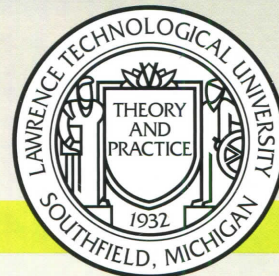


FALL 2020

Lawrence Tech®

LAWRENCE TECHNOLOGICAL UNIVERSITY MAGAZINE



LTU vs Covid-19

Nursing students on the front lines

New provost: LTU 'poised for greatness'

Alumni news from around the world | Donor Honor Roll | and more

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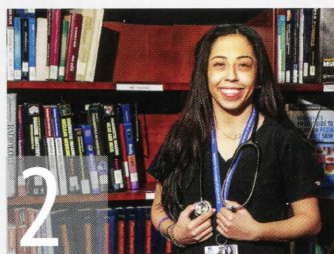
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On the cover: Masking up and practicing social distancing became part of LTU's everyday routine as classes—like this one in the Architecture Building, being taught by Dean Karl Daubmann—resumed for the Fall 2020 semester in August. Cover photo by Tyquan Jackson.

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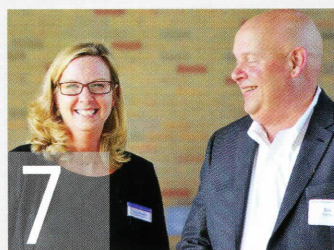
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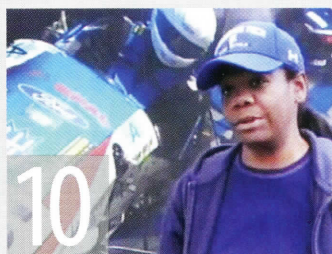
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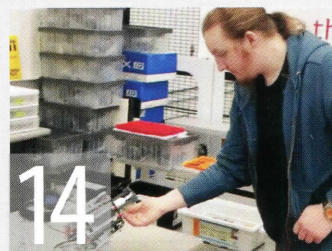
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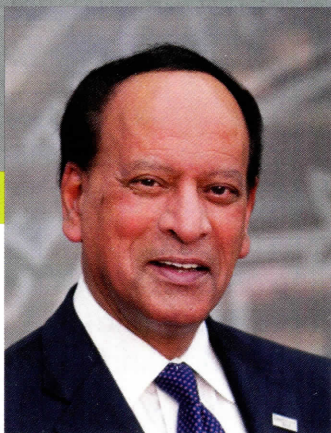


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Virinder K. Moudgil

The Lawrence Tech community and our programs have continued forward and even excelled in this new normal.

FROM THE PRESIDENT

By nearly any measure, 2020 has been a year without precedent. The COVID-19 pandemic forced numerous changes in Lawrence Tech operations, and upended the plans of our students, graduates, faculty, and staff, just as it did with you and your family and colleagues.

From the classroom and labs to the playing fields, from dorms to food services, we, like many others, have had to quickly develop new ways to complete essential tasks.

Thanks to our decade-old LTuZone program, we were able to convert to all online classes in March more seamlessly than other institutions. The program provides all undergraduates with high-end personal computers, each loaded with profession-appropriate software. This allowed students to keep up with their studies from home. It was not easy, but with lots of hard work by faculty and staff, students made it through the spring and summer terms.

As the fall semester begins and this magazine goes to press, we cautiously aim to offer as many face-to-face classes as possible, augmented with online and hybrid classes. Our ability to do this hinges greatly on how well our campus community adheres to health and safety procedures and how the pandemic continues to evolve. Most of our athletic and extracurricular programs remain on hold.

Lawrence Tech's Class of 2020 has been impacted in a myriad of ways. We anticipate that the skills and leadership they learned during their years at LTU is helping to guide them through these difficult times. Unfortunately, the planned May 2020 commencement and graduation celebrations had to be postponed. Our graduates have been invited to return for LTU's Nov. 21 virtual ceremony. This is a huge break in tradition, but it is no less important to commemorate our graduates' achievement and success.

This issue contains stories about how the Lawrence Tech community and our programs have continued forward and even excelled in this new normal. We also welcome three remarkable new trustees and three key administrators: Dr. Tarek Sobh, our chief academic officer; Dr. Greg Cascione, leading development and alumni relations; and Dr. Caryn Reed-Hendon, director of diversity, equity and inclusion.

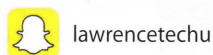
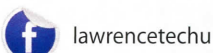
I am profoundly grateful for the support you have provided over the past year. Students need your continued assistance more than ever as they cope with disruptions and new ways of achieving their goals. Our safety and the safety of those around us depend on each of us doing our part. Fortunately, responsibility, exemplary leadership, problem-solving in the real world, and building a brighter future are what distinguish LTU. Working together, may it be ever so!

Virinder K. Moudgil
President and CEO

The Student and Campus Impact Fund

provides assistance to our students and LTU community as we adapt and navigate through the COVID-19 pandemic.

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www.ltu.edu/news



Lawrence Tech vs. COVID-19

Like most educational institutions, Lawrence Technological University had to pivot quickly at the onset of the coronavirus pandemic on a number of fronts, from student instruction to staffing. The opening section

of this edition of *Lawrence Tech* deals with all the ways LTU responded, from instant online education to having students battling a deadly disease to providing guidance to students, faculty, staff, parents, and friends about the future of higher education and the overall economy.

ON THE FRONT LINES OF A PANDEMIC—AS A STUDENT

Some Lawrence Technological University nursing students were on the front lines of fighting the coronavirus pandemic this spring, even before their graduation.

Kaitlyn Smith, BSN'21, is a Grand Blanc native and Holly High School graduate who came to LTU in 2016 to study biomedical engineering, but switched to the University's nursing program a year later.

Like all LTU students, Smith learned during spring break in March that her in-person classes—and her clinical classes,

LTU NURSES-TO-BE FIGHT COVID-19 AT AREA HOSPITALS

the “practice” part of “theory and practice” when it comes to nursing—would be cancelled for the semester and replaced with online-only instruction.

“It was devastating,” she said. “Clinical is where you get a lot of experience, and get an idea of what you’d like to do for a living.”



A social media graphic congratulates Kaitlyn Smith for her athletic accomplishments at LTU. Now she's saving lives.

Kaitlyn Smith during her playing days at LTU.

So Smith applied for an internship with LTU's nursing program partner, Ascension, and wound up working in patient care at Ascension Macomb-Oakland in Warren.

"I assess patients, help them with whatever they need," she said. "I was on a COVID rehab unit. What we see in COVID patients is a lot of clotting in their bodies, so a lot of them have had amputations. They're on this rehab unit to try to get their bodies readjusted to everyday life, and get them up and moving again."

The work is grueling, Smith said: "It's hard to breathe with the PPE [personal protection equipment,] and you get bruises on your face from the N95 (mask), and you have to take off the PPE after seeing one patient and put on new PPE—there is just no sitting down. It's just mentally and physically exhausting."

And while some patients face grim prognoses even if they recover, there are others that offer hope: "My first day on the COVID unit was like nothing I'd ever seen before, but on the very first day, I got to see my first patient, who had been on a ventilator for two weeks and battling for a month, go home. Just to see her dance into the arms of her loved ones told me that I had chosen the right profession. Just seeing those patients gives you a lot of hope."

And Smith has no doubts about choosing LTU for her nursing education, either.

"I played basketball for four years at Lawrence Tech," she said. "I like LTU because it gives you a chance to build close relationships with students and professors due to smaller class sizes. I'm really glad I went here."

Also working the front lines was **Natalia Abro**, BSN'21. She had earlier worked as a nursing tech for five years—the last three and a half at Ascension Providence Hospital in Southfield. So she wasn't unaccustomed to the range of health issues generally seen in hospitals—including medical emergencies. And yet, she said, it was hard to prepare for the early stages of COVID-19 when the hospital was nearly thrown into chaos by the novel virus.

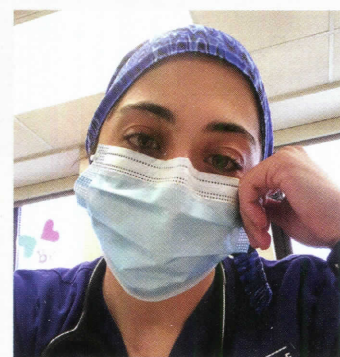
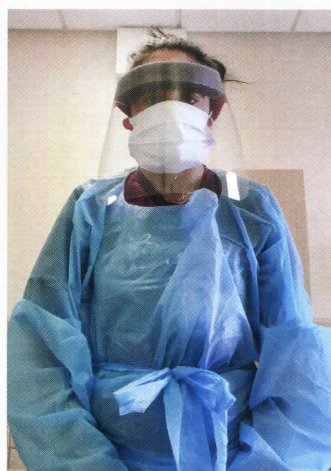
"There was high tension everywhere," said Abro, who was placed in a floating "pool" where floor assignments changed daily—a system well suited to the coronavirus surge. "I will never forget the day I got pulled into the ER and every single patient I had was on some type of equipment to help them breathe."

Working as a team was essential, especially since they were treating patients in a community with high rates of COVID-19. "Everyone did everything they could to help one another. It was not a one-man thing," she said. "We had to work together to keep everyone safe."

Even so, she was exposed at work and was diagnosed with COVID in mid-April and quarantined for two weeks. Abro was among the lucky ones—she said she had zero symptoms.

Abro said the experience reinforced the importance of

... the experience reinforced
the importance of empathy
in nursing, especially
when safety restrictions
prevented patients from
seeing family members...



LTU nursing student Natalia Abro, in full PPE... and in a less restrictive mask... and immersed in her studies.



empathy in nursing, especially when safety restrictions prevented patients from seeing family members—with Facetime as the only source of communication.

"My heart broke for them," she said. "We couldn't show them that we were scared when they were scared and emotional and that was the hardest thing," particularly in some cases where patients were close to death. "You had to be their family for the moment."

Abro finished a clinical training rotation as part of her LTU education just before the onset of the pandemic. It was perfect timing, she says, and probably had a hand in helping her communicate with the patients in a very caring way—along with LTU's strong academics.

"Our clinical training taught us what is important, how to communicate with people, and how to treat our patients with the very best care," she said.

continued



Miles Young

For **Miles Young**, BSN'21, a high school football injury—a broken leg that required surgery to correct—cemented his choice of nursing as a career. While recovering in the hospital, “I had two really nice nurses who were by my bedside, every single hour,” he said. Not only did they oversee his physical recovery, they tried to lift his spirits, especially since it was possible he’d never play football again. “They kept asking questions about how I was doing—like they wanted to know all about me—and

that stuck with me for a long time. As soon as I got out of the hospital, I told my mom I wanted to be a nurse.”

Currently, Young is getting short-term practical experience as a nurse extern in a psych care unit at the University of Michigan, working with children who are often on the autism spectrum. Because he didn’t start until early May, he managed to escape the peak of the pandemic. Yet he still worked with two patients who were suspected of having COVID-19. As a precautionary measure, they were isolated from other patients. And anyone who entered their room was required to wear a face mask and shield, including Young. But instead of feeling scared, he summoned his training from nursing school, “helping them in any way possible.”

Young also works a clinical training rotation in pediatrics at Ascension St. John Hospital in Grosse Pointe, doing “anything and everything to help out,” including passing meds under the supervision of an instructor, changing linens, and practicing the all-important nursing skill of teamwork. “I love it. I always wanted to work with kids.”

The experiences are helping him define his future—he sees himself working in either psychiatric care or emergency medicine after he graduates. “In both of those areas, you have to be on your feet and ready for everything,” he said. “So I felt like it would be a great transition from sports into the medical field.”

He’s also still playing football at LTU. “Once I got onto the campus, got to know the coaches and the other players, it felt like home,” he said. “That’s what really brought me to Lawrence Tech.”

It also helped that his grandfather attended LTU when it was still Lawrence Institute of Technology. “It’s kind of like a family thing now,” he said.

Tamkia Miller, BSN'22, of Detroit is a patient care technician in the ICU at Ascension Macomb Hospital in Warren. The 47-year-old is also a nursing student at LTU.

“It’s been a dream of mine since I was young,” Miller said, adding that working full-time in an ICU while also going to nursing school “is very challenging.” As if her day-to-day life

wasn’t challenging enough, along came a worldwide pandemic.

She arrived at her department on March 15 for what she thought would be a regular shift and found a situation she had never experienced in her 25 years in the health care field: “I came into work and it was total chaos. It was nothing like I was used to in my department.”

For almost two months, Miller said the 29-bed ICU was full “all the time.” She experienced not only shortages of PPEs such as proper masks and gowns, but also shortages of medical equipment.

“This is real,” Miller said about the COVID-19 crisis. “I worked with it; I saw it.”

Thankfully, Miller also experienced some uplifting moments. “The thing that gave me hope was seeing the people who were extubated (taken off ventilators) because they were recovering,” she said. Another bright spot was gathering to clap and cheer as those patients went home: “The honor walks were the most inspiring experiences.”

Sadly, Miller wasn’t able to go home for more than two months. She said she lives with her children, three grandchildren, and her mother. To keep her family safe, Miller stayed in a hotel from mid-April through late June. “I most definitely didn’t want to be at home (during that time).”

When asked how she felt after weeks of heartbreak, hard work, sacrifice, and chaos, Miller said she still dreams of being a nurse: “I’ve got my path.”

Ken Winter, BSN'21, a junior from Eastpointe, usually works midnights in the oncology unit at Beaumont Health in Farmington Hills. In order to get enough rest before his nursing classes, sometimes Winter sleeps in his car after work in an LTU parking lot.

“Sometimes you just gotta do what you gotta do,” he mused.

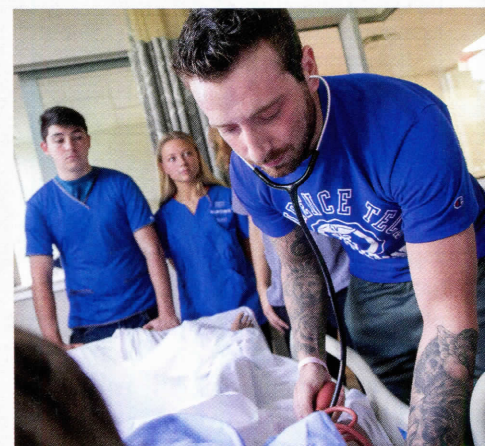
When COVID-19 cases started pouring into the hospital, Winter felt like what he had to do was be a part of what was happening.

“I volunteered to work on the COVID unit,” he said. “I wanted to get the experience because I didn’t think I’d see anything like this again in my career.”

Winter worked in a progressive care unit, which is a step-



Tamkia Miller



Ken Winter (in foreground). (Pre-COVID photo.)

Math faculty provides tools for pandemic forecasters

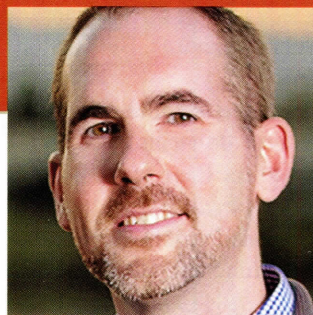
Matthew Johnston and Bruce Pell, both assistant professors in LTU's Department of Mathematics and Computer Science, have been working together to incorporate new mechanisms into mathematical models that can be used to generate informative forecasts for emerging infectious disease outbreaks.

The two men have overseen a team of five undergraduate researchers who spent the summer researching the spread of COVID-19. The students use mathematical, statistical, and computational techniques to analyze and model such important, data-driven

questions as the effectiveness of face masks, how social mobility correlates with disease spread, and what social and economic factors contribute to differences in morbidity rates.

The projects are an extension of Lawrence Tech's Course-based Research Experience (CRE) projects and are funded by a grant from the Howard Hughes Medical Institute.

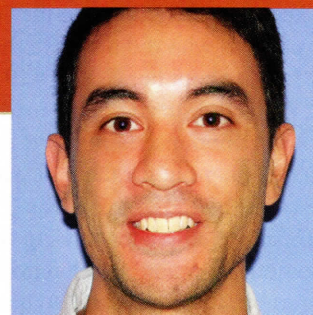
Pell and Johnston have also been developing novel methods for incorporating social perceptions and behaviors into forecasting models. They hope the models will help identify social mechanisms capable of generating secondary waves of infection and provide early warning



Matthew Johnston

signs for regions at risk of spikes in infection. Independently, Professor Johnston has been developing differential equations modeling techniques for tracking and forecasting the spread of COVID-19 in Michigan and the broader United States. The forecasts and methods are available on his website: <https://johnstonmd.wordpress.com/covid-19-modeling/>.

Independently, Pell works



Bruce Pell

with designing and validating disease forecasting models and methods for general disease epidemics. His work in infectious disease modeling first started during the 2014-16 Ebola outbreak in West Africa, and he has since continued working in the area of infectious disease modeling in public health and agriculture. □MR

down unit for patients that are less critical. However, he still saw some intense and shocking cases.

"I saw my first patient on a ventilator. I'd never seen a patient on a vent before," he said. "It was a shock. I stopped and stared."

Throughout the weeks on the COVID-19 unit, Winter said all of his coworkers were on edge.

When Winter isn't in class, at work, or asleep in his car, he lives with his parents and gets in some study time because he knows it comes down to doing what needs to be done: "When I wake up to go to class in the morning, I just have to suck it up and push myself."

Michelle Liskey, BSN'22, is another nursing student who has long aspired to earning her degree: "I've always wanted to be a nurse since I was younger," and often helped care for her grandmother, she said.

Liskey is a patient care technician in the ICU at Ascension. She said the crisis quickly exploded from one patient to eight patients to an entire unit full of COVID-19 patients.

"It was something I never believed could happen," she said. "I've never seen the ICU fill up so quickly."

Sadly, Liskey also witnessed something else she never



Michelle Liskey

thought she'd see—first, the morgue filled up, then refrigerated trucks had to be brought in to store the bodies. "That was tough," she said.

Even tougher was one particular patient, a young woman who was the same age as Liskey's daughter. The patient's fever spiked to 107 degrees, and Liskey insisted on giving her an ice bath. That action brought her temperature down to 100.3 and Liskey said she seemed to be much more comfortable. Tragically, the young woman succumbed to COVID-19.

"She died the next day, but we fought for her and gave her a chance," Liskey said. "It was scary and sad."

Amber Schank, a registered nurse at Ascension-Macomb-Oakland, Warren Campus, and her cousin, LTU nursing student Kellie Liebau.



continued

After six intense weeks of caring for COVID-19 patients, Liskey was moved over to the “clean side” of the ICU to care for patients who did not have the novel coronavirus. But she did not forget about her COVID-19 patients.

“When the survivors get ready to leave the hospital, they make an announcement so we can all come down and have a COVID clap-out for them. It was great to see them leave,” she said.

Despite living and working through a pandemic, Liskey said she is still committed to her goal of becoming a nurse. “I was so scared but I never wanted to quit.”

M. Therese Jamison, director of LTU’s nursing program, said eight LTU nursing students in total were working with COVID-19 patients. The students’ duties included bathing patients, helping them get up and around for treatments, obtaining vital signs and checking their blood sugar. The students have been fully protected with appropriate equipment on the job, Jamison said.

“They showed great perseverance, great resilience,” Jamison said. “I think they are seeing way more than they ever thought they would see this early in their careers. But they’re staying as positive as they can. They are experiencing something that they hopefully will never experience again in their lifetimes, and they have not even graduated yet.”

In addition, LTU nursing faculty—who are still working in nursing one day a week in hospital settings—are fighting to heal COVID-19 patients at Ascension Warren (Jamison), Ascension Providence Hospital Novi (Brian Kaminski), and Henry Ford Health System Macomb Campus in Shelby Township (Margaret Glembocki).

It’s ironic, Jamison said, that in March 2019, long before the pandemic hit, the World Health Organization named 2020 the Year of the Nurse and Midwife, honoring the 200th anniversary of the birthday of Florence Nightingale, founder of nursing as a profession.

Jamison said she emphasized the need for self-care with the students.

“Our program is based upon Relationship-Based Care, which

In pre-pandemic times, LTU nursing program director M. Therese Jamison instructs LTU students in the University’s nursing lab.



Bahman Mirshab, dean of the LTU College of Business and Information Technology, pictured at work building face shields to be distributed to LTU students. The materials for the shields were donated by Hamid Servati and his wife, Mahnaz Motia Servati. Mr. Servati is president of ServoTech Industries, a Taylor-based manufacturer of biomedical, environmental, and mobility products, and is an inductee of the LTU College of Business and Information Technology Hall of Fame, as well as a member of the CoBIT advisory board.

means developing a healing and caring relationship with your patients and colleagues,” she said. “We had a long conversation about what they’re doing now in the midst of this crisis for their own self-care. We talked about eating better and taking vitamins and going outside when it’s nice, and we talked about their mental health, just how important it is to maintain these care practices during this crisis.”

Even before the pandemic, experts had predicted a huge need for nurses in the near future. By 2030, the number of registered nurses needed in the United States is estimated to skyrocket by 28.4 percent, from 2.8 million to 3.6 million, according to RegisteredNurses.org.

LTU’s BSN program has been ranked in the top third of Michigan nursing education programs—even before graduating its first students. (See story, page 23.) Lawrence Tech began accepting students into its BSN program in August 2017. The program, a partnership with the health-care nonprofit Ascension Michigan and its six hospitals in southeast Michigan, will graduate its first nurses in May 2021. □ MR, PH, KLP

INSTANT EDUCATION— JUST ADD INTERNET

UNIVERSITY PROVES NIMBLE IN SUDDEN MOVE ONLINE DUE TO PANDEMIC

Lawrence Technological University's classroom buildings closed in March due to the global pandemic, but the education of thousands of students continued humming along online without missing a beat.

In the span of just one week, LTU's Office of eLearning Services and faculty moved nearly 700 courses to an online format. Approximately 350 faculty members made the move.

How was this done? "With very little sleep," said **Lynn Miller-Wietecha**, LTU director of eLearning Services, with a laugh. But seriously: "The biggest thing is that our faculty didn't miss a beat. Even those who were not big fans of teaching online stepped up."

Miller-Wietecha, who has directed LTU's online learning programs since 2011, said LTU's laptop program, which gives every undergraduate student a top-of-the-line laptop computer and all software required for their courses, also played a key role, since all students already possessed quality hardware and all the software they needed.

LTU announced during its spring break, March 9-13, that

it would extend that break a week, and move to online education March 23. Online classes continued through the end of the semester May 15, and LTU's scheduled May 9 Commencement was postponed to Nov. 21.

"The faculty have done an amazing job," Miller-Wietecha said. "We already had a fairly good percentage who were comfortable with online teaching techniques and tools. But the rest of them have been tremendous in working with us in learning those techniques and have become comfortable with the tools. Most of our classes went on in Zoom as regularly scheduled, and faculty members recorded their lectures for students to watch later." Assignments and exams also moved online.

But what about laboratory classes, so important to a technological school like LTU? Students can't run a chemistry experiment from home. During that extended spring break, Miller-Wietecha said, "Our Media Services and Media Production departments dropped everything they were doing, met with faculty in the labs, and video recorded faculty performing labs."

Associate Professor **Yawen Li**, chair of the Department of Biomedical Engineering, building tiny machinery for biological analysis in a class on micro-electro-mechanical systems (MEMS), and a first-year chemistry experiment, were among the labs recorded.

"You want students to learn how to do the procedure in the lab, and second, learn how to analyze the results," Miller-Wietecha said. "We're trying to come as close to executing those elements as we can."

As for architecture, Miller-Wietecha said, "we've been running architecture programs online for years. Our entire Master of Architecture program is online." The only thing that's changed is the undergraduates are online, too.

As for those with connectivity problems, she said, the University has been working with internet service providers to work out extending service and providing hotspots for all students and faculty.

Overall, she said, "Faculty who have not used LTU technology tools were thrown into it with very little time to become comfortable with it, and the faculty rose to the challenge. LTU's laptop program really helped, but we also had many faculty who were already comfortable with teaching online to serve as guides for their colleagues who may have been less ready."



Yawen Li



LTU's dynamic duo of high tech—Lynn Miller-Wietecha, director of eLearning, and recently retired CIO Tim Chavis. (Pre-COVID photo.)



Andrew Gerhart, teaching a group of Detroit Public Schools Community District teachers. (Pre-COVID photo.)

One of those is **Andrew Gerhart**, professor in LTU's A. Leon Linton Department of Mechanical, Robotic, and Industrial Engineering. Gerhart described himself as "a digital resister... I just got a smartphone a year ago."

But once the decision to move online was made, Gerhart contacted his students about using the Zoom



Andrew Gerhart

videoconferencing app for classes, and practiced with LTU physics professor Scott Schneider on the technologies. "With the capabilities of Canvas (LTU's online learning software) and the capabilities of Zoom built into Canvas, and knowing everybody already had the same computer, it was amazing how quick and easy it was," he said.

Gerhart taught two courses online in spring semester, a standard junior-level fluid mechanics course that's all lectures, and a final-semester senior science lab. "The lecture course took some thought, but doing the class periods live in Zoom, and being able to share my screen and use Power Point slides and white boards, no problem," Gerhart said.

He was worried the lab would be harder, but he set up a camera and did the experiment while students watched remotely—metal plates monitored for temperature that are heated and cooled, and students collect the data and measure rates of heat transfer.

"I ran the experiment while they were watching on Zoom and posted the data on Canvas," Gerhart said. "When I asked them afterward, the students actually said in certain ways it was better (than being in the lab). Instead of multiple people standing around, they had a direct view from my camera, so they could all see, and their view was really good." Students in the class are also broken up into teams of four, who got their own private Zoom breakout rooms for discussion.

Overall, Gerhart said, "It's not exactly the same, but it was surprisingly seamless. It's really kind of been a fun adventure if

you approach it with the right mindset."

Bahman Mirshab, dean of LTU's College of Business and Information Technology, said for business classes, "the move online was virtually seamless. There were only a few of our faculty who had no experience teaching online, and the instructions we received from eLearning allowed them to move flawlessly. One good thing to come out of all this is that now all the faculty knows they can use this technology to enhance their classes."



Bahman Mirshab



Bahman Mirshab, dean of the LTU College of Business and Information Technology, works with a group of students on a pre-COVID design problem

Karl Daubmann, dean of LTU's College of Architecture and Design, said that "the LTU laptop program is a huge part of our success. I talked to colleagues at other institutions where students didn't have computers or didn't have software and they had major challenges. With us, we have a group of students, and we say, go to this area on the screen, and click this button, and we're all talking about the same thing. It makes it so much easier."

Daubmann noted that architects and engineers have long been accustomed to remote work and collaboration. As far back as 2010, when he worked for BluHomes, a prefabricated housing company, "I led a design team that was one-third in Boston, one-third in Michigan, and one-third in California."

And, Daubmann said, LTU faculty has been using Zoom to keep in touch personally as well as professionally. "A group of faculty had a cocktail party over Zoom. We'd never done that in person before. We did a faculty search using these tools." What faculty members discovered, he said, is that "if you're a good teacher, it doesn't matter if you're in a classroom or online."



Karl Daubmann

Philip Plowright, a professor of architecture who teaches classes ranging from freshman-year design to advanced graduate courses, also said “the laptop program helps so much—everybody’s got the proper hardware and tools. I took 100 first year students online, with six faculty, and there wasn’t a single glitch.”

LTU’s Master of Architecture program has been online since 2010, and Plowright said “it’s part of our accreditation that we have to prove that the online and in-person experiences are exactly the same. We told the students that there will be zero change to the expectations of the class, whether you’re in a classroom or online. All we did was change modalities. You’re still in class, you have to be fully present, you can still raise your hand and ask questions.”

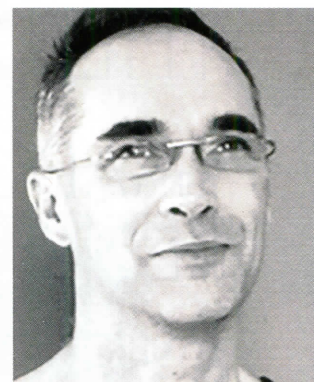
In some ways, Plowright said, online classes are superior. “There are advantages in flexibility and documentation. In our graduate program, every single session with every single student and every single class is recorded and made available to the student, so they can go back and watch a class from three weeks ago or five weeks ago and make sure they’re on track. At no

point is it inferior to being in a physical space.”

Plus, he said, with students required to turn their laptop cameras on, “there’s more accountability. You can’t have a student sleeping in the back. In a classroom you might miss that. You won’t online.”

Physics professor **Scott Schneider** said he had already been doing some class work online, with physics and astronomy presentations students could watch at their convenience, followed by meetings to discuss the lectures. Now, he said, those discussions are on Zoom. The only drawback? “It doesn’t have the immediacy,” Schneider said. But overall, he said: “I think it’s going well. I think we as a school are relatively agile. We did need that second week of spring break to get everyone up to speed.”

Still, Schneider said: “I’ll be very happy to go back to students in the classroom.” □ MR



Philip Plowright

GRADS TURN WORK INTO PPE FOR FRONT-LINERS

Lawrence Technological University graduates **John McGarry** and **Trent Schmitz**, along with work colleague **Clayton Wenrick**, made face shields to donate to area medical facilities while they were at home during the state’s stay home order.

“The face shields have been a big success,” McGarry, a designer at Neumann/Smith Architecture, said. “We’ve produced and delivered over 3,000 face shields to 18 different healthcare facilities. In total, our 3D printers ran for over 2,250 hours and we used over 35,720 linear feet of filament.”

Recipients of the masks included Beaumont Hospitals, DMC Medical Group, Henry Ford Hospitals, and the University of Michigan health system.

The printers were provided by LTU’s Detroit Center for Design + Technology; LTU’s Centropolis Accelerator, a business incubator for manufacturing companies on LTU’s campus; the Rochester 3D printing dealership Delray Systems; and the virtual reality company Mirari, a Centropolis Accelerator client.

“Being part of this effort has been very rewarding. Being able to do something that we love while being able to help the community, friends and family has been very rewarding,” McGarry said. “We also can’t thank Lawrence Technological University’s Detroit Center for Design + Technology enough for assisting us in this effort. This would not have been possible without their

help and generosity.”

“Even though we’re seeing the need for PPE reduced, we continue to produce face shields on a request basis. Since offices are opening up, we’ve shifted to producing hands free door openers. Also, with people wearing masks all day, we’ve been producing mask clips to help relieve pressure on people’s ears from the masks.”

McGarry leads Neumann/Smith’s Computation Group, assists in managing Neumann/Smith’s Makerspace and is a professor of practice at LTU, where he teaches simulation and prototyping.

“When we heard about this effort we were thrilled to be able to support in ramping up production output,” said Christopher Stefani, associate director of the DCDT. “This is a perfect example of the power that our students, and creative industry in general, has when we engage design and technology collectively.” □ KB

A version of this story appeared in The Oakland Press on June 25, 2020. Reprinted with permission.



John McGarry, BSAR'12



Clayton Wenrick



Trent Schmitz, BSAR'20

THE CLASS OF 2020

GRADUATION WITHOUT COMMENCEMENT FEELS 'WEIRD,' 'SURREAL,' BUT THE ACHIEVEMENT LASTS

Shauna Wollmershauser, BSME'20, took a "Study Break" to mark her graduation from Lawrence Tech.

No, really. Study Break is an imperial stout beer, brewed with cocoa and peanuts, by Bottle Logic Brewing of Calif. "It tastes just like a Snickers bar," she said. "So I drank that nice beer and just kind of sat in disbelief. I worked so hard to finish school, and it just kind of fizzled, like fireworks that didn't go off."

Wollmershauser said it was tough being part of the Class of 2020 and doing without graduation traditions like parties and an elaborate Commencement ceremony.

And it was even tougher not being able to compete in the Formula SAE car racing competition—after all, she was captain of the LTU team this year. "My big mark was supposed to be the endurance event at Formula SAE," she said. "That day came and went, and it was very odd. It just didn't feel like I was finishing college. It didn't seem real."

But she was somewhat consoled that "when I turned in my last report, I let my friends know, 'That's it, I'm done being a college student,' my phone just blew up with congratulations and calls. And we had a big Zoom meeting." And eventually, in late July, Wollmershauser and friends held a graduation party.

Wollmershauser is a native of St. Louis, Mo., who graduated high school in 1994 from Cleveland Junior Naval Academy. She was married at 18 and had her first of three children at 19, so "I was raising a family when most people go to college." It wasn't until her youngest child was 15 that she started attending Ranken Technical College in St. Louis, where, in 2013, she earned an associate's degree in high performance racing technology. She said she grew up going to racetracks with two older brothers and uncles.

"There's so many things to love about racing," she said. "The controlled chaos of it.

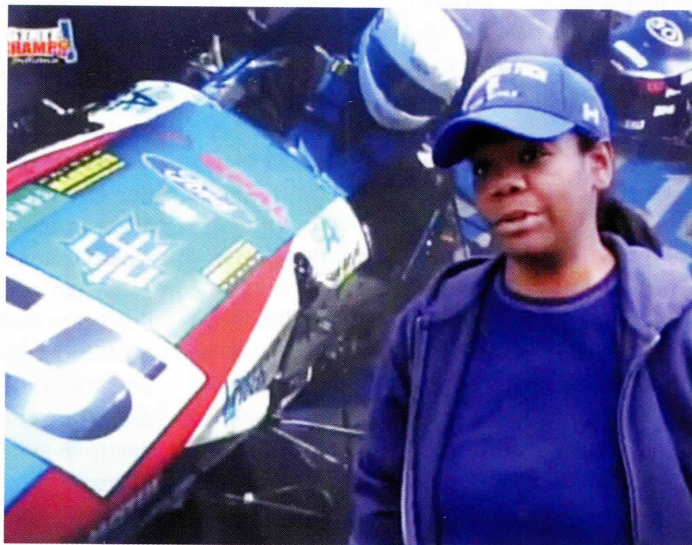
There's just something about seeing what you built perform, and perform well, that's incredibly attractive. The smell of race gas and burning rubber doesn't hurt either."

After graduating from Ranken, she scouted the Midwest for the best schools for mechanical engineering, and discovered Lawrence Tech. After a tour of campus, she said, "I liked the fact that the campus was small and the student-faculty ratio was low, and I liked the emphasis on hands-on learning. That's how I learn best—I'm a hands-on person."

Wollmershauser moved to Michigan to continue her education. Tragically, her husband Jim took ill and died of cancer in 2016. She continued working and attending LTU during that time, working jobs at Mahle, Ford, and ZF. She's also an accomplished photographer.

Wollmershauser started work as a manufacturing engineer for Ford Motor Co. in August. "I'm very excited and looking forward to starting my engineering career," she said. "It's really nice to be able to answer the 'What do you do for work?' question with 'I'm an engineer.'" □ MR

• • •
"I worked so hard to finish school, and it just kind of fizzled, like fireworks that didn't go off."
• • •



Shauna Wollmershauser

MOVING 'THEORY AND PRACTICE' ONLINE WENT BETTER THAN EXPECTED

Even though **Bram Ligon**, BSME'20, considers himself a hands-on learner, the transition to eLearning from on-ground classes during the pandemic went better than expected.

"I didn't think I could do it, but given the circumstances, and considering what had to be done to finish the rest of the semester, it went rather smoothly, with only minor hiccups," he said.

Even so, lab work presented a significant challenge. With only the data provided by faculty to make calculations, it was more difficult to fully grasp what was going on without also doing the physical work, he said.

Other engineering students shared the same concerns—particularly when it came to the rigorous grading scales typically applied to labs. So Ligon reached out to the associate dean for undergraduate programs Selin Arslan, with whom he'd developed a good relationship as student government president, and reported the students' feedback to Arslan and the College of Engineering.

The result: a recommendation to lab course instructors to "make sure they understand how the lack of physical involvement" impacts the learning that normally takes place, and to adjust the "grading policy so that it's not too easy but not as stringent as if you were actually doing the work yourself," he said. "Overall, it went better than I expected."

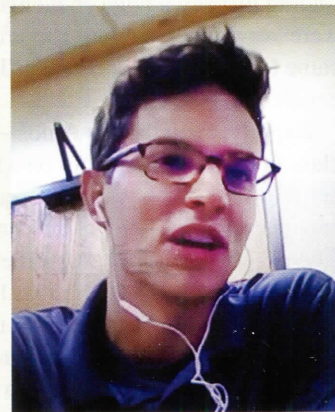
So, too, did his moving to a rental property in the middle of the semester after living in the dorm as a resident assistant. "I was already looking for a home to rent with a roommate—we both had jobs in the area—but that got moved up really fast," said

Ligon, who works as a mechanical engineering intern with Eaton Steel Bar Co. in Oak Park. Adapting to the sudden circumstances helped him learn a lot about himself, he said. "I'm surprised how much I'm willing to put up with."

Ligon will appear at the November commencement after he completes his senior project in the fall. After that, he has a full-time position waiting for him at Eaton Steel Bar. Still, Ligon plans to attend graduate school about two years down the road. "I'm either going to be doing a master's in materials engineering or mechatronics," he said.

The one event he's sorry couldn't take place—the transfer of power from one student president to another through a "big ceremony in the atrium. It's a shame I didn't get to do that and wish farewell to the student body. They've really been a pleasure."

□ MR



Bram Ligon

DELAYED COMMENCEMENT, BUT SUSHI AND BALLOONS IN CALIFORNIA

Alexandra "Alex" Amos, an English major, played softball for LTU. She was the catcher and one of four team captains. Amos was in Florida with the team—actually at the airport headed to a competition—when she learned the rest of the softball season had been cancelled.

"We expected to do really well (throughout the season) and we were really excited. That was the hardest part," she said.

Then Michigan's stay-at-home order kicked in, and LTU was forced to shut down: "That was definitely hard because it was so

abrupt and unexpected," she said.

Amos completed her last semester at LTU like everyone else—attending classes online through eLearning. She said she didn't even know what Zoom was, then suddenly she was using it all the time. Amos gratefully gave her instructors a lot of credit for being so flexible and understanding. "The professors made it an easier transition than I had thought it would be," she said.

continued

DELAYED COMMENCEMENT *continued*

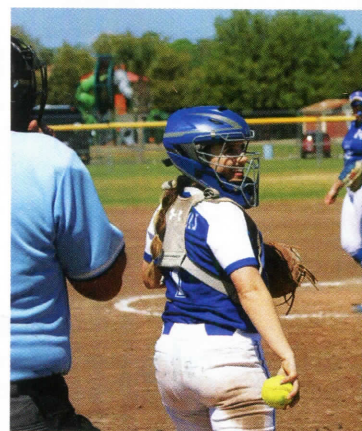
Amos said she appreciates that LTU provides a number of productive study spots like the Academic Achievement Center, the library, and quiet areas throughout campus. Unfortunately, being stuck in quarantine made focusing, studying, or even finding privacy a huge challenge. She said all of her instructors were very understanding about the situation, and patient when it came to things like due dates. “I was really happy with how they handled it,” she said.

Happily, even though Amos—and every other graduate in the class of 2020—missed out on a big commencement ceremony, her family and friends in Corona, Calif., made sure to recognize her special day. They got her out of the house then surprised her when she got back with a banner, yard signs, a big balloon arrangement, and her favorite sushi for dinner.

“Some friends surprised me, too,” she added. “They dropped off some goodies and champagne just to make me feel better.”

She’s still looking forward to the planned Nov. 21 virtual

Commencement: “I’m a first-generation college student and it’s a really big deal for me and my family to see me graduate.” □ KLP



Alexandra “Alex” Amos on the field and in the photo studio for the LTU softball program.

ONLINE COLLEGE IS NORMAL FOR CODING CLASSES—BUT NOT FOR BASEBALL

An information technology major, **Sam Brace** expects to complete his degree in December and wants to attend the Nov. 21 virtual commencement ceremony. He spent quarantine in Peoria, Ill. with his parents.

Brace is a student athlete and was in Florida when he heard the news about quarantine. He’s been a pitcher for the LTU baseball team for four years.

“When everything went down I was actually in Florida with the baseball team,” Brace said. “We had just finished playing the number one team in the country. Then everything ended very suddenly.”

Luckily, as an IT major, Brace said the transition to eLearning was simple. “The majority of my classes are already mostly online. You aren’t going to learn to code with a pencil and a piece of paper.” As such, he was already used to the various Google suite programs, as well as Zoom.

But not everything was so simple. Brace’s senior project focused on what habits create the most success for students. He said his team looked at a range of habits—how much they study, how much coffee they drink, what time of day they prefer to take classes. Unfortunately, data collection became a huge issue after everyone was sent home.

“We couldn’t sit in the atrium like we planned and just talk to undergrads as they walked through all day. We had to do it through social media,” he said.

Brace said his project team had hoped to get 5 percent of the undergraduate population during data collection, but still managed to get 2.5 percent through social media platforms.

While the sudden switch to online classes didn’t faze Brace, not playing baseball is more concerning. He said he’s been planning to pursue a professional baseball career. In addition to pitching for the Blue Devils, he played on a Livonia-based travel team and spent the last two summers playing in the Alaska Baseball League. This summer was supposed to be spent as an intern data analyst for a baseball team, Brace said. “It’s a very unique opportunity for me because I’m trying to pursue playing pro baseball,” he said.

Brace encountered another challenge shared by many college students around the world: “This is the most time I’ve spent at home since high school.” □ KLP



IT student Sam Brace was a hurler for the LTU baseball team.

CORONAVIRUS MEANS PERMANENT CHANGES IN U.S. BUSINESS, FACULTY SAY

Big changes are coming to the American economy and Michigan business in the wake of the coronavirus pandemic, according to the faculty of Lawrence Technological University.

Bahman Mirshab, dean of the College of Business and Information Technology, said recent reports from the United Nations show that the automotive and tourist sectors would be among those most affected by the economic downturn brought on by the pandemic—and those are Michigan's two largest economic sectors.

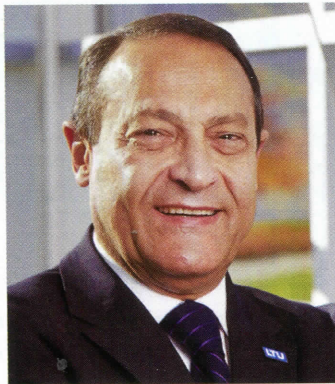
Mirshab said the downturn also reflects the risks inherent in complicated global supply chains and the just-in-time delivery of raw materials that is a key part of lean manufacturing.

"Because of lean manufacturing, organizations don't keep a lot of inventory, so once something happens in China, it has a global impact," Mirshab said. "Now we have recognized that while globalization may help consumers, because we pay lower prices, we can become too dependent on other countries. So maybe some industries should rely more on domestic production."

Mirshab said China has become not only a major exporter of consumer products, but of the "intermediate inputs"—everything from electronics to metal parts to fabrics—used by American companies whose products undergo final assembly in the United States. China's share of such goods in the global economy has grown from 4 percent in 2002 to 20 percent today, Mirshab said.

Back in April, in an LTU news release, Mirshab also cautioned against calls to reopen the economy quickly once the current peak of virus infections passes. "Without universal testing, it may just come back," he said then—as it turned out, prophetically.

Ahad Ali, associate professor in the LTU College of Engineering and director of LTU's bachelor's and master's degree programs in industrial engineering, said that when factories do reopen, they're likely to conduct temperature checks of employees entering plants and send those with a fever home. He said factories will also observe social distancing, and that the



Bahman Mirshab

pandemic may lead to more use of automation in handling manufacturing tasks.

Ali, who has given workshops around the world in using industrial engineering techniques for process and system improvement, said the pandemic has also challenged healthcare processes and systems. Even parts of the world with good health care systems face a bad situation, and underdeveloped countries

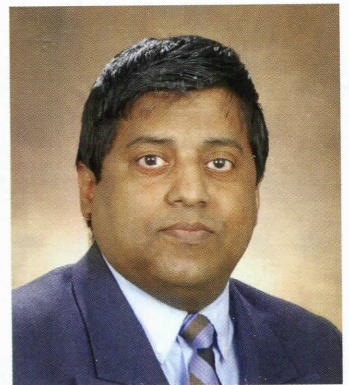
face a dire situation, he said. There have also been disruptions in the supply chains of the world's food industry, with a localized and sustainable supply chain becoming more desirable.

Ali said industrial engineering and inventory management will become more critical due to barriers in logistics and transportation, "a new way of thinking about doing business," which will include more support from a remote workforce—not just in the United States but around the world.

"Operations, processes, and systems are continuously evolving and industrial engineering tools can be used to solve many of those problems," Ali said.



Jacqueline Stavros



Ahad Ali

LTU business professor **Jacqueline Stavros**, an expert in leadership, strategic planning, and organization development, predicts that once travel and gathering bans are lifted, people will remain skeptical and still have concerns about leaving their homes, and "employers will have to assure their employees and customers that they are continuing to operate under safe and sanitized policies...

It will take time for people to get comfortable being out again." Stavros also said she thinks the trend to more telework is here to stay. In the pandemic, she said, "hundreds of millions of us had to embrace technology as a way of connecting in a matter

continued

PERMANENT CHANGES *continued*

of days. We are connecting virtually via learning management systems and meeting platforms to learn and get work done.”

Stavros encourages those who make decisions—managers, supervisors, senior leaders—to engage all stakeholders who will be affected by those decisions into the conversation. This invites diverse perspectives into a conversation worth having. These conversations are meaningful, inquisitive, solutions-focused, productive, and engaging. Conversations worth having generate shared understanding, new information, and possibilities for action.

At LTU, Stavros serves on a Safety Committee that has used

the technique to address concerns about returning to campus among students, faculty, and staff—and, most importantly, learning what has worked well during the lockdown period. Time has been spent in conversations with all 16 departments, plus students and parents to hear concerns, deepen understanding of working and teaching remotely versus on campus, and fears about the pandemic.

“We do not know what the fall will bring given the uncertainty of a global pandemic, but we are in constant conversations about what worked well, what is working, and what is possible,” Stavros said. □ MR

PANDEMIC MEETS ROBOTICS IN STUDENT'S HAND SANITIZER DISPENSER

It's certainly hard to find any fun in the many precautions demanded by the coronavirus pandemic.

But an LTU computer science student has managed to come up with one for youthful robot builders.

Joe Schulte, BSMCS'21, MSCS'22, designed a robot that automatically dispenses hand sanitizer. He said the robot took him about two days to design and build under the guidance of LTU computer science professor CJ Chung.

Schulte, a graduate of Northville High School, also volunteers at LTU's Robofest worldwide robotics competition.

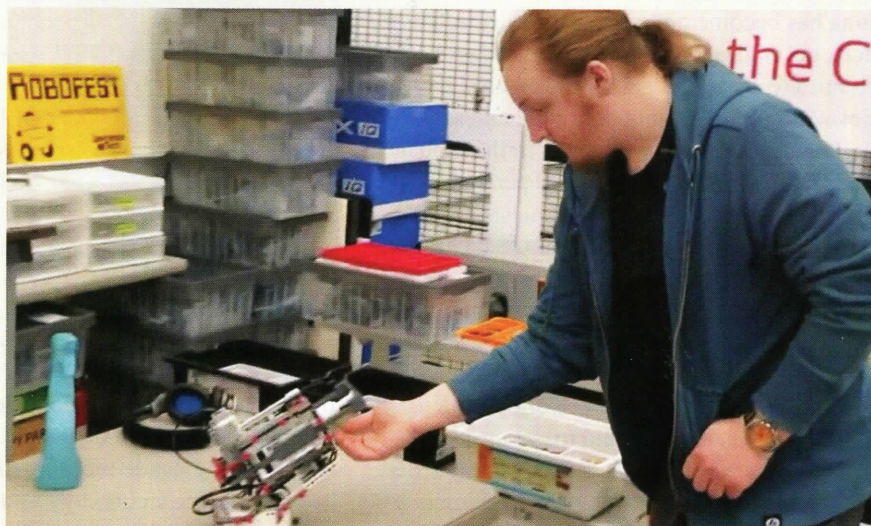
“I like to do projects that help kids learn robotics,” Schulte said. “That's my primary goal in helping out with Robofest, helping kids solve problems. With this project, it was a way to tie in robotics with everything else that's going on.”

Schulte said he progressed through three theoretical designs and two practical designs before achieving success. The robot uses an infrared distance sensor to know when to provide a squirt of hand sanitizer. “The sensor

waits to detect something within a certain threshold to trigger, and then it waits for that thing to leave a certain threshold before resetting to trigger again,” Schulte said.

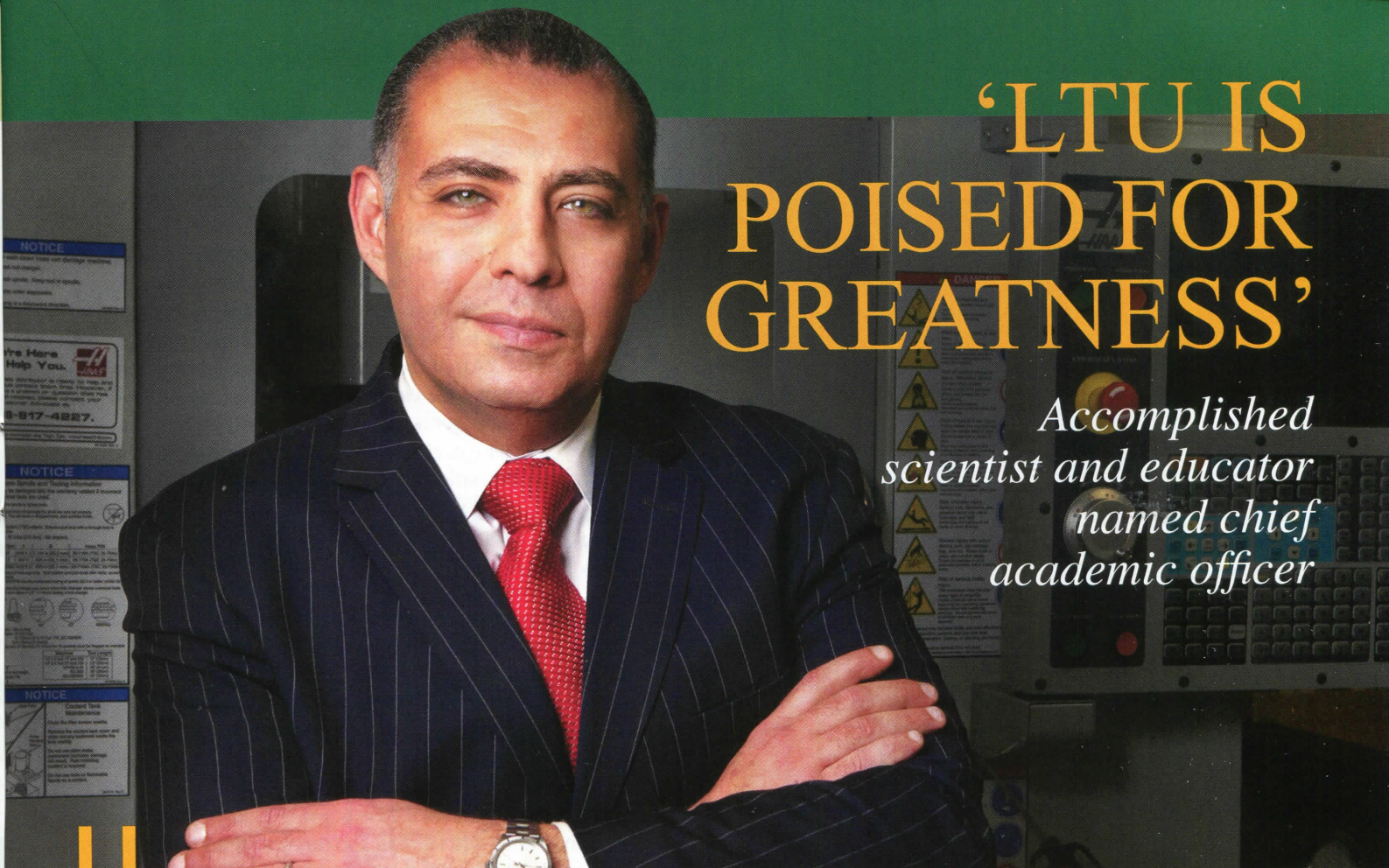
The robot was built out of a standard Lego Mindstorm EV-3 robot kit. “It might use a few more pieces than are in the base EV-3 kit, but it's all EV-3 pieces,” Schulte said.

Schulte originally planned to offer the robot as a live workshop for children, but with the pandemic, he decided to offer it online. □ MR



Joe Schulte
with his robotic
hand sanitizer
dispenser.





‘LTU IS POISED FOR GREATNESS’

*Accomplished
scientist and educator
named chief
academic officer*

Had his tired “Rent-A-Wreck” rental car not broken down in Salt Lake City, the world may have been deprived of one of its most resourceful scientists and educators.

Instead, 18-year-old Tarek M. Sobh used the pause in his trek across America to meet one of his heroes and begin a life-long preparation for his new role as Lawrence Technological University’s provost and vice president of academic affairs.

Prior to his Sept. 1 appointment to Lawrence Tech, Sobh had been the interim provost at the University of Bridgeport (UB) as well as UB’s executive vice president of research and economic development and founding dean of its College of Engineering, Business, and Education. He was also a distinguished professor of engineering and computer science and believes that he was the nation’s longest serving dean of engineering. Following his resignation to join LTU, UB added the titles of distinguished professor and dean of engineering emeritus, in recognition of his many contributions.

Sobh is a Fellow of the African Academy of Sciences, and member of the Connecticut Academy of Science and Engineer-

ing. A licensed professional engineer with many additional certifications, Sobh received his undergraduate degree in engineering with honors from Alexandria University in Egypt, and MS and PhD degrees in computer and information science from the School of Engineering, University of Pennsylvania.

The national search that led to his appointment initially attracted some 200 candidates, said LTU President and CEO Virinder K. Moudgil.

“In Dr. Sobh, we feel we have found an internationally recognized educational leader who will help us continue to improve Lawrence Tech’s strong academic programs, expand our service to the professions and the region, and assure that our graduates are well prepared for the challenges of the shifting global economy,” Moudgil said. “Dr. Sobh is also an exemplary scientist and scholar and through his research, writings, and presentations, has added much to the field of engineering and other technological professions.”

As provost, Sobh (pronounced “soap”) will oversee LTU’s four colleges, its library, and offices of eLearning, Student Affairs, Enrollment Management, and Corporate and Community Partnerships.

Reminiscing about his long ago 12,000-mile road trip, Sobh laughed, “It’s something you do, once, and never again. You do it when you’re crazy and 18 (years old).”

Sobh had decided to visit the United States with a friend, rent

Tarek M. Sobh,
Lawrence
Technological
University’s
provost and
vice president
of academic
affairs.

CONTINUED



New LTU Provost Tarek M. Sobh (right) gets an explanation of all the advanced equipment in LTU's Center for Innovative Materials Research from College of Engineering researcher Mohammed Mohammed (left) and Dean of Engineering Nabil Grace.

a car, and see the country. It began as an adventure and initially had nothing to do with academics—just fun. But when stalled in Salt Lake City, he visited the University of Utah to look around and spied the name of a very famous professor—an icon of artificial intelligence. Sobh introduced himself: “Just a kid from Egypt who shows up and knocks on the door. ‘Hi, I read your book, etc.’” The professor asked if Sobh was familiar with a certain type of programming language and ended up offering him a research internship. “The lesson of this story,” Sobh said, “is when there’s an opportunity, be prepared to take it!”

After the internship, Sobh researched graduate schools and chose the University of Pennsylvania which then had the premiere robotics lab in the country. Penn Engineering had never accepted anyone from Egypt into the PhD program to that point. Sobh was not only accepted, but given a full scholarship because of his work and research at Utah, coupled with his degree from a unique program at Egypt’s University of Alexandria.

About joining Lawrence Tech, Sobh said, “I’m really looking forward to being here. I’m very excited.

“Despite the uncertainties of the pandemic, you take a look at the whole idea of hybrid classes, online classes, distance learning, [and] alternative experiences that are not necessarily in a classroom setting, it’ll be very complimentary. It’s going to be the new norm anyway. With an institution like ours and how innovative it is, not only with offering cutting-edge and dynamic

programs, but also designing new modalities by which these programs are delivered, we could actually thrive in this new reality.

“I’m optimistic. COVID, despite all of the challenges, provides incredible opportunities for true innovation, not only for delivering content but with technology-type programs.

“All of the expectations and upheavals, no matter the cause (demographics, unemployment, economy, pandemic, politics, social change, chaos, etc.) are completely changing the outlook and how higher education works.

“It’s becoming more obvious that the value proposition of higher education is being significantly scrutinized by students, parents, and importantly, by employers.” That value needs

to be “eloquently articulated and proven; otherwise, certain institutions simply aren’t going to make it.”

One of the distinctions of Lawrence Tech, he said, is the University “recognized that early on. Our offerings are designed and built for that purpose. We emphasize theory, practice, interdisciplinary training, getting quickly into the workforce and the jobs of the future—many of which do not have a title yet. I think this is what higher education is going to be going forward. It’s how universities will survive and thrive with technological offerings, flexibility, alternative modalities, collaboration with industry, and the importance of lifelong learning to avoid becoming obsolete.

“Technology is constantly advancing. So our students need the skills to ‘learn how to learn’ on their own throughout their careers.”

Sobh was an only child, born in Cairo. His father is a civil engineer, his mother is from a pharmaceutical background and an “amazing chemist.” His dad built power stations and directed large construction projects all over the Middle East and Sobh visited his dad’s many construction sites. He called himself a “civil engineering brat” much like people who identify themselves as “Army brats.”

“I literally fell in love with science and engineering at a very early age,” he said.

Sobh grew up as a problem-solver and a builder and was very technology-oriented. He graduated high school in Egypt at 16 and entered college immediately. He assumed he’d be a civil engineer. However, when Sobh was about 15 years old in the early 1980s, his father went on a business trip to Tokyo, phoning home to tell him about an interesting device he had seen—he described it as being like a typewriter, a calculator, and cassette recorder, all-in-one. “This was before the internet so of course I had no idea what he was talking about,” Sobh said.

What his father brought home was a Casio programmable computer that used the Basic language. Sobh read the 400-page manual “and I was hooked; it was the coolest thing ever.” (He still has that little Casio.)

‘Students need the skills to learn how to learn...’

He says that little machine is what pushed him into the field of computer science and engineering, rather than civil or architectural engineering. Being able to program things and letting them run and solve problems on their own “was simply fascinating.”

The family had moved to Alexandria a couple of years before. At the time, Sobh didn’t want to leave Cairo and his friends, but destiny and luck intervened again. It turned out that Alexandria University was the only university in the entire Middle East with a computer science and engineering department.

“At the end of the day you can’t plan and script every single piece of your life. Things happen. You have to be ready and prepared though for challenges and changes,” he said.

One of those changes he recognized early on was distance learning. Over a decade ago he was approached by colleagues—scholars and scientists—primarily from Europe and eventually North America and other nations. They were forming a society for online engineering.

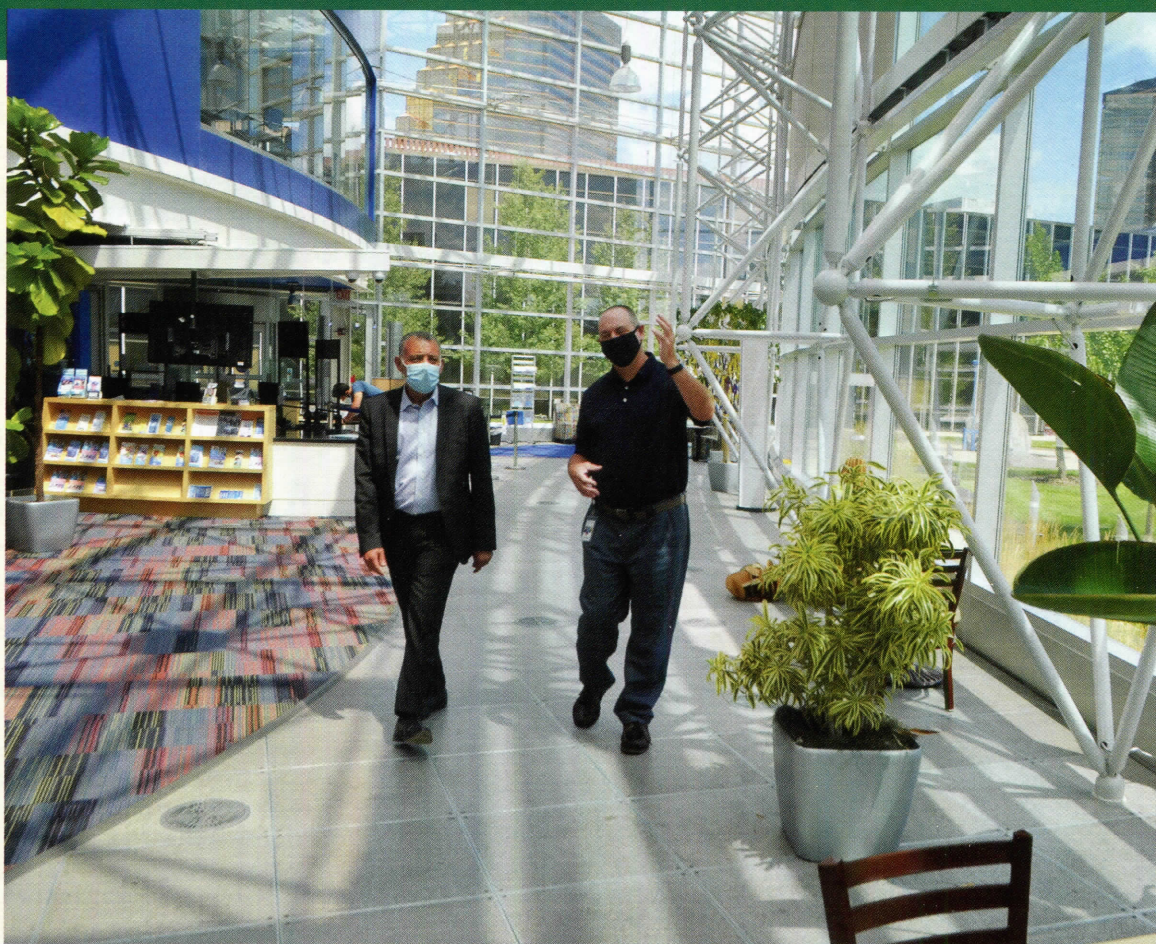
In the early 1990s, “when the internet was in its infancy,” Sobh had already been experimenting with robots. “I thought it would be exciting to put robots and tele-autonomous mobile platforms online to enable people from all around the world to access them without having to be in my lab. And I did that. And at that time it generated an astounding volume of interest from all over the world. My group and I were among the first researchers to enable such devices to be available on the internet.

“I got the idea to not only do this for fun, but to make it accessible to students, grads and undergrads, to learn and study at that time the emerging field of robotics without having to physically be in my lab at the university.

“The group worked to develop exercises relating to controlling and observing robots online, from a distance, that would complement an online course in robotics. The idea of lab-based courses was always that—being physically present in the lab. So offering online robotics labs got a lot of attention.”

A few years later, the online engineering group wanted to develop Sobh’s idea even further.

“The idea was we wanted to expand access. We didn’t want



‘At the end of the day you can’t plan and script every single piece of your life’

to limit the capabilities of students to learn these new technologies that require hands-on experimentation and physical presence. The group wanted to expand that idea through a network of online labs. New software, connected devices, researchers, scientists, professors, etc. were needed all over the globe to make this happen. The utility of such endeavors back then

provided the basis for many current discussions in light of what is happening now with the pandemic and pivoting to offer lab-based classes online.”

Sobh calls himself a very outcomes-oriented person. “I like projects that have

a clear end-goal, no matter how fantastic, farfetched, or futuristic. I like well-defined problems; even if the aspired-to outcome is very difficult to achieve.” He said he likes to be able to see the ‘light at the end of the tunnel.’”

He was the founding director of UB’s Interdisciplinary Robotics, Intelligent Sensing, and Control laboratory, founder of the High-Tech Business Incubator at UB, and founding director of the UB Innovation Center. His background includes the fields of computer science and engineering, robotics, automation, control theory, STEM education, manufacturing, artificial intelligence, computer vision, and signal processing.

Sobh has published over 250 refereed journal and conference

New LTU Provost Tarek M. Sobh gets a walk-through of the Taubman Student Services Center from Dean of Students Kevin Finn.

CONTINUED



Nabil Grace, dean of the LTU College of Engineering, demonstrates the Comprehensive Environmental Test Chamber inside the Center for Innovative Materials Research. The chamber is capable of temperatures from -90 degrees to 185 degrees Fahrenheit.

papers, and book chapters in these and other areas, in addition to 27 books. He has served or currently serves on the editorial boards of 18 journals, and as chair or on the program committees of over 300 international conferences and workshops in robotics, automation, sensing, computing, systems, control, online engineering, and engineering education.

He has presented more than 150 keynote speeches, invited talks and lectures, colloquia, and seminars at research meetings, university departments, research centers, and companies. He has supervised over 50 award-winning graduate and undergraduate students working on different projects within robotics, prototyping, computer vision, control, and manufacturing, as well as more than 300 undergraduate and graduate students working on their bachelor's projects, master's thesis or PhD dissertations.

Sobh also consults and provides service to industrial organizations and companies, including companies in the United States, Switzerland, India, Malaysia, England, the United Arab Emirates, Kazakhstan, and Egypt. He has received over 60 research awards and grants and received the ASEE Northeastern U.S. Distinguished Engineering Professor of the Year award, the IEEE Northeast Technological Innovation Research Award, an ACE Higher Education Award and many other recognitions of his educational, research, scholarly, and service activities in engineering, education, computing, and diversity initiatives.

"I'm truly excited to be at Lawrence Tech," he said. "These are extraordinary times in higher education. I'm looking forward to working with my highly talented and accomplished colleagues to continue shaping this institution into the most eminent university in the region that is known worldwide for its distinguished and outstanding programs and outcomes. Lawrence Tech is poised for greatness. I honestly believe that."

□ BJA

MARIA VAZ leaves legacy of achievement

Maria J. Vaz, who Tarek Sobh succeeds, served on LTU's faculty since 1984 and as provost since 2006. She retired on June 30 as one of the University's most versatile and accomplished leaders in its history.



Maria Vaz

President and CEO Virinder Moudgil said, "There are few aspects of the core responsibilities of our University that have not received the benefit of Dr. Vaz's engagement and leadership.

She has been a key member of our leadership team and her positive influence on LTU's programs, our students, faculty, and general academic stature cannot be overemphasized. Through her achievements and interests, she has had a huge impact on the improvement and blossoming of STEM (STEAM) education opportunities, both at the collegiate level and for our precollege outreach programs."

Last year, *Crain's Detroit Business* named her among its 2019 Notable Women in STEM.

Vaz led and supported the development and implementation of new undergraduate and graduate programs that continued to differentiate Lawrence Tech. Among them are biomedical, robotics, architectural, and industrial engineering; chemical biology; molecular and cell biology; media communication; transportation design; and game art. She also oversaw the launch of LTU's Bachelor of Science in nursing program in partnership with Ascension Providence. She holds a master's and PhD in physics from Kent State University. Vaz is also a trustee of Rose-Hulman Institute of Technology.

For more about Dr. Vaz's distinguished service to Lawrence Tech and its students, visit the summer/fall 2019 edition of the *Lawrence Tech Magazine*, pages 17 and 18: www.ltu.edu/summer-fall19/. □ BJA

Maria Vaz with a young student at the Sampson-Webber Leadership Academy in Detroit. (Pre-COVID photo.)



Higher education veteran to lead fundraising, alumni relations

Gregory L. Cascione has been named special assistant to the president for development and alumni relations at Lawrence Tech.

Cascione will oversee fundraising across the University, including alumni and donor relations, corporate and foundations relations, major and principal gifts, advancement services, stewardship, and annual giving. He will report directly to LTU President Virinder Moudgil, who made the announcement.

"In Dr. Cascione, we believe we have found a leader who can bring new vision to our efforts to support the University's mission through philanthropy, and who can foster close and rewarding

relationships among our thousands of alumni, both engaging them with their university and with each other," Moudgil said.

Cascione has more than 30 years of professional experience in advancing philanthropy in higher education and the non-profit sector. He has served at a wide range of institutions, including Fordham University, Harvard Law School, and the University of Michigan, and as vice president for university advancement at the University of Detroit Mercy.

In recent years, he has worked as an interim executive and consultant, assisting institutions with a special focus on fundraising and advancement.

"Lawrence Tech has a remarkable presence in higher education and for the quality and achievement of its graduates," said Cascione. "I look forward to working with LTU's leaders, students, faculty, staff, alumni, and friends in creating support for more scholarships, enhancing facilities, and sustaining the scholastic excellence that distinguishes our programs."

Cascione earned a Bachelor of Arts in philosophy from Fordham University, a Master of Theological Studies in ethics from Harvard University, an MBA from the University of Edinburgh in the United Kingdom, and a PhD in higher education from the University



Gregory L. Cascione

of Michigan. He has given numerous presentations on philanthropy and higher education, and is the author of the 2003 book, "Philanthropists in Higher Education: Institutional, Biographical, and Religious Motivations for Giving."

□MR, BJA

Business leaders Bell, Hurshe, and Steudle named trustees

Three business leaders have been elected to Lawrence Technological University's Board of Trustees. The new trustees are Donna Bell, BSEE'95, global director, Technology and Feature Strategy & Planning Enterprise and Product Line Management at Ford Motor Company; Joseph Hurshe, chief operating officer at Ascension Michigan, and president, Ascension Providence Hospital; and Kirk T. Steudle, BSCE'78, senior vice president of Econolite Systems.

LTU trustees establish strategic direction, help formulate and approve major institutional policies, and hire the University's executive team. They serve without compensation.

At Ford, Bell establishes and communicates customer driven strategies that increase corporate growth in areas such as connectivity, artificial intelligence

(AI), driver assist technology, and robotics.

Bell has held a number of positions with growing responsibility, including serving as chief of staff to Ford's chief technology officer, where she improved research processes, managed strategic university alliances, and enhanced Ford's STEM strategy. She led strategic partnerships and external relationships, including Ford's involvement in US CAR (U.S. Council for Automotive Research).

From 2014-17, she was Ford's electrical Global Product Development Quality manager. She collaborated to ensure designs delivered revenue generating customer experiences. Through her leadership, quality improved by more than 35 percent. Bell also led the electrical organization achieving best in class quality for Lincoln vehicles



Donna Bell



Joseph Hurshe



Kirk Steudle

multiple times, and Ford being recognized by the 2017 JD Power Initial Quality Study for overall quality improvement.

After earning her bachelor's degree in electrical engineering from LTU, she earned master's degrees in electronics and computer control systems and in engineering management, and a PhD in industrial and systems engineering, from Wayne State University. She served three years as president of Lawrence Tech's Alumni Association, is a member of the College of Engineering Advisory Board, and

in 2019 received the University's highest honor for graduates, the Alumni Achievement Award. Most recently, Bell was inducted into the College of Engineering's Hall of Fame.

Bell also received the 2019 Outstanding Technical Contributions award from the National Society of Black Engineers Professional Development Conference, and was selected as the 2018 Women of Color in STEM, Technologist of the Year, by the

Continued page 20

Trustees *Continued*

Career Communications Group. She is active in numerous other organizations that increase opportunities for women and underrepresented minorities.

Hurshe, a Fellow of the American College of Healthcare Executives, is responsible for the daily operations of 15 Ascension hospitals and multiple ambulatory and medical centers throughout Michigan with over 3,600 licensed beds, 27,000 associates, and 6,300 physicians serving a population of 6 million. Hurshe is actively involved in community outreach initiatives and philanthropic endeavors that are growth and development oriented.

Hurshe joined the Ascension family in 2010 where he served as chief operating officer, and most recently as president and CEO of Ascension Providence Hospital Novi and Southfield campuses. Prior to Ascension, he was the system vice president of operations for Centegra Health System near Chicago, and worked for the State University of New York and University Hospital, located in Syracuse, throughout his 25 years in healthcare leadership.

Hurshe earned a bachelor's degree from Eastern Michigan University, and a master's in health administration and management from Webster University in St. Louis. He is a graduate of the distinguished Ascension Health Leadership Academy.

At Econolite Systems, Steudle concentrates on excellence in intelligent transportation system design, deployment, operations, and maintenance, including at Econolite subsidiary, CAVita.

Steudle retired from State of Michigan service in Oct. 2018 after a 31-year career and served as director of the Michigan Department of Transportation (MDOT) from 2006-18, one of the longest tenures nationally. He also served as the

interim president and CEO of the American Center for Mobility from August 2018 until March 2019.

Steudle is focused on integrating technology into transportation, is a noted expert in surface transportation, and a nationally recognized leader in the development of connected vehicle technology. He served as chair for the Intelligent Transportation Society (ITS) of America Board of Directors in 2015 and was inducted into the ITS World Congress Hall of Fame in 2016.

Steudle chaired the Transportation Research Board executive committee in 2014 and served as the 2011-12 president of the American Association of State Highway and Transportation Officials (AASHTO). He received the highest distinction awards from both organizations in 2018. He currently serves as the vice chair of the Engineering Society of Detroit Board of Directors.

Steudle also serves on LTU's College of Engineering Advisory Board and was inducted into the College's Hall of Fame in 2012.

He received the University's highest honor, the Alumni Achievement Award, in 2008.

"Dr. Bell, Mr. Hurshe, and Mr. Steudle bring very strong credentials to our Board of Trustees as accomplished business leaders," said Virinder Moudgil, Lawrence Tech's president and CEO. "They represent fields where we have, or expect to have, a growing number of successful alumni. We are delighted to receive their counsel and leadership as trustees."

□BJA

Students qualify for DECA Nationals

Associate Professor Matthew Cole, the College of Business and Information Technology DECA collegiate advisor, mentored three students who competed in the annual DECA Michigan Competition on Feb. 9 in Dearborn.

The competition recognizes the top three students in each of 25 competition categories. A total of 138 students from 12 Michigan colleges competed.

Business student Peyton Heady of Allen Park placed third in the Restaurant and Food Service Management individual event. Psychology student Mary Lancina of Livonia placed third in the Human Resource Management event. Business student Shelby Rasch of Conklin competed in the Fashion Merchandising and Marketing event.

All three students are eligible to participate in the annual DECA International Competition, rescheduled for 2021 in Austin, Texas.

DECA, formerly known as the Distributive Education Clubs of America, prepares emerging leaders and entrepreneurs in marketing, finance, hospitality, and management at the high



school and collegiate level.

LTU faculty members Yu "Tony" Zhang, assistant professor of accounting and finance, and Ahmet Hattat, assistant professor of marketing, volunteered as judges at the state DECA event.

□MR

With DECA Advisor and Associate Professor Matthew Cole are (left to right) Peyton Heady, Shelby Rasch, and Mary Lancina. (Pre-COVID photo.)

Height named Notable Woman in Finance by Crain's

Linda Height, vice president of finance and administration, was named a Crain's Notable Woman in Finance by *Crain's Detroit Business* in its April 27 issue.

Height manages the University's \$75 million budget and \$70 million in endowed and invested funds. Her work has helped LTU add five new campus buildings through a partnership with PNC Bank, retire older bonds, and pay off the mortgage on its oldest residence hall.

In addition, she also supported the addition of 30 sports teams in five years, increasing enrollment, developed multifaceted outdoor athletic facilities, and invested in a new robotics engineering program.

"Her work with LTU's community and its strategic partner, the city of Southfield, is also noteworthy," LTU President Virinder Moudgil said. "Ms. Height is on the executive committee

for the Southfield Chamber of Commerce and board chairperson for both the Michigan First Credit Union and the (Southfield) City Centre Advisory Board."

Prior to coming to Lawrence Tech, Height was vice president of compliance and revenue management for Bon Secours Cottage Health System, where her responsibilities included all activities in the for-profit facilities and the development and implementation of an assisted living center and senior day care.

Earlier, as manager for the healthcare consulting division at the accounting firm Coopers & Lybrand, she coordinated all consulting activities, with primary focus on the assessment of business operations related to organizational structure, policies and procedures, staffing levels, and quality control.

Height also is a member of the

National Association of College and University Business Officers, and the Healthcare Financial Management Association.

She earned a Bachelor of Science in business administration and healthcare administration from Mercy College of Detroit, and a Master of Science in Administration (human resources) from Central Michigan University. She is a sergeant first class (retired) in the U.S. Army Reserves. □MR



Linda Height

New degree combines technology with the humanities

Lawrence Technological University is offering a new degree that combines high tech with the humanities to prepare graduates for the jobs of tomorrow.

The Bachelor of Science in Technological Humanities will be offered through the Department of Humanities, Social Sciences and Communication, part of LTU's College of Arts and Sciences.

The curriculum begins with a freshman year that combines courses in mathematics, computer science, and the natural sciences with courses like literature, psychology, and history. Sophomore year curriculum includes technical communication, computer science, and statistics, blended with courses in writing, rhetoric, and economics.

Junior year, students learn computer coding and take other technical electives, along with courses in history, ethics, and literature. The senior year is dominated by a senior thesis elective. Internships are strongly encouraged during the four years.

The new program already has its first student, Ellen Forsgren, a 2018 graduate from Port Huron, who said she was attracted to



Paul Jaussen



Ellen Forsgren

LTU by its small class sizes and the opportunity to earn a scholarship for playing in the LTU Marching Band.

Forsgren originally intended to major in architecture, but another passion was calling: "I'm very passionate about writing. In architecture I never had the time to explore the ideas in poetry and short stories. My ultimate goal is to write a novel. I thought I should go into something where I'd have more time to explore my passion."

Forsgren plans to concentrate on software engineering in the

National study confirms high value of a Lawrence Tech degree

A national study of the value of a college education placed Lawrence Technological University fourth in Michigan and in the top 7 percent of 4,500 colleges surveyed by the U.S. Department of Education for its 2019 College Scorecard.

The government data was analyzed by Georgetown University's Center on Education and the Workforce. Using a complex calculation of net present value of a college degree, a Lawrence Tech graduate can expect a net-present-value return of \$1,124,000 over 40 years on the investment in a college degree. That places

the University fourth among Michigan colleges, just ahead of Michigan State University. It ranks first in the three-county metro area.

"The results of this study emphasize Lawrence Tech's commitment to preparing its graduates for productive careers," LTU President Virinder Moudgil said. "Our graduates are ready to hit the ground running in their first job and usually that will result in greater earning power in the years to come. A Lawrence Tech degree gives our graduates a head start on their peers from most other universities." □MR

Continued page 22

New degree *Continued*

major, while at the same time exploring creative writing. In 10 years, she says, “hopefully I will have established myself in a software engineering company, and I hope to have made progress on writing a novel and getting it published.”

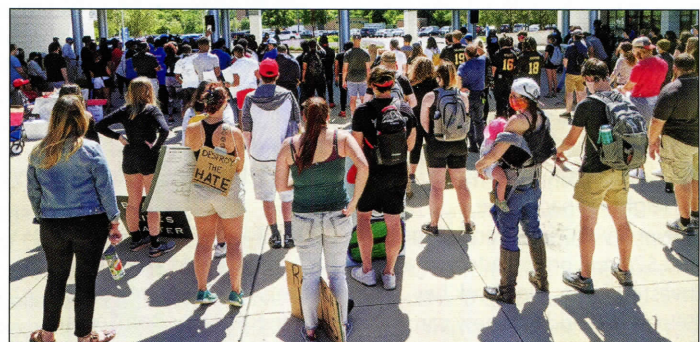
The idea behind the major, Paul Jaussen, associate professor of literature said, is to integrate the “big ideas” of a traditional liberal arts education with practical training in technological skills that will be in demand in the future.

Where will graduates of this program work? Said Jaussen: “Companies that want to communicate their technologies to broader audiences. Companies that have interpersonal skill needs in high-tech sectors. We’re thinking about what a liberal arts program for a future tech-

heavy world would look like.” The major could also be a foundation for a graduate degree or law school. For more information, visit the College of Arts and Sciences section of www.ltu.edu.

LTU has pursued the integration of technology and the humanities in other ways as well. Supported in part by grants from the Howard Hughes Medical Institute and Michigan Humanities, LTU established the Humanity + Technology Lecture Series, which explores the crossroads of what technology makes, and how it affects people. And LTU is the only university in the United States to allow humanities majors to enter research projects in the Grand Challenge Scholars program established by the National Academy of Engineering. □MR

Marchers seek more support of Black students



About 300 people marched from LTU's campus along 10 Mile Road in June to protest an LTU social media post and stand in solidarity with the Black Lives Matter movement. LTU students, faculty, and staff were among the marchers, in an event organized by the LTU Black Student Union. Sparking the protest was a post on LTU's Instagram account containing the phrase “All Lives Matter,” a phrase often construed as a criticism or disparagement of the BLM movement. The post was quickly removed, and LTU officials apologized for the incident. Speakers at the event sought more support for Black students by the University.

Girls in Engineering Academy kicks off year with LTU

The Girls in Engineering Academy (GEA), a partnership of the Engineering Society of Detroit (ESD) and Lawrence Technological University designed to close the achievement and gender gaps between men and women in the STEM disciplines, kicked off another academic year with a four-week online summer program.

GEA, which began in 2017, starts with girls about to enter the sixth grade. About 30 girls have entered the program each summer since, and a total of 95 are now participating.

The GEA continues through the school year with a 16-week program that features instruction in pre-algebra, and introductions to subjects such as computer science, physics, mechanical engineering, and an English and language arts component to boost communication skills.

The program was to have

been hosted at LTU in the summer of 2020 and continued on campus through the 2020-21 academic year, but in-person instruction was derailed by the coronavirus pandemic. The program will continue online this year.

Gerald Thompkins is program manager of the GEA for ESD. Of this past summer's online program, he said: “Virtual learning has become the ‘new norm’ in educational instruction. Instructors are now having to learn a new way of teaching and students are having to adjust to learning at home. There are challenges for both, but the biggest challenge is keeping students interested, engaged and learning; there is no substitute for in-person learning. All GEA classes have gone to the Zoom instructional platform. Our goal is to return to in-person learning when COVID-

19 no longer presents a health threat.”

The goal of the GEA is to academically prepare girls for STEM studies in high school and college.

“If you look at the data, when boys and girls enter school, they’re pretty much on par with each other academically, but by the time girls reach fifth or sixth grade, their interest in math and science begins to diminish slightly,” Thompkins said. “By the time they get to high school, boys continue to have an interest in science and math, and girls are going in a different academic direction, and it’s not necessarily STEM. The focus is on getting middle school girls interested and excited about STEM and pre-engineering. We know that waiting until high school is too late.”

Thompkins said the program is designed to move the needle on an achievement gap between men and women in engineering and more broadly, all STEM related fields. Thompkins said

that according to the American Society of Engineering Education, the United States awarded 104,000 engineering degrees in 2017. But only 21,000 of those went to women—and only 2,200 to Latino women and just 959 to Black women.

“We’re making an impact,” Thompkins said.

The program was generously supported by a PNC Bank grant to LTU’s Marburger STEM Center. “We’re hopeful that next year we will be able to do in-person programming, where the students will live in the residence halls during their four-week summer program, and really experience the Blue Devil lifestyle,” said Marburger STEM Center Executive Director Sibrina Collins. That part of the GEA will be supported by the Holley Foundation.

To find out more, contact Thompkins at 248.353.0735, ext. 139, or gthompkins@esd.org □MR

Six Sigma quality training added to engineering curriculum

Lawrence Technological University is turning out engineering graduates who already possess a much-sought-after quality training certification that employers now spend millions of dollars for their employees to achieve.

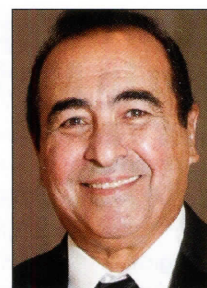
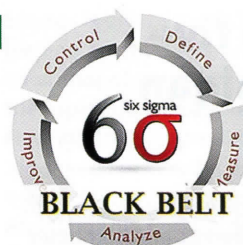
The first nine LTU students who earned the Six Sigma Black Belt passed the exam in May 2019, according to Sabah Abro, college professor of engineering technology at LTU.

LTU's Engineering Technology Department offers two semester-long courses, Six Sigma 1 and Six Sigma 2, taught by Abro. These courses are part of

the curriculum that prepares students to take the Six Sigma Black Belt exam as part of their program. Prerequisites for the courses include calculus, statistics, and engineering economic analysis.

Six Sigma is a system of statistical tools and managerial models that are proven to reduce waste significantly, improve productivity, and increase profitability. Six Sigma has spread from manufacturing into services, most notably healthcare. It borrows the certification system of karate, with green, brown, and black belts.

"We are the first university we



Reus Sabah Abro

know of to have embedded Six Sigma training into the curriculum at the undergraduate level," Abro said. "There are other universities that do it at the graduate level. The idea came to us when we reorganized our program that grants a Bachelor of Science in mechanical and manufacturing engineering technology. These graduates will acquire skills in engineering technology, in quality, and in management."

In fact, LTU is the only Michigan university listed as an accredited provider of Six Sigma Black Belt training by the Council for Six Sigma Certification, and one of only 14 universities in the United States.

LTU added Six Sigma training in 2014.

Abro, a Master Black Belt in Six Sigma who has been on the faculty for 24 years, has five degrees, including master's degrees from the United Nations Institute in Kuwait and the University of Wales, and a PhD from Catholic University of Leuven in Belgium. □MR

In only its third year, nursing program already earning accolades

Lawrence Technological University's Bachelor of Science in Nursing program has been ranked in the top third of Michigan nursing education programs—even before the program has graduated its first students.

In only its third year, LTU's nursing program was ranked No. 22 among 79 nursing education programs in Michigan, according to Nursing Schools Almanac, an online ranking service for nursing schools.

Lawrence Tech began accepting students into its BSN program in August 2017. The program, a partnership with the healthcare nonprofit Ascension Michigan and its six hospitals in southeast Michigan, will graduate its first nurses in May 2021.

"The fact that this young program is already ranked so highly is a testament to the efforts of our staff, students, and our partners at Ascension Michigan,"

LTU President Virinder Moudgil said. "The program offers direct admission to nursing education from Day One, without spending the first two years in a general-education pre-nursing program. It offers a close relationship with a recognized healthcare leader in Ascension. And it offers the unique advantage of a nursing education at a technology-focused university."

Added M. Therese Jamison, the program's founding director: "Implementing a BSN curriculum with a framework of relationship-based care provides faculty, staff, and especially our students an opportunity to change health outcomes for the patients, families, and the communities we serve. We are so grateful for the partnership between LTU and Ascension Michigan, and their combined commitment to excellence. LTU has a prestigious legacy that enhances the preparation of future nurses,

In pre-pandemic times, LTU nursing students hone their skills on a sophisticated, lifelike mannequin that mimics many human bodily functions and medical problems.



and Ascension Michigan's exceptional, integrated, holistic approach to care supports the conceptual model of this BSN program."

And Joseph Hurshe, chief operating officer of Ascension Michigan and an LTU trustee, said: "It is our pleasure to work closely with Lawrence Technological University to pre-

pare students to become nurses that will possess the skills necessary to meet the ever increasing demands of today's healthcare landscape."

Continued page 25

Lawrence Tech in top five for recruiting in Michigan employer survey

A January survey from American Society of Employers (ASE) named Lawrence Technological University in the top five universities where Michigan companies recruit new graduates.

The "2020 Starting Salaries for Co-op Students and Recent College Graduates Survey" was conducted by ASE, a Livonia-based nonprofit that provides HR services to businesses.

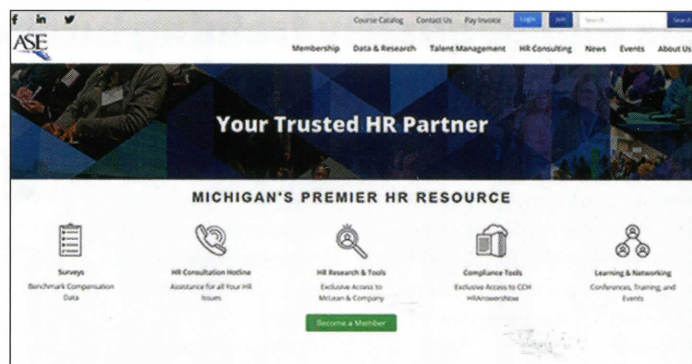
The survey of 121 businesses, 80 percent of which are in the Detroit area, listed Lawrence Tech in the top five of campuses recruited, along with four much larger public universities.

The ASE survey found the top three most popular technical bachelor's degree disciplines hired in the past year were

mechanical engineering, electrical engineering, and computer science. The top three non-technical disciplines hired in the past year were supply chain management, business administration, and, in a three-way tie for third, finance, human resources, and labor relations.

Topping the pay list for those disciplines was computer science, at \$71,581 a year for recent graduates, followed by electrical engineering, \$70,236, mechanical engineering, \$67,600, business administration, \$65,597, supply chain management, \$63,589, HR and labor relations, \$59,975, and finance, \$59,142.

Most survey respondents were small businesses, with 76 percent having fewer than 500



employees, and 59 percent were classified as automotive suppliers.

The top three knowledge factors and skills that organizations consider when making hiring decisions, in order, are course-work related to the work req-

The home page of the American Society of Employers, a Livonia-based HR organization.

uired on the job; computer skills; and internship or work experience. □MR

LTU takes second in worldwide ASHRAE competition

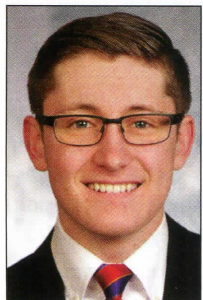
Two College of Architecture and Design students were among seven winners of 10 Michigan Architectural Foundation scholarships announced in May.

Jessica Brethour, MAR'21, earned the Daniel W. Toschak and AIA Saginaw Valley Chapter Scholarship. Ryan Johns, MAR'21, won two awards: the American Institute of Architects Scholarship and the Katherine

and John Banicki Scholarship.

The students were praised for their creative portfolios, active participation in student architecture-related organizations and community activities, passion for architecture, professional promise, leadership qualities, outstanding academic records, commitment to professional licensure, and understanding of architecture based in citizenship.

MAF awards the scholarships annually to students who are completing a bachelor's degree program and who have been accepted or are currently enrolled in a professional program leading to a Master of Architecture degree. □MR



Ryan Johns



Jessica Brethour

LTU places four faculty, four alumnae in Crain's 'Notable Women in Design'

Two full-time Lawrence Technological University faculty members and two adjunct faculty members placed among the list of Notable 2020 Women in Design, released in the Sept. 14 issue of Crain's Detroit Business magazine, as did four other alumnae.

Lilian Crum, assistant professor of graphic design and partner and creative director at Detroit-based Unsold Studio LLC, was lauded for "transforming the commercial design scene in Detroit and further," according to Christopher Stefani, associate director of LTU's Detroit Center for Design + Technology. Unsold was elected to attend Singapore Design Week in 2019 as a UNESCO Creative Cities delegate, and received a Silver Indigo Design Award in branding for its work with an independent eyewear shop, Spectacle Society. Crum also launched a student-run design studio at LTU that serves socially conscious organizations and businesses,

and is director of graphic design at LTU.

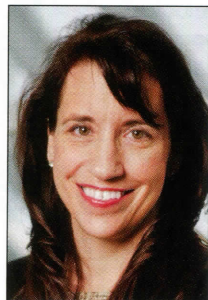
Bilge Nur Saltik, director and assistant professor of industrial design, "kickstarted a fresh culture in the industrial design program that our students were longing for," according to Karl Daubmann, dean of the College of Architecture and Design. "Her collaborative approach and creativity related to materials is inspiring the new generation of designers." Saltik is also co-founder of the design studio Form&Seek, which organizes exhibits at international fairs. Saltik also leads the writing team for a Turkish design magazine.

Also named to the list were adjunct faculty members Tiffany Brown and Laura Walker. See story on Brown, page 38. Walker, an associate design architect at SmithGroup, won a Design Build award from the city of Detroit for her work on the Design Center in Detroit's Old Redford

Continued page 30

Stavros ideas 'SOAR' with article in business journal

An article written by Professor Jacqueline Stavros of LTU's College of Business and Information Technology has been named a "feature choice" article in the scholarly journal *Appreciative Inquiry Practitioner: International Journal of Appreciative Inquiry*.



Jacqueline Stavros

In the article, Stavros chronicles where and how SOAR emerged, and how it is being used all over the world for disruptive change, particularly in the era of COVID-19. Three case studies from SOAR strategic planning exercises are

also cited, including one Stavros led on LTU's campus in the summer of 2019 for the United States Army's "Team Warren" ground vehicle operations. In August 2020, she did it again with her co-facilitators and co-designers, Toni Benner and Keith Schweizer—this time virtually, with the support of LTU's eLearning Services department and the videoconferencing application Zoom.

Appreciative Inquiry is an organization development model invented in the 1980s, based on the idea that organizations are created, maintained and changed by conversations, and claiming that methods of organizing were only limited by people's imaginations and the agreements among them.

Stavros is one of the field's leading practitioners, and the co-author of several books on the topic, "Conversations Worth Having: Using Appreciative Inquiry to Fuel Productive and Meaningful Engagement," and "The Thin Book of SOAR: Creating Strategy that Inspires

Innovation and Engagement."

The feature article is titled "SOAR 2020 and Beyond: Strategy, Systems Innovation, and Stakeholder Engagement" and may be found at www.aipracticitioner.com/product/soar-2020-and-beyond/. □MR

Centrepolis Accelerator named top 2019 project in Southfield Excellence Awards

LTU's Centrepolis Accelerator, a business incubator for manufacturers and product-based businesses, was named Top Project of the Year in the Excellence in Southfield Awards, a program of the Southfield Chamber of Commerce.

Award recipients in six categories were nominated by Southfield Chamber members and the public. Winners were selected in December by a committee of local business and government officials.

The Centrepolis Accelerator, opened in October, is a 6,600-square-foot center on the campus of Lawrence Tech. It's intended to accelerate the growth of advanced manufacturing entrepreneurs by providing access to funding, experts, and product development resources, including the latest in high-tech prototyping and virtual reality equipment—and access to LTU students and faculty to assist in business growth. The Accelerator also provides additional learning and research opportunities for LTU



U.S. Rep. Brenda Lawrence (D-Southfield) speaks at the October grand opening of the Centrepolis Accelerator.

students and faculty to work with growing entrepreneurial businesses. Early Accelerator clients include companies in

mobility, gaming, defense, exercise science, and more.

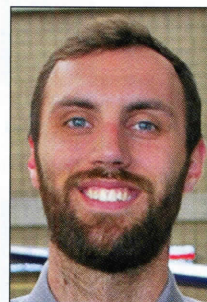
Access to the Centrepolis Accelerator and all its equipment starts at \$125

a month with a 12-month commitment. For more information, visit <http://www.centrepolisaccelerator.com/>.

Besides LTU, partners in the Centrepolis Accelerator effort include the City

of Southfield, the Michigan Economic Development Corp., the Michigan Energy Fund, and the New Economy Initiative.

Jay Redman, BSBA'15, MSTPC'18, athletic engagement and research associate in LTU's Office of Development and Alumni Relations, was also a nominee for the Excellence in Southfield Young Professional of the Year award. □MR



Jay Redman

Nursing program accolades *Continued*

Hurshe noted the program combines hospital-based clinical rotations, skills laboratories, and a focus on combining nursing theory with practice. The partnership also offers job placement opportunities, since Ascension Michigan is focused on keeping nurses in-state and helping them advance their careers.

Nursing Schools Almanac ranks more than 3,000 nursing

programs nationwide. The rankings are based on an institution's academic prestige and perceived value, measured by ability of graduates to repay student debt, professional designations, grant funding for nursing research, and years in operation; the breadth and depth of nursing program offered; and student success on licensing examinations. □MR

New Lawrence Tech paper compares Shelley's 'Frankenstein' and Marvel's 'Black Panther'

Using "Frankenstein," the famous book frequently called the world's first science fiction novel, as a method for teaching both social studies and chemistry, is the topic of a new research paper from LTU faculty members.

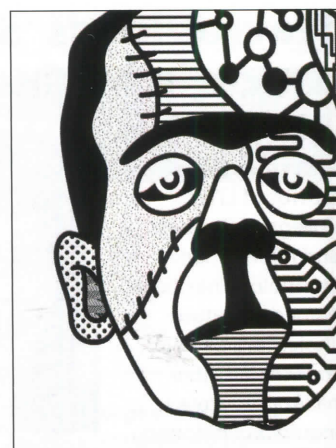
Five LTU faculty, a high school teacher, and a Wayne State University professor collaborated on "Frankenstein 200 Years Later: Chemistry, Literature and Pop Culture," published in the

December 2019 edition of the journal *The Chemical Educator*.

In "Frankenstein," written in 1818 by then-20-year-old Mary Wollstonecraft Shelley, a scientist uses electricity to reanimate a creature constructed from dismembered corpses. The paper describes a cross-disciplinary study, involving chemistry, engineering, literary studies, and philosophy, to use "Frankenstein" as a teaching tool in an advanced placement literature course.

The paper also discusses a text analysis of 89 student papers written about "Frankenstein," saying that the students focused on the sad condition of the creature, using it as an allegory of discrimination. The paper also provides educators with approaches to make connections to concepts of electrochemistry through the novel.

The high school students involved in the study also attended a seminar and panel



discussion on LTU's campus called "Frankenstein Today," which discussed key connections between Frankenstein and current superhero and sci-fi films such as Marvel Studios' "Black Panther" and the "Avengers" series.

Collaborating in the paper were Paul Jaussen, Daniel Shargel, and Franco Delogu, faculty members in LTU's Department of Humanities, Social Sciences and Communication; Eric Meyer of the LTU Department of Biomedical Engineering; and Sibrina Collins, executive director of LTU's Marburger STEM Center. Other co-authors were Lorri Lewis, advanced placement English teacher at University High School Academy in Lathrup Village, and Michael Scrivener, English professor at Wayne State University.

Said Jaussen: "The article is truly collaborative, reflecting the expertise of all of the authors. You can see literary history, biochemistry, ethics, pedagogical theory, textual analysis, and, perhaps most importantly, the work of student writers. It was a pleasure seeing the dialogue between the disciplines and institutions."

This is the third paper Lawrence Tech faculty have published using pop culture to engage students. □MR

3D printing brought to Detroit middle school

On Nov. 20, Sampson-Webber Leadership Academy in Detroit held its annual Curriculum Night, which gives parents a chance to see what their children are learning and what is new at the school. This year, Lawrence Technological University's Marburger STEM Center was in attendance to introduce a new 3D printer to the Sampson community.

The 3D printer, a FlashForge Finder, was donated by LTU's Marburger STEM Center with funding from the Metro West Chapter of Credit Unions, part of the Michigan Credit Union League. In addition to the printer, Lawrence Tech also donated four laptops to the school. The intent is to incorporate more cutting-edge technology, such as 3D printing, into the classroom to spark excitement about STEM (science, technology, engineering and mathematics) and design fields to further expand the student technological skills.

Now commonly used in such industries as automotive, aircraft, and dentistry, 3D printing is becoming more universal and can be used to solve real-world problems. For example, 3D print-

ing technology can build parts for homes, and in the medical field to create 3D printed organs, which hold the potential to eliminate organ donor waitlists and immune compatibility.

Besides preparing them for future careers, 3D printing helps students become more innovative and creative problem solvers. K-12 teachers can create hypothetical problems and have students use 3D printing to solve those problems. Art teachers could ask students to design

plastic pottery or other 3D art, or create models of famous buildings and works of art. Academic departments that receive little funding for classroom and learning materials, such as anatomical models, could simply create and print their materials for a fraction of the cost. Even theater departments can create props at a low cost.

Sampson-Webber students already had many ideas of objects they plan to create, ranging from model cars to jewelry. □MR

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Lawrence Technological University

LTU finishes third in concrete toboggan 'King of the Hill'

Lawrence Tech is the only United States team allowed to compete in the Great Northern Concrete Toboggan Race, a student-managed competition held each year in Canada. The 2020 sled turned heads with its appearance—and its performance on race day.

LTU's Concrete Toboggan team had been working on the sled since early in the 2019 school year. This year's theme was "Lawrence Tech and the Model T-Bog." LTU had the largest team in the history of concrete toboggan with 16 members. This allowed for the toboggan to be completed ahead of schedule.

The toboggan was built with great attention to detail and resembled a real Ford Model T. The team included components such as a working horn and lights, fenders, and 3D printed wheels. The team's technical exhibit consisted of a 1920s speakeasy with a bar and door. The Model T-Bog was showcased with stanchions around the toboggan and a red carpet beneath to draw attention to its design.

The superstructure frame consisted of steel tubing and fit five riders comfortably. Mechanical systems consisted of a rack and pinion steering system and shock absorbers on the front skis. The braking system consisted of a large rake that is dropped down by gravity when braking was required.

Team members fabricated 16 different skis in order to prepare for a wide variety of snow conditions, including packed, slushy, fluffy and icy. They first tested quarter-scale, 3D printed preliminary designs of their skis before creating large foam CNC molds. The concrete skis were designed to be both light and strong in order to meet the com-

petition's weight and strength requirements. The skis were then wet polished and waxed for a smooth finish.

At the competition, many were awestruck by the overall look of the toboggan, as well as the technical components, structure, and ski design. The toboggan also made history by having a working car horn and headlights while going down the hill. The Canadian schools constantly supported and cheered the LTU team on, chanting "USA!" at



every opportunity. Overall, the team finished third in the "King of the Hill" competition for fastest sled speed, and fourth on race day.

The LTU Concrete Toboggan team dressed up for the presentation portion of the competition, along with their striking sled.

The team appreciated the help of many sponsors, as well as driver Ray Ziegler, and Professor Edmund Yuen, chair of the Department of Civil and Architectural Engineering.

LTU is looking forward to preparing for GNCTR 2021 in Calgary, Alberta.

The Model T toboggan was featured in the Feb. 27 online newsletter of the American Concrete Institute. □AS



The team gathers around the Model T toboggan after a successful run down a ski hill in Toronto.

Timmons lectures on the discovery of the drug Warfarin

Shannon Timmons, associate professor of chemical biology in the College of Arts and Sciences, delivered an online lecture in May titled "The Story of Warfarin: A Midwestern Drug Discovery Tale," to the Detroit Local Section of the American Chemical Society.

The lecture traced the development of the anticoagulant drug Warfarin, an analog of a naturally occurring chemical

Shannon Timmons (left) in the lab.

that was discovered at the University of Wisconsin in the 1940s.

The lecture was part of "Brewing Chemistry," a program of the section's Younger Chemists Committee that is



designed to make science fun and accessible for all.

Timmons chairs the ACS Detroit Local Section. □MR

Students look to solve future problems in federal 'Grand Challenge'

Four students won top prizes in a federally sponsored research competition to help solve some of the "Grand Challenges" of civilization in the 21st Century.

The Grand Challenges of Engineering program was developed by the National Academy of Engineering and top engineering schools out of the NAE's 14 Grand Challenges for Engineering to educate a new generation of engineers expressly equipped to tackle some of the most pressing issues facing society. The challenges are advancing personalized learning, making solar energy economical, enhancing virtual reality, reverse-engineering the brain, engineering better medicines, advancing health informatics, restoring and improving urban infrastructure, securing cyberspace, providing access to clean water, providing energy from fusion, preventing nuclear terrorism, managing the nitrogen cycle, developing carbon sequestration methods, and engineering the tools of scientific discovery.

Lawrence Tech is one of only two engineering schools in Michigan to implement the Grand Challenges Scholars Program—and the only university in the country to include humanities majors in the effort, according to Jason Barrett, chair of the Department of Humanities, Social Sciences, and Communications in LTU's College of Arts and Sciences.

"The problems of the 21st Century are too big for people in any one field to solve," Barrett said. "Solutions will come only through working across disciplines, including engineering, the sciences, entrepreneurship, and design."

At Lawrence Tech, first-year humanities students taking a

required class in "Pathways to Research Careers" were asked to design a research project that would help someone in their major solve one of the Grand Challenge's 14 problems facing society. Second-year engineer-

ing students taking a course in entrepreneurial engineering also participated. LTU faculty and outside experts voted the following four winners out of nearly 100 entries:



Jessica Clore, a chemistry major from South Rockwood, explains her research to robotics laboratory instructor James Kerns. (Pre-COVID photo.)

• Grand Prize, Provost's Grand Challenge Research Award:

Cole Higley, a molecular and cellular biology major from Oakley, who investigated the effects of genetically modified foods on dental health.

• **First Place, Health:** Edward Dopkowski, a molecular and cellular biology major from Washington Township, who designed a phone app for monitoring caloric intake.

• **First Place, Technology:** Dylan Karges, a physics and computer science major from Macomb Township, who investigated the impact of artificial intelligence on employment trends.

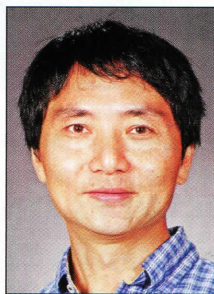
• **First Place, Sustainability:** Jessica Clore, a chemistry major from South Rockwood, who measured the impact of biofuels on environmental emissions. □MR

Better testing for better heart surgery wins Heart Association grant

A Lawrence Tech professor has won a two-year, \$151,734 grant from the American Heart Association to develop a better way to test lab-grown blood vessels.

Jinjun Xia, assistant professor in LTU's Department of Electrical and Computer Engineering, won the Institutional Research Enhancement Award from the AHA.

Every year, hundreds of thousands of patients undergo coronary or peripheral artery bypass surgery. Bypass surgery currently requires harvesting blood vessels from the same patient, causing additional injury, while synthetic vessels are prone to cause blood clots. A promising



Jinjun Xia

alternative is tissue engineered blood vessels, or TEBVs, where a patient's own cells are used to grow new blood vessels on special scaffolding. TEBVs have to be tested for strength before use, however.

And current testing technology is limited to techniques that destroy the vessel, an expensive and time-consuming process.

"The technique to grow these vessels is understood, but there is no nondestructive way to measure their mechanical strength, to measure the stresses those vessels will undergo in the human body," Xia said.

Xia proposes to use a combination of ultrasound to create

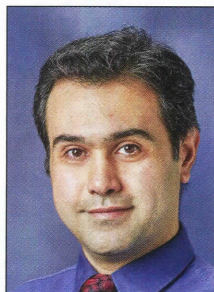
forces similar to those the vessel will experience inside the body, and laser imaging to capture the effect of those forces, to test the vessel's strength without destroying it.

Similar technology also developed by Xia is currently used in the aerospace industry to test carbon fiber composite materials used in aircraft.

The testing project will use undergraduate students to assist in the research, drawn from LTU's electrical and computer engineering, biomedical engineering, and nursing programs. Added Yawen Li, chair of the LTU Department of Biomedical Engineering: "Biomedical engineering faculty and students are developing a variety of tissue engineered constructs such as the ligament, cartilage and blood vessels." □MR

Studying bats to build a better flying robot

Nature has long been the inspiration for human invention. And in the case of Hamid Vejdani, assistant professor in LTU's A. Leon Linton Department of Mechanical, Robotic and Industrial Engineering, that means studying how bats fly to build a better flying robot.



Hamid Vejdani

Vejdani is working with colleagues in the biology departments of Brown University and the University of Colorado on the project.

"Specifically, we will focus on bats' movement abilities and maneuverability

as they are engaged in insect hunting in the wild, since that is where they show their best performance to catch the prey that they need for their survival," Vejdani said.

LTU's portion of the three-year grant is \$114,634. With the funding, LTU students will simulate

and analyze bat movements in nature that will be provided by the Brown and Colorado collaborators. "After that, we plan to build bat-inspired robotic pro-

totypes to test our hypotheses," Vejdani said. "We will design controllers for those robotic prototypes and test them to compare their maneuverability with the recorded motion from actual bats in the wild." □MR



In flight, few creatures can match the maneuverability of the bat—in this case, Townsend's big-eared bat, *Corynorhinus townsendii*.

Photo from the National Park Service via Wikimedia Commons.

DENSO gift to help biomedical engineering, chemistry

DENSO, a global mobility supplier with North American headquarters in Southfield, has donated a laboratory system that will help LTU's biomedical engineering students, and students in other programs, identify and characterize materials.

The Fourier Transform Infrared Spectroscopy unit will be used in tissue engineering, advanced biomaterials, biochemistry and natural science classes, according to Yawen Li, department chair and associate professor of

LTU's Department of Biomedical Engineering. The value of the unit is \$25,000, she said.

FTIR machines are used in infrared spectroscopy, a technique used to characterize materials by shining infrared light on them and analyzing the resulting reflections and absorptions. It can be used on solids, liquids, or gases, and collects high-resolution data over a wide spectral range. The term Fourier is used because a mathematical operation called a Fourier transform is

used to convert the raw data to a useful spectrum.

"DENSO cares deeply about supporting the communities in which it operates and helping tomorrow's leaders learn and grow," said John Baciak, director

of Material Engineering, DENSO. "That's why we're thrilled to make this donation and, hopefully, play a small part in helping LTU students get the most out of their education." □MR

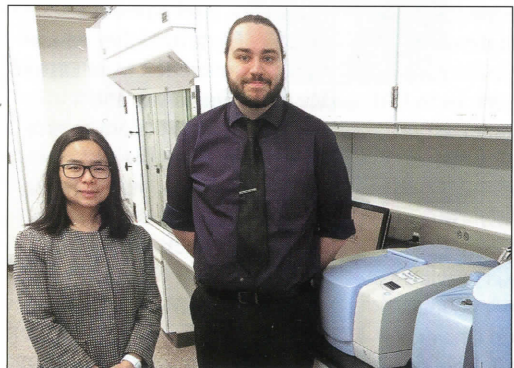
Students help Truck-Lite with vehicle communication

Troubleshooting problematic data transmission that occurs occasionally over the cellular network was the aim of a collaboration between Lawrence Tech and the transportation industry safety and visibility systems manufacturer Truck-Lite Co., LLC.

LTU students Naim Shandi and Brendan Parker used their own vehicles as test subjects for the Truck-Lite Master Control Units being studied, and suggested ways that communication about vehicle location and status could be made more reliable. The project took up part of two semesters, under the supervision of principal investigator Nabih Jaber, associate professor

and chair of the Department of Electrical and Computer Engineering, and co-PI George Pappas, assistant professor in the department.

More collaboration with Truck-Lite would appear likely. The company is moving its headquarters to Southfield from western New York state, and is investing \$4 million in a new building, within a few hundred yards of LTU's campus. Truck-Lite is a global leader of safety lighting and fuel filtration systems for commercial and off-highway vehicles, with manufacturing facilities in the United States, China, Mexico, and the United Kingdom. □MR



Yawen Li, biomedical engineering department chair and associate professor, along with John Peponis, senior lecturer and project engineer, with LTU's new FTIR equipment. (Pre-COVID photo.)

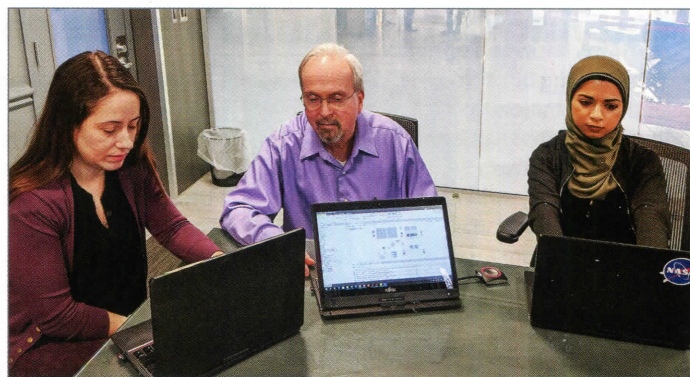
LTU wins USCAR grant

Lawrence Tech has won a \$54,000, one-year grant with USCAR, the United States Council for Automotive Research, a joint effort of General Motors, Ford, and Fiat Chrysler Automobiles founded in 1992.

Selin Arslan, associate professor of mechanical engineering and associate dean for undergraduate programs, is principal investigator on the grant, and Gary Lowe, senior lecturer in

electrical and computer engineering is co-PI. The grant was awarded in November 2019. The project is for USCAR's Electrical Power Systems Working Group to evaluate, via a simulation study, the fuel economy impacts of substituting certain non-powertrain 12-volt components with 48-volt components on a simulated mild hybrid vehicle.

Also involved in the project is a student research assistant, Naim Shandi, BSECE'20. □MR



Selin Arslan (left), associate professor of mechanical engineering, with Gary Lowe, senior lecturer in electrical and computer engineering, and Naim Shandi, BSECE'20, go over their USCAR research plan. (Pre-COVID photo.)

New faculty member designs virtual reality gear to train roofers in safety

Ahmed Al-Bayati has seen the grim statistics: More construction workers die in falls than in any other type of building-related accidents. And roofers, not surprisingly, suffer the most fatal falls.

Al-Bayati, assistant professor of civil and architectural engineering who joined the LTU faculty in 2019, said part of the problem is that a lot of the training for roofers "has people building roofs on the ground," which means even if they aren't careful

about safety, nobody gets hurt.

Al-Bayati has a solution: He's working on a virtual reality training system for roofers that will more closely resemble the real workplace, impressing upon beginning roofers the importance of following OSHA safety regulations. Al-Bayati has already developed the training software, and in spring 2020 was working on assembling the hardware.

Al-Bayati has more than 10 years of experience in the construction industry working in

roles from safety coordinator to site engineer. He earned his PhD in construction management from Western Michigan University. He conducts research in the field of construction

safety, specializing in safety climate and safety culture, safety training, safety management, and overall process optimization. □MR

LTU names director of diversity, equity, and inclusion

Caryn Reed-Hendon has been named director of diversity, equity, and inclusion at Lawrence Technological University.

"This is a new position and reflects our firm commitment and desire to improve services and programs in diversity and making the campus welcoming to all," Lawrence Tech President Virinder Moudgil said in a statement announcing the appointment. "Dr. Reed-Hendon comes to LTU with remarkable career experiences and accomplishments. She has taught and published extensively about diversity and inclusion issues."

Reed-Hendon was previously director of diversity and inclusion for the Oakland University William Beaumont School of



Caryn Reed-Hendon

Medicine. Earlier, she was assistant director of orientation programs at the University of Michigan-Dearborn. And early in her career, she worked in the career services office at Lawrence Tech.

Reed-Hendon earned a PhD in educational leadership from Oakland University, after earning a Master of Arts in higher education administration from Eastern Michigan University and a Bachelor of Arts in communication studies from the University of Michigan-Ann Arbor. Among her professional honors: the 2015 National Emerging Leader Award from the National Association of Medical Minority Educators.

Notable Women in Design *Continued*

community, which allows entrepreneurs to test and sell their products, as well as for a solar-powered streetscape installation in southwest Detroit. She was named 2019 AIA Detroit Young Architect of the Year. She earned her Master of Architecture degree from LTU. She is also director of marketing for NOMA Detroit.

Also named to the list were LTU alumnae Rebecca Barry, manager of architecture at

the Dearborn-based engineering and design firm Ghafari Associates LLC; Saudra Little, principal at the national architecture firm Quinn Evans, with offices in Detroit and Ann Arbor; Lisa Sauve, principal and co-founder of Synedoché, a design-make architecture studio in Ann Arbor; and Kiana Wenzell, director of culture and community at Design Core Detroit, a Detroit nonprofit that champions design-driven businesses. □MR

Continued page 31

Two ASHRAE grants have students researching environment, sustainability

A trio of LTU students are helping Liping Liu, associate professor in LTU's A. Leon Linton Department of Mechanical, Robotics and Industrial Engineering, in "Assessing the Impacts and Value of ASHRAE's Standards and Technology." That's the title of the \$84,775 grant from the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) that Liu won last year.

It's one of two ASHRAE grants Lawrence Tech worked on during the 2019-20 academic year.

ASHRAE is a global society focused on advancing human comfort and health in the built environment. It serves the industry by sponsoring research, developing standards, and providing training and education programs and resources. Three students in mechanical

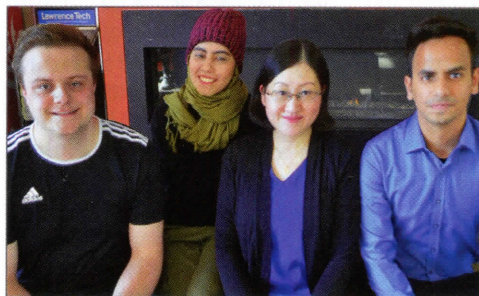
engineering—two grad students and one undergraduate—are currently working on the project with Liu. The team assessed ASHRAE's contribution and impact from five different aspects: ASHRAE's impact on building energy efficiency; on human health and comfort; on environmental aspects; on industry and commerce; and on engineering education.

"ASHRAE is one of the most renowned organizations that works for a better and sustainable future," said Zahra Habib, MSME'20. "Being a grad student at Lawrence Technological University, working on an ASHRAE Impact Project was an exceptional opportunity for me to learn and grow as a researcher. The project not only helped me with my analytical skills but also taught me how much the world has changed and how

new methods are being developed every day to make it more ecologically stable."

The second ASHRAE grant is a classroom heat-exchanger demonstration, awarded to Liu under

These three graduate students, Brent Bartone (left), Zahra Habib (second from left) and Kinshuk Makhija (right), are working on a review the impact of ASHRAE standards with Associate Professor Liping Liu. (Pre-COVID photos.)



the ASHRAE Undergraduate Program Equipment initiative. A team of five undergraduate students is working with Liu to design and build a portable heat exchanger that can be taken to classrooms to demonstrate how the scientific concepts of heat exchange work.

The students are enthusiastic about the project. Said Matt Quigley, BSME'20: "The heat exchanger demonstration project offers the opportunity to learn about a topic relevant to many aspects of engineering through a hands-on, collaborative approach," he said. "Future students can hopefully leverage the result of our work to help bolster their understanding of the subject for years to come." □MR

Professor's paper an honorable mention for prestigious marketing award

Swati Verma, assistant professor of marketing in the College of Business and Information Technology, had one of her papers selected as an honorable mention for the William R. Davidson Award in the *Journal of Retailing*, the oldest peer-reviewed journal in marketing with a high impact factor by academic measures.

The article examines the two different kinds of price guarantees available in most retail stores—a low price guarantee and a price match guarantee.

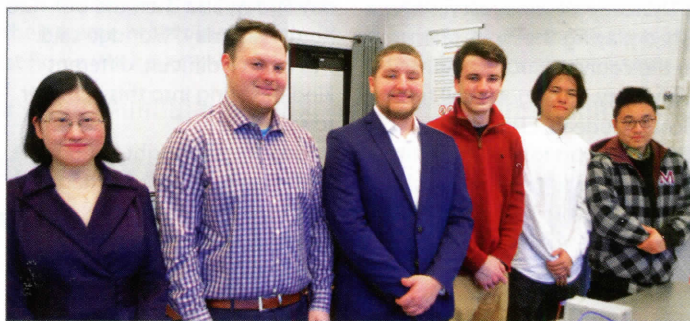


Swati Verma

The article, "Are low price and price matching guarantees equivalent? The effects of different price guarantees on consumers' evaluations," was published in September 2019 and examines how consumers perceive these two different

kinds of price guarantee.

The William R. Davidson Award is given annually to authors of the leading articles in the field of retail marketing that are published in the *Journal of Retailing*. □MR



This team of undergraduate students is helping LTU Associate Professor Liping Liu (far left) design and build a portable heat exchanger unit for classroom demonstrations of the process of heating and cooling. From left to right are Mitchell Morley, Jason Klebba, Matthew Quigley, Dingfu Chen, and Han Zhou.

Director of diversity *Continued*

Reed-Hendon said that at Lawrence Tech, "I definitely hope to bring more understanding of how important diversity, equity, and inclusion is to the work that we all do. That's inclusive of science, technology, engineering, math, the arts, everything. Also, through my work, I want to make Lawrence Tech a uni-

versity that attracts individuals who want to do more in this particular arena as it impacts every facet of our lives. If everyone works together and we all get on the same page, we can become a leader in progressive diversity, equity, and inclusion solutions." □MR

Student-athletes, coaches adjust to cancelled spring competition, uncertainties ahead

Things were looking up this year for the Lawrence Tech Blue Devil baseball team.

It was spring break, the team was in sunny Florida, and off to a 10-7 start against upgraded competition a year after the team set a school record with 34 wins. "We thought we had a great year ahead of us," head coach Stan Eldridge said.

But the headlines were full of news about a novel virus rapidly spreading across the nation, with death and disability in its wake. The only way to slow down a full-blown pandemic? Ban crowds and limit travel. And that's just what colleges and universities in the National Association of Intercollegiate Athletics (NAIA) began doing the second week of March.

Recalled Eldridge: "That was a Thursday. We had just finished playing the No. 1 team in the country, Southeastern University, and I got a call from Scott (Trudeau, LTU athletic director), who told me it looked like things were starting to shut down. We were supposed to be in West Palm Beach Friday and Saturday to play Kaiser University. Later that evening we learned that our games were

cancelled in West Palm. And then Friday was probably one of the more difficult days in my coaching career. That's when we had to tell the entire team, and in particular our 13 seniors, that it appeared the season was going to be shut down in its entirety, which for the seniors meant the end of their careers. It was difficult. There were a lot of tears, a lot of emotions."

Changing travel plans suddenly in a pandemic for a group of dozens of athletes wasn't easy. Eldridge praised both the hoteliers in Florida and Bianco Travel & Tours Inc., LTU's charter bus company of choice, for their flexibility in getting the team home that weekend.

"I think it was somewhat cathartic for the team to be able to sit around and talk that whole day Friday, and then the bus ride home Saturday," Eldridge said. "It's been a difficult, different kind of spring into this summer, to say the least."

Eldridge said eight of LTU's seniors are taking advantage of an extra year of eligibility granted by the NAIA due to the pandemic, which could bring the size of next year's roster to 50 players. "It does create a bit

of a logjam, but I'd much rather have that than be short on guys," he said.

Eldridge also praised the character of his team. "It's a really good group of guys to be around, which makes coaching much more enjoyable, and not just athletically," he said. "We finished this semester with a 3.45 team GPA. We've gone up every year in GPA and our guys are graduating, so not only are these guys good athletes, they're really committed to academics."

For Mary Ann Meltzer, coach of LTU's highly successful women's lacrosse team, it was also heartbreak on the cusp of a promising season. The team was 5-1, playing a season that started Feb. 15.

Then came the team's Spring Break trip to the south when the pandemic hit and everything shut down. "We were in South Carolina, on the bus to go play the No. 1 team in the country, and I got a call from their coach saying we have to cancel the game," she said. Shortly thereafter, a similar call came from LTU Dean of Students Kevin Finn.

"Everyone was pretty upset," Meltzer said. "We were on a roll. We had just beat the No. 3 team

in the country pretty handily, and everyone thought we could contend for a national championship, without a doubt. The fact that we were connecting and getting along so well as a team was the really big disappointment."

Meltzer said the team continued to conduct virtual meetings over Zoom during the lockdown, with players getting encouragement to continue strength training and lessons on leadership from officials with the Wolverine-Hoosier Athletic Conference and LTU business professor Jacqueline Stavros.

For now, the team won't play any of its usual fall scrimmages against other schools, and will return 23 players for the spring 2021 season. Three seniors on the team were given an extra year of eligibility, but Meltzer said all three so far have declined, opting to concentrate on their careers.

For head men's basketball coach Josh Pickens, the season was at a different point when the pandemic hit—having just concluded a 10-17 season.

"Our season was complete, and I was in Sioux Falls, South Dakota working at the NAIA national tournament," Pickens said. "We were looking to crown a national champion and on the second day of the tournament,



LTU beats UM: The final score of the most famous victory in Lawrence Tech baseball history over the University of Michigan-Ann Arbor in March 2018.



The LTU women's lacrosse team comes off the field after a goal.



The Blue Devils celebrate another win on the diamond.

things got shut down. So I had the 'privilege' of telling teams that were about to take the floor that their seasons were over. That was pretty unique."

Pickens and staff immediately contacted the members of the LTU team, "making sure they had plans to stay home and stay safe. The week before everything went haywire, we had individual meetings with our returning players, we had weight work and skill work set up for them for after spring break. With a young team, spring and summer work are keys to their development."

Obviously, those plans didn't materialize, and Pickens and staff have used virtual meeting technology to both meet with the team as a whole and check in regularly on individual players.

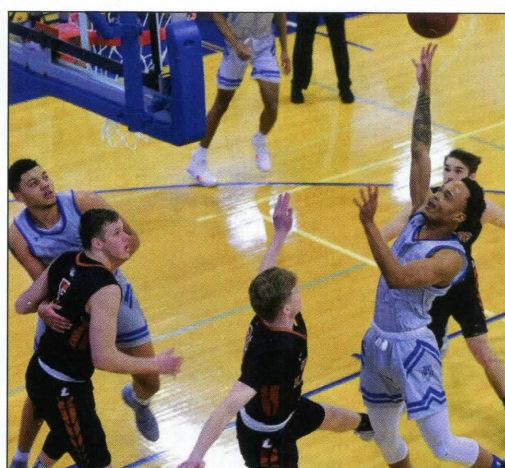
"We have people being very creative in working out on their own," Pickens said. "We face-time with our guys very often, nothing to do with basketball, just checking in on how they're doing."

Pickens said LTU is in the unique position of returning every single player for the 2020-21 season—the team had zero seniors. Even this year, the team will have only one senior.

"We're young, super young—that's why I've got this gray in my beard," he said. "But I've been

really impressed and proud of our guys and the way they've handled this."

All the coaches praised how LTU's administration handled the uncertainties of a pandemic. "I talk to a lot of coaches, and I have to tell you about Lawrence Tech," Eldridge said. "From the president to the provost to Scott (Trudeau), they have really stepped up and taken the lead and not panicked in their decisions. They have made it much



LTU's Ty Searles soars over the Lourdes University defense to put up a shot in this game action from 2019.

better for us as coaches and students. They've done a really good job. I think we're out front of a lot of things."

Athletic Director Scott Trudeau summed up the lockdown period: "Everyone was looking for answers, motivation and just another person to talk to and see, even if it is on a computer screen. Some coaches had fitness challenges they have given their teams, others just had their at home workouts given by

our Strength and Conditioning Coach Brian Whiting and his assistant Kyle Benkarski." □MR

...

Editor's Note: LTU fall sports have been postponed to spring semester as of this writing. The NAIA Council of Presidents voted to postpone the NAIA Football Championship Series to spring 2021. This decision came after the council voted to postpone championships in all other fall sports until spring. In coordination, the Mid-States Football Association will move the league schedule to the spring semester. For the latest news on LTU athletics, visit www.ltuathletics.com.

LTU promotes defensive coordinator to head football coach

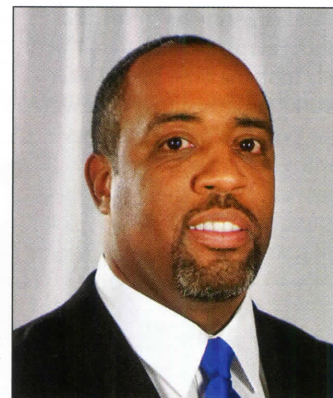
Avante D. Mitchell, defensive coordinator of the LTU football team, was promoted to head football coach in January. Mitchell, who joined the LTU coaching staff last year, had also served as recruiting coordinator for the LTU program.

Mitchell has 18 years of football experience. A graduate of St. Martin De Porres High School in Detroit, Mitchell played at NCAA Division I Louisville and Division II Wayne State University, and had coaching assignments at Northwood University, Taylor University, and Concordia University. He has also had coaching experience in high

school all-star games and prominent player camps.

Said Lawrence Tech President Virinder Moudgil: "LTU is confident that Coach Mitchell has extensive experience at the NAIA level to take the football program in the right direction."

Lawrence Tech announced the addition of football as a varsity sport in 2017. The team played a limited schedule in the fall of 2018 and played its first full varsity schedule in the fall of 2019. The Blue Devils play in the Mid-States Football Association, a conference in the NAIA. LTU also constructed the first phase of a new, 2,300-seat stadium on Ten



Avante Mitchell

Mile Road just west of the Lodge Freeway in 2019 for its football, men's and women's soccer, and men's and women's lacrosse teams. □MR

Alumna raises anchor as Coast Guard volunteer

Anne Wright, MEMS'99 is one of those people who you'd swear has packed about 16 lifetimes into one life. Multiple college degrees, multiple careers, private pilot, and now she's sailing both the high seas and the Great Lakes on Coast Guard vessels—as the culinary specialist!

Wright, a Detroit native, graduated from Oak Park High School in 1967, earned a Bachelor of Arts in humanities from Wayne State, and went to work in her father's hardware store.

"I wanted to go into engineering, but I was told girls don't do that," she said. It wasn't until Anne was in her 30s that she realized she could make her own career decisions. She enrolled in engineering at Wayne State, but then came calculus, and trouble.

A friend of Anne's was studying at Lawrence Tech and told her LTU had a better math department. That (and a positive attitude) was all it took for Anne to transfer.

At LTU, Anne met Professor Ruth Favro, who she states "actually took the time to look at my work." Together, they discovered the problem Wright was having and a path that set her on a course to understand and pass the calculus class. "I was able to find out what was going wrong because of that one teacher who cared," she said.

Wright accomplished more than math and a future engineering degree at LTU. She also met her husband Tim. "We met in a thermodynamics class in 1983 and got married in 1984," she said. "It was a whirlwind, but we both knew we were meant to be together."

When Tim graduated, they moved to Florida for his job at Pratt & Whitney. Anne was disappointed she couldn't finish her degree at LTU, but was deter-

mined to do so. She graduated from Florida Atlantic University in 1986.

Living in Florida didn't appeal to either Tim or Anne so they moved to Columbus, Ohio, where Tim got his master's degree and Anne got a job at the Battelle Laboratory running a scanning electron microscope. Soon the couple was on the move again, to Columbus, Ind. where they both worked for Cummins. During this time Wright rekindled her childhood love of flying (she was in the Civil Air Patrol in high school). Anne took lessons with Tim's enthusiastic approval.

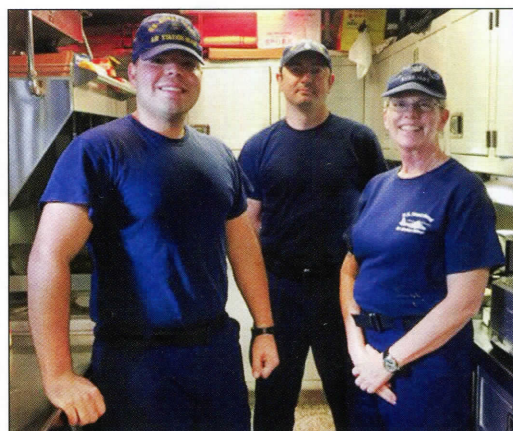
After a layoff at Cummins, the couple wound up back in Detroit, both working for Ford Motor Co. It was 1999 and Anne finally fulfilled her dream of graduating from LTU with a Master's degree in manufacturing engineering systems.

Their move back to Detroit also allowed Anne to join a flying club in Ann Arbor, and eventually Tim bought her a Piper PA18 Super Cub. Anne fondly recalls how she and Tim flew all over the Midwest in that plane.

Then came 2006, a year which Wright somberly confided was the worst of her life. Corporate lay-offs for both she and Tim, two close relatives' deaths, her own brush with death in an auto accident, a friend's passing in a plane crash, and then the harshest of life's setbacks: her husband's sudden passing.

For anyone other than Anne, it would have surely been too much, but with her determination and belief that Tim would have wanted her to live with gusto, she moved forward. Anne retired from 9-5 work life and carried on by living life to the fullest.

She joined the Wolverine



Anne Wright (right) with crewmates onboard the Coast Guard Cutter Joseph Tezanos. (Pre-COVID photos.)

The drugs seized by the Coast Guard Cutter Joseph Tezanos with its crew—Anne Wright is right in the middle.



Sports Club Speed Skating Team, learned to quilt, and began "rucking" (walking with a weighted backpack for exercise). However, Anne was still looking for that one hobby that was truly fulfilling. At first she found it flying on search and rescue missions over the Great Lakes with the Coast Guard Auxiliary. Then she heard about a food service class for auxiliary volunteers in 2017. Before she knew it she was cooking Thanksgiving dinner at Station Belle Isle. The following Tuesday, she was on a plane to San Juan, Puerto Rico to board a Fast Response Cutter with 18 crew on board.

That mission exceeded every expectation Anne could have imagined. It featured the largest drug interdiction in that sector in 20 years and the rescue of a woman trying to get to Puerto Rico from the Dominican Republic in a boat that capsized. "It was such an exciting time. I got home, and I was bored, so I

asked to be sent out again!"

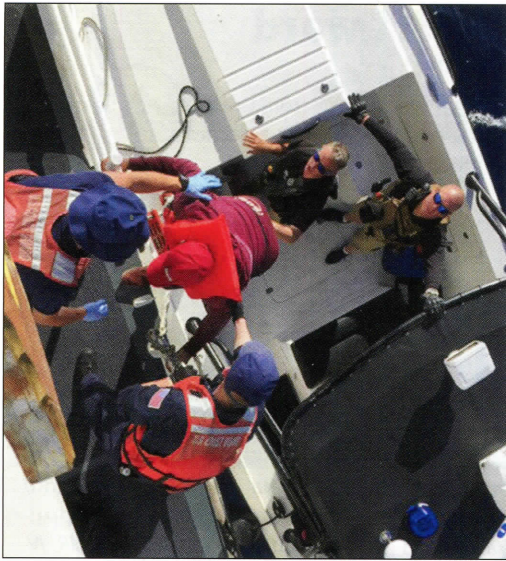
In 2019, Wright worked on Coast Guard vessels in the Great Lakes, including stops in St. Ignace, Traverse City, Charlevoix, Sault Ste. Marie, Marquette, and Duluth, Minn.

Wright is also working with Coast Guard Academy admissions staff, interviewing potential students. Of her Auxiliary service she said, "I haven't met anyone on active duty with a bad attitude. Coasties love their jobs."

Wright also noted that "Most of today's Coast Guard cutters have women's quarters; another example of the increasing integration of women into the armed services." She says that's something she's worked for her entire life. "I grew up the eldest of four girls, all working in a hardware store. At home, there were no boy jobs or girl jobs, there were only jobs. That was what I was used to. But when I

Continued

Coast Guard volunteer *Continued*



Anne Wright captures a photo of a rescue at sea from the Coast Guard Cutter Joseph Tezanos.

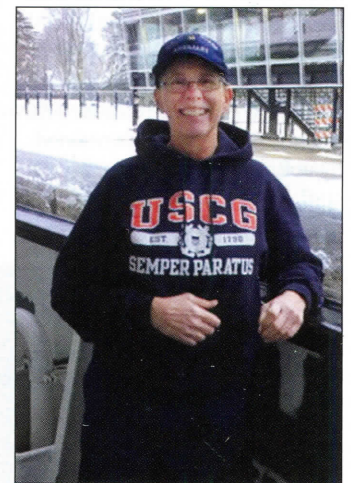
got out into the world I experienced so much division."

Due to the pandemic, the Auxiliary was shut down in mid-March except for online meetings and training. Its annual conference was postponed from March to September and then canceled. Some limited activities, such as air and surface patrols and vessel examinations, have resumed, and Auxiliary members are back at work with active duty Coast Guard crews, with preparation and restrictions. □MR



The Coast Guard Cutter Joseph Tezanos in port in San Juan, Puerto Rico.

Anne Wright transiting the wintry Soo Locks aboard the Coast Guard Cutter Alder.



Anne Wright cooking aboard the Coast Guard Cutter Alder.

Stefani named to Crain's '20 in their 20s'

Christopher L. Stefani, BSA'14, BIA'14, MAR'16, was named to the 2020 list of '20 in their 20s' early career high achievers in the May 4 edition of *Crain's Detroit Business*.

Stefani is associate director of LTU's Detroit Center for Design + Technology. He started in this role in 2017 to coincide with the launch of DCDT's Design Incubator service, funded by the Hudson Webber Foundation, after four years of working for the University in other roles. As associate director, he developed the DCDT's space rental and

co-work programs, and secured in-kind contributions of products from the Michigan-based furniture companies Haworth Inc., Herman Miller Inc., and Steelcase Inc.

Stefani also helped develop the DCDT's extensive outreach work with the Detroit Public Schools Community District, starting with a single art class at Denby High School in 2015. Now, the program includes numerous dual enrollment programs at a growing number of schools. More than 60 percent of the students who participate in

these programs go on to college.

Stefani told *Crain's* he can identify with struggling students, having worked through his own learning issues with attention deficit disorder and dyslexia.

Stefani also has his own practice, the C.L. Stefani Co., founded in Detroit in 2016.

At DCDT, Stefani has also forged partnerships with organizations such as Detroit Future



Christopher Stefani (standing) with students at the DCDT.

City, the Educational Achievement Authority of Michigan, the American Institute of Architects, the National Order of Minority Architects, and more. □MR

Alumni-led Affleck House restoration wins AIA award

Lawrence Technological University's decade-long effort to restore a Bloomfield Hills home designed by Frank Lloyd Wright has received a 2020 Honor Award from the Michigan chapter of the American Institute of Architects (AIA).

The Affleck House, designed for automotive paint entrepreneur Gregor Affleck and his wife Elizabeth, was donated to LTU in 1978 by the Affleck children Gregor and Mary Ann Lutomski. Throughout the 1980s and 1990s the house was well-maintained by volunteers and University staff, but by 2010 the home needed major renovations.

LTU former College of Architecture & Design dean, Glen LeRoy, FAIA, created the Affleck House Restoration Council in 2010 with recipients of the College's Distinguished Alumni Award, LTU faculty, staff and volunteers. Over the next 10 years, the committee completed several major projects by holding fundraisers and enlisted the support of professional contacts, involved landscaping experts to examine and clear the property, engaged students, alumni and Frank Lloyd Wright aficionados to help in a variety of ways, and even reinstated the Saturday tour program.

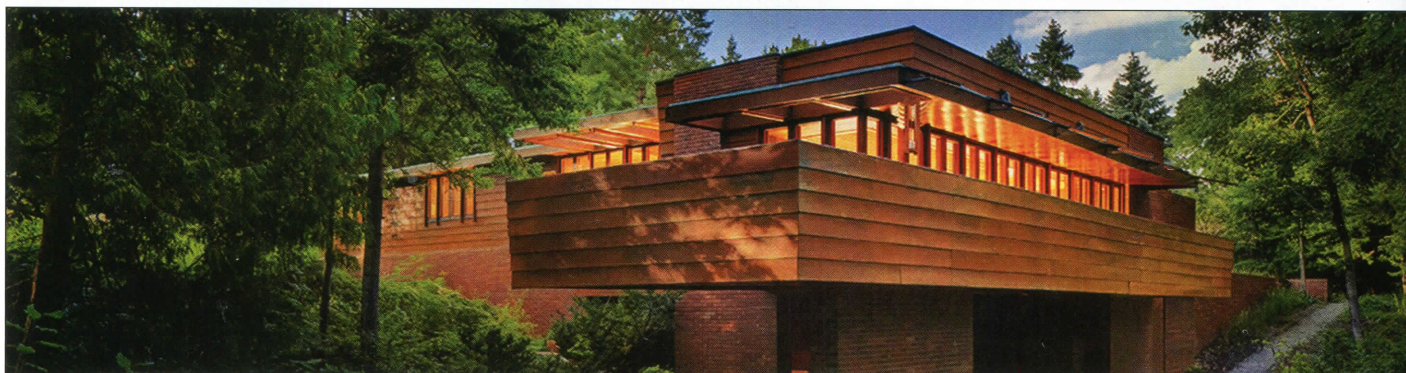
With all of this success, it was fitting the Affleck House be considered for an award. The lengthy application was submitted by Restoration Council members Ben Tiseo, FAIA, BSAr'71; Fred Butters, BSAr'83, BA'84, MA'15, FAIA; and council chair Deirdre Jimenez, BSAr'83, BSIA'85, AIA, AISD.

The AIA awards jury, comprised of AIA member architects from around the country, called the restoration effort "a loving, meticulous, and respectful preservation of a Frank Lloyd Wright Usonian house," a project that "carefully applies modern building science to maintain and

restore the building's character, while accommodating its new functions."

Work by the Affleck House Restoration Council and friends of the Affleck House continues.

To donate to the restoration effort, please contact Lawrence Technological University's office of Advancement at 248.204.2300. Tours of the Affleck House are still being scheduled. To check the latest information, visit www.ltu.edu/architecture_and_design/places_affleck_house.asp. □MR, JV



Affleck House

Teacher, engineer wins second Petty Community Champion Award

A veteran high school teacher and leader in the engineering community was honored with the second annual John G. Petty Community Champion Award.

Monique Lake, BSETM'00, has taught biology, chemistry, physics, forensic science, and other science subjects over a 13-year teaching career, and is currently a chemistry and physics teacher at Harper Woods High School. She also tutors and mentors young people, and serves on the board of the Michigan Virtual

Charter Academy, where she was 2018 vice president and leads its academic committee.

Lake, a Detroit native, is also a graduate of Bishop Borgess High School and Eastern Michigan University. Before starting her teaching career, she worked as an engineering sales assistant, human resources training and development coordinator, and web developer.

She joined the National Society of Black Engineers (NSBE) student chapter at LTU, and

has served in many leadership positions in the Detroit alumni chapter, including vice chair of the Technical Professionals Conference Planning Committee for the 45th NSBE National Convention, held in Detroit in 2019. At that event, she was awarded NSBE Lifetime Membership. She is also past chair of the affiliate council of the Engineering Society of Detroit, and was named an ESD Fellow in 2015.

Lawrence Tech's John G. Petty Award honors an individual who

is positively impacting the lives of the African-American community, on campus and in the surrounding community. It was created by an LTU student committee as part of the University's Black History Month observations.

The award is named after John G. Petty, BSME'65, who passed away Jan. 23. (See obituary, page 45.) LTU president Virinder Moudgil recalled the words Petty said at last year's initial ceremony for the award named after him: "There is a lot to be said for LTU. We beat a lot of bigger universi-

Continued

Champion Award *Continued*



ties that people think are great," Moudgil quoted Petty as saying. "That was the gusto he had. He never accepted that Lawrence Tech was second to anything."

Moudgil also noted Petty's advice to current students – read, widely and often, and never give up their vision. "Where there is vision, there is hope," Moudgil said. "I am so

Monique Lake with President Virinder Moudgil and former Provost Maria Vaz. (Pre-COVID photo.)

pleased that through this award, Mr. Petty lives on at this university, as a champion and as a dear friend."

Lake said after receiving the award: "I'm very honored and thankful, and I hope I can live up to Mr. Petty's vision and inspiration. I knew Mr. Petty personally through working on various events at ESD, and he was always an inspiration to me."

Last year's initial recipient of the award was Tiffany D. Brown, BA'05, MA'07, MBA'15. (See related story, page 38.) □MR

When you see the new Ford Bronco, think LTU

Like a lot of automotive designers, Dan Kangas, BSTD'15, was always fascinated by cars.

"I grew up in a small town in southeast Wisconsin, and I was not raised in the automotive field at all," Kangas said. "A lot of people in the Detroit area have family members who worked for Ford or GM. I didn't have any of that, but I was always interested in cars—how they looked. I liked to go to car shows, I liked to draw them, they always fascinated me."

Kangas was also a district-championship-level bowler in high school. So when it came time to pick a college, he found one that offered both a highly regarded transportation design program and a bowling team: LTU. (Kangas notes apologetically that he had to leave the bowling team after one year because "the design program at LTU was so rigorous. All the studio classes are in the evening, because they're industry-led, and that's when the bowling practices were.")

Kangas interned at Sterling Heights auto supplier JVIS USA

LLC after his sophomore year, where he helped design vehicle interiors, and at Ford Motor Co. after his junior year. Ford offered him a job after he graduated with honors in 2015.

His first Ford project to hit the road was the 2019 Ford Fusion. "That was a good start for me because it wasn't a complete redesign," Kangas said. "It was limited content—I worked on the bumpers, grille, fog lamps, wheels. That was the first car I

worked on that the public could buy."

More recently, Kangas has been working on show, concept, and specialty vehicles for Ford, including a police vehicle lineup, the Mustang Shelby GT500, and the Bronco R off-road race truck that gave the public a peek at the new Bronco, which returned to the Ford lineup in 2020 after a two-decade break.

The Bronco R, he said, "was really interesting because we

were designing it in Dearborn, and it was being fabricated in Arizona. To have them fabricating things with hammers and torches, and us in the studio with state-of-the-art CAD tools, was an interesting mesh of thought processes. In the end it was a really awesome looking truck, a highlight program for me to work on so far. I don't know how you top a race truck."

Kangas also worked on a one-of-a-kind Ford Raptor truck designed with cues from the F-22 Raptor fighter jet that was auctioned off at 2017's Experimental Aircraft Association show in Oshkosh, Wis. "That was a fun one, because it was a custom thing for charity," he said. "We did some exterior bits to tie the F-22 jet into it. I designed a front view of an F-22 Raptor fighter jet into the grille."

In all these projects, Kangas said, "I'm part of a team. None of these vehicles hit the road from a single designer. All of these vehicles are the product of a great team of talented designers. And I'm really humbled to be part of that team."

Kangas said his LTU education let him hit the ground running as a designer.

"When I first interned at Ford,



LTU alumnus Dan Kangas and Bronco R in the wild.

Continued page 38

Ford Bronco *Continued*

I was really happily surprised to see the similarities between the studio culture at Lawrence Tech and the studio culture at Ford," Kangas said. "Having consistent industry support from real industry designers to lead the design classes (at LTU) is amazing. It prepares you in a meaningful way for the industry. The design projects at Lawrence Tech are led by the same people leading the design projects at the OEMs. You can't beat that. The pacing is similar, the design process is similar, where you start with 2D sketching and rough ideating, and you move into 3D modeling—it's the same process. I felt able to handle anything they threw at me at work because of my experiences in school."

Kangas called Ford "an excellent place to work as a new designer because they are very open to new design approaches and different ways of thinking. They push innovation the same way we are taught in LTU's design program."

And Kangas is paying it forward to future transportation designers—he's been on the LTU adjunct faculty since the fall of 2015.

"Teaching is mutually rewarding," he said. "I enjoy being able to have a fresher perspective for the students, being more recently out of school. I can give them a look at some of the newer tools and approaches."

And Kangas said LTU's laptop program was vital in the March switch to all-online classes caused by the coronavirus pandemic.

"In my experience, with today's tools, remote instruction was pretty seamless, with the digital interface and the meeting tools and screen share," Kangas said. "The students all have high-end laptops with all the software they need. It's an amazing tool." □MR

The Bronco R off-road vehicle was partly the work of LTU alumnus Dan Kangas.



The F-22 Raptor Ford Truck and its inspiration, the F-22 Raptor jet fighter.

Brown featured in Architectural Record, inclusive design video

The profile in the world of architecture and design of Tiffany Brown, BSAr'05, MAR'07, MBA'15, continues to rise.

Brown was featured in "Design For All," a documentary on inclusive design released in May by the New York City production company RadicalMedia and the retail chain Target. The video is available on the streaming service Hulu.

In June, Brown received the American Institute of Architects 2020 National Associates Award, just after winning the same honor from AIA Michigan and AIA Detroit. This honor recognizes outstanding leaders and creative thinkers for significant contributions to their communities and the architecture profession.

A project manager and construction administrator at Smith-Group's Detroit office, Brown has dedicated her career to raising awareness for the social impact that planning and design have on urban communities. As a nationally recognized speaker and panelist, she is widely credited for her action-oriented approach to breaking down barriers and creating access to architecture education for traditionally underserved populations. In support of this focus, she co-founded the Urban Arts Collective, a non-profit establishment that promotes innovative programming to expose underrepresented groups to art, architecture, science and engineering. In 2017, Brown and the Urban Arts Collective were awarded a grant by The Knight Foundation to launch 400 FORWARD, a national mentorship and financial assistance initiative aimed to support the development of the next



Tiffany Brown

400 women architects and grow the presence of African American women in the profession of architecture.

An active force within the design community, Brown serves as a member of AIA's national K-12 Advisory Board, is a

founding member of the Detroit Chapter of the National Organization of Minority Architects (NOMA), and helps to advance NOMA initiatives at the national level. Brown holds the position of University Liaison-Midwest Region for the organization's executive board and is a recipient of the group's Distinguished Service Award. She also sits on the Champions Board of the National Girls Collaborative Project, an entity dedicated to informing and encouraging young girls to pursue careers in the fields of science, technology, engineering and mathematics.

In recognition of her many accomplishments, Brown was named Associate Member of the Year by AIA's Michigan and Detroit Chapters in May and August of 2019, respectively, and was awarded the Jason Pettigrew Memorial ARE Scholarship from AIA's National Chapter in 2018. Her work has also been featured by notable media sources, including *ARCHITECT Magazine*, *Architectural Record*, *Interior Design ESSENCE*, PBS, Michigan Public Radio, the Kat Holmes authored "Mismatch: How Inclusivity Shapes Design," and other outlets.

In 2019, Brown was the recipient of Lawrence Tech's inaugural John G. Petty Community Champion Award. □MR

LTU alumni celebrate completion of decade-long bridge project

The Northville architecture and design firm inFORM Studio, founded and led by LTU alumni, is celebrating a milestone: the completion of a 10-year-long

project to design the Providence River Pedestrian and Bicycle Bridge in Providence, R.I.

According to Gina VanTine, BSAr'89, BA'r'94, founder and

principal of inFORM, over the 10-year span from bid to opening, several LTU alumni worked on the project.

"We know the incredible value of employing LTU alumni," she said. "Heck, both Ken (VanTine, BSAr'85, BA'r'86) and I went through the program and know just how rigorous and thorough it is. They consistently do good work."

The new Providence River Pedestrian and Bicycle Bridge was a major project for the city. Built on the piers of an abandoned freeway, the \$21.9 million bridge connects five prominent neighborhoods and institutions. Acting as a pedestrian center, the

450-foot-long bridge's wooden benches, illuminated tables, built-in chessboards, grass plantings, and other features encourage social engagement among city residents and welcome the greater community to visit.

Large scale projects like this are not new to inFORM. The firm has completed many since incorporating in 2000. It was particularly exciting to be awarded this project, said VanTine. "While the history of the area will remain part of the bridge's foundation, this new gateway connects it to the rest of the city; giving it a new lease on life for future generations," she said. "It's exciting to be part of something with an important past and make it relevant for today." □RL, JV

The Providence River Pedestrian and Bicycle Bridge



Pellerito honored for aviation tech leadership

Victoria Pellerito, BSME'20, was honored as one of "Tomorrow's Technology Leaders: The 20 Twenties," an award presented by *Aviation Week* magazine and the American Institute of Aeronautics and Astronautics (AIAA). She was the only honoree from a Michigan university.

The awards recognize students earning STEM degrees who are nominated by their universities on the basis of their academic performance, civic contribution, and research or design project. The program brings together technology hiring managers, students, and faculty around the world to recognize what's needed for business and academic success. The students begin building a network comprised of the technical experts who have built the industry, the universities gain visibility for high-quality educational opportunities provided to students, and hiring managers gain knowledge about

the best of the best in the next generation of aerospace talent.

This year's recognition program had qualified nominees from 49 different uni-



Victoria Pellerito

versities representing seven countries.

Pellerito has also earned the National Science Foundation Graduate Research Fellowship. According to the NSF the program is intended to "help ensure the vitality and diversity

of the scientific and engineering workforce of the United States" and provides three years of support for graduate education for "individuals who have demonstrated their potential for significant research achievements in STEM or STEM education." □MR

Meet the LTU Alumni Association's new president

Patrice Patrick-Banks began her term as the president of the LTU Alumni Association this fall. She earned her MBA from the College of Business and Information Technology.

Raised in Detroit, Patrice is a dynamic leadership director with extensive experience in developing, managing, and facilitating professional training in the workplace. She has been successful in creating cultures of



Patrice Patrick-Banks, MBA'11

collaboration and implementing change to achieve workforce excellence.

Patrice possesses experience in human resources, including recruitment, training and development, safety procedures, performance management, policies and procedures. She has a history of coaching in facility management, team building, and youth program development. □MR

2020-2021 LTUAA Board of Directors

Patrice Patrick-Banks, MBA'11 - President
Chris Jasman, BSME'02 - Past President
Bill Schwerin, BSCS'95, MSCS'09 - Treasurer
Michelle Baker, MBA'12
Josh Dirlam, BSBA'18
Daniel Deinek, BSCh'93, BSME'95, MEMS'01
Chuck Hill, BSBA'94
Todd Majeski, BSME'87
Mario Moscone, BSME'67
Jeremy Nafus, BSIT'17
Don Reimer, BSIM'62
Doug Riddell, BSEE'89
Syed Rob, MBA'06
Linda Sadiq, MSAE'05
Anita Satkiewicz, BSME'05

ALUMNI NOTES

Alumni Notes

Alumni Notes includes news gathered from alumni, their families, friends, and media reports. Submissions received after the deadline for this issue will be published in the next issue. Use the form in this section or email alumni@ltu.edu to share news about you and alumni you know.



Douglas G. DelGrosso, BSME'84, was elected to Cabot Corporation's board of directors on April 30, 2020. He was

named to the board's audit committee. Doug is president and chief executive officer of Adient, an automotive seating supplier located in Plymouth. He worked at Chassis, a Southfield-based auto supplier, 2016-18 to help the company emerge from bankruptcy. Doug is a former member of the LTU Board of Trustees.



Mark Chaput, BSCE'87, has been named chief operating officer of the American Center for Mobility, located at the

historic Willow Run site in Ypsilanti. Mark had been the interim chief executive officer.

Jimenez named president and CEO of BIFMA

Effective June 17, 2020, **Deirdre Jimenez**, BSAr'83, BSIA'85 was named the first president and chief executive officer of BIFMA, the not for profit trade association for business and institutional furniture manufacturers. In her role as president and CEO, Jimenez is responsible for leading BIFMA through a period of growth and partnering with its Board of Directors, membership and staff to advance the industry's common interests. □/V



Mitch Schreiber, BSME'90, has been promoted to chief operating officer for Encore, a floor covering company based in Lancaster, Penn.



Saundra R. Little, BSAr'94, MAR'98, AIA, LEED AP, NCARB, NOMA, has been promoted to principal at Quinn Evans

Architects. In her more than 15 years as an architect and project manager, Saundra has overseen several notable projects in the Detroit area, most recently with Centric Design Studio.

Andrew Eckert, BSAr'00, AIA, ALA, NCARB, LEED AP, is past president of the AIA Grand Rapids board of directors. Andrew is the manager of architecture at the Grand Rapids office of Ghafari Associates.

Eric Biller, BSAr'01, MAR'05, AIA, LEED AP, CDT, is director of AIA Michigan for the term 2018-20. Eric is a senior architect at Progressive AE.

Carson Lyons, BSAr'02, has joined Granger Construction Co. in Holt as superintendent on the MSU Federal Credit Union Holt Branch project.

Trio of LTU alumnae get creative with 3D printer to help healthcare workers



(left-to-right) Heather Smigliani, BSAr'97 BSAI'97 MAR'00, Laura Clary, BSAr'95; Rosanna Brueckner, BSAr'95 (Pre-COVID photo.)

"It seems like a small thing, but it really helps to know we are making healthcare workers more comfortable," said Laura Clary, when she explained to Julie Vulaj, LTU director of major gifts, how the team from her architecture firm, iDesign Solutions in Rochester, is making a difference during one of the most challenging times of this decade.

"We were seeking a way to help, when Rosanna approached a friend who is a nurse," Clary said. "She is the one that requested the surgical mask straps to help relieve the pressure of the elastic around the ears."

Clary acknowledged that she also gives credit to the American Institute of Architects (AIA): "I participated in a webinar that they hosted to learn about how we can help. It inspired us to reach out to our local contacts, which got us rolling."

The iDesign Solutions team have made masks for DMC Huron Valley Sinai, Beaumont Farmington, Beaumont Royal Oak, Botsford and UM Hospital.

Said Clary, "Our 3D printer will work around the clock for as long as we have requests." □/V

Matthew Christie, BSAr'05, AIA, NCARB, LEED AP, is president of the AIA Grand Rapids board of directors for 2020. Matthew is on the design team at the Grand Rapids office of Ghafari Associates.

Nate Meade, BSAr'05, AIA, has joined EYP Architecture & Engineering office in Dallas, TX as senior designer. Nate was a senior design architect with GMB and he also worked at SmithGroup.

Jeffrey E. Frederick, BSAr'05, MAR'09, AIA, ALA, LEED BD+C, has joined TDG Architects as a project architect. Jeff previously worked at SmithGroup where his experience included the design of an experimental testing vault for a nuclear physics facility.



Richard V. Graham, III, BSCvE'10, MSCvE'13, PE, has been promoted to associate at Spicer Group,

Inc. in Saginaw. Richard joined Spicer's Water Resources Group in 2013, then in 2014 he helped open the Southeast Michigan office in Dundee. He is a member of the American Society of Civil Engineers.

Megan Martin-Campbell,
BSAr'07, BSIA'08, Mar'14 –
AIA, NCARB, LEED AP AIA
Michigan 2020 Young
Architect of the Year Award



Megan is an architect and project leader with inFORM Studio, Northville. While an LTU student she was the recipient of the Virginia North Graduate Fellowship in Architecture & Design, active in Chi Omega Rho sorority and a member of the University Partnership Detroit Class of 2013. Megan serves as secretary on the AIA Detroit Executive Board, commissioner for the Pleasant Ridge Planning Commission and Downtown Development Authority, and is a past chair of the LTU Architecture & Design Alumni Cabinet.

Megan was recognized by her peers for this achievement at the 2020 AIA Michigan Honor Awards ceremony. □/V



Lou Salge,
BSAr'10, was
named a mem-
ber of the "Forty
Under 40" class
of 2020 by Pro-
fessional Remod-
eler magazine.

Lou is vice president at Four Seasons Design and Remodeling in Angola, Ind.

Jeff Creighton, MBA'12, has
been named Lean Construction
Institute (LCI) committee chair for
the 2020 LCI Annual Congress.
Jeff is a senior corporate strategy
manager and Lean leader at Bar-
ton Malow, and a member of Iron
Workers Local 25 in Detroit.



Anne Marie
Graham-Hudak,
MBA'19, was
named one of
Crain's De-
troit Business
magazine's
Notable Women

in STEM for 2019. Anne Marie is a
subject matter expert in sustain-
ability, environment and safety
engineering for Ford Motor Co.
She also serves as a planning
commissioner on the Canton
Township board of trustees.



Scott Isenberg,
MCvE'15, PE,
CFM, CNSP, has
been promoted
to municipal
engineering
project man-
ager at Spalding

DeDecker civil engineering and
surveying firm in Rochester Hills.

News for Alumni Notes

Complete this form and tell us about yourself or your fellow Lawrence Tech or DIT alums. Mail to the Office of Alumni Relations, or email alumni@ltu.edu. Tell us about honors, promotions, marriages, appointments, and other activities.

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F R I E N D S W E ' L L M I S S

Friends We'll Miss

Information for this section is gathered from family and friends of the deceased, and from newspaper and electronic media accounts. When providing an obituary, please furnish as much information as possible, including the date of death and any Lawrence Tech- or DIT-connected survivors and their graduation dates. If sending an electronic or newspaper clipping, please include the date and name of the source.

William C. Walton, BSCvE'48, of Hudson, Wis., Feb. 2, 2019. Mr. Walton was a World War II Army veteran, and served as a forward observer for General George Patton's artillery. He is survived by his wife, Ellen.

Thomas Robert "Bob" Conroy, BSME'49, of Brighton, Oct. 9, 2019. Mr. Conroy is survived by seven children.

Edward J. Marklow, Jr., BSME'49, of Ormond Beach, Fla., June 8, 2018. Mr. Marklow is survived by his wife, Arloween.

Victor Matosh, BSChE'49, of Dearborn, June 28, 2013.

James H. Tibedeau, BSArE'49, of Fort Gratiot, Jan. 5, 2020. Mr. Tibedeau served in the Army Air Corp in World War II including during the Battle of the Bulge. He worked at various Detroit architectural firms before joining Wyeth & Harman in Port Huron, which evolved into Tibedeau & Wedge Architects before closing in 1990. He is survived by three children.

Earle Robert Neil Lund, BSIE'50, BSME'50, of Hot Springs Village, Ark., July 12, 2019. Mr. Lund was a World War II Army veteran who attained the rank of 1st Lieutenant. After graduating from LIT, where he lettered in golf

and baseball and was sports editor for the school paper, Mr. Lund worked in metallurgical heat-treating for 30 years. He is survived by three children.

Robert J. Skupny, BSBA'50, of Napa, Calif., May 11, 2020. Mr. Skupny was a World War II Navy veteran, and had a 30-year career with Ford Motor Co. He is survived by his wife, Catherine, and two children.

Charles E. Huckins, BSEE'52, of Fort Lauderdale, Fla., June 20, 2019. Mr. Huckins started his electrical engineering career at Bendix Radio Corp. in 1956, and retired from BendixKing Avionics in 1991. He is survived by his three children.

Arthur H. Puzycki, BSME'54, of Grand Blanc, May 7, 2020. Mr. Puzycki spent most of his career as a reliability engineer at General Motors, mostly at Buick and then Saturn. After retiring from GM, he worked 15 years at Three-Bond, retiring a second time in 2006. He is survived by his wife, Carol, and five children.

Thomas W. Hartford, BSEE'57, of Las Cruces, New Mex., Dec. 3, 2012. Mr. Hartford started his career at Lockheed, then moved to Allied Signal at the NASA Test Facility retiring in 1995 as a test propulsion supervisor. He is survived by his wife, Sharon, and three children.

Gerald "Gerry" T. Klees, BSME'57, of Oxford, May 1, 2020. Mr. Klees worked for Chrysler's Missile Division before moving to General Motors where he spent 30 years, mostly at GM's Tech Center and the Cadillac Division. He is survived by his wife, Nancy, and three children.

Marcel R. Marotte, BSIE'57, of Madison Heights, Nov. 7, 2013.

Umberto "Burt" Vittorio DiBartolomeo, BSIM'58, of Clinton Township, Oct. 14, 2019. Mr. DiBartolomeo was in the Army during the Korean War, stationed in Germany. In 1956, he bought a pool hall on Gratiot Avenue in Detroit and enrolled at LIT. Mr. DiBartolomeo spent his career selling furniture at Sears Roebuck Co. and J.C. Penney. He is survived by his wife, Andre, and two children.

Robert G. Kern, BSEE'58, of Eastpointe, March 11, 2020. During his career, Mr. Kern worked for Chrysler Defense, LTV, and General Dynamics. He is survived by his wife, Shirley, and four children.

Robert J. Villaire, Sr., BSIM'59, of Ellisville, Mo., Aug. 7, 2010. Mr. Villaire is survived by his wife, Geraldine (Gerry), and six children.

Jack C. Gunther, Jr., BSIM'60, of Brownsburg, Ind., Dec. 11, 2000. Mr. Gunther is survived by his wife, Marie.

Hershel J.R. Laster, BSArE'61, of Dryden, Sept. 26, 2019. Mr. Laster was in the Army during the Korean War. He was an architect for more than 30 years, in 18 different states, where he mainly used his skills to help build churches. He is survived by his two children.

Edward J. Pavlovich, BSME'61, of Grosse Pointe Woods, Feb. 11, 2019. He is survived by various nieces, nephews, and cousins.

Bruce G. Roberts, AEET'61, of Rochester Hills, Dec. 14, 2018. Mr. Roberts was an Army veteran, and an engineer at Ford Motor Co. for more than 35 years. He is survived by three children.

Dr. David Irwin VanBlois, BSEE'61, of El Dorado Hills, Calif., April 18, 2017. Dr. VanBlois started his career at Whirlpool Corp. as an electrical engineer, earned an MBA from Michigan State University in 1962, and completed his PhD in 1968. He joined Ford Motor Co. in 1964, working in various marketing and corporate positions until retiring in 1995. While living in Orchard Lake Village, Mich., Dr. VanBlois was elected mayor pro tem, founded the village planning commission, and served as commission chair for several years. He was also a member of the fire department's board of directors. He is survived by his wife, Avonne, and two children.

Paul J. Evens, AEET'63, of Tampa, Fla., March 24, 2020. Mr. Evens was an Army veteran, stationed at Fort Leonard Wood, Mo., 1956-58. He retired from Unisys Corp. in Plymouth after 30 years. He is survived by his wife, Patricia, and seven children.

Albert G. Pipper, AEET'63, of Livonia, July 17, 2019. He is survived by three children.

Raymond L. Brace, ABCT'64, of Central Lake, Feb. 8, 2020. He is survived by his wife, Shirley.

John D. "Jack" Taylor, AIST'64, of Waterford, March 31, 2019. Raised in Rugby, England, Mr. Taylor served in the Royal Air Force. He and his late wife Bernadine owned Safety Technology International, Inc. He is survived by three children.

Peter R. Bernek, AMT'65, of Cadillac, Aug. 20, 2019. Mr. Bernek worked for Ford Motor Co., in Dearborn and Livonia, for 37 years. He is survived by his wife, Mary, and two children.

Algene Christianson, AIST'65, of Durand, April 17, 2015.

Preston D. Kneeshaw, AEET'65, of Tampa, Fla., Sept. 23, 2011.

James E. Kelly, BSME'67, of Sarasota, Fla., March 20, 2020. Mr. Kelly served in the Navy as an airman and electronics technician aboard sub-chaser aircraft, and was stationed at various naval bases including Guantanamo Bay and Key West. He then spent 31 years at Detroit Edison, primarily as a power plant manager. Mr. Kelly is survived by his wife, JoAnn, and two children.

Lawrence C. Marsh, BSEE'67, of Shelby Township, March 7, 2019. Mr. Marsh retired from General Motors as a senior design engineer. He is survived by his wife, Stephanie.

James D. Runyan, AMT'67, of Arlington, Tenn., Nov. 18, 2019. Mr. Runyan started his own company, Quality Engineering & Tool Co. in Memphis, Tenn. in 1977. He is survived by his wife, Faye, and four children.

Melvin L. Lang, BSIM'68, of Fort Myers, Fla., Nov. 29, 2019. Mr. Lang worked for Ford Motor Co. for 17 years before becoming an entrepreneur, starting and running various businesses including a restaurant, a consulting and financial planning firm, real estate brokerage, and a mortgage brokerage. He is survived by his wife, Linda, and three children.

James L. Albrecht, BSIM'69 of Traverse City, Nov. 28, 2012. He is survived by his wife, Brenda.

Marlin A. "Bud" Esau, AEET'69, of Wyandotte, Dec. 8, 2016. Mr. Esau was a veteran of World War II and the Korean War, and served aboard the USS Uhlmann. He worked 42 years at Detroit Edison, retiring as a senior engineer. He is survived by five children.

Allen M. Hemlock, BSIM'69 of Dearborn, April 15, 2012.

Barry A. Hobbs, BSAr'69 of Weeki Wachee, Fla., March 4, 2013.

Louis J. Santioni, AIST'69 of Jacksonville, Fla., June 24, 2019. He is survived by his wife, Brenda.

David Winston Compton, BSCvE'70, of Livonia, Dec. 28, 2019. He is survived by his wife, Maryann, and three children.

Phillip L. Curtis, AEET'71, of Temperance, May 19, 2020. Mr. Curtis was a Navy veteran, and worked 42 years for Detroit Edison primarily at Monroe Power Plant. He is survived by his wife, Christine, and four children.

Robert G. Kunkel, AIST'72 of Northville, Aug. 19, 2019. Mr. Kunkel was an active planner and contributor to LTU's Tech Invitational benefit golf outing for many years. He is survived by his wife, Deborah.

Donald R. Fox, BSIM'74, of Fort Myers Beach, Fla., Sept. 23, 2013.

Chukwu "Dick" Eleke, BSIM'75, of Abia State, Nigeria, March 1, 2020. Mr. Eleke had a varied career in which he was the first general manager/financial controller of E&O Chukwu Nigeria Limited (1977-82), a lecturer at Federal Polytechnic in Nekede, a banker at Progress Bank Nigeria PLC where he eventually retired in 1995 as a senior manager and area manager eastern sector. In retirement, Mr. Eleke went into farming. He is survived by his wife, Nwamedrya, and seven children.

Henry Oscar Alexander, BSEE'76, of Commerce Township, Aug. 18, 2019. He worked many years at the family business, Alexander Roofing, which he eventually took over from his father. Mr. Alexander is survived by his wife, Mary, and one child.

Betty Boschma, BSBA'80, of Royal Oak, June 28, 2019. Ms. Boschma retired as a finance specialist from Nissan Motors in Nashville, Tenn. She is survived by her brothers, nephews, and a niece.

John R. "Russ" Gnau, III, BSBA'84, of Bloomfield, Oct. 14, 2017. Mr. Gnau was a Navy veteran, 1976-80. He became a successful real estate agent and entrepreneur. He is survived by his wife, Kathy, and two children.

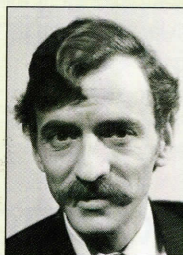
Mark D. Smythe, BSBA'85, of Lake Orion, Jan. 19, 2020. Mr. Smythe owned New Century Appraisals, a real estate appraising company. He is survived by his wife, Barb, and four children.

Anthony R. Dickson, BSEE'88, of Livonia, June 12, 2020. He is survived by his parents, Robert and Brigid, four siblings, six nieces and five nephews.

DIT IN MEMORIAM

Raymond E. Turkawski, BSBio'60, of Sterling Heights, June 18, 2020. Mr. Turkawski was a Navy veteran, and spent most of his career as a middle and junior high school math and science teacher in Warren Consolidated Schools. He is survived by his wife, Alice, and four children. Elyria, Ohio. He is survived by a son.

CAMPUS FAMILY



Longtime student advocate Frank E.P. de Hesselle

Longtime staff member Frank E.P. de Hesselle, BSME'73, BSIM'75, passed away Sept. 5. He was 73. He served LTU for 37 years, retiring in 2009. A native of the Netherlands who proudly became a U.S. citizen in 1995, Mr. de Hesselle's roles included serving as

director of international student affairs, admissions counselor, adjunct engineering faculty, and advisor to the University's champion hybrid electric passenger cars long before they went mainstream.

As a former foreign student himself, Mr. de Hesselle took great pride in helping other foreign students on their path to higher education and experiencing the American dream. An avid car and Formula One fanatic, he also served as a mechanical engineer at Federal Mogul. In a 1981 feature in this magazine, it was reported that he was overseeing Lawrence Tech's 393 international students from 62 countries as "counselor, buffer, chider, father-confessor, and friend."

Survivors include his wife, Elizabeth, sons Pascal, BSBA'95; Eric, BSME'01; and Eric's wife, Sheri (Stamps), BSME'01. □BJA

Continued page 44

C A M P U S F A M I L Y



Student services administrator Nancy J. Fearon

Nancy J. Fearon, who retired in 2002 after 18 years as assistant dean and administrator of student services for the College of Architecture and Design, died March 6. A graduate of the University of Delaware, at the time of her retirement Mrs. Fearon was cited for "outstanding leadership in guiding and encouraging students," according to Neville Clouten, former dean of architecture and design. She received LTU's Marburger Award for Excellence in Achievement. Mrs. Fearon's survivors include her husband Robert, retired senior lecturer in architecture, a daughter, son, and several stepdaughters. □BJA

Dr. Joseph R. Asik, a retired adjunct professor in the Department of Electrical and Computer Engineering, died July 17, 2020. He taught at LTU 1977-2012. Dr. Asik studied at Case Western and earned both a master's and PhD in physics from the University of Illinois, Urbana-Champaign. He interned at Oak Ridge National Laboratory and then worked at Ford Motor Co. for 30 years as a research scientist. He was named in 22 U.S. patents. His survivors include two sons and a daughter.

ties and English, who retired in 1991 after 22 years, died May 20, 2013. A former pastor and Navy chaplain, his degrees were from Wayne State University.

Donald E. Wente, retired member of the engineering faculty, died August 3, 2019. He graduated from Purdue, worked for General Motors, and served in the Air Force. Survivors include his wife, Patricia, and seven children.



Generous supporter John Stampor, BSME'61

John L. Stampor, BSME'61, died May 18. Mr. Stampor worked for the Detroit Water and Sewerage Department, but it was his hobby tinkering in the stock market where he really made his mark. Early investments in tech giants such as Burroughs, Google, and Facebook led to his success in his second career as a serious investor.

Mr. Stampor rarely missed LTU's annual Jubilee Brunch, which gathers and recognizes graduates of 50 or more years ago. Last year, Mr. Stampor said he was moved to make a gift after he heard an inspiring speech made at the Brunch by President Emeritus Richard Marburger. Focusing on LTU's mantra of theory and practice, Marburger adamantly praised the Jubilarians in attendance, saying they helped set the stage for the great success current students and recent alumni are experiencing in the classroom and in the workforce. This motivated Mr. Stampor to action, making a \$1 million unrestricted cash gift to benefit Lawrence Tech students.

Mr. Stampor had a straightforward reason for making the gift: "Lawrence Tech needed the funds, and I had it, so why not?" he said. "I'm glad I made the gift." It was one of the University's largest individual gifts ever.

As reported in the Winter/Spring 2020 issue of this magazine, Mr. Stampor said his time at Lawrence Tech "helped very much" in his assessment of potential investments. "My Lawrence Tech education helped me, I'm certain of that," he said. "I owe a lot to Lawrence Tech, and I'm very glad I came here."

He is survived by a brother and many nephews and nieces. □MR



Dr. William "Bill" Kolasa died March 28, 2020. Dr. Kolasa taught electrical engineering at Lawrence Tech 1987-2018. He

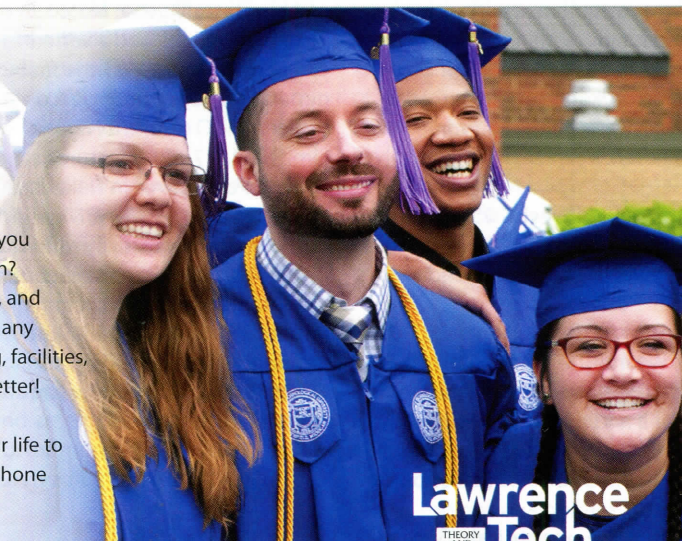
earned his BS and MS from the University of Detroit, and a PhD in physics from the University of Windsor. He was a corporal in the Marines in the Vietnam era of the early 1960s. Survivors include his wife, Mary Eileen, two sons, including William E. Kolasa, BSME'02, and a daughter.

Word has been received that Rev. **Thomas H.F. Masson**, former associate professor of humani-

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C A M P U S F A M I L Y


**Esteemed member of the faculty
Dr. Thomas Marx**

Dr. Thomas G. (Tom) Marx, college professor of Business and Information Technology, died July 24. Professor Marx joined Lawrence Tech in 2005 after 28 years at General Motors, where he held leadership positions in economics, public policy, and corporate strategic planning. He was also GM's representative on the Motor Vehicle Manufacturers Association, Business Roundtable, and at NAFTA and climate change proceedings. Prior to GM, he worked in energy consulting and for the Federal Trade Commission.

Dr. Marx taught MBA courses including economics, strategic planning, and global leadership, where he advised students that "leadership is not rocket science, it's much harder." He also taught in LTU's Doctor of Business Administration program, which he directed from 2006-09, and chaired or was a committee member for 23 doctoral dissertations. He was also the director of LTU's Center for Global Leadership and Understanding.

Dr. Marx was the founding director of a groundbreaking collaboration between LTU and the military that began in 2007. The Senior Service College Fellowship program (SSCF) was developed as a result of a critical need for civilian leaders in acquisition for the Army. To date, 85 civilian leaders have graduated from the program.

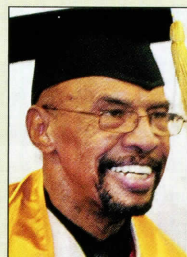
He published a book on the role of business in society, authored over 75 articles on economic, public policy, and leadership issues, and made over 100 presentations at professional business, government, and academic conferences and meetings. He served as assistant editor and as a reviewer for several professional economic and business journals.

His research interests included the implications of the global economy for business and society, sustainability, and the role of leadership in formulating and implementing strategy. Dr. Marx had also taught at the University of Detroit Mercy, Wayne State University, Temple University, and the University of Pennsylvania.

Dr. Marx was a member of numerous economic, business, academic, and honorary associations, including Pi Gamma Mu National Social Sciences Honor Society, and Beta Gamma Sigma Business Honor Society.

He earned a BSBA (Summa Cum Laude) from Rider University, and a PhD in Economics from the Wharton School at the University of Pennsylvania. Dr. Marx's survivors include his wife Arlene, and several children.

The family of Dr. Marx has established a scholarship fund in his honor. If interested in making a tribute gift, contact the Office of Development and Alumni Relations, Lawrence Technological University, 21000 W. Ten Mile Rd., Southfield, MI 48075-1058; or www.ltu.edu/giving/online-gift.asp. □BJA


**John G. Petty, eminent alumnus
and trustee**

John G. Petty, BSME'65, died Jan. 23. Mr. Petty was a great friend and tireless advocate of Lawrence Tech.

Mr. Petty was a prominent Detroit engineer and spent most of his career working with defense contractors in the Detroit area, including Williams International and General Dynamics, where he was the lead engineer on the innovative turbine engine that powers the U.S. Army's main battle tank. He was also the first African American president of the Engineering Society of Detroit, where he was active for some 30 years and on whose board he served.

Mr. Petty served on the Lawrence Tech Board of Trustees 1994-2017 and was a generous contributor to his alma mater. He was also a longtime member of the City of Southfield Zoning Board of Appeals.

Last year, LTU's inaugural John G. Petty Community Champion Award was awarded and named in recognition of his life and achievements. The award honors individuals who are positively impacting the lives of the African American community, on campus and in the surrounding area. It was created by an LTU student committee as part of the University's Black History Month observations.

Mr. Petty attended the inaugural award ceremony, and in a speech, praised his LTU education. "There is a lot to be said for LTU," Mr. Petty said. "We beat a lot of bigger universities that people think are great."

His advice to current students—read, widely and often, and never give up. "Once you decide what it is you want to do, don't let anyone or anything deter you from your vision," he said. "Where there is vision, there is hope."

Mr. Petty's survivors include his wife, Evelyn Marie, a son and daughter, and several grandsons and great grandchildren. □BJA

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In this section of *Lawrence Tech*, we recognize the donors who make such a huge difference for our University and its students. Particularly in these challenging times, the support we receive from alumni, faculty, staff, families, and friends is more important than ever. The LTU community is deeply grateful for each gift—we recognize that there are many demands on each giver's resources. Donations to LTU support the University's mission of developing innovative and agile leaders—people who are critical thinkers and lifelong learners, people who will use their talents to improve the human condition.

Virinder K. Moudgil

Virinder K. Moudgil, president and CEO

Annual Honor Roll of Donors

The Honor Roll of Donors reflects all gifts made in the 2019 calendar year. All efforts have been made to ensure accuracy. Please report omissions or errors to the Office of Development and Alumni Relations by email, development@ltu.edu, or phone 248.204.2300.

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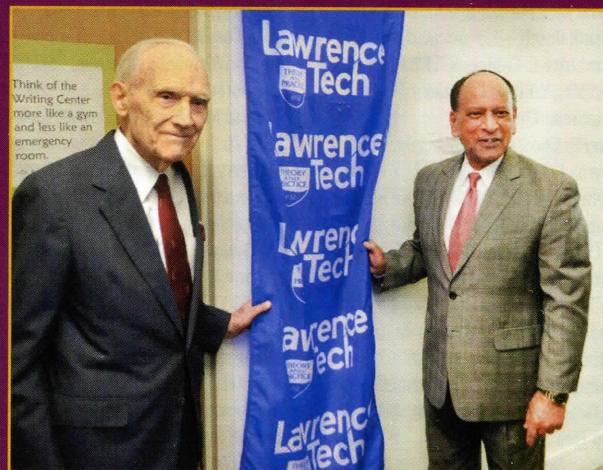
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LTU's Horldt Family Writing Center helps engineering, tech inventors



Henry Horldt, BSIE'55, PE, is a longtime benefactor of Lawrence Tech. His latest gift: funding the establishment of the Horldt Family Writing Center, which opened on LTU's Southfield campus in January.

"Many a good idea has been lost or forgotten because the inventor has been unable to write a descriptive article of the work," Horldt said. "The exceptional professors at Lawrence Tech understand the critical importance of written communication, and because of this, responded by recommending a new writing center for students. When I heard of this recommendation, I immediately wanted to help make their vision a reality. This writing center will give professors the opportunity to personally assist students with improving their writing skills, which in turn will build their confidence and support their career success."

Horldt also made a significant gift toward the establishment of the Siemens Electro-Matic Industrial Engineering Laboratory at LTU, which opened in November 2019 and features a pilot assembly line and industrial robots.

After working for several engineering firms and as an adjunct professor at LTU, Horldt founded Leader Machine Products in 1972. By the time he sold the company in 1992, it had 75 employees and took up 33,000 square feet in an industrial park in Westland.

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Prof. Emerita Ruth G. Favro



Professor Ruth Favro taught almost every mathematics and computer science course offered over her 30-plus years at LTU. Through her teaching, mentoring and coaching, she saw first-hand the economic hardship students faced when trying to attend and pay for college. For this reason, Prof. Favro has established the Prof. Ruth G. Favro Endowed Scholarship for Mathematics and Computer Science. Professor Favro is grateful she is able to help relieve the financial tuition burden students experience so they can focus on learning, achieving their goal of graduating, and flourishing in their careers.

To learn how you can use an investment to help students succeed contact the Office of Advancement at 248.204.2300 or email development@ltu.edu. □JV

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The Sigma Phi Epsilon fraternity installed these 1,100 pinwheels on the LTU quadrangle in September to mark Suicide Prevention Month. The number is no accident – about 1,100 college and university students in the United States die by their own hand each year, making suicide the second leading cause of death among college students. The installation featured signs with contacts for LTU students facing mental health issues.



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Jubilee Society 50th Anniversary Reunion rescheduled for spring, 2021

The Jubilee Society recognizes alumni of Lawrence Tech and the Detroit Institute of Technology who graduated 50 or more years ago. Each year, LTU hosts a reunion brunch to induct the newest class and bring alumni to campus to reunite with their former classmates.

Due to COVID-19, the Jubilee Brunch is rescheduled to Friday, May 7, 2021. At that event, the classes of 1970 and 1971 will be recognized. Although the brunch may be delayed, the recognition of our Jubilarians can begin now. You can help by volunteering on the Reunion Committee, enhancing engagement with the University and reconnecting with former classmates.

All members of the Jubilee Society, including the newest classes of 1970 and 1971, are invited to share your most treasured memories and update classmates on your life after graduation. These special memories and updates will be shared at the campus celebration and on the Jubilee Reunion website. A personalized update form will be mailed to you or you can visit the website, www.ltu.edu/jubilee, to submit your update.

Also being continued is the newest

tradition to impact current and future students by supporting the Jubilee Endowed Scholarship. The Jubilee Endowed Scholarship was established last year, thanks to the leadership of the Class of 1969 and the commitment of many Jubilarians. This helps provide much needed financial assistance to enable LTU students to continue to receive the experiential Theory and Practice education that has set LTU apart for nearly 90 years.

We look forward to your spring celebration! For more information on

the reunion, the Jubilee Endowed Scholarship, and celebration updates please visit ltu.edu/jubilee or contact LTU's Office of Development and Alumni Relations at 248.204.2300.



Raymond Khan,
BSEE'70
Class of 1970
Reunion Committee Chair



Daniel Lehnert,
BSME'71
Class of 1971
Reunion Committee Chair

Little Caesars Arena goes blue!



264 LTU alumni and friends raised over \$1,300 at the Red Wings LTU Night on February 23.



Eric Meyer, associate professor, engages attendees with STEM activities at the Detroit Red Wings STEM Fest on February 23.

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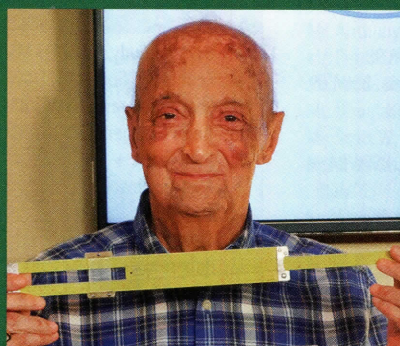
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Mr. and Ms. Kevin P. Becker, BSET'95
Mr. Stephen Behmlander +
Mr. and Mrs. Everard F. Belfon, BSME'76
Mr. and Mrs. Laurence L. Bernhardt,
BSME'79
Mr. Adam D. Berry+, BSAR'06, MSTPC'16
Mr. Michael S. Berry, MEMS'05, MSME'14
Mr. and Mrs. Louis Bertani, BSME'63
Mr. and Mrs. Jerry P. Beseau, BSME'95
Dr. Jeffrey A. Betman +
Ms. Carol Bevard, BSEE'91
Dr. Bhujanjyoti Bhattacharya +
Mr. Marcus A. Bilinski, BSME'01
Mr. William H. Blackmer, BSBA'84
Mr. and Mrs. Marshall A. Blank, BSCV'49
Mr. Eric M. Boddy
Mr. Steven Bogdalek +
Mr. and Mrs. Leonard Boger, BSEE'74
Mr. James M. Boggs, BSIM'86, MBA'91
and Mrs. Susan K. Boggs, MBA'93
Ms. Angela Bois

Mr. Salvatore J. Bonanno, BSME'69 and
Ms. Linda Lively
Mr. Fred C. Brandenburg
Mr. and Mrs. Rocklin G. Brandstadt,
BSIM'69
Ms. Michele Brantley +
Breeches and Bloomers
Mrs. Peng Brooks, BSET'04
Mr. and Mrs. Joseph C. Broski, Jr., BSIM'90
Mr. and Mrs. Terry L. Brown, CISA,
BSBA'78
Mr. and Mrs. Terence S. Brozek, BSIM'70
Mr. David Bryngelson +
Mr. Joseph A. Bucciero, BSME'84
Mr. Mark A. Buchalter, BSAR'88
Ms. Shelley Bult
Mr. and Mrs. Rolland L. Bumler, ARACT'56
Ms. Wafa N. Bunney, BSMA'81
Mr. and Mrs. Larry Butkovich, BSBA'86,
MBA'19
Mr. and Mrs. Albert H. Butlin, Jr., BSME'89
Mr. and Mrs. Thomas J. Cairns, Jr., BSCE'79
Mr. and Mrs. Michael A. Cairo, BSIM'67
Ms. Deborah Callahan

Mr. John D. Camardese, BSCh'10
Ms. Tracy L. Camisa, BSBA'94
Ms. Marjorie C. Campagna
Mr. and Mrs. David L. Campbell, BSIM'74
Mr. and Mrs. Anthony R. Cangelosi,
BSCh'79
Mr. David A. Carbery, BSEE'89
Dr. and Mrs. Donald Carpenter, PE
Mr. and Mrs. John M. Cartales, BSEE'90
Mr. and Mrs. David E. Caruso, BSME'89,
MEMS'93
Mr. and Mrs. Frank N. Casali, BSME'83
Mr. William D. Case, BSBA'90
Mrs. Aubriex R. Cason+, MBA'11,
GCertNML'11
Mr. James F. Cassar, BSIM'63
Ms. Amber Castle
CDM Smith
Mr. and Mrs. Ralph W. Chace, BSIM'73
Ms. Andrea T. Champagne +
Mr. and Mrs. Scott G. Chapple, BSEE'88
Mr. and Mrs. William M. Chatfield, II.,
BSEE'85
Mr. and Mrs. Wayne T. Cherney

Reception in Naples

On March 12, over 30 LTU alumni and friends gathered at the Hamilton Harbor Yacht Club for the Naples Area Reception. Thanks to hosts Mario, BSME'67, and Elaine Moscone, alumni and friends enjoyed a beautiful Florida evening, reconnecting and making new acquaintances. Thank you to our host Mario Moscone, BSME'67, shown with his trusty slide rule!



Top Left: Steve Latta; Margaret Grezlik; David Matthews, BSIM'75; Ken Grezlik, BSME'78. Top Right: Mark Schumaker, BSIM'84; Pamela Schumaker, BSIM'74; Jean Waleke. Bottom: Jill Adams and Lauren Bowler, LTU Trustee

Honoring an engineering standout

On March 13, the University honored Gino DiClemente, BSEE'62 (DIT), at a special College of Engineering Hall of Fame presentation in Holmes Beach, Florida.



Gino DiClemente, BSEE'62 (DIT), with his wife, Luciana, and son and daughter-in-law, John and Jeannie.

Mr. and Mrs. Jeffrey A. Chinoski, BSEE'88
 Mr. and Mrs. Ronald J. Chownyk, BSEE'88
 Mr. Melvin C. Christiansen, ARACT'64
 Mr. Fred A. Ciampa Jr.
 Mr. and Mrs. Robert C. Cieslinski, BSCh'76
 Mr. Ari Ciolek, BSEE'97
 Mr. and Mrs. Thomas D. Clem, BSBA'88
 Mr. Samuel E. Clor, BSAr'79
 Mr. Gregory J. Coatsworth
 Ms. Judith Cobb
 Dr. Matthew L. Cole +
 Mrs. Krysta I. Coleman, BSBM'12
 Mr. and Mrs. Michael E. Coleman, BSEE'82
 Mr. and Mrs. William G. Collier
 Competition Performance Products
 Mr. and Mrs. Paul A. Corneliussen,
 BSAr'81, BA'82
 Mr. Brian J. Craig
 Mr. and Mrs. Daniel H. Craw, BSIM'60
 Mr. and Mrs. Steven A. Crawford,
 BSME'82, MEM'09
 Ms. Mildred Morton Cross, BSME'82
 Ms. Tristan Cruz
 Mr. Albert F. Cyster
 Mr. Glenn W. Czupinski, BSME'83
 Mr. Daniel P. Dailey, BSCh'83 and
 Mrs. Sandra J. Dailey, BSEE'88
 Mr. Jeff Colon and Ms. Lynn M. Daley,
 BSBA'85
 Mr. and Mrs. Paul A. Daniel, BSME'69
 Mr. Steven V. Darst, BSIM'61
 Mr. Nicholas A. Davio, BFAI'10 and
 Mrs. Kalie M. Davio, BSAr'10, MBAI'13
 Mr. and Mrs. Harry Davis, Jr., GCertPM'08
 MSOM'08
 Mr. and Mrs. Joseph DeMars, BSBA'81
 Mr. Jason R. Degen, BSME'03
 Mr. Patrick M. Delaney, BSIM'72
 Mr. Lenard J. DiLaura +, LEED AP
 Ms. Vicki F. DiLaura +
 Ms. Frances R. DiPietro, BSBA'83
 Mr. Nenad Dobricic
 Mr. James E. Donahue, MSECE'11
 Mr. and Mrs. David F. Drewek, BSME'62
 Mr. Timothy A. Drotar, BSME'91
 Mr. and Mrs. Robert J. Duda, DIT-BAMA'71
 Mr. Greg Dunn
 Mr. and Mrs. Joseph J. Duran
 Mrs. Breanne Duvendeck
 Mr. Jeff Duvendeck
 Mr. David B. Dziadula, BSEE'97
 Mr. and Mrs. Ralph W. Eagle, BSIM'67
 *Mr. and Mrs. Coda M. Edwards, BSME'58,
 BSEE'60 ♦
 Mr. and Mrs. Kevin R. Edwards, BSAr'79,
 BA'80
 Dr. Nicholas J. Elliott, DBA'15
 Ms. Heather Emmons
 Mr. and Mrs. Diego Enciso, BSBA'88
 Sean and Peggy English +
 Mr. David Esparza, AIA, BSAr'84
 Mr. Joseph Evangelista, BSIM'61
 Ms. Sharon M. Evans, BSME'93
 EW Smith Insurance Agency



Ms. Elizabeth A. Fabien, MBA'98
 Mr. and Mrs. Francis M. Farina, BSIM'69
 Mr. Robert E. Farrar, BSME'58
 Mrs. Pamela Fatur +
 Mr. and Mrs. Victor A. Favot, BSBA'84
 Ms. Marilyn Ferda
 Mr. and Mrs. Gene P. Ferrera, BSAr'78
 Mr. Daniel A. Fifer, BSIM'68
 Mr. and Mrs. Arthur W. Fischer, Jr.,
 BSIM'65
 Mr. and *Mrs. Albert R. Flamme, BSEE'63
 Mr. Jonathon M. Flores, BSME'13
 Mr. and Mrs. Leonard A. Forrest
 Mr. and Mrs. Richard J. Franz, BSAr'78
 Mr. and Mrs. Ronald D. Frawley, BSME'82
 Mr. and Mrs. David L. Frayer, BSME'61
 Mr. Hans P. Friedrichs, BSEE'89
 Ms. Susan M. Fritts, BSBA'85
 Mrs. Dorette K. Frontera +
 Mr. and Mrs. Conrad E. Gack, BSIM'65
 Mr. Michael A. Gallu, BSBA'87 and
 Mrs. Harriet L. Gallu, BSBA'85 BSBA'85
 Mr. and Mrs. Thomas P. Gamache,
 BSME'73
 Mr. Russell Game
 Mr. Marion J. Garrison, Jr., BSEE'99 and
 Mrs. Lynn C. Garrison, BSEE'99
 Mr. Jason R. Gawencki, BSME'02,
 MSME'05
 Mr. and Mrs. Dennis M. George, ACmt'73
 Mr. J. Michael George, BSIM'69
 Ms. Yalda Ghorashy
 Mr. Donald J. Gillette +
 Mr. Laura Glefke
 Mr. John C. Glumb FACI, BSBA'86
 Mr. Ronald R. Gold, BSAr'60

Mr. Roy W. Goudy, MSAE'03 MSME'04
 Mr. Kenneth E. Gould, BSEE'62
 Mr. Charles C. Grace, BSMCS'88
 Mrs. Anita Granger, BSAr'82', BSCE'89
 Mr. John Grant +
 Ms. Meg Grathwohl
 Mr. and Mrs. Frank Grech
 Ms. Cheryl L. Gregory PE, BSCE'88
 Mr. Robert K. Gribble, BSME'97
 Guerreso Associates, Inc.
 Mr. and Mrs. Adam Gut
 Mr. and Mrs. Eric R. Haartz, BSIM'85
 Dr. and Mrs. Nabil A. Hachem, BSEE'83
 Mr. and Mrs. Edward A. Hager, BSEE'78
 Mr. and Mrs. John R. Halberda, BSIM'69
 Ms. Donna M. Hale, AMET'89, BSCE'96,
 CIMBA'06
 Ms. Sharon L. Hall, BSBA'93
 Mr. and Mrs. Russell C. Harbaugh, Jr.,
 BSEE'76
 Mr. and Mrs. John G. Hardin, BSAr'68
 Mr. and Mrs. Jeffrey A. Harris, AIET'85,
 BSBA'87
 Mr. and Mrs. Brian C. Harrison, BSBA'82,
 BSMCS'84, MBA'95
 Mr. Irwin E. Harrison, BSIM'68
 Mr. Alan K. Hasan, BSMCS'94
 Ms. Kristy Hatala
 Ms. Marie D. Hausch
 Ms. Jun He, MSCS'02
 Mr. and Mrs. Lester N. Heidmou, BSIM'60
 Mr. and Mrs. John K. Heitchue, BBA'62
 Ms. Holly K. Helterhoff, MSTC'05
 Mrs. Denise A. Hemelberg
 Ms. Jenifer A. Hemelberg

2020 FSAE students perform vehicle testing at the Ford Wind Tunnel in the Ford Motor Co. Allen Park facility.

Ms. Angela D. Henderson, CIMBA'05
 Ms. Nicole K. Heppner, BSME'01
 Mr. Charles Herczeg
 State Representative Shane L. Hernandez,
 BSAr'05, MAR'09
 Mr. Andrew F. Herrick +
 Mr. and Mrs. Douglas G. Heuer, ACET'83
 Ms. Tira Hightower, MAEGD'17
 Mr. and Mrs. Brian J. Hill, BSCE'12
 Mr. Charles M. Hill, BSBA'94 and
 Mrs. Cynthia G. Hill ♦
 Mr. Tony L. Hill, BSME'12
 Mr. Brett S. Hinds, BSME'90 and
 Mrs. Gayle L. Hinds, BSME'91
 Ms. Michelle L. Hines +
 HNTB Corporation
 Mr. Jason Hoffmeyer
 Mr. Robert L. Hofmann, BSAr'74
 Mr. Dave B. Holmes, BSIM'71
 Mr. Douglas A. Holmes, BSME'93
 Mrs. Sherry L. Holt-Campbell, MBAI'12
 Mr. Norman G. Homer, BSIM'58
 Mr. and Mrs. Paul E. Hooberman, BSME'63
 House of Falafel
 Ms. Venetta House
 Mr. and Mrs. Russell G. Hudson, BSAr'88
 Mrs. Harmony L. Hunsanger, MBA'09
 Mr. Kurt M. Hunsanger, MBA'09
 Ms. Katherine L. Hunter, BSBA'82
 Mr. Ibrahim O. Huthman, BSCE'14

Deceased * LTU Employee + Lifetime Giving Society Member ♦

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ISW Corporation Inc.
Ms. Catherine Iwick
Ms. Sandra C. Jackson
Mr. Carl A. Jacobi, Jr., BSEE'59
Mr. Bharat Mourya Reddy Jakka, MSME'17
Ms. Marie T. Jamison +
Mr. and Mrs. William F. Janke, BSME'84
Dr. + Badih A. Jawad and
Mrs. Megdieh K. Jawad
Mr. and Mrs. Joseph N. Jennings, Jr.,
BSBA'67
Mr. and Mrs. Glenn T. Jensen, BSCh'83
Mr. Christopher B. Jerzylo, BSIM'82
JM International
Mr. Jean-Marie Joassin, BSAr'02
Mr. Jean-Philipp Joassin, BSCS'00
Mr. and Mrs. David A. Johnson, BSME'84
Mr. David R. Johnson, MBA'06
Mr. Lyndon B. Johnson, MSIO'99

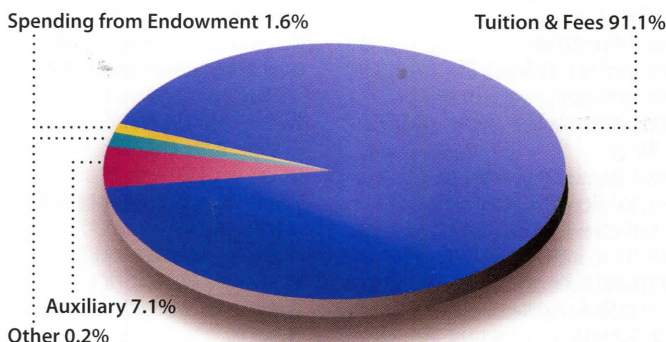
Mr. and Mrs. Vernon Johnson, BSAr'85,
BA'89
Mr. Michael Johnson
Mr. Roosevelt C. Johnson, BSIM'73
Mr. James J. Jolly +
Mrs. Katherine M. Jolly, MBA'13
Mrs. Pamela Jones-Sexton ♦
Mrs. Tawanesha T. Jones-Williams,
BSAr'92, BA'94, MA'09
Mr. and Mrs. Thomas G. Jonik, BSME'89
Mr. Arthur Kadlitz
Ms. Kathy Kadlitz
Capt. and Mrs. Dennis J. Kaiser, BSBA'79
Mr. and Mrs. Robert J. Kaminski, BSCvE'65
Mr. Keith W. Kapanowski, BSME'98
Mr. and Mrs. Alexander Kargilis
Mr. Gary A. Kavanagh, BSME'84
Mrs. Patricia A. Kaye, BSEE'88
Ms. Lenore A. Kellner-Smith, BSBA'94,
MSIS'99

Miss Melody L. Kellogg, BSAr'05, MBA'08
Mr. Thomas Kelly
Mr. James E. Kemp, AEET'56
Mr. Allen A. Kessler, BSBA'76 and
Mrs. Phyllis Kessler, BSIA'76
Mr. Ebrahim Khushdil
Mr. Joseph J. Kielasa, BSEE'16
Mr. and Mrs. Donald A. Kieliszewski,
BSIM'70
Dr. Joongsu Kim +
Mr. + and Mrs. Paul F. Kinder
Mr. and Mrs. J. Donald Kirvan, BSIM'72
Mr. and Mrs. John T. Kivi, BSIM'72
Mr. Scott and Mrs. Marcy Klevorn
Mr. and Mrs. Barry W. Knister
Mr. and Mrs. Ronald P. Knockeart, BSEE'63
Mr. Jordan J. Koenig, BSEE'06
Mr. Leeladhar Kommalapati, MAE'17
Mr. and Mrs. Mark Kortz
Mr. Hemanth Kota, MSME'17
Mr. and Mrs. Charles A. Koury, BSMA'73
Mr. and Mrs. Richard P. Kovarik, BSME'95
Dr. Keith J. Kowalkowski +
Mr. Richard Kozlowicz, BSCvE'66
Mr. and *Mrs. Walter J. Kraimer, BSIM'62
Ms. Donna L. Kress +
Mr. Kurt S. Kreszyn, AEET'84 BSIM'93
Mr. Anthony J. Kubiak
Mr. Peter J. Kuchta, BSME'77 ♦
Ms. Linda Kucinski +
Mr. Douglas W. Kueffner, BSAr'74
Mr. Scott W. Kujawa+, BSBA'16
Mr. and Mrs. Ronald L. Kurkowski,
BSIM'63
Mr. Gregory Kwapis
Mrs. Rosemarie H. Kwapis
Mr. Ronald G. Lahti, BSET'06 and
Ms. Jennifer M. Lahti, BSME'02
Mr. Christopher D. Lauinger, BSAr'97
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Ms. Shirley Lawton
Mr. and Mrs. Alvin S. Levett, BSIM'71
Mr. Glenn H. Liebowitz, BSBM'13
Mr. and Mrs. James E. Like, BSCE'86
Mr. Paul Chu Lin
Dr. Liping Liu +
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BSME'73
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BSME'75
Mr. and Mrs. Stephen M. Lodge, BSAr'91,
MA'02
Mr. Gerald A. Long, BSIM'81
Mr. James R. Longenecker, BSME'94
Mr. and Mrs. John B. Lovelace, BSME'68
Mr. Gary Lowe +
Mr. and Mrs. Lowell P. Loweke, BSME'69
Mr. and Mrs. Bruce N. Lowery, BSIM'60
Mr. John F. Luca, BSIM'88
Mr. and Mrs. Richard E. Lundgren, BSEE'66
Mr. Benjamin J. Luppino, MSIO'00

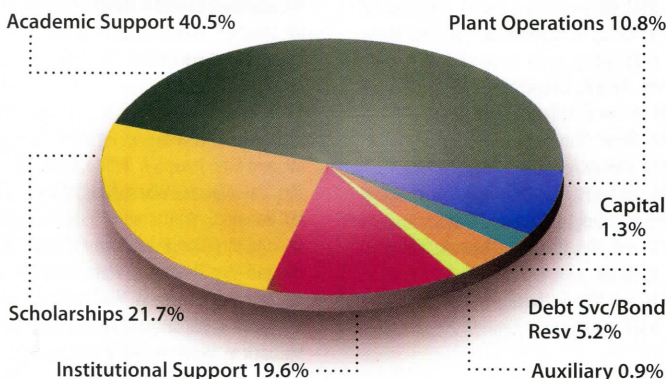
Mr. and *Mrs. Robert F. Luppino, BSIM'67
Mr. and Mrs. Martin E. Lyczynski, BSIE'98
Ms. Linda Lynch
Ms. Sharon M. MacDonell +
Mr. Roger A. Maciejka, BSIM'69
Mr. Philip Macy, MCEM'12
Mr. Arthur J. Makarewicz, BSBA'76
Mr. and Mrs. Mark C. Malak, BSME'89
Ms. Andra L. Malburg
Mr. and Mrs. Mark H. Mamassian, BSBA'85
Mr. Mattieu+ and Mrs. Rebecca M.
Maracle +
Mr. Marcell D. Marcolina, BSBA'94
Mr. and Mrs. Edwin Marcum, BSME'52
*Dr. Thomas G. Marx +
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BSIM'79
Mr. John M. Matthews
Mr. Eugene Mattison, AIST'75
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Mr. and Mrs. Walter F. McCoskey,
BSME'51 ♦
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Mr. Tim McGillivray +
Mr. Michael T. McKee, BSPh'88
Mr. Andrew D. McLeod, BSAr'97
Mr. and Mrs. James J. McMahon, BSEE'62
Mr. and Mrs. Michael J. McNamara,
BSCE'79
Prof. Janice K. Means PE +
Mr. and Mrs. Edmond Megerian
Mr. Raphael Meier, BSET'16
Mr. and Mrs. Michael A. Melms, BSME'76
Ms. Kristine M. Menzing, BSME'03
Ms. Valerie Merriwether +
Prof. Michael J. Merscher
Dr. Eric G. Meyer +
Mr. and Mrs. George Meyers
Ms. Leslie L. Michalik +
Ms. Catherine Michel
Michigan Housing Council
Mr. and Mrs. Chester P. Mienaltowski,
BSME'71
Mike's Auto Sales
Mrs. Carly M. Miller +
Mr. Ira C. Miller Jr., BSEE'73
Mr. and Mrs. Walter S. Miller, BSIM'64
Mr. and Mrs. Mark R. Mitchell, ADP'84,
BSAd'00
Dr. Robert N. Morales, BSIM'71
Ms. Heidi L. Morano +
Mr. and Mrs. Raymond C. Morawski,
BSME'66
Mr. Cleotha Morgan, BSEE'04
Mr. Jeffery M. Morrisette +
Mrs. Diane I. Morse, BSCE'83
Mr. Vaughn Mouradian, BSME'85
Ms. Jill Moyer
Mr. and Mrs. Edward F. Muccioli, BSIM'77
Mr. Muhannad U. Mudallal, BSIM'85

Financial results for fiscal year ending June 30, 2019

Revenue: \$79,320,825



Expenses: \$ 79,289,598



Mr. and Mrs. Ronald K. Mudge, BSEE'71
Mr. Daniel G. Mulder +
Mr. and Mrs. Douglas A. Mulder, BSME'03
MSMSE'11
Mrs. Joyce G. Murdock, BSBA'80
Mr. and Mrs. Thomas A. Musselman,
BSEE'86
Mr. Jonathan D. Nąbozny, BSCE'14
Mr. Scott E. Nachazel, MBA'08
Mr. Douglas Nagy
Mr. and Mrs. Jerry G. Najarian, BSIM'74
National Christian Foundation West
Michigan
Mr. and Mrs. Joseph M. Naujokas,
BSME'72
Mrs. Linda F. Nehasil, BSEE'87
Mr. Jeff Nelson
Dr. Patrick W. Nelson +
Mr. and Mrs. M. Lee Nevland, BSEE'58
Mr. and Mrs. Jamil A. Niazi, BSME'90
Mr. Max E. Nicol, BSIE'49
Mr. and Mrs. Kirk M. Nicola, BSME'82
Mr. Jay R. Nicols +
Mr. Ed J. Noga, BSME'75 and
Mrs. Patricia A. Noga, BSAR'75 ◊
Mr. Charles E. Nolan Jr., BSCE'84
Mr. Tim R. Norman, BSEE'02, MBA'09
Dr. and Mrs. Jon N. Nowak, BSIM'60
NTH Consultants, Ltd.
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Mr. and Mrs. Dennis R. O'Connell, BSIM'70
Mr. Albert R. Olson, BSME'57
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BSAR'87
Mr. Thomas J. Ozog, BSEE'91
Mr. and Mrs. Dennis G. Page, BSAR'65
Dr. Peter S. Palka Jr., BSEE'80
Mr. and Mrs. Spencer Partrich
Mr. and Mrs. David C. Paterson, BSAR'62
Mr. Frederic C. Paulsen, BSME'73
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Ms. Debbie Pellerito
Mr. Carlos E. Penaranda, BSCvE'17
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Mrs. Carole Pence ◊
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Mr. and Mrs. James E. Peterson, Jr.,
BSIM'74
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Mr. Austin Petty
Ms. Catherine J. Phillips +
Mr. and Mrs. Melvin M. Phillips, AIET'81
Mr. Joshua Pickens +
Prof. Margaret M. Pierce +
Mr. Justin Michael E. Pilarski, BSBM'16
Mr. and Mrs. Mark Piotrowski, BSMCS'87
Mr. and Mrs. Craig Pittman
Mr. Thomas A. Platz, BSAR'83 and
Mrs. Karen L. Widmar Platz, BSAR'83
Prof. Philip D. Plowright +
Mr. Mark E. Plunkett, BSEE'82
Ms. Susan Poli-Smith +
Mr. Timothy M. Polulak, BSEE'92

Mr. and Mrs. Thomas Pongratz, BSIM'75
Mr. Eric Poplawski
Mr. and Mrs. Mike M. Powell
Mr. and Mrs. Tim Powell
PPG Industries Foundation ◊
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Mr. Andrew Prokopow, BSME'61
Mr. and Mrs. Paul M. Pukita, BSME'74
Mr. Anthony P. Racka, MBA'00
Mr. Daniel J. Radomski +
Mr. and Mrs. Richard Attinoto, BSME'82
Ms. Janice C. Ramsey, BSBA'90
Mr. Lynn A. Range, BSAR'52
Mr. and Mrs. Charles A. Rasko, BSME'77
Ms. Karen A. Ray-Farley, MSIS'12
Mr. and Mrs. Bruce R. Reed, BSME'75
Mr. David E. Reichard, BSEE'54
Mr. and Mrs. David A. Reinhold, BSBA'84
Mr. Michael J. Reiser, AIST'67
Mr. and Mrs. E. D. Reitzel, BSAR'55
Ms. Sheri Renas
Mr. and Mrs. James F. Renaud, BSAR'95
Mr. and Mrs. James G. Reverski, BSME'74,
BSBA'87
Mr. and Mrs. Donald E. Rezanka, BSIM'72
Mr. Andrew Richards +
Dr.+ and Mrs. Chris H. Riedel
Mr. and Mrs. Richard C. Risko, AEET'62
Ms. Karlene Robich
Mr. and Mrs. John P. Rockne, AEET'94
BSTe'98 BSCvE'05
Mr. and Mrs. Donald R. Rondy, BSCvE'64
Mr. and Mrs. Bernd M. Ronnisch, BSCE'85
Prof. Steven M. Rost +
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Mr. Edward Roth
Mr. Ernest E. Rowe
Mr. Daniel Rubel
Mr. Daniel G. Rusecki, BSIM'70
Mr. Richard G. Russell, GCertNML'07
Mr. Brendan E. Ryan, BSCvE'11
Mr. and Mrs. James P. Ryan, BSAR'66 ◊
Mr. Roman Rzaa, BSBA'80
Mr. Anil K. Sachdev
Mr. and Mrs. James Sachs, BSEE'90
Mr. and Mrs. Michael L. Saez, BSME'89
Mr. Bilal Sakbani, BSEE'16
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Mr. and Mrs. Troy Schafer, BSMCS'95
Ms. Suzanne Schimanski-Gross +
Mr. and Mrs. Walter W. Schlichting,
BSME'62
Dr. Scott D. Schneider +
Mr. Timothy E. Schnellbach, BSMCS'91
Mr. Emil J. Schnellbacher, DBA'17
Mr. and Mrs. Gerald A. Schnute, AEET'63
Mr. Dean J. Schultz
Mr. Keith Schweizer, MGLM'13
Ms. Lauren N. Seebold
Selective Industries, Inc.
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Mr. Gary K. Sewell, BSEE'73
Mr. and Mrs. John C. Shaheen, BSAR'83

Mr. and Mrs. John V. Sheoris, FAIA
Ms. Collete Sherfey +
Mr. Jeffrey C. Sherry
Mr. Harsh Anand Shetye, MSAE'18
Mr. Michael W. Shifflett, BSEE'02
Mr. and Mrs. Roger F. Shtogrin, BSIM'61 ◊
Mr. and Mrs. Daniel R. Shunk, Jr., BSEE'03
Mr. and Mrs. Bradley Sibel
Ms. Fauzia Siddiq +
Mr. Michael B. Simmons, BSAR'07
Mrs. Starlett Sinclair +
Mr. Jeffrey D. Sloss and Ms. Deborah T.
Sloss, MBA'12, GCertNML'12
Mr. and Mrs. Brian M. Slowik, BSME'81
Ms. Margaret M. Smigielski, MSE'00
*Mr. David Smith, BSAR'84, BAR'85 and
Mrs. Grace A. Smith, BSAR'85, BSIA'85
Mr. Jesse N. Smith, Jr., BSEE'68
Mr. Matthew G. Smith, BSAR'06
Ms. Diane Sobania +
Spalding DeDecker Associates, Inc.
Ms. Marsha K. Spehar, BSEE'95
Mr. Rupesh Srivastava
Mr. and *Mrs. David P. Stadelman,
BSME'75
Mr. and Mrs. Richard E. Stanco, BSEE'59
Mr. Gary P. Staniszwski, BSME'75 and
Mrs. Barbara C. Staniszwski, BSMA'77
Mr. and Mrs. Philip E. Stankewicz,
BSBA'77
Mr. Nathan Staple
Ms. Lindsey S. Stefaniak, BSEE'09
Mr. Joel J. Stein
Mr. and Mrs. James F. Stephen, BSAR'73,
BAR'77
Mr. Craig Stephens
Mr. and Mrs. Kirk T. Steudle, PE, BSCE'87
Mr. Michael R. Stewart, BSBM'07
Mr. Eric N. Stigleman, BSME'83
Mr. David L. Stirsman, BSME'74
Stucky Vitale Architects, Inc.
Dr. Richard Sun
Mrs. Bonnie R. Swanson
Mr. Bradley W. Swanson, BSAd'01
Ms. Margaret A. Szarafinski
Mr. Walter L. Szatkowski
Ms. Samantha N. Szeszulski, BSAR'13
Mr. and Mrs. Thomas A. Szpakowski,
BSEE'68
Mr. Randy G. Szymaniak, BSET'06,
AMET'06
Mrs. Amy K. Talerico, BSET'07
Mr. Brian E. Tallant, BSME'81
Ms. Renee Tambeau +
Ms. Shirley A. Tatum
Mr. and Mrs. Danny R. Taylor, BSEE'84
Mr. Michael L. Teran, BSEE'06
Mr. and Mrs. Arthur T. Thomas, BSChE'50,
BSEE'66
Mr. and Mrs. Arthur T. Thomas, BSChE'50,
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Peter Gossel, BSEE'63 Uses IRA Rollover to Make Gift

Peter Gossel, 82 years young, wanted to make a larger annual gift to LTU in December 2019. How did he do this while also ensuring he could live on a fixed income in 2020? He utilized his IRA (Individual Retirement Account)!

Peter attended Lawrence Tech as a full-time student and graduated in 1963 with an electrical engineering degree. In his 50+ year career, he held fulfilling positions with Michigan Bell, Bell Laboratories and AT&T. Also during these years he invested in each company's 401(k) retirement plans as well as making deposits with Morgan Stanley. A smart decision, which over the years, resulted in a very nice nest egg for Peter's actual retirement.

What most IRA investors don't realize is that retirement funds cannot be kept in their account indefinitely. A minimum withdrawal is required annually beginning at age 70 ½, and unfortunately it is taxable. However, your qualified charitable distributions can satisfy all or part of your required minimum distribution from your IRA and the donor pays not income tax on the gift. (The transfer generates neither taxable income nor a tax deduction so you can benefit if you do not itemize your deductions.)

In 2019, Peter decided he could live comfortably without the required withdrawal to subsidize his income, but also knew that he would be required to withdraw it or pay a penalty. Solution to this dilemma? Peter gave his annual IRA distribution to LTU as a charitable donation! Technically known as an IRA Rollover, Peter asked his IRA holder to write the required distribution check directly to LTU. A win-win-win, it provided much needed support for the University to use in the area of greatest need as determined by the president, fulfilled Peter's desire to continue making generous annual contribution to his alma mater, AND it enabled Peter to show a reduced income on his taxes.

If you are interested in following in Peter's footsteps by using your IRA required annual distribution to support LTU, contact the Office of University Advancement at 248.204.2300. □JV

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A new way to connect with LTU

As an easier way for LTU alumni, donors, and friends to access the specific help and information they want, the former Office of Advancement has been renamed Development and Alumni Relations. The Office of Marketing and Public Affairs was previously split off several years ago.

The new names signal the importance of how LTU works and engages its constituencies, provides services, and encourages vital support and generosity. Email addresses for the three areas are: development@ltu.edu, alumni@ltu.edu, and mktngpub@ltu.edu. Phone 248.204.2300 for Development and Alumni Relations, and 248-204-2200 for Marketing and Public Affairs.

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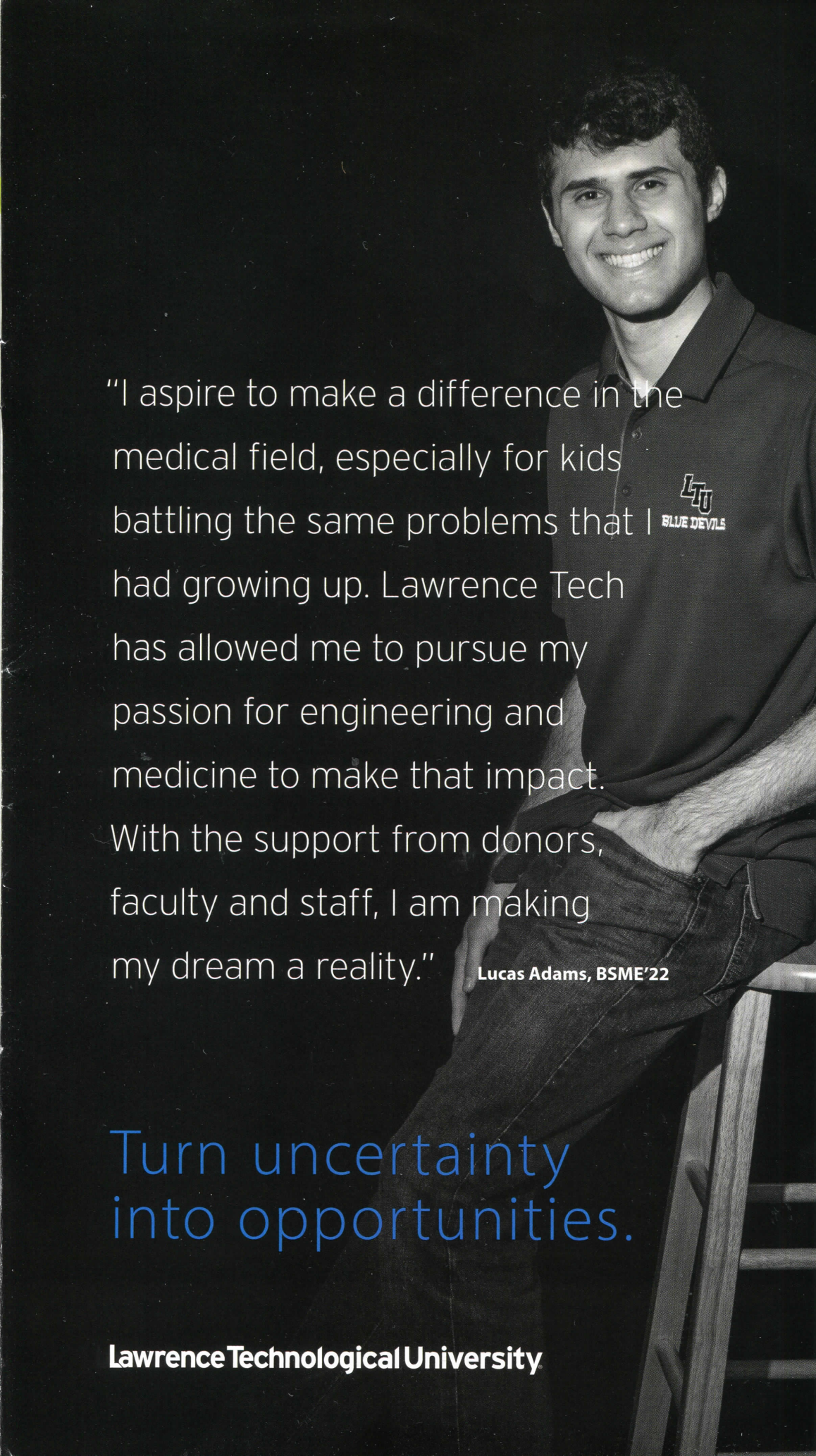
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The Legacy Society recognizes individuals who have remembered Lawrence Tech in their estate plans or with a planned gift commitment. Legacy Society membership is open to everyone who formally notifies the University of their Planned Gift Intention.

For more information, visit ltu.planning-mylegacy.org or call 248.204.2300.

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T H E B A C K P A G E

LTU scores high in Princeton Review, US News rankings

Lawrence Technological University was named one of "The Best 386 Colleges" in the United States by the educational analysis and test preparation firm Princeton Review. LTU also moved up on the list of best Midwest regional universities published by U.S. News & World Report in its "Best Colleges 2021 Guidebook."

LTU also appears again on Princeton Review's list of "Best Midwestern" colleges and universities. Only 158 colleges and universities in 12 Midwestern states made the list.

"We salute Lawrence Technological University for its outstanding academics and we are truly pleased to recommend it to prospective applicants searching for their personal 'best-fit' college," said Robert Franek, The Princeton Review's editor-in-chief and lead author of "The Best 386 Colleges."

Only 14 percent of America's 2,800 four-year colleges and universities earn a spot on the Princeton Review's list of 386 top institutions. The company chooses the colleges based on data it collects annually from administrators at hundreds of colleges, as well as an 85-question survey of 143,000 college students, who rate their schools on the quality of professors, school services, campus culture, and other facets of college life.

As for the U.S. News ranking, LTU was tied for 37th among 157 listed Midwest regional universities, up from 43rd a year earlier.

U.S. News also placed Lawrence Tech No. 26 on its regional list of "Top Colleges for Veterans," which the magazine defined as schools that participate fully in federal initiatives helping veterans and active duty service members pay for their degrees. LTU also ranked No. 61 on the list of "Best Value Schools," which lists universities on a combina-

tion of the net cost of attendance for a student including financial aid and the quality of the educational programs the university offers. And U.S. News also placed LTU on its list of "Top Performers in

Social Mobility," a measure of the graduation rate of economically disadvantaged students, as measured by the number of students who graduate while receiving federal Pell Grants, which go mostly to students with household incomes below \$50,000 a year.

U.S. News said its rankings are based on "thoroughly vetted academic data from our surveys and reliable third-party sources," including student retention rates, graduation rates, graduate indebtedness, assessments of academic quality by peer institutions, the student-faculty ratio, class sizes, test scores and grades of incoming students, the level of alumni giving, and the strength of the faculty.

"The strong performance of our overall academic program in these prestigious national surveys reflects our ongoing commitment to enhance the value of a Lawrence Tech degree," said LTU President Virinder Moudgil. "It is gratifying that LTU's efforts are being recognized."

The Princeton Review ranking included quotes from students, who described those attending LTU as "the nerds of the nerds and then some student-athletes," but that deep down, "nearly everyone is a techie." Undergrads also say their classmates are "hard working, dedicated and determined," as well as "extremely friendly." Undergrads also pride themselves on the fact that the university attracts "people from all over the world." Ultimately, no matter where they grew up, "students at LTU get to know each other fast and form a family. We help

each other in courses and lift each other up." And while professors hold undergrads to a "high standard," an "extremely helpful and caring staff" is "always willing to go out of their way to help you."

□MR

