Throughout my first year as Interim Dean of the College of Engineering and Applied Science (CEAS), I have had the privilege of guiding a dynamic community of exceptional faculty, outstanding staff, dedicated alumni and friends, and most importantly, phenomenal students. I would like to thank Dr. Teik C. Lim for his dedication and friendship during his years as dean, and looking to the future, I am honored by the opportunity to lead the College as we transition to the next permanent dean.

Our institution has been graduating standout engineers for more than 100 years, and I am pleased to report we have experienced yet another year of remarkable growth and achievement. CEAS broke its total enrollment record this year, nearing 6,000 students. We welcomed an unprecedented 26 National Merit Scholars, two prestigious Cincinnatus Presidential Scholarship Awardees and two Barry Goldwater Scholarship recipients. Our students tout an average ACT score of 29 and today, our students comprise more than 30% of the University-wide Honors Program.

We are continually innovating and transforming learning to cultivate student success. Since 2014, we have sought after and hired more than 65 outstanding new faculty members from around world who advance our mission to train the next generation of engineering leaders.

And thanks to our collaborations with numerous international universities, companies and research organizations in 23 countries, we are able to leverage our educational and experiential learning opportunities and better prepare our students for the global workforce.

One such partnership with Chongqing University (CQU), as you may already know, introduced co-op to China through the launch of the UC/CQU Joint Cooperative Institute (JCI). The program is now in its fifth year of operation with 418 students enrolled. And this fall, we opened our doors to JCI’s inaugural senior class—56 Chinese students are now preparing to graduate by finishing a senior project alongside other fifth-year engineering students here at our Uptown campus in Cincinnati. Graduates of the JCI program will receive degrees from both institutions.

On behalf of the CEAS family, thank you for your continued commitment to supporting our people and our programs. Together, WE ENGINEER BETTER.
**Undergraduate Programs**

- Aerospace Engineering: 321
- Architectural Engineering: 161
- Biomedical Engineering: 327
- Chemical Engineering: 565
- Civil Engineering: 352
- Computer Engineering: 333
- Computer Engineering Technology*: 1
- Computer Science: 397
- Construction Management: 253
- Electrical Engineering: 397
- Electrical Engineering Technology: 100
- Environmental Engineering: 119
- Fire & Safety Engineering Technology: 31
- Mechanical Engineering: 704
- Mechanical Engineering Technology: 316

* no new admits

**Freshman Engineering Program (undeclared major): 110**

**EASE Program (preparatory): 101**

**Joint Co-op Institute (Chonqing University):**

- Electrical Engineering: 125
- Mechanical Engineering: 54

**TOTAL:** 4,787

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**Graduate Programs**

<table>
<thead>
<tr>
<th>Program</th>
<th>MS</th>
<th>MEng</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering and Mechanics</td>
<td>66</td>
<td>30</td>
<td>54</td>
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<tr>
<td>Biomedical Engineering</td>
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<td>Environmental Engineering and Science</td>
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<tr>
<td>Mechanical Engineering</td>
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<td>115</td>
<td>70</td>
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<tr>
<td>Nuclear Engineering</td>
<td>1</td>
<td>343</td>
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</table>

**TOTAL:** 1,300

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**Enrollment by Gender (Fall 2017)**

- **Male:** 80.9%
- **Female:** 19.1%

- **Undergraduate:**
  - Male: 75.9%
  - Female: 24.1%

---

**Enrollment by Residency (Fall 2017)**

- **Ohio Res.:** 82.7%
- **Non-res.:** 17.3%

- **Undergraduate:**
  - Ohio Res.: 80.8%
  - Non-res.: 19.2%
**Students enrolled for Professional Practice (co-op) sections – Fall 2017**

<table>
<thead>
<tr>
<th>Program</th>
<th>MS</th>
<th>MEng</th>
<th>PhD</th>
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<td>Civil Engineering</td>
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<tr>
<td>Computer Engineering</td>
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<td>27</td>
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<td>-</td>
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<td>Materials Science and Engineering</td>
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<td>Mechanical Engineering</td>
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<td>10</td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Sub totals</td>
<td>158</td>
<td>284</td>
<td>40</td>
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<tr>
<td>TOTAL</td>
<td>432</td>
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**Undergraduate Degrees Awarded**

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<tbody>
<tr>
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<tr>
<td>Architectural Engineering Technology</td>
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<td>Biomedical Engineering</td>
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<tr>
<td>Civil Engineering</td>
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<tr>
<td>Computer Engineering</td>
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<tr>
<td>Computer Engineering Technology</td>
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<tr>
<td>Computer Science and Engineering</td>
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<td>Construction Management</td>
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<td>Electrical Engineering</td>
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<tr>
<td>Electrical Engineering Technology</td>
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<td>Environmental Engineering</td>
<td>13</td>
</tr>
<tr>
<td>Fire and Safety Engineering Technology</td>
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<tr>
<td>Mechanical Engineering</td>
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<tr>
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<td>41</td>
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<td>Total</td>
<td>567</td>
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**Graduate Degrees Awarded**

<table>
<thead>
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<th>PhD</th>
</tr>
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<td>3</td>
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<tr>
<td>Civil Engineering</td>
<td>8</td>
<td>7</td>
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<tr>
<td>Computer Engineering</td>
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<td>27</td>
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<tr>
<td>Computer Science and Engineering</td>
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<td>Sub totals</td>
<td>158</td>
<td>284</td>
<td>40</td>
</tr>
<tr>
<td>TOTAL</td>
<td>432</td>
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**Enrollment of U.S. Residents* by Ethnicity – Fall 2017**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Undergraduate %</th>
<th>Graduate %</th>
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<tbody>
<tr>
<td>Asian</td>
<td>3.8</td>
<td>8.9</td>
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<tr>
<td>Black or African American</td>
<td>2.3</td>
<td>3.3</td>
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<tr>
<td>Hispanic/Latino</td>
<td>3.2</td>
<td>3.9</td>
</tr>
<tr>
<td>Two or more races</td>
<td>2.8</td>
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<tr>
<td>Unknown</td>
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<tr>
<td>White</td>
<td>85.3</td>
<td>77.9</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Note: American Indian/Alaska Native and Native Hawaiian or other Pacific Islander < 1%
John Calder and his wife, Joan, established The Joan and John Calder UC FSAE Vehicle Support Endowment Fund with a $100,000 pledge commitment. The fund will be used to provide flexible and dependable funding for the UC FSAE Bearecat Motorsports Team to: purchase equipment, materials and/or parts needed for the vehicle; to send team members to the FSAE competitions; and to support research and development projects that allow UC FSAE to evolve as technology advances.

“We're proud to support CEAS as they provide an unparalleled experiential engineering education—the Bearecat Motorsports Team is a prime example of applicable engineering that is truly useful out in the industry...and out in the world,” says John.

It is supporters like the Calder's that will ensure the sustainability and preservation of the Bearecat Motorsports Program at the University of Cincinnati and benefit students participating in the program well into the future.

The establishment of The Mohammad and Zari Ehteshami Family Scholarship Fund will provide $25,000 in scholarship support for University of Cincinnati students.

Ehteshami and his wife, Zari, are ensuring the success of UC students through the establishment of their scholarship fund.

The Mohammad and Zari Ehteshami Family Scholarship Fund generously provides one UC student with a $25,0000 scholarship, awarding $5,000 every academic year for five years. Support preference will be given to UC students who are of Iranian descent and those who are enrolled in the College of Engineering and Applied Science, the James L. Winkle College of Pharmacy, and the College of Medicine. Mohammad and Zari have also generously remembered this scholarship in their estate plans, in such a way as to ensure a tremendous, enduring impact on UC students for many generations to come.
 This fall about 60 students in China’s first cooperative (co-op) education program arrived at the University of Cincinnati to spend their final year of college at UC, the school that invented the popular work-study model more than a century ago.

“Co-op is a wonderful experience,” said Xiaoqun “Sherry” Liao, the UC program coordinator. She came to UC in 1998 to get a doctorate in industrial engineering. “Our program is very consistent. UC professors know how to teach the curriculum. Chinese professors come here to train and observe,” she said. “When they go back, they’re teaching the same courses at Chongqing.”

“Chongqing had a very Cincinnati feel to it. It was a fun, quirky city,” said Nick Waits, 20, a third-year aerospace engineering student. “But everything is scaled up. It has so many more people.”

Chinese students who enroll in the program will have advantages in the job market when they graduate. “The option to work either in China or the U.S. is a big thing,” Waits said. “But the biggest benefit of the program is they get a degree from CQU and a degree from UC. To anyone, that’s a major advantage.”
Race you to the finish line

Engineering alumnus, Bill Wise, not only assisted in the development of the new 2018 Chevrolet Camaro ZL1 1LE, he also raced it at Nürburgring Nordschleife—and set the world record for the fastest Camaro to ever lap the famed German track.

You might say Bill Wise, mechanical engineering alumnus ’08, has driven a long way since his days as leader of the Bearcat Motorsports team at the University of Cincinnati (UC) College of Engineering and Applied Science (CEAS). In his current role as a chassis development engineer for General Motors (GM), Wise works to fine tune the suspension and handling of the sixth generation Chevy Camaro.

He affectionately calls his job “a weird mix of race car driver and engineer.” He explains, “Roughly 50% of my time is spent in the car to test and develop it. All suspension components are my responsibility. I tweak the design to get the best performance for each part based on how we want the car to ride or be handled/experienced by the driver. I develop parts like the tires, the shocks, the steering, and some of the more subtle things, like the bushings and mounts for the suspension attachments.

The other 50% of my time is spent in the garage, making the next change on the vehicle or analyzing data to pick the best part or which direction to go with the next test. It all equates to a desired characteristic for the ride quality and handling capabilities of each Camaro.”

Wise has worked on every Camaro since the inception of the latest generation in 2013, and held been developing the 2018 Camaro ZL1 1LE since its conception was first penned more than a year and a half ago.

In April 2017, Wise was given the rare opportunity to drive the new Camaro ZL1 1LE’s "fast lap" at the world famous Nürburgring Nordschleife (north loop), aka The Green Hell Legend. He finished the 12.9 mile lap at in only 7:16.04, making the ZL1 1LE the fastest Camaro to ever lap the famed German track.

Wise reflects on his record-setting experience, "It was something that I’ve wanted to do for 10 years now. This car was sort of my ‘baby’ and it was a great opportunity to work on the fastest Camaro to date. So when we committed to sending the car over to Germany to do the fast lap at Nürburgring, it goes without saying that I was very excited. Driving the lap itself requires a ton of focus as it is easily 3-4 times longer than any tracks I have driven. Plus, in order to finish quickly, you have to take calculated risks to try and shave off extra time. We call this method ‘controlled aggression.’ The harder you push the Camaro ZL1 1LE, the more it rewards you on the track. It offers total control, with the confidence that it will deliver lap after lap. The whole experience was incredibly satisfying!"

The Canton, Ohio native states that it was the unparalleled coupling of the CEAS cooperative education program (co-op) with his Bearcat Motorsports experience that most prepared him for his phenomenal career in the car industry.

The UC Bearcat Motorsports team participates in the Formula SAE (SAE) collegiate student design competition, which is organized by SAE International (formerly the Society of Automotive Engineers) and supported by all of the major automotive companies and suppliers. The competition involves the design, construction, and testing of an open-wheel, Formula One style racecar. Students are involved in design, cost analysis and sales/marketing presentations as well as static and driving competitions against other collegiate teams from all over the world over the four days of the competition.

Wise says, "I had toured several colleges before visiting UC, but there was a very specific moment when walking through Rhodes Hall where I noticed a poster for the Bearcat Motorsports team on the wall. Up until that point in time, I had never heard of FSAE and following that poster sighting, I realized that was the perfect organization for me and the goals I had been putting in place for myself."
The College of Engineering and Applied Science celebrated these outstanding awardees at a luncheon in their honor on November 28, 2017 held at Kingsgate Mariott Hotel.

**Lifetime Achievement Award**

**Richard P. Homan**

Civil Engineering ’77

**Executive Vice President**

**Turner Construction**

Rich Homan has been responsible for leading the operations and business strategy for the Ohio, Kentucky, and Washington DC Turner Mid-Atlantic offices, as well as Turner’s Southeast Region—including Nashville, Huntsville, Atlanta, Florida and the Carolinas, and the Great Lakes Region—including Illinois, Michigan and Indiana. These regions annually complete over $4 billion of construction and employ a professional staff of over 2,000 people.

In 2001, Rich returned to campus to oversee the construction of UC’s Varsity Village and the Campus Recreation Center.

In addition to helping shape the award-winning UC campus that is so vibrant today, Rich has been instrumental in numerous other high-profile Turner projects, such as the Rosenthal Center for Contemporary Art, and renovations to the Taft Museum and Paul Brown Stadium.

And the Cincinnati native couldn’t be more proud to build in the very city and campus that helped to mold him.

Rich once said, “Our great city has an inherently charitable nature,” and, so befittingly, he embodies the very same pay-it-forward essence as he devotes much of his spare time to giving back to the community. This includes; serving as Chairman of the Good Samaritan Hospital Foundation, VP of the Boy Scouts of America Board’s Learning for Life and Exploring programs, and Board Chairman of the Drake Center Foundation. In 2010, Rich received recognition of his and Turner’s community service through the Silver Beaver award from the Boy Scouts and the Star Award from the Ohio Cancer Research Associates.

Members of the industry have come to respect Rich as a true pioneer, a leader, and a visionary. He exemplifies what Dean Herman Schneider, inventor of the co-op program, always looked for in his students — the resolution to pursue experience, knowledge, and excellence that will equip them for any challenge that arises within the industry.

---

**Herman Schneider**

**Distinguished Alumnus Award**

**Electrical Engineering ’88**

**Mission Systems Engineer, NASA**

Chris Herman was recruited in 2001 to join the development team for a new concept for a mission to Pluto and the Kuiper Belt, that became the New Horizons Mission. “It it weren’t for Chris Hersman, there would have been no NASA exploration of Pluto,” recounts New Horizons principal investigator, Dr. Alan Stern. “Chris is one of the smartest people I’ve ever met. He has the entire design of the spacecraft and how it operates in his head.”

Many who know him often note how he possesses a knack for rooting out the source of trouble, all the while embodying a natural equanimity. Chris’ unwavering determination and thirst for innovation directly channel that of Dean Herman Schneider. His contributions as a space-age electrical engineer are a true reflection of the college’s and his commitment to discovery, achievement, and service.

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**Austin G. Allison**

**Construction Management ’08**

Founder & GM, dotloop, (a Zillow Group Company)

Austin Allison has achieved great success as a young entrepreneur. By the time he was 17 he had bought his first home and became a licensed real estate agent at 18.

During his undergraduate years at UC he worked as a realtor in both commercial and residential real estate. It was during this busy time that he embarked on his next entrepreneurial venture. Along with a family friend, he launched dotloop in 2009—a streamlined paperwork process for real estate buying and selling.

A strong believer of “Peoplework”—the idea of caring for clients as if they are family or friends—Austin places significant value on relationships and strives to inspire others. “I’m fortunate to have amazing people around me that made it all possible and together, we look forward to continued innovation.”
The first McDonald’s All American High School basketball player to play basketball for UC, the CEAS ’91 alumnus sets yet another precedent as the first Chief Sustainability Officer of YUM! Brands, Inc.

Roger McClendon, a four-year starter who closed his University of Cincinnati (UC) men’s basketball career as program’s No. 2 scorer, second only to Oscar Robertson at the time, is considered the Bearcats player of the decade from the 1980’s and was inducted into the UC Athletic Hall of Fame in 1998. He graduated from the College of Engineering and Applied Science (CEAS), majoring in electrical engineering in ’91. He has now set a new precedent as Chief Sustainability Officer (CSO) of YUM! Brands, Inc., and his inaugural role is crucial to YUM!’s future in the restaurant industry.

YUM!, parent company of Taco Bell, Pizza Hut and KFC, is the world’s largest restaurant corporation, with over 43,000 restaurants and more than 1.5 million employees in over 135 countries. McClendon has had during his tenure with YUM! Brands. Under his guidance, YUM! has eliminated more for people and the planet than the last,” says McClendon. And a large impact is certainly what to look holistically at the industry to make the largest impact—ensuring that each year you are doing “Sustainability is not just a word to me, it’s a core value. I encourage customers and leaders alike

Having worked in multiple functions of the company, McClendon saw an opportunity for the company to leverage sustainability as a strategic framework for its ongoing business success. He convinced YUM’s CEO, David Novak to create the CSO role, which was established in 2010.

“Sustainability is not just a word to me, it’s a core value. I encourage customers and leaders alike to look holistically at the industry to make the largest impact—ensuring that each year you are doing more for people and the planet than the last,” says McClendon. And a large impact is certainly what McClendon has had during his tenure with YUM! Brands. Under his guidance, YUM! has eliminated the release of almost 1.2 million metric tons of CO2—equivalent of removing 225K cars off the road! For his work he is the recipient of the Yum! Global Engineering Innovation Award.

McClendon and his team created a streamlined path to Leadership in Energy and Environmental Design (LEED) for his design and construction teams. With this approach, he’s overseen the construction of more than 30 LEED certified restaurants across nine countries and has reduced YUM!’s energy consumption by a staggering 30% in Shanghai and Beijing. These technologies have been implemented in over 5,000 Yum restaurants around the globe to date and continues to expand.

He also met his college sweetheart at UC, Suzanne Edwards McClendon, with whom he recently celebrated 28 years of marriage. Together they have four children: Deja, Maya, Marquis and Jordan.

Today, though in the land of the Cardinals, McClendon remains an avid Bearcat fan at heart. Over the years, he has helped support several AAU basketball programs in Cincinnati, the CEAS ’91 alumnus sets yet another precedent as the first Chief Sustainability Officer of YUM! Brands, Inc.

McClendon has 30+ years of manufacturing plant operations paired with expertise in engineering, new product development and quality assurance. He asserts, “My engineering education was paramount in developing my professional skills and applying the academic theory to the real-world. These life-long lessons coupled with my technical skills became a competitive advantage along my career journey including the position I hold in my company today.”

Outside of the office, McClendon devotes his time and energy to giving back to the the his community. He states his world revolves around Faith, Family, Community and Career, in that order of priority as he calls it: F-squared, C-squared. Shortly after graduating from UC, McClendon became the co-founder of ICS Computer Technical Training Center for Youth in Cincinnati and volunteered for the McClendon Institute for Learning Outreach Programs in Dayton. McClendon served on the Louisville Sports Commission Board of Directors and is a current board member of the Louisville Kentucky African American Heritage Center. Over the years, he has helped support several AAU basketball programs in Louisville.

In 1984, McClendon emerged from Centennial High School (Illinois) as a McDonald’s All-American, one of the top 25 high school basketball players in the nation. Combined with his strong ACT scores, McClendon was never short of scholarship offers. With a love for challenges and problem-solving, McClendon knew early on that he wanted to pursue the field of engineering.

UC’s long-standing tradition of basketball, coupled with students’ access to the co-op program, became the reason McClendon ultimately chose UC. He knew he could excel both academically and athletically here.

McClendon states the experience that prepared him most for his career was his participation in the co-op program. For his first co-op rotation, he worked for Gus Perdikakis Associates, Inc. While at the firm, he previewed the business operations side of engineering as it pertains to consumer products manufacturing, original equipment manufacturing, utilities, retail and consulting. McClendon travelled to Costa Rica and Machala, Ecuador for his second and third co-op assignments with Chiquita Brands International. He spent two quarters at each location, affording him the opportunity to acquire unparalleled agricultural knowledge such as the fruit ripening process that guarantees Chiquita’s high-quality “Blue Sticker” promise.

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UC’s long-standing tradition of basketball, coupled with students’ access to the co-op program, became the reason McClendon ultimately chose UC. He knew he could excel both academically and athletically here.

McClendon states the experience that prepared him most for his career was his participation in the co-op program. For his first co-op rotation, he worked for Gus Perdikakis Associates, Inc. While at the firm, he previewed the business operations side of engineering as it pertains to consumer products manufacturing, original equipment manufacturing, utilities, retail and consulting. McClendon travelled to Costa Rica and Machala, Ecuador for his second and third co-op assignments with Chiquita Brands International. He spent two quarters at each location, affording him the opportunity to acquire unparalleled agricultural knowledge such as the fruit ripening process that guarantees Chiquita’s high-quality “Blue Sticker” promise.

Shortly after graduating from UC, McClendon became the co-founder of ICS Computer Technical Training Center for Youth in Cincinnati and volunteered for the McClendon Institute for Learning Outreach Programs in Dayton. McClendon served on the Louisville Sports Commission Board of Directors and is a current board member of the Louisville Kentucky African American Heritage Center. Over the years, he has helped support several AAU basketball programs in Louisville.
CEAS alumna Dr. Esra Roan celebrated the first year of her medical device startup, SOMAVAC Medical, which develops patient-friendly, post-surgical drainage devices.

The origin story of Dr. Esra Roan’s Memphis-based medical device company came straight from the mouths of the surgical patients themselves.

“We heard countless patients describe drainage tubes and bulbs as the worst part of their surgery experience, and we just knew there had to be a better solution for removing post-surgery fluids,” recalls Roan, University of Cincinnati (UC) College of Engineering and Applied Science (CEAS) mechanical engineering PhD ‘07 alumna, when asked what the motivation was to establish her medical device company, SOMAVAC Medical Solutions.

Roan further explains, “Each year more than 750,000 patients in the U.S. alone undergo surgeries like mastectomies that form large flaps in tissue layers. These flaps can cause patients to be at a higher risk of post-surgical fluid build-up, so surgeons often place tubes near the surgical site that drain into bulky, cumbersome suction bulbs.”

In 2016, Roan and Josh Herwig founded SOMAVAC to create a better solution for post-op drains, one that has the potential to reduce patient complications after major surgeries, improve their healing time and allow them to recover with dignity in the comfort of their own home.

The SOMAVAC Medical wearable device is less than one inch (2.5 cm) thick and easily concealable under clothing. As opposed to traditional post-op drains which store drainage fluid in bulky, frequently backed-up bulbs, SOMAVAC’s device collects the drainage in sleek reservoirs that are easy to attach and dispose of. With the simple push of a button, the device generates a continuous suction that may promote healing by bringing tissue together, potentially reducing healing time.

Roan’s own origin story begins in Istanbul, Turkey, the hometown she left in pursuit of an education—and also a collegiate tennis career—in the U.S. She earned her BS and MS in mechanical engineering from the Tennessee Technological University in 1998 and 2000, respectively. Shortly thereafter, Roan’s husband, Stephen, accepted a position at Toyota and the pair uprooted to live in Cincinnati. She worked as a product development engineer for 3M Precision Optics for about two and a half years until she decided to follow her aspirations of a career in academia and go back to school for her doctorate.

Roan reflects, “When I arrived at UC, I was about as non-traditional of a student as you could find. At the time, I was one of the few females enrolled in the doctoral mechanical engineering program and I was also pregnant with our first son. I remember taking the fundamental PhD engineering exam, which covers six topics over a span of two, three-hour days, and then I went into labor.”

Roan accredits her time at UC to sparking her initial passion for biomed innovation. “I applied Dr. Kumar Vemaganti’s mathematical and theoretical approaches to my healthcare-related research. I worked closely with the biomedical department for four years in the area of soft tissue mechanics.”

Upon graduating from UC in 2007, Roan accepted a mechanical and biomedical engineering joint faculty appointment at the University of Memphis. When the opportunity unfolded to kick-start SOMAVAC with Herwig, who was one of her master’s students at the time, Roan took it. “I broke the chain and co-founded SOMAVAC,” Roan said.

“I find the entrepreneurial path to be fun, fulfilling and also quite challenging. But I’m glad my medical device company has a purpose and I’m afforded the opportunity to make patients’ lives better every single day.”

She strongly advocates for the inclusion, retention and success of women in STEM (science, technology, engineering and mathematics) disciplines. She remarks, “Although the number of female engineering graduates is indeed on the rise, it’s been estimated that nearly 40% of women who earn engineering degrees either quit or never enter the profession. But I remain steadfast in my efforts and try to give hope to my fellow female engineers — I always tell them, ‘nothing has to be linear, your career can be as zig-zagged as you want, take as many turns as you wish!’”

“I have to give a shout-out to my business partner, Josh. And also a huge thanks to my husband, Stephen—we married immediately after undergrad 1998 and he has been nothing short of phenomenal. Stephen and my two sons, Ben and Emre, are so supportive, sharing all of the burdens with me. Without them, this would not be at all possible.”

Support your fellow Bearcat, Dr. Roan, by following SOMAVAC Medical Solutions on Facebook and Twitter, or contact her at: esra@somavac.com, eroan@memphis.edu.

Dr. Esra Roan and Mr. Josh Herwig with their prototype.
We welcomed the following new faculty for the 2017 fall semester:

**AEROSPACE ENGINEERING AND ENGINEERING MECHANICS**

OU MA, Professor/Alan Shepard Chair of Aerospace Engineering

**BIOMEDICAL ENGINEERING**

ANGELA ZACHMAN, Assistant Professor-Educator

**CHEMICAL AND ENVIRONMENTAL ENGINEERING**

GREG HARRIS, Assistant Professor | JONATHAN NICKELS, Assistant Professor | JINGJIE WANG, Assistant Professor

**CIVIL & ARCHITECTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT**

PATRICK FORTNEY, Associate Professor-Educator | NABIL NASSIF, Associate Professor | JIAQI MA, Assistant Professor | AMANDA WEBB, Assistant Professor

**ELECTRICAL ENGINEERING AND COMPUTER SCIENCE**

BOYANG WANG, Assistant Professor | RYAN WHITE, Associate Professor/Ohio Eminent Scholar; Dual Appointment, College Arts & Sciences/Chemistry

**ENGINEERING EDUCATION**

TERI J. MURPHY, Professor | Sheryl SORBY, Professor

**MECHANICAL AND MATERIALS ENGINEERING**

MARIA CHIERICHETTI, Assistant Professor-Educator | MOISE CUMMINGS, Assistant Professor-Practice | ALEX WOUDEN, Assistant Professor-Educator | YONGFENG XU, Assistant Professor

For more information visit ceas.uc.edu/new-faculty

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**CEAS professors honored at 2017 All-University Faculty Awards Celebration**

Each year, the University salutes one of its greatest assets — its faculty — at the annual All-University Faculty Awards Celebration. And no one shone brighter at the 2017 ceremony than CEAS with three outstanding faculty members being recognized for their distinguished research and teaching excellence.

Virtually anyone who drops a cell phone can thank Professor Punit Boolchand, PhD, if the screen does not break. Boolchand and his research team at CEAS have changed the way materials scientists think about glass. This understanding contributed to the creation of Corning Gorilla Glass used in more than one billion cell phones and tablets around the world.

“Put simply, he has changed our atomic-level understanding of these ‘inexplicable’ materials to an extent far beyond anything since the theory of superconductivity,” John Mauro, senior research manager at Corning, said in a letter endorsing the nomination of Boolchand. Boolchand was nominated for the American Physical Society’s prestigious Oliver E. Buckley Prize for his work on the “Intermediate Phase,” a breakthrough in glass research now named for him.

As a native of the Island of Cyprus, Dionysios (Dion) D. Dionysiou, PhD, knows firsthand the value of water. He has devoted his career to addressing the need to secure enough clean, drinkable water in arid countries and the developing world.

Dionysiou has worked on more than 50 water quality projects and his research has received millions of dollars in funding from national and international organizations. He is a fellow of the American Chemical Society (ACS) and is currently serving as chair-elect of the ACS Division of Environmental Chemistry.

Dionysiou is considered to be “among the top one percent of scientists/engineers in the field of advanced oxidation processes,” states Virender Sharma, PhD, director of the Program for Environment and Sustainability, Texas A&M.

Through his nationally recognized expertise and dedication to the field of aerospace engineering, Mark Fellows, MS, MBA, has compiled an astonishing record of student success as an adjunct professor at UC. Fellows is known for having exceptionally prepared undergraduates with knowledge of aircraft performance.

“Mark Fellows is an outstanding adjunct with a strong personal commitment to our students and our program,” stated Paul Orkwis, PhD, interim dean. Orkwis believes that in being a UC alumnus, Fellows is all the more committed to the mission of the program. “He is the epitome of student-centric teaching and is amazing in his devotion to the students of aerospace engineering.”

Prior to joining UC, Fellows worked for 36 years at the Aeronautical Systems Center at Wright Patterson Air Force Base (AFB) in Dayton, Ohio.
A half century of dedication, excellence and service — that is what Dr. Kirti “Karman” N. Ghia gave to UC and the College of Engineering and Applied Science.

Since his passing in June, 2017, Karman’s family, students, colleagues, and friends have been reflecting on the thousands of hours, stretched over decades, that he gave to teaching and mentoring.

Ghia joined the UC faculty in 1969 as an Assistant Professor of Aerospace Engineering in the CEAS Department of Aerospace Engineering and Engineering Mechanics.

He was a pioneer in the field of computational fluid dynamics (CFD), and led research activities in simulation of steady and unsteady separated viscous flows, high-incidence aerodynamics, vortex-dominated flows, non-linear dynamics, turbomachinery flows, flow control, aeroelasticity, development of numerical methods, Large-Eddy Simulation/Direct Numerical Simulation (LES/DNS) of turbulent flows, and grid-generation techniques. His research was sponsored by the Air Force Office of Scientific Research, Office of Naval Research, Army Research Office, Wright Laboratory, NASA, National Science Foundation, Ohio Aerospace Institute, National Renewable Energy Laboratory, and Aerospace industry including General Electric and McDonnell Douglas.

Throughout his career, his colleagues decorated him with recognition. The American Society of Mechanical Engineers (ASME) named him a Freeman Scholar in 1995-96, and the ASME Fluids Engineering Division honored him with a Lifetime Achievement Award in 2017. At UC, he was the first faculty member to receive all three major UC Faculty awards: the George Rieveschl Award for Distinguished Scientific Research, the George B. Barbour Award for Superior Student-Faculty Relations, and the Mrs. A.B. “Dolly” Cohen Award for Excellence in Teaching.

At UC, Karman was Co-Director of the Computational Fluid Dynamics Research Laboratory (CFDRL), and Director of the Institute of Computational Mechanics.

Dr. Paul Orkwin, Interim Dean of CEAS, remarked on Karman: “No one represented UC better than Dr. Kirti Ghia. He was an outstanding pillar of our community— his persistence and drive in the pursuit of excellence is what I will remember most about him. I’ll also always remember his phenomenal photographic memory and how he could effortlessly recall conversations verbatim from decades ago. Karman was one of the most remarkable individuals I have known and he’s left a lasting impression of caliber and commitment that is unparalleled. He will be greatly missed amongst the many he helped.”

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In honor of Dr. Ghia’s commitment to his students, his family and the University have established the Professor Kirti “Karman” Ghia Endowed Graduate Student Assistance Fund. Through two annual awards, this fund will benefit students in pursuit of full-time graduate studies in UC CEAS Aerospace Engineering and Mechanical Engineering. The Fund will give preference to students from India.

If you would like to make a gift please visit foundation.uc.edu/ghia. For questions regarding giving, please contact Mike Hogan, Senior Director of Development, CEAS, at 513-556-1901.