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# OUR METEORIC RISE CONTINUES.

UF MOVES UP TO THE **NO. 8 PUBLIC  
UNIVERSITY IN THE NATION** ACCORDING  
TO U.S. NEWS & WORLD REPORT 2019

## MAE by the Numbers

LARGEST DEPARTMENT ON  
UF CAMPUS BY ENROLLMENT

**430+**

BS degrees awarded  
20% female graduates May 2018.

**170+**

MS degrees awarded

**30+**

PhD degrees awarded

**\$13M+**

Annual External  
Research Expenditures

**84%**

Federally Funded Awards

\*2017-18 Academic Year



## RESEARCH HIGHLIGHTS

**Soft Matter Engineering** efforts continue to find success. UF announced an MAE-led program on 3D printing of brain tumors for cancer research. In partnership with UF Health, the effort is one of only 8 new UF-wide “moonshot” initiatives. Led by **Professors Sawyer and Angelini**, nearly \$3M in new funding has been awarded to focus on tumoroid and organoid printing for drug discovery, screening, and personalized medicine.

### Asst. Prof. Chelsey Simmons

Won a **NIH R35** Maximizing Investigators’ Research Award from the National Institute for General Medical Sciences. This \$1.8M grant provides support to uncover the secrets of the African Spiny Mouse, a mammal with regenerative properties that may be translatable to humans.

2 mm

### Asst. Prof. Ryan W. Houim

Won an Air Force **Young Investigator Research Program (YIP)** award. The project will use advanced numerical simulation techniques to study the fundamental processes and scaling parameters underlying the ignition and combustion of explosively-dispersed dust clouds.

10 mm

0.2 mm

## UF MAE Welcomes New Faculty



**Professor Jim Trainham** (PhD, University of California, Berkeley) brings considerable engineering depth and industry experience to UF. He has had a successful career, including Director of Engineering R&D for DuPont, CTO of Invista (formerly DuPont Textiles & Interiors), VP for Science and Technology of PPG Industries, and VP of Engineering for Sundrop Fuels. Dr. Trainham is a member of the **National Academy of Engineering** for the development of Viton and CFC-substitute processes and engineering leadership.

## Provost’s Initiative Brings Four New Lecturers to UF MAE



**Teresa Benitez Gregory** (PhD, University of Florida) focuses primarily on thermodynamics. Previously, she was a research assistant and a teaching assistant at Stanford University, and won UF MAE Best Teaching Assistant award in 2017.



**Jonathan Brooks** (PhD, University of Florida) focused his doctoral research on optimal control of power systems for smart-grid applications and energy-efficient control of smart buildings. His teaching interests include control systems, optimization, dynamics, vibrations, and numerical methods.



**Sean Niemi** (PhD, University of Florida) focuses on mechanical system design and precision engineering. He was a research assistant in the Soft Matter Engineering Center and Advanced Regenerative Manufacturing Institute, focusing on soft matter tribology and 3D printing soft materials.



**Kyle Schulze** (PhD, University of Florida) focuses on the mechanical design spine in the undergraduate curriculum. He has six years of machinery design experience at Northrop Grumman Newport News Shipyard (now Huntington Ingalls) and expertise in tribology instrumentation development.

## AWARDS & PROMOTIONS

### Congratulations to our new ASME Fellows:

**Prof. Hugh Fan**  
**Prof. Malisa Sarntinoranont**  
**Prof. Lawrence Ukeiley**  
**Dr. Thomas Jackson**

## STUDENT SUCCESS

### MAE PhD graduates find success at the next level. Congratulations to 2018 NSF CAREER Award winners:

**Dr. Alison Dunn** (University of Illinois at Urbana)  
**Dr. Brandon Krick** (Lehigh University)  
**Dr. Nitin Sharma** (University of Pittsburgh)

At this year’s regional ASME E-Fest, the **UF Student Design Competition** team won **first place**, and will competing in the SDC World Championships. ASME-UF’s Human Powered Vehicle (HPVC) competed against more than 50 participants, finishing within the Top 15 in Design and Innovation.

The MAE-sponsored **UF Society of Women Engineers** team won **first place** in the Rube Goldberg Competition. The machine takes viewers through the journey of cereal – from farming it to enjoying it in a University of Florida dorm.

**Erica Harp** is a **2018 Horatio Alger** and the **Dennis Washington Leadership Award** recipient. Erica received her B.S. in Mechanical Engineering in 2017 and is currently pursuing her M.S. in Aerospace Engineering at UF.



Cielo, the **UF Solar Gators** team’s second car, had a successful run at this year’s American Solar Challenge.

