

ENGINEERING & TECHNOLOGY TIMES

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News and Notes from the College of Engineering and Technology

Dedicated to Student Success, Academic Excellence, and Advancement in Research

Revisiting a Legacy with an Eye on the Future

It's an unexpected pleasure when the College of Engineering and Technology (CET) can welcome back a friend who's not only done a lot for the college, but also left a legacy of service impacting the entire university.

Dr. Harry Ploehn, CET dean, recently had the opportunity to meet Dr. C. Q. Brown, retired ECU geology professor, during his visit on campus. Dr. Ploehn took advantage of the opportunity to thank Brown for what he's done for CET students and all of ECU.

In December 2015, Dr. Brown established the Elizabeth Brown Sledge (EBS) Scholarship Endowment in memory of his daughter, who received her degrees from ECU in 1984 and 1991. This CET scholarship will aid technology systems students who are underrepresented and demonstrate a financial need, which represents Sledge's championing of the underdog.

During the meeting, Dr. Ploehn learned more about Elizabeth and Dr. Brown's wishes for the scholarship.

"With the EBS Scholarship Endowment, we want to honor and remember Elizabeth's passion for helping at-risk students, her passion for helping the underdog," said Ploehn. "This scholarship helps students who are at risk of not being able to continue with their studies."

Brian Stanford, a recipient of the EBS Scholarship Endowment, majors in Information & Computer Technology with a networking concentration. He graduates in May 2018, and he fully appreciates the value these scholarships bring to students' lives.



Dean Harry Ploehn meets with retired ECU professor, C.Q. Brown.

"I feel much respect for and am very grateful to Dr. C.Q. Brown and any contributors of the Elizabeth Brown Sledge Scholarship," said Stanford. "They not only have provided me with financial help for my degree, but they also showed me that we have kind people in this world who do selfless things that can have a great impact on people's lives."

Dr. C.Q. Brown's life work and dedication to the university continue to be felt today. In 1966, Dr. Brown joined ECU as a professor. In 1967, he led efforts to establish the Department of Geological Sciences and became its first chair, serving until 1971. Dr. Brown then moved into higher administration at ECU, but clearly his heart remained with his students and faculty colleagues. He returned to the department in 1979 and served as chair for another decade. Dr. Stephen Culver, in a 2017 department newsletter, said, "I cannot end without mention of our founding father, Dr. Charles Q. Brown, who planned, initiated and ran the department for the first four years... We all owe a huge debt of gratitude to C.Q. for his vision, his

energy and his leadership."

In 2000, geology students, colleagues and alumni honored Dr. Brown's legacy by establishing the C.Q. Brown Scholarship. It recognizes and awards rising seniors who are studying geological sciences. ECU's Epsilon Phi Chapter of Sigma Gamma Epsilon also raises money that helps support this scholarship.

Today, the CET aspires to build on the legacy of Dr. Brown's vision, energy, and leadership by developing new initiatives focused on maximizing student success and enhancing

academic excellence across all CET degree programs. In their meeting, Dr. Ploehn and Dr. Brown discussed ways to build additional support for the EBS Scholarship fund and other kinds of support for at-risk students. Dr. Ploehn said, "I'm amazed by how much students work in almost full-time jobs outside of ECU to be able to pay for college, and how many have to drop out due to one large, unexpected car repair or medical bill." Using the EBS Scholarship fund as a prototype, the CET will soon be launching a new campaign to raise support for "CET Opportunity Scholarships" to help students reduce their workload outside of school - so they can focus on classes - or assist students facing unforeseen financial crises. Dr. Ploehn and Dr. Brown agreed that this kind of support will create a new legacy to help at-risk CET students today and far into the future.

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CET Student Takes Second At Entrepreneurial Challenge



Matt McCall, right, takes second place and \$5,000 at the inaugural Pirate Entrepreneurship Challenge.

Matt McCall, a senior in the College of Engineering and Technology, took second place at the recent inaugural Pirate Entrepreneurship Challenge.

At the challenge, McCall had a five-minute session where he pitched his company, Beyond Tutoring, to statewide and regional entrepreneurs who served as judges. His efforts paid off, and he walked away with second place and a \$5,000 cash prize. Matt and Beyond Tutoring were one of seven teams to compete in the challenge.

The Pirate Entrepreneurship Challenge is the signature pitch competition of East Carolina University's College of Business and its

Miller School of Entrepreneurship. The challenge began in October 2017 with 57 teams competing for cash prizes, then 12 teams moving on to the second round in November. Third-round finalists were paired with individual mentors who helped the student teams develop their business concepts.

Beyond Tutoring, LLC, helps veterans get better grades with one-on-one tutoring. With \$10 billion in readjustment benefits available to veterans, Beyond Tutoring is building a service that will allow tutors to get paid faster while they help veterans get better grades. For more information, visit www.beyond.vet.

CET Design Students Get Certified!

Thirteen College of Engineering and Technology students recently earned their American Design Drafting Association drafter certification-architectural. Christopher Bailey, Danielle Compean, Taylor Dockety, Andrew Glover, Charlie Holloman, Wayne Howerton, Matthew Klettner, Deven Lockhart, Kevin Marks, Sarika Merchant, Punya Nanudon, Devon Sutton, and Amanda Xiong were in the college's Architectural Design and Drafting course when they sat for the certification exam. All are pursuing the bachelor of science degree in design with a concentration in architectural technology.

The bachelor of science degree in design is administered by the College's Department of Technology Systems and is an Association of Technology, Management, and Applied Engineering accredited program. East Carolina University also is an ADDA-authorized testing site.

About receiving the certification, Dr. Robert Chin, professor, College of Engineering and Technology, ECU, said, "Key for the student is being able to tell potential employers that their knowledge and skills have been validated by a professional organization, ADDA as an example, that has an interest in the employability and professional development of those students."



Back row from left to right: Wayne Howerton, Devon Sutton, Charlie Holloman, Deven Lockhart, Matthew Klettner; front row from left to right: Punya Nanudon, Taylor Dockety, Amanda Xiong, Danielle Compean, Sarika Merchant, Christopher Bailey

Meet the College's New Academic Advisor



Name: Laura Etheridge

Official title: Academic Advisor

Hometown: Virginia Beach, Virginia

Where did you work before coming to the College?

I worked as an admissions counselor in ECU's Office of Undergraduate Admissions. My primary focus was with our transfer population where I focused my recruiting efforts on the North Carolina

Community Colleges, specifically the southeast region of the state (Raleigh to Wilmington). Before my time in Undergraduate Admissions, I worked in ECU's Graduate School and supported the physician assistant studies program.

What will you be doing for the College of Engineering and Technology?

I will advise prospective and current students within the College's Department of Computer Science. I will work closely with my colleagues and the department to make sure students are well advised, and their academic needs are met.

Why did you choose to come to ECU?

I bleed purple and gold! I attended ECU

for my undergraduate and graduate studies. Throughout my graduate career, I was blessed with so many opportunities to work with faculty and staff within the area of student services. This period is when I fell in love with higher education and realized I had a desire to see students succeed while loving ECU as much as I did as a college student!

What would people be surprised to learn about you? I took a semester off in graduate school to backpack around Europe with my best friend. We went to nine different countries in nine weeks. I highly recommend traveling and experiencing as many different cultures as possible!

Message from the Dean

Greetings from ECU and the College of Engineering and Technology! First and foremost, I'd like to thank you for your past support of ECU and the CET. Your contributions have had a major impact by providing critical resources (especially scholarships) needed to help students persevere and succeed in our degree programs. With your help, ECU and the CET's faculty and staff have built outstanding programs that provide access to STEM degrees for students from all walks of life across North Carolina. For this reason, I was honored to join ECU last July as professor and CET Dean. I'd like to introduce myself and let you know something about my hopes and aspirations for the College, our departments and degree programs, and most of all - for our students, both today and in the future.

I was born in New Jersey, raised in Texas, and earned my degrees in chemical engineering at Rice University and Princeton University. Before joining ECU, I served Texas A&M and the University of South Carolina for over 27 years as a teacher and researcher in polymer nanotechnology. My LinkedIn page (www.linkedin.com/in/hjploehn) tells you more about my professional background and experience. I have been married to Dr. Carolyn Bolton (another chemical engineer) for nearly 27 years, and we have two children: a daughter (Patty, 21) majoring in Historic Preservation and Art History at the College of Charleston, and a son (Will, 18), a senior at The Oakwood School here in Greenville.

Why did I leave South Carolina and move to ECU and Greenville? Frankly, I feel called to invest my remaining working years where I can have the most positive, lasting impact on students, faculty and staff colleagues, and higher education. ECU and the CET turned out to be the perfect place to do just that. The college's strong tradition of teaching excellence, close student-faculty relationships, and providing access to STEM degrees line up well with my values and vision for higher education. At the same time, ECU has research and economic development opportunities that we must capitalize upon, because they could have profound impact on the people and economy of eastern North Carolina.

My values and priorities align wonderfully with those of Chancellor Staton and ECU's leadership team. ECU's strategic plan, Capture Your Horizon, makes Three Commitments to the students, families, and communities that we serve: Maximize Student Success, Serve the Public, and Lead Regional Transformation. As a college, we need to help ECU fulfill those commitments. To this end, I've proposed three priorities for the CET: maximize student success, enhance academic excellence, and advance research and scholarship. We've developed a "College Priority Roadmap" that will guide our investments of time, energy, and funds in various new initiatives aligned with these priorities:

- CET Student Success Center (SSC): we'll expand the Advising Center into a "one-stop shop" for student recruiting, orientation, academic advising, professional development, and career services. Student Success Fellows, faculty "coaches" from every program, will focus on career counseling and guide students toward internships, study abroad, undergraduate research, and other "beyond-the-classroom" experiences vital to their professional development.
- CET First Year Program will feature student recruiting and retention initiatives, including specialized first-year advising and career counseling, predictive analytics tools, and intervention strategies, all designed to help new freshmen and transfer students quickly find the ideal degree pathway and help them succeed in their first year - critical to graduation in four years.
- CET On Your Time Program, our degree completion

initiative, will provide specialized advising to help students make progress towards graduation while engaged in any form of employment. By forecasting course demand and optimal modes of delivery to maximize student access, we can provide customized advice to help each student identify online or face-to-face course offerings at any institution that will fulfill ECU degree requirements and accelerate their progress toward graduation.

- CET Teaching Innovation Program will support faculty initiatives to enhance academic excellence and student success, and especially by identifying and implementing innovative teaching strategies and cutting-edge educational technology in CET courses, developing study abroad opportunities for CET students, and collaborating with Business faculty to integrate innovation and entrepreneurship concepts into CET courses and degree programs.

- CET Faculty Scholars Program will support faculty efforts to develop research projects and other scholarly activities, especially those involving undergraduate researchers and benefiting communities and companies in eastern North Carolina.

Our greatest funding priorities are need-based scholarship funds and faculty fellowship funds. I'm astounded by how much our students work in outside jobs to pay for school while carrying a full course load. For this reason, I'm committed to finding ways to help lighten their outside workload so they can focus more on their education and professional development. We will do our best to develop programs and initiatives, like those listed above, that will help students make informed choices about degree and career pathways, motivate and engage them in cutting edge courses and hands-on labs, help them build relationships and learn from faculty who care about their success, and ultimately help them graduate with the "right" degree and career pathways for rewarding jobs and lives. Faculty fellowship funding provides not only the resources to help faculty develop these initiatives, but also the recognition that shows we value and appreciate these efforts.

Will you help us achieve our aspirations? Will you support our priorities to maximize student success, enhance academic excellence, and advance our research and scholarship for the benefit of students, families, and the communities of eastern North Carolina?

As we move forward with our College Priority Roadmap and its many initiatives, I ask that you once again be part of this endeavor as an annual donor. Please make your gift today by visiting www.ecu.edu/cs-cet/support.cfm! We are ready to move forward with your support.

I hope to get to know you better in the coming months and years, and I certainly value and appreciate your loyalty and commitment to ECU and the College. Thank you again for your past support and your help as we move forward. As I say to our faculty and staff, "Let's Capture Our Horizon!" Or more succinctly, Go Pirates!

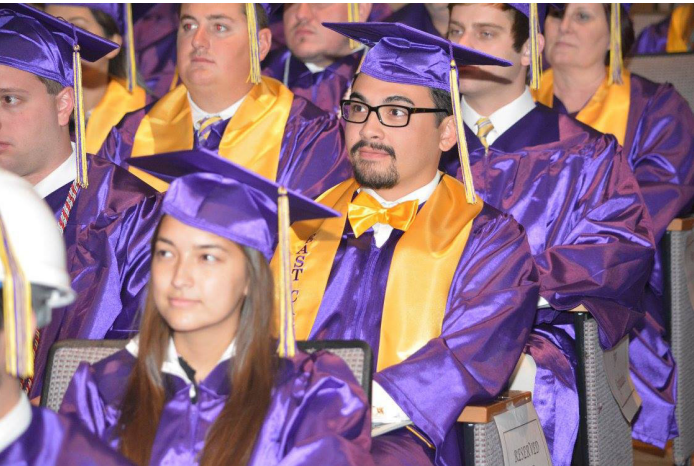
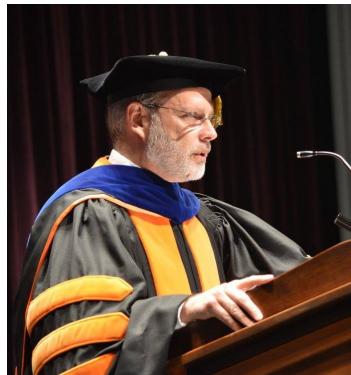
Best wishes,

Harry J. Ploehn, PhD
Professor and Dean



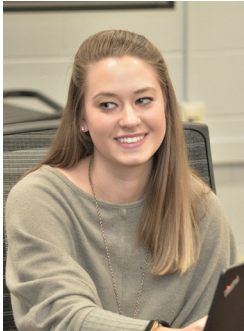
*Harry Ploehn, Dean
College of Engineering
and Technology*

FALL GRADUATION 2017 HIGHLIGHTS



IDIS to Send Students to Industry Event

The Industrial Distribution and Logistics (IDIS) program at ECU's College of Engineering and Technology is one of five universities nationwide that is sponsored by the Material Handling Equipment Distributors Association (MHEDA) to attend their annual convention. IDIS is proud to be included as MHEDA's guest along with Clemson University, Purdue University, Texas A&M, and the University of Nebraska at Kearney, all top schools for industrial distribution and logistics degree programs.



Caroline Harris

Harris and Whedbee will meet with industry professionals and will participate in the convention that features guest speakers, roundtable discussions and outstanding education sessions.

The keynote speech will provide ideas on designing businesses for the 21st century, and general sessions will include economic forecasts, ways to profit from upcoming demographic shifts, and digital solutions for our industry.



Nicholas Whedbee

"Over the years, this conference has given the

department many insights into the impacts of disruptive technologies on wholesale distribution and the dealership distribution channel that we then integrate into our curriculum," said Mark Angolia, IDIS program coordinator and assistant professor. "For the students that attend, the networking and exposure to business leaders are priceless."



"The MHEDA conference gives us...a chance to network with some of the best material handling distributors in the country," said Nicholas Whedbee, junior. "The opportunity to represent ECU and the IDIS program means a lot to me since this program has already provided me with so many great experiences."

Junior Caroline Harris echoed Whedbee's thoughts about the convention. She says it will allow her to network with "business professionals that I would otherwise not have the opportunity to meet."

While at the conference, one thing is for sure. Both Whedbee and Harris plan on living up to the already strong reputation the College of Engineering and Technology and the IDIS program has within the industry.

"We are a close-knit program where greatness is expected, and I will always uphold this level of expectation for my professors and fellow classmates," said Harris.

The MHEDA annual conference is May 5-8 in Miami Beach, Florida.

Inaugural PiDay Celebration Featured a Lot of Pies for a Great Cause

CET's Department of Engineering and Tau Beta Pi, the local chapter of the national engineering honor society, held the inaugural PiDay celebration on, you guessed it, March 14 (3/14). The event gave College students a chance to vote for their favorite professors to get pied in the face. Students paid for each vote and an opportunity to do the actual pieing.

The event had two purposes. First, the chapter wanted to raise the awareness of the College's engineering program and second, the chapter also wanted to raise money to purchase a bent, a traditional

bronze symbol that represents past, current and future engineering successes and excellence.

Regarding raising awareness, local press attended the event. You can find the Reflector's story by following this link: <http://www.reflector.com/News/2018/03/15/Pi-Day-festivities-see-to-raise-awareness-for-ECU-s-engineering-program.html>

Additionally, the chapter raised almost \$150.

And, for the curious, Dr. Collen Janeiro, an Engineering instructor,



was voted most popular. She and two other professors, Drs. Chris Venters and

Teresa Ryan, were voted second and third favorite professors. All three were pied in the face at, you guessed it again, 3:14 p.m.



Launching Innovation - Grant Leads to Historic Collaboration

East Carolina University's College of Engineering and Technology (CET) will collaborate with the College of Business (COB) for a first-of-its-kind project that will integrate product innovation with entrepreneurship.

This collaboration is possible thanks to a \$27,000 faculty grant from the VentureWell, which provides funding, immersive workshops and specialized coaching to student STEM innovators to help them move their inventions into the marketplace.

According to Dr. Ranjeet Agarwala, assistant professor with CET's Department of Technology Systems, one project objective is to strengthen team building, spur innovation and grow entrepreneurship at ECU and in the rural communities it serves.



Business students Dagi Bayunga, left, and Katy Stotter, will work with College of Engineering and Technology students to learn how to launch and market innovations.

"We're going to cross-weave two courses from different disciplines to produce teams that are well-versed in both business and technical expertise," said Agarwala, who is the project's

principal investigator.

Over a three-year period, 200 CET rapid prototyping and COB entrepreneurship students will form 40 teams, with each team having two CET students with three COB students. The teams' goal is to design and develop real-world products through engineering and entrepreneurship activities, which will ultimately lead to successful and viable ventures.

"Students will create prototypes of products using rapid prototyping and other advanced manufacturing techniques," said David Mayo, a COB instructor with the Miller School of Entrepreneurship (MSOE) and project co-principal investigator. "The students will also develop business plans around the products and ultimately will present to groups of angel investors, granting agencies or banks."

"I'm delighted about this VentureWell grant and thankful for the efforts of Ranjeet and David to build this first-of-its-kind CET-COB collaboration," said Harry Ploehn, CET dean. "Technological innovation is the starting point for much of tomorrow's successful entrepreneurship, and this grant will give our students a real educational advantage and the possibility of turning great ideas into startup companies."

Dr. Carlyle Rogers, licensing associate with ECU's Office of Technology Transfer, and Daniel Zuberbier, education & instructional technology librarian with ECU's Joyner Library, will serve as collaborators on the VentureWell grant.

Student teams will work closely with the MSOE, which will provide support for product development and



Students from ECU's College of Engineering and Technology and College of Business will collaborate and learn how to bring their products to market thanks to a new \$27,000 grant. (Photos by Michael Rudd)

commercialization. The teams will also have access to mentoring at Joyner Library, ECU's Idea Lab, the Small Business and Technology Development Center, and through the I-Corps @ ECU program.

With the grant, Agarwala, Mayo, MSOE instructors, university and local representatives will have the ability to send teams to apply for stage one of the VentureWell Entrepreneur-Team program. If chosen, teams will have the opportunity to win \$5,000 in funding to help them find the right customers and deliver prototypes.

"The Miller School of Entrepreneurship was established to help all ECU students," said Stan Eakins, COB dean. "This unique collaboration, I hope, will be the first step of many collaborations with many of our colleges. I look forward to seeing the innovation that will come from this project."

"Who knows what great things may come of this," added Ploehn.

Meet the New Administrative Support Associate



Name: Maxine Rohrman

Official title: Administrative Support Associate, Advising Center, College of Engineering and Technology

Hometown: Hampton, New Jersey

Where did you work before coming to the College? Before coming to ECU, I was a teacher at both the elementary and high school levels. I have taught a variety of subjects and grade levels and have enjoyed seeing my students grow and excel over the years.

What will you be doing for the College? I will be working at the College of Engineering and Technology Advising Center as their front office administrator. My job will encompass many skills including interacting with students, managing budgetary and travel needs and assisting our advisors.

Why did you choose to come to ECU? I wanted to stay in a position that served its community. After meeting my team, I knew ECU staff members shared the same desire to help students meet their academic and career goals.

What would people be surprised to learn about you? I really enjoy cooking, spending time outdoors and taking adventures. This year - I am studying French to prepare for an upcoming European adventure!

Inducting Student Engineers

To help close out the Fall 2017 term, the College of Engineering and Technology's Department of Engineering held two honor society induction ceremonies.

Tau Beta Pi, the National Engineering Honor Society, inducted 25 juniors and seniors. Juniors were chosen from the top one-eighth of their class, and seniors represented the top one-fifth.

Students inducted into Tau Beta Pi included Basel Abdelfattah, Hannah Barker, Katie Brown, Thomas Buckner, Joshua Butler, Angel Chukwu, Jordan Conoly, Davis Harrison, Justin Honda, Tyler Jones, Aiden Kautz, Katerina Koloustroubis, Casey Lohner, John-Andrew Lovins, Patricia Malcolm, James Martin, Ezequiel Mosso, Austin Parker, Caleb Paul, Daniel Pearce, Morgan Randolph, Alexander Schodt, Mathew Ward, Morgan Wilder and Keith Williams. Dr. Ricky Castles serves as the organization's advisor.

Alpha Eta Mu Beta (AEMB), the national Biomedical Engineering Honor Society, inducted eleven junior, senior and graduate students including Joshua Butler, Genesis Cruz-Molina, Kamara

Jones, Jacob Ludwick, Patricia Malcolm, Daniel Pearce, Arianna Safon, Alexander Schodt, Keslee Snuggs, Kinsley Tate and Keith Williams. Juniors with AEMB represented the top one-fifth of their class. Seniors represented the top one-third and graduate students had to have a 3.75 GPA or higher and be in the top one-third of their class. AEMB is advised by Blair Weaver and Dr. Barbara Muller-Borer.

Victoria Myers is a biomedical engineering senior from Fayetteville, North Carolina, and she is AEMB's first, and current, president. With this recent increase in membership, she's hoping to establish AEMB within both ECU and Greenville communities.

"Through multiple service projects, I hope to accomplish a local network," said Myers. "Some of our possible service projects could include



Alpha Eta Mu Beta Inductees

volunteering at the Humane Society, Food Bank and Community Garden."

Inductees in both organizations had to demonstrate exemplary character and high integrity. Induction ceremonies for both organizations were held the same night and were followed by a banquet dinner. College Dean Harry Ploehn attended both inductions.

"These students exemplify the kind of engineers that we want to graduate from ECU," said Ploehn. "Not only have they achieved excellence in their coursework, but they've also demonstrated outstanding character in their personal and professional conduct."

Additionally, five students were inducted into both honor societies.

The Ninth Career Networking Day is in the Books

More than 300 students jammed Harvey Hall in the Murphy Center with hopes of landing jobs, internships and even establishing relationships with future employees. The College of Engineering and Technology's (CET) Career Networking Day served as the conduit for many futures where 156 representatives from 57 companies, including those from as far west as Texas, shook hands, read resumes and dispensed advice to the future (and eager) workforce.

Connie Hunt, human resources manager for Tarboro's Keihin Carolina System Technology, has been coming to ECU for 15 years to find qualified employees. She spoke highly of the type of candidates she encounters when she recruits on campus.

"(They are) very professional... they always express an interest in our company," said Hunt. "We've hired several engineers from here (CET) through internship programs."

Eddie Okeiga from Holly Springs, North Carolina is a CET underclassman



More than 300 students attending this year's College of Engineering and Technology's Career Networking Day.

in industrial engineering. His motto is the early bird gets the worm, and he was at the event looking for internship opportunities.

"There's never such thing as 'too early' to get (an) internship," said Okeiga. "You should always be striving to get your foot in the door as early as possible."

Zachary Kizer is from Winston Salem,

North Carolina and will graduate in May with a degree in industrial distribution and logistics. He had one goal in mind while attending the event and that goal was to find a job. He said he met 10 companies that could turn into something promising down the road.

"Hopefully, they'll pan out to be true leads," said Kizer.

This year marked the ninth year in a row for the CET Career Networking Day event. It also marked a first. The College of Business participated in this year's event.

According to Associate Dean Dr. Leslie Pagliari, COB's presentation made sense. Quite a number of

companies expressed an interest in hiring students with technical or business backgrounds.

"We were so happy to welcome the College of Business to this year's Career Networking Day," said Pagliari. "The two colleges have obvious and wonderful synergies, and this joint event is one of many that are to come."



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CET Students Earn Awards at National Design Drafting Contest



Nine College of Engineering and Technology students received national recognition for work completed during the fall 2017 semester. The work partially fulfills Bachelor of Science in Design requirements. This degree is administered by the College's Department of Technology Systems and is an Association of Technology, Management and Applied Engineering accredited program. The students were recognized after competing

in the American Design Drafting Association's (ADDA) 2018 Design Drafting Contest.

Because of their academic preparation and experience, the students competed in Category A (advanced level) in the following divisions: A-RES, Architectural Residential Design Drafting; A-PRES, Architectural Rendering; A-MECH, and Machine and Mechanical Working Drawings.

Students that competed were from the College's Architectural Design and Drafting course taught by Robert Chin and ECU's Geometric Dimensioning and Tolerancing course taught by Ranjeet Agarwala.

Student winners included:

A-RES, Architectural Residential: Andrew Glover, Board of Governor's; Kevin Marks, Board of Director's; Deven Lockhart, President's.

A-PRES, Architectural Presentation: Devon Sutton, Board of Governor's;

Sarika Merchant, Board of Director's; Punya Nanudon, President's Award.

A-MECH, Mechanical: Cruz Javier, Governor's Award; Jordan Wilderman, Board of Director's Award; Jerry Short President's Award.

Students pursuing a BS in Design from ECU's Department of Technology Systems have competed in the ADDA annual design drafting contest in previous years and took home awards in 2004, 2005, and annually since 2007.



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