



CLIPP



CLIPP (Complex, Large, Interdisciplinary Proposal Preparation) is intended to help build the research capacity of the university by providing enhanced support to teams of faculty interested in preparing and submitting large, complex grant proposals to external funding agencies. UNC Charlotte Center for Research Excellence supports CLIPP projects.

To be eligible for CLIPP, projects must meet **one or more** of the following criteria:

- Annual budget of over \$200,000 or total award dollar value over \$1 million; or
- Involve senior personnel (faculty and/or staff) from two or more departments or colleges; or
- Involve two or more institutions, businesses, or organizations with UNC Charlotte as the lead.

READ MORE

TRAVEL

- **Entertainment Expenditure Form** replaces the **Food, Beverage, and Amenity Expense (FBAE) form**. The **FBAE form** will be accepted through Jan. 31, 2020. Beginning Feb. 1, 2020, only the **Entertainment Expenditure Form** will be accepted.
- **Missing Receipt Affidavit**: only required to complete this form for actual missing receipts instead of receipts that lack the details required, as long as the payee includes the "5 Ws" (who, what, when, where, and why) in the P-card comments or on the reimbursement request.



P-CARD

- **Comments in Bank of America Works System**: Faster and easier comment requirements.
- **Sales & Use Tax Exemptions**: No flags if you make an effort to get exemption honored. If the cardholder acknowledges that he/she accepts the tax and /or tried to get the sales tax exemption honored, the P-card Office will not flag the transaction.

READ MORE

SPONSOR UPDATES

Need supplemental funding? The NSF is inviting current grantees who have active funded Civil, Mechanical and Manufacturing Innovation (CMMI) awards, including NSF CAREERS, to apply for supplemental funding.



Submission of supplemental funding requests will be accepted **any time**. **Proposed budget** requests **may not exceed 20%** of the original award budget amount and are **not anticipated to exceed \$70,000**.

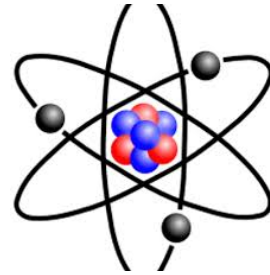
Interested PIs should contact the cognizant Program Officer for the active award they seek to supplement prior to submission of the supplemental funding request. For further information, PIs may also contact Alexis Lewis, ENG/CMMI, alewis@nsf.gov.

READ MORE

NUGGETS OF KNOWLEDGE

Pre-Award Tips:

- **5 Business Day Rule:** Please notify the Contracts and Grants Office of any proposals **5 Business Days** prior to the sponsor deadline



Post-Award Tips:

- **Travel Authorization** needs to be submitted **14 days before** the actual travel date
- **Please add the Contracts and Grants Office** (Wendy Meier, Saya Robison, or Joanne Zhang for the appropriate departments they manage) as an **approver** when a **new P-card** is added in your department

FACULTY RESEARCH SPOTLIGHTS

Dr. Tara Cavalline, Associate Professor, Engineering Technology and Construction Management
NCDOT recently awarded Dr. Cavalline a research grant entitled "*Continuing Toward Performance Engineered Concrete Mixtures for Durable and Sustainable Concrete*".



This award has a **two year duration** with a total of **\$295,464**. The long service life expectations of pavements, bridges, and other components cannot be reliably met by using traditional tests for specification and acceptance, which center around three criteria: slump, air content, and compressive strength. These three criteria are only loosely related to deterioration phenomena and do not always ensure satisfactory field performance. This project includes the second phase of work to support NCDOT's movement towards implementation of performance-based provisions. **Dr. Brett Tempest is the Co-PI for this project.**

[READ MORE ABOUT DR. CAVALLINE'S RESEARCH](#)

Dr. Sukumar Kamalasadan,
Duke Distinguished Professor,
Electrical and Computer Engineering
The Department of Energy Solar
Energy Technologies Office (SETO)

recently awarded Dr. Kamalasan a grant entitled "*Optimal Reconfiguration and Resilient Control Framework for Real-Time Photovoltaic Dispatch to Manage Critical Infrastructure of Power Grid*"

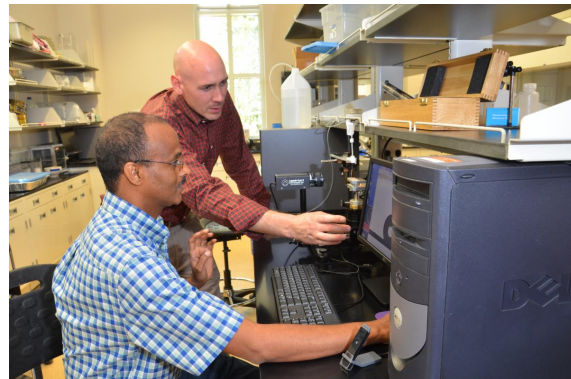
This award has a **three year duration** with a total of **\$3,699,000**. This project is motivated by the fact that distributed controllers and PV clusters integrated with energy storage units can enhance grid resiliency and reserves by managing the source inverter and optimizing the local area power flow. The goal of this proposed project is to design a grid management tool (ReDis-PV) that is threat aware, resilient, grid reconfigurable, and can form dynamic clusters to optimally manage PV and energy storage for improving grid resiliency and supporting critical infrastructure. The team members have complementary and overlapping technical skills and a strong track record of successfully completing federally and industry-funded projects. The tool will be tested with real-life data sets, implemented in real-time and validated with the field devices. **Dr. Tao Han is the Co-PI for this project.**



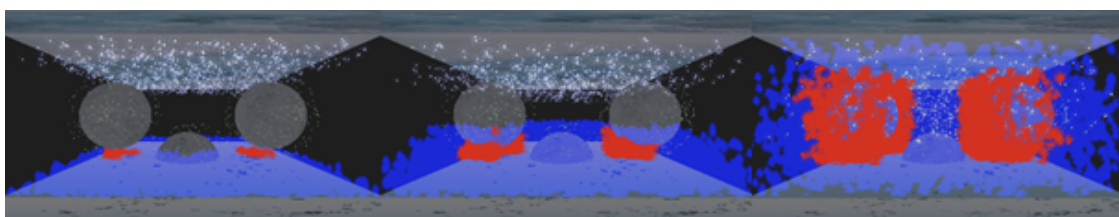
[READ MORE ABOUT DR. KAMALASADAN'S RESEARCH](#)

Dr. John Daniels, Professor, Civil and Environmental Engineering
NSF recently awarded Dr. Daniels a grant entitled "*Engineered Water Repellency to Mitigate Frost Susceptibility: Decoupling Osmotic and Matric Potential*"

This award has a **three year duration** with a total of **\$335,315**. Frost heaving has a significant effect on civil infrastructure including roads, bridges, and buildings. It causes foundation instability, structural failure, and excessive settlement. This research will investigate the extent to which water repellent additives (e.g. organo silanes) mitigate frost heaving while identifying the controlling physical and chemical mechanisms. This research has the potential to dramatically extend the service life of civil infrastructure while



introducing a new approach to soil and foundation improvement. This project supports a unique experience for Cadets from the U.S. Military Academy, to be paired with Veterans from both collaborating institutions for an experience at these organizations as well as at the U.S. Army Corps of Engineers Engineer Research and Development Center Cold Regions Research and Engineering Laboratory (ERDC-CRREL) Laboratory in Hanover, New Hampshire. The research team, inclusive of the Principal Investigators, Cadets, Veterans, and Graduate Students will also complete an active-learning based seminar entitled Leading at the Speed of Trust. This training emphasizes trust and character development; both of which have emerged as critical attributes as the work of engineers intersects the public with mass produced products and mega-sized projects.



Time lapse (below, left to right) of water moving toward the ice lens via both the diffuse double layer (red) and bulk pores (blue)

[READ MORE ABOUT DR. DANIELS' RESEARCH](#)

UPCOMING EVENTS AND CONFERENCES

Research Administration Conferences

SRAI:

Annual Meeting
Boston, MA. 10/17/20 - 10/21/20
Proposal Submission deadline
1/28/20 [Details here](#)

Basics of Research Administration
Nashville, TN. 1/29 - 1/31/20
[Details here](#)

Research Leadership
Seattle, WA. 5/13 - 5/15/20 [Details here](#)

NCURA

Annual Meeting
Washington D.C. 8/9/20 - 8/12/20
[Details here](#)

Financial Research Administration
Conference
San Juan, Puerto Rico, 3/2/20 -
3/4/20 [Details here](#)

Pre-Award Research Administration
Conference
San Juan, Puerto Rico, 3/4/20 -
3/6/20 [Details here](#)

Have News To Share?

Please send any news, awards, photos, etc. along to [Joanne Zhang](#) to be included in Contracts and Grants Office newsletter.