SUMMER/FALL 2019

Lawrence Tech.

LAWRENCE TECHNOLOGICAL UNIVERSITY MAGAZINE







LTU's Nursing Lab offers realistic healthcare simulation

Stadium going up | Fourth residence hall opens | Campus commencement a big success
New business accelerator | Alumni news & notes | Report to investors | and more

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On the cover: On the first floor of the University's Science Building is a new, \$400,000 nursing laboratory for the LTU Bachelor of Science in Nursing program, now admitting 48 students per year. Here, students check out part of the lab equipment—a realistic humanoid replica named Sue, who makes breathing and heartbeat noises and responds like a real person to treatment. Cover photo by Glenn Triest.

awrence Tech

LAWRENCE TECHNOLOGICAL UNIVERSITY MAGAZINE



New nursing lab — This 2,400-squarefoot learning space includes a simulated intensive care unit hospital room and clinic settings



Fourth residence hall opens – A high-tech haven for first-year students that also includes spaces to generate collaboration and community



Alumni News — Thriving amid change in the auto industry, changing the face of architecture, a new alumnus trustee from FCA, and more

Alumni Notes — Career news, awards

and more from LTU and DIT alumni.



Wright renovation - A careful, staged fundraising and renovation effort has put a new shine on this Frank Lloyd Wright gem in Bloomfield Hills

Athletic stadium going up -

Stadium

Permanent seating for 2,300 fans is the

next step in the buildout of Blue Devil



A Campus Commencement – The first Commencement Exercises on LTU's Southfield campus provided precious memories for new alumni and families





On-Campus — LTU's business honorees, a new business accelerator, grants for medical research, an honor for two top administrators, and much more



Report to Investors

Friends We'll Miss

Donor Honor Roll

LTU Sports — The comings and goings of Blue Devil Sports



LTU wins world championship for autonomous vehicles, three years running.

Virinder K. Moudail

In overcoming adversity, my students are not 'snowflakes'

Normally, in this space, I review each magazine's content and LTU's latest achievements. But in this issue, I'm sharing my space with Dr. Robert Fletcher, professor of mechanical engineering, because he has written a column that is absolutely compelling. As I said at my inauguration in 2012, "at Lawrence Tech, it's all about the students!"

Virinder K. Moudgil President and CEO



often see criticisms about today's college and university students, calling them snowflakes, cupcakes, softies, or worse. My response is based on my experiences at Lawrence Technological University and its College of Engineering, in which I teach. Students that I interact with are not snowflakes, cupcakes, softies, or anything of the kind. Rather, they are often the first generation in their blue-collar family to attend college and, though there are adjustments for them, they are grateful to be here and work very hard to succeed. Their parents have saved money for almost two decades so that these students can go to college.

Robert Fletcher Some of these students come from well-to-do families, but are only one generation away from their grandparents, who fled Europe and the gas chambers and concentration camp horrors that were once there. The knowledge and awareness of those events have not been lost on them. They know that even in civil societies, things can change for the worse very quickly.

Some of my students are from families where every member of their immediate and extended family lost their auto company jobs in the "Great Recession," when unemployment rose to nearly 30 percent in the area. These students take nothing for granted, and know that nothing will ever be handed to them for free. They fully understand the value of a good job.

Some are from farm families who work 15-hour days in the fields.... I had one student a few years back that sometimes came late to a morning class in hip waders because he had to milk cows before coming to school, and did not have time to change. These students know if they do not work, they do not eat.

Some students are from homes with small family companies which have successfully competed in business now for decades against international competition and 15-cent-an-hour wages in China. They know the meaning of hard work.

Some are from refugee families who have literally escaped brutal dictators with only their lives and the clothes on their backs. Some of their family were murdered in their home countries. I personally know of two students who had family members shot in front of their very eyes They are not here to mooch, nor to "take advantage of the system." They are here to work hard, seek opportunities, and to live a safe life....

Some of the students I teach have children of their own and work sometimes at two jobs to make ends meet while going to school full time....

Some are caring for sick and aging parents and dealing with the challenges that go with those responsibilities. I had a student whose mother died in the middle of the semester. That student took care of her mother's funeral and burial. She then sold her mother's home, closed her mother's estate, and still earned a solid "B" in my thermodynamics class. She is a strong individual, displaying a confident, purpose-driven life.

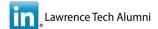
I do not know one student who would wilt or wither if someone criticized them, or who needs some sort of "safe space" to survive. These students deal with reality and the real world every day....

No, the college students that I interact with are not snowflakes, cupcakes, softies, nor any other term like that. They are good, decent, hard-working people, who will continue to work toward their own well-being, and toward the well-being of their families, of society, and our country. They are grateful, appreciative, and know they have much to learn and want to do so. We are lucky to have them helping to build our future, and I am fortunate to know them. Talking about these students in any other way is an insult to them, and the person saying it.













For the latest about Lawrence Tech, visit www.ltu.edu/news



nursing lab opens

Lawrence Tech's newest teaching laboratory, for its nursing program, is now ready for use.

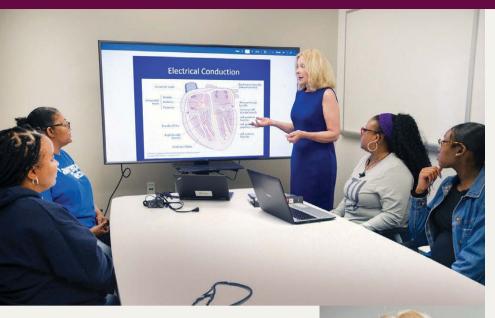
he 2,400-square-foot laboratory includes a simulated intensive care unit hospital room that will have all the equipment normally found in the hospital setting—oxygen, suction, monitors-all surrounding a hospital bed.

LTU nursing students practice CPR on a realistic mannequin who responds to many medical treatments exactly as a real person would.

The rest of the lab will be comprised of three bays with hospital beds, simulating a hospital triage or clinical setting, where students can practice healthcare skills such as inserting IV lines, inserting nasal gastric tubes, making sterile dressing changes, and more.

Two simulation patients—one an entire body and set up as female, the other a torso set up as male—will also be part of the lab. The replica patients make realistic breathing and heart sounds, and the full-body simulator is wireless, with the ability to have changes in vital signs and changes in physical characteristics. It offers students the ability to practice numerous health care skills. Coming in the fall will be more equipment for more practice.

There is also a conference room with a large video screen for debriefing students after their practice sessions in the labs, as well as offices



for M. Therese Jamison, director of nursing at LTU; Suzanne Cleere, assistant professor of nursing; Margaret Glembocki, assistant professor of nursing; and Brian Kaminski, senior lecturer.

"Having a space to talk to students about their laboratory simulation experiences is critical to the educational process," Jamison said. Video recordings are made of students' practice sessions with the lab equipment, and instructors can coach students on their performance based on the video.

The University's total investment in the new laboratory is \$400,000. It is located in the LTU Science Building, in space formerly occupied by LTU's Donley Computer Center, which has relocated to the University Services Building.

Lawrence Tech, in partnership with Ascension, received state approval to add a new nursing program in 2016. The first class of 32 students was admitted in August 2017. A second class was admitted in August 2018.

This year, LTU received state approval to in-

Lawrence Tech, in partnership with Ascension, received state approval to add a new nursing program in 2016

M. Therese Jamison (standing) shows a aroup of nursina students the electrical workings of the human heart in the conference room of LTU's new nursing labs.

crease the number of students admitted per year from 32 to 48. That third, larger class arrived on campus this August.

Jamison, Cleere, and Glembocki have Doctor of Nursing Practice degrees, the equivalent of a PhD in nursing, while Kaminski has a master's degree in nursing.

Jamison says the LTU

program is unique in that nursing students are immersed in nursing education from the first day of their enrollment, rather than having to spend two years in a more general-education "pre-nursing" program before having to reapply for nursing school—and, she said, students benefit from the association with Lawrence Tech, a university known for small class sizes, real-world "theory and practice" education, and successful STEM (science, technology, education and mathematics) programs. \square MR

M. Therese Jamison, founding director of nursing at LTU, received her Doctorate of Nursing Practice degree from Vanderbilt University, after earning a post-master's certificate in acute care nursing from the University of Michigan and bachelor's and master's degrees in nursing from Wayne State University.



This decor in the office of LTU **Nursing Direc**tor M. Therese Jamison is an example of her teaching philosophy.

HISTORIC WRIGHT HOME



More importantly, when it rains, water won't drip into the home around those skylights.

Affleck House, one of just three homes in metro Detroit designed in the Usonian style of renowned architect Frank Lloyd Wright, is in the midst of a restoration guided by alumni of Lawrence Technological University, which has owned the home since 1978.



An outdoor living space is perched over a wooded ravine at Affleck House.

The latest effort—being overseen by three winners of LTU's Distinguished Architecture Alumni Award (DAAA)—is a \$46,000 replacement of the Affleck House's 19 skylights.

"The skylight work was on our agenda for years, but it was becoming more and more of an issue because of leaks pretty much every time it rained," said Benedetto Tiseo, BSAr'78, who received the DAAA in 1999. "We determined the leaks were not the result of the roofing but of skylight deterioration, and we were able to raise the funds to get that work done."

Affleck House's restoration began in 2010, when the three

GETS ONGOING RESTORATION

The Affleck
House viewed
from the south,
with the master
bedroom at far
left, two other
bedrooms, and
the main living
and dining area
on the right.

DAAA winners — Tiseo, Frederick F. Butters, BSAr'83, BAr'84, MAr'09, who won the award in 2003, and Dierdre Jimenez, BSAr'83, BSIA'85, who won it in 2009—began compiling a list of projects that needed to be done to preserve the historic home, with the assistance of LTU faculty.

"When I first joined, the program had a price tag that was pretty much insurmountable,"

recalled Jimenez, who has had a successful career in corporate real estate management. "The strategy we came up with was to break the work down into smaller projects that we could raise money for, execute, and leverage the success of those projects to raise money for the next project."

The first project, repair of a critical retaining wall that Tiseo said was "probably a year away from collapse," used money raised by selling custom Affleck House pens at a price of

\$400—pens that Butters, a hobbyist woodworker, made by hand out of spare pieces of the tidewater cypress wood that is used inside and outside Affleck House.

Other projects have included removing a paved driveway that was causing major drainage problems, and a kitchen restoration that

replaced countertops, cabinets and appliances while remaining true to the home's original design and improving the kitchen's ability to handle catering. Butters said the new LED kitchen lighting is so efficient it uses less power than a single 60-watt incandescent bulb.

More LED lighting has been installed throughout the house. "The problem is there are not a lot of reflective surfaces in the house—it's all dark tidewater cypress siding, brick and dark colored concrete inside," said Tiseo, who has been an adjunct professor at LTU since 1980. "It's fine during the day because a lot of natural light gets in, but at night you needed more lighting to function in the house."

Jimenez said another key to the success of the project was forming a separate subcommittee to restore Affleck House's expansive hillside property.

"One thing that neither the faculty nor we architects could get our arms around was the site," Jimenez said. "It needed so much work, there were so many issues—we needed real expertise in landscaping."

The subcommittee focused on two parts of the site—the natural woodlands, which Jimenez said had become infested by invasive species, and the manicured part of the lawn. Eventually,

CONTINUED



The main living area.

HISTORIC WRIGHT HOME CONTINUED

with funds raised by special landscaping tours, Jimenez said the invasive species were removed. As for the manicured lawn, "we were able to put Mrs. Affleck's rose garden back in the front vard, and we put back in the evergreens, what we call the eyebrow bed, along the road, which was in Frank Lloyd Wright's original sketches."

Butters is also working on restoring the home's basement workshop area into usable space.

The Affleck House was closed to tours during the restoration, but has since reopened.

Affleck House was commissioned in 1940 by Gregor Affleck—a Wisconsin native who had invented a fast-drying paint used in the auto industry—and his wife, Elizabeth. They asked Wright to design a country home after seeing photos of Wright's Fallingwater house in Pennsylvania.

The home is built in Wright's Usonian style, which was his answer to the need for low-cost housing for the average American. Usonian houses were typically one story, with flat

roofs, reflecting the horizontal nature of America's Midwestern plains. Wright also introduced skylights as a way of providing additional light. The homes used the latest in building technology but emphasized low-cost native materials.

Affleck House features a long living-dining area and a small kitchen. Leading back from the living area is a long, narrow hallway off which are three bedrooms and two bathrooms, giving the house roughly a T shape. There's also a partial walkout basement with a fourth bedroom, another bathroom, and a workshop-laundry area.

The Afflecks raised two children in the home and lived there from 1941 until their deaths—Elizabeth in 1973, Gregor in 1974. They allowed curious visitors to tour the

home while they lived in it—they kept a guest book that grew to more than 10,000 names. The Affleck children donated the home to Lawrence Tech in 1978 as a teaching resource.

"The whole idea is for people to come see the house, tour it, and use it for meetings and events once this restoration is complete," Butters said.

Jimenez said the tours are intended to provide a permanent funding source for Affleck House. She credits former LTU pro-

fessor Harvey Ferraro and Michael Slaughter, volunteer docents, "who do all of the tours out of the goodness of their hearts."

Also crucial to the project are architectural historian and LTU professor Dale Allen Gyure, and professor emeritus Janice Means, an expert in energy systems, who Jimenez said helped with design of the home's heating and electrical systems. LTU Advancement staffers Robin Leclerc and Julie Vulaj have also been instrumental, as has facilities manager Brian Raymond, whom Jimenez said "knows every inch of that house."

Future plans for tours include musical events in the yard and events connected with the Woodward Dream Cruise, she said.

All those involved in the project say it's a real labor of love.

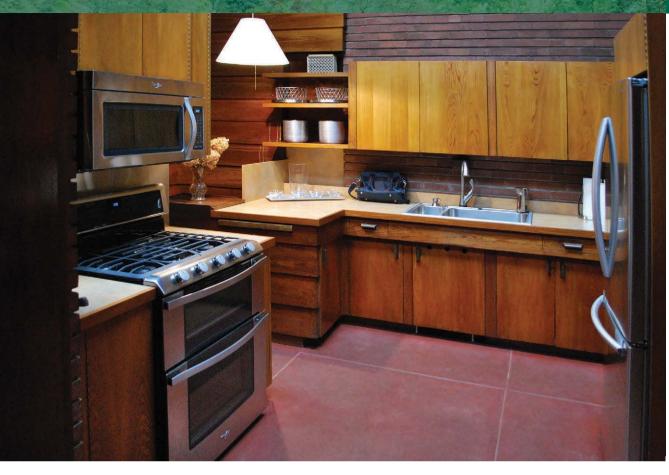
The master bedroom.



events in the yard and events connected

with the Woodward Dream Cruise'

'All those involved in the project say it's a real labor of love'



A kitchen renovation with more modern appliances and an eve toward catered events was part of the restoration project.

"There comes a point in time where everybody who's been involved with the project says the same thing—you get sucked in," Jimenez said. "I find myself many times talking to Frank, or Mrs. Affleck, or Mr. Affleck, asking them, 'Do you like what we're doing? Is this

all right?' Everything we do is viewed through the lens of what the vision was for the house, and how the Afflecks lived there. We're hoping they're happy with what we've done."

For more information on Affleck House tours, contact Tami Stanko at 248.204.2800 or tstanko@ltu.edu. □ MR About 30 members of the LTU men's soccer team, pictured here, as well as the women's basketball team, volunteered at the University's Affleck House fall cleanup.





continues buildout of athletic stadium

awrence Technological University has received approval from the City of Southfield for the next portion of a phased buildout of its outdoor athletic stadium.

provided by The Collaborative Inc., LTU stadium architects. capture the look of what fans will see this fall at The Point on campus.

Construction began in April on permanent spectator seating for 2,300 fans. The \$2 million steel and masonry structure will include space for adding future home and visitor locker rooms, restrooms, and concession stands. A permanent press box is also part of the future plans, along with an athletic training and conditioning facility.

A permanent all-weather field and outdoor lighting were installed, in 2017 and 2018 respectively, thanks to an anonymous \$1 million gift. This new work is also being funded by an anonymous donor.

"We are delighted to build on the strong start that we have already established with the growth of our athletic programs," said LTU President Virinder Moudgil.

LTU relaunched athletics in 2012 after a hiatus of more than 50 years. Football had not been offered since 1946. Now Lawrence Tech



offers 30 men's and women's NAIA athletic programs that involve more than 500 students. Lawrence Tech football will have its first full season this fall against all varsity opponents. (See sidebar.) Track and field will debut in the spring of 2020.

"There are many terrific students who want to continue competing in athletics at the college level," said Dean of

Students Kevin Finn, who helped resurrect LTU sports. "The combination of our very strong academic programs with athletics has been a huge boost to school spirit and campus life."

Southfield Mayor Ken Siver added, "The City of Southfield is extremely excited to have

First full varsity football season coming in September

he Lawrence Technological University football team will host six home games at the LTU Athletic Field in 2019. In its second year of competi-

In its second year of competition, LTU will play a complete Mid-States Football Association



LTU quarterback Tyler Kulka (17) fires the ball downfield.

schedule and enjoy full membership benefits of the 15-team league. A member of the MSFA has claimed the NAIA national title six of the past eight seasons.

The 2019 campaign opens Saturday, Sept. 7 against St. Xavier, a university on the south side of Chicago. The Cougars fin-



The student section goes wild as wide receiver Kavon Higdon (5) scores a touchdown in LTU's 2018 season opener.

ished the 2018 season ranked No. 7 in the nation, posting a record of 9-4 overall and Midwest League champs in the MSFA.

On Sept. 14, a familiar foe visits Southfield in Wisconsin Lutheran. Last season, the Blue Devils engineered a second half comeback, posting 27 unanswered points to

fires the ball downfield.

its own college football team. The addition of the expanded sports program, campus activities, and residence halls have made positive enhancements to the college experience for Lawrence Tech students."

The Collaborative Inc., with offices in Toledo and Ann Arbor, is the project architect.

The general contractor is Rochester-based Frank Rewold & Sons, Inc.

For LTU's athletic schedules, visit ltuathletics.com. To donate to the stadium or other LTU athletic projects, contact Jay Redman, 248.204.2317 or jredman@ltu.edu. \(\textsqrt{DMR}\)

knock off the NCAA Division III opponent, 30-22, in Milwaukee.

The first road trip comes on Sept. 21 with a contest at Olivet Nazarene in Bourbonnais, Ill. The Tigers had a strong showing in conference play, finishing 4-1 in the Midwest League.

On Sept. 28, LTU returns home to host St. Francis University of Joliet, Ill. before heading into a bye week.

When the Blue Devils return to action Oct. 12, Indiana Wesleyan will be waiting in Marion, Ind., for the two sides' third meeting in two seasons. The Wildcats are also coming off their first year of competition and now enjoy full MSFA membership.

The rest of October and into November will be a battle ground for Lawrence Tech as the Blue Devils square off with four straight opponents that finished inside the NAIA's top 25.

Kicking off the stretch is Adrian's Siena Heights University on Oct.19 for Homecoming. The Saints finished 7-3 a year ago and No. 25 in the NAIA. October closes with a visit to Marian University on Oct. 26 in Indianapolis. The Knights clinched the Mideast League with a 6-0 mark and didn't suffer a loss until the NAIA playoffs. Marian finished the year ranked No. 9.

November starts back home in Southfield on Nov. 2 with the University of St. Francis, an institution in Ft. Wayne, Ind. The Cougars fell in overtime of the semifinals last fall after winning back-to-back national titles in 2016 and 2017. Concordia University makes the short trip from Ann Arbor to the LTU Athletic Field on Nov. 9. The Cardinals went 10-3 in 2018, finishing at No. 6 in the nation.

The 2019 slate closes on Nov. 16 with a road game at Taylor University in Upland, Ind.

Season tickets to all six games, at prices of \$50, \$80, and \$100, are available at https://bit. ly/2Epp25M. Single-game tickets went on sale in July. Any questions or concerns about season tickets for 2019 can be directed to tickets@ltu.edu.



East Residence Hall welcomed its first residents in August 2018.

awrence Tech opened its fourth residence hall at the start of the 2018-19 academic year. East Residence Hall is a 95,000-square-foot, \$21 million structure that houses 308 students.

The new residence hall was designed by a Northville company, InFORM Studios, managed by four LTU architecture alumni—founders Ken, BSAr'85, BAr'86, and Gina, BSAr'89, BAr'94 VanTine, and principals Michael Guthrie, BSAr'95 and Cory Lavigne, BAr'96.

The four-story building features many high-tech touches, including all-LED lighting, advanced zone heating and cooling, four laundry rooms, spacious common rooms, unique study and gathering spaces, music practice rooms, a health club with full gym equipment, a large community kitchen, and a bicycle storage and repair area.

East Hall is a traditional, community style residence hall that houses first-year LTU students. All rooms are double-occupancy, and floors are designated by sex. The hall's common restrooms and showers are cleaned by professionals daily.

A view of East Residence Hall, with Donley Hall in the background, from the fourth floor of the new hall on move-in day in August 2018.

on campus to 1,000+

A Blue Devil welcome is in store for new students in East Residence Hall.





LTU Board of Trustees chair Douglas Ebert speaks to a large audience at the formal dedication of East Residence Hall in October.

Pink-shirted volunteers help first-year students move into East Residence Hall in August 2018.

The community style enhances the ability of full-time, on-site University Housing staff to assist students in their transition to college through intentional programming and attention.

"East Residence Hall marks another step in Lawrence Tech's transformation from commuter school to a full-service residential campus," noted President Virinder Moudgil. "With this new residence hall, we now are home to more than 1,000 students living full-time on campus."

The residence hall was built between LTU's Donley and Reuss residence halls, creating a residential zone between the main academic Quadrangle to the south, and North Campus, home to LTU's Don Ridler Field House, the Applied Research Center, and several office buildings.

Dean of Students Kevin Finn said the University has made it a goal to grow student and campus life.

"We made a commitment a few years back to make a residentially focused campus, and our growth continues," Finn said, adding that students who are more involved in on-campus life see greater academic success. $\square MR$



A Campus Commencement

First-ever Commencement on Southfield campus

he way U.S. Sen Debbie Stabenow sees it, today's society faces many challenges stemming from constant, chaotic change from a changing climate, to wrenching economic upheavals, to the effects of modern technology, to increasing levels of misinformation and political division.

Faculty members applaud the graduates as they leave **Don Ridler Field** House.

But giving a Commencement address at Lawrence Technological University, Stabenow expressed confidence that LTU graduates are up to the challenge.

Quoting liberally from the hit musical

"Hamilton," Stabenow predicted the graduates would "be in the room where it happens, on critical issues that affect all of us.'

And she said graduates should aspire to fulfilling another line of the play, "God help and forgive me, I want to build something that's going to outlive me."

She said today's graduates face three basic problems: adapting to change, maintaining personal values and priorities, and building that "something" that will outlive us.

"Your education here at Lawrence Tech can help you tackle all of these," Stabenow said. "My advice to you is really simple. Keep learning. Keep grounded. Believe in yourself. And do something to make your community a better place."

Stabenow noted that LTU graduates are already making a difference in many fields, U.S. Sen. Debbie Stabenow, D-Mich., offers the Commencement address May 11 at Lawrence **Technological** University.



a success by any measure





This LTU grad put her career and life ambitions on her cap....



...and this one spoke with pride of her achievement.

cybersecurity to medicine to infrastructure.

And, in a reference to Lawrence Tech's ever-growing campus facilities, she joked that "being a Lawrence Tech alumnus proves you're patient enough to put up with renovation, and more renovation, and more renovation. But I know students from 15 or 20 years ago are probably pretty jealous of this campus today."

Summing up, Stabenow said, "I know I speak for everyone in this room when I say, we can't wait to see what you will become and what you will achieve."

Stabenow spoke at one of three Commencement Exercises on Saturday, May 11, the 1 p.m. ceremony for graduates of LTU's College of Business and Information Technology and the Departments of Biomedical Engineering, Civil and Architectural Engineering, and Engineering Technology in LTU's College of Engineering. LTU presented her with an honorary Doctor of Laws degree in recognition for her public service.

A 9 a.m. Commencement ceremony honored graduates of LTU's College of Architecture and Design and College of Arts and Sciences, with an address from noted Birmingham architect Victor Saroki, BSAr'79, BAr'80, HD'08.

A 5 p.m. Commencement ceremony hon-



Lawrence Technological University Provost Maria Vaz, LTU Board of Trustees member Howard Padgham, U.S. Sen. Debbie Stabenow, D-Mich., and LTU President Virinder Moudgil after Sen. Stabenow was presented an honorary Doctor of Laws degree at LTU's 1 p.m. Commencement May 11.

CONTINUED

Commencement continued

Nicole Kennedy, M.D., BSEE'95, offered her advice to graduates before being presented with an LTU Alumni Achievement Award.





9 a.m. Commencement speaker Victor Saroki accepts a plaque of appreciation for his thoughtful address.

It was the first time Commencement has been held on LTU's Southfield campus, in response to requests from graduates who sought to have the ceremonies 'at home' ored graduates of the Department of Electrical and Computer Engineering and the A. Leon Linton Department of Mechanical Engineering in LTU's College of Engineering. The address was presented by Douglas Patton, recently retired senior technical advisor at DENSO International America Inc. and a member of the LTU College of Engineering Advisory Board.

Also at the 5 p.m. Commencement, Nicole Kennedy, M.D., BSEE'95, section chief in the Department of Vascular Surgery and medical informatics officer at Henry Ford West Bloomfield Hospital, received LTU's Alumni Achievement Award. After starting her academic career at LTU, Kennedy earned Masters degrees in

biomedical and electrical engineering and an MBA from the University of Michigan, and graduated from the Wayne State University medical school.

In all, nearly 700 LTU students received degrees or certificates in the three ceremonies. It was the first time Commencement has been held on LTU's Southfield campus, in response to requests from graduates who sought to have the ceremonies "at home." The capacity of Don Ridler Field House required that the ceremony be divided in thirds. Several thousand family members and friends attended the ceremonies. and thousands more around the world watched live online. $\square MR$



5 p.m. Commencement speaker **Douglas Patton is flanked by Provost Maria Vaz and President** Virinder Moudgil.



A sea of caps in LTU blue, some meticulously decorated by graduates, at LTU's 9 a.m. Commencement May 11.

Outstanding students named winners of 2019 Donley Awards

stellar student-athlete and a student-entrepreneur were named the winners of the 2019 Edward Donley Distinguished Graduate Awards.

Winning the award for female students was Marissa Bradley, BSBME'19, of Haslett. Winning the award for male students was Sahil Jaggi, BSCE'19, of Bingham Farms.

Bradley excelled inside and outside the classroom throughout her four years at Lawrence Tech. She was the Academic All-American team captain of LTU's women's cross country team and shared her love of the sport with elementary girls as a coach for the Girls on the Run program.

She also held numerous leadership positions on campus, including vice president of the American Society of Biochemistry & Molecular Biology student group and president of the Society of Women Engineers.

With all of her involvement, Bradley has stayed connected to her community on and off campus, serving as a tutor in LTU's Academic Achievement Center, and an emergency room volunteer at St. John Providence Hospital. She contributed to her field of study by completing summer research projects at Michigan State University, Kettering University, and Rensselaer Polytechnic Institute.

Bradley's coaches, supervisors, mentors, and professors described her as "well rounded and high-achieving," "an excellent mentor," "a strong and effective leader," and "a champion of character."

Jaggi was both a dedicated and involved student and an entrepreneur during his years at LTU. Sahil worked on campus as an undergraduate teaching assistant and owns his own company, Micro Wise Inc., which provides support and services

in information technology. Jaggi also dedicated his time and energy to numerous organizations, including the Sigma Phi Epsilon Fraternity, Focus: HOPE, and Gleaners Community Food Bank. He is an award-winning member of LTU's chapter of Collegiate DECA, an international organization of students who participate in business case study competitions.

Jaggi received many nominations for the award, ranging from classmates and professors to employers and DECA competitors. One of his nominators said, "Sahil is an extremely hardworking individual who has managed to complete his degree while maintaining a full time student status and also managing and partially owning a large company. He is the only student at LTU to compete at the International Career Development Conference in Washington, D.C., representing LTU DECA, where he won







an event. He is well rounded and puts everyone else's needs before his own."

The awards are named for Edward Donley (1921-2017), BME'43, HD'67, HD'87, who went on to become chairman and CEO of Air Products and Chemicals Inc. and also chaired the U.S. Chamber of Commerce. He was a national figure in education, serving on numerous boards dedicated to improving teacher training and certification, and was a longtime LTU board member and benefactor.

The Donley Awards are given by the LTU Alumni Association. This year, they received and voted on nominations for more than 30 students.

On Campus

Business honors fraternity inducts 32

Lawrence Tech inducted 32 students into the Beta Gamma Sigma business honors fraternity in a March ceremony at Plum Hollow Country Club in Southfield.

It was the second annual induction ceremony for the group, which is associated with the Association to Advance Collegiate Schools of Business, the most exclusive accreditation agency for college and

university business programs. AACSB accreditation is achieved by less than 5 percent of the world's business schools. Lawrence Tech achieved the honor in 2018.

Entry into Beta Gamma Siama is reserved for the top 10 percent of undergraduate students and the top 20 per-

cent of graduate students, along with distinguished business professionals. Its name derives from the first letters of the Greek words for honor, wisdom, and earnestness.

Attendees heard presentations from two honorary inductees. Bankole Thompson, columnist for the Detroit News and editor-in-chief of the Detroitbased antipoverty non-profit think tank PuLSE Institute, urged students to incorporate the struggle for civil rights into their careers. He told the students that "you aren't just the leaders of tomorrow, you are the leaders of today, and you can make a difference."

A large crowd enjoyed dinner and an inspiring program at the induction event, held at Southfield's venerable Plum Hollow Country Club.

The other honorary inductee, Andra Rush, founder, chair and CEO of the Rush Group, shared how she founded a trucking company in 1984, at age 23, after being unsatisfied working in nursing. (She said she found truck drivers were making





\$1,200 a week 30 years ago, when she was earning \$400 a week as a nurse.) Today, her Rush Group is a transportation, logistics, and auto supply empire with 1,100 tractor-trailers and a billion-dollar manufacturing plant.

"There will be moments in your life when you are pushed out of your comfort zone," she told the students, parents, and LTU faculty and staff. "Or you'll be in your comfort zone and you'll feel something is missing. I urge you to get out of your comfort zone. Failure is where you learn." She also urged students who found businesses to surround themselves with

employees who are smarter than they are, and cultivate great customers, suppliers, community backers, and "friendly competitors." □MR

The newest members of Beta Gamma Sigma at LTU, with their faculty members and LTU administration.

Beta Gamma Sigma inductees were:

Undergraduate students:

Maria Alvarez Rodilla, Matthew Blunk, Joshua Denomie, Peter Ebaugh, Tervn Kline, Adam Ktona, Suhas Potluri, Max Sabo, Alex Snarski, Garrett Vonk

Graduate students:

Matthew Ainsworth, Haifa Alburek, Chris Collacott, Hanyu Gao, Kristin Golden, Xinhui

Huang, William Kaiser, Ravi Kallepalli, Samantha Mabbitt, Venkata Rathna Aniriudh Mamidipaka, Adam Mucciacio, Menuka Lakshani Nugaliyadda, Amber Plee, Mark Rakuc, Sally Scheuermann, Harsh Shah, Amica Tubbs, Cesar Daniel Hernandez Urbina

Doctoral students:

Christopher Atkinson, Kassem Ayoub Ghanem, Michael Thibideau

Prof wins Heart Association grant for testing engineered blood vessels

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.

Jiniun 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 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 must be tested for strenath before use, however. Current testing technology is limited to techniques that destroy the vessel, requiring the creation of duplicate TEBVs, 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 is proposing 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 now being used in aircraft like

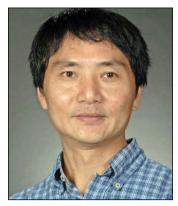
the Boeing 787 Dreamliner.

Xia is still assembling the equipment he'll need to build the testing system, which will be housed in LTU's Engineering Building. He's also looking for undergraduate students to assist in the research—ideally freshmen, so they'll be able to continue with the project through its conclusion in late 2020. He plans to draw the students from LTU's electrical and computer engineering, biomedical engineering, and nursing programs.

"Electrical and Computer Engineering is very proud of Dr. Xia's achievement, and we are looking forward to the

research and development opportunity it brings for our students," said Nabih Jaber, associate professor and department chair. "The project will provide an opportunity for research evaluating the impact of the stresses on vessels. These kinds of experiments are hard to perform because current testing techniques leave the vessels vulnerable to damage. Dr. Xia's proposed method will keep the vessels intact while testing the stresses they undergo."

Added Yawen Li, chair of LTU's 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. We look forward to collaborating with Dr. Xia on using his innovative ultrasound technique to test the mechanical properties of these tissues." $\square MR$

Two LTU leaders receive recognition from Crain's

Provost Vaz named STEM leader

Crain's Detroit Business has named Vice President of Academic Affairs and Provost Maria J. Vaz as a "2019 Notable Women in STEM." The STEM acronym represents Science, Technology, Engineering, and Mathematics, which, along with the Arts, are seen as attributes often cited for career success.

In support of Vaz's nomination, President Virinder K. Moudgil said, "There are few aspects of the core responsibilities of our University that don't receive the benefit of her engagement and leadership. She is a key member of our leadership team. Her positive influence on LTU's programs, our students, our faculty, and our general academic stature cannot be over-emphasized. 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. On a personal level, she led and embraced the institutional efforts in STEM due to her own academic discipline of physics, and as a teacher and scholar. Her decades of experience in the field and contributions in advancing STEM education at Lawrence Tech and and beyond deserves wide recognition."

Karen Wilken, program director of the Kern Family Foundation in Waukesha, Wis., added that Vaz "is the definition of a compassionate, innovative, dedicated and ambitious leader with the best interest of faculty and students at heart. Her idea to bring an entrepreneurial mindset into the education of all undergraduate students at LTU, and particularly engineering students, has led to a partnership with KFF that has lasted more



Maria Vaz

than a decade and an investment of more than \$4 million."

Wilken also said that, "She has shared her expertise and enthusiasm to help shape and build a network of 43 likeminded institutions across the country through the Kern **Entrepreneurial Engineering** Network. In addition, I'm aware of the countless hours Dr. Vaz has spent in leading efforts in the K-12 space to improve the pipeline of students interested and prepared for engineering

Continued

and technical programs in higher education."

Vaz was named provost at LTU July 1, 2006, with the title of vice president of academic affairs added in 2017. She has been one of Lawrence Tech's most versatile leaders. Earlier, Vaz served as interim provost, associate provost, dean of graduate programs, and interim dean of LTU's Colleges of Arts and Sciences and Engineering.

As provost, Vaz oversees LTU's four colleges, the library, and the offices of eLearning, Student Affairs, Enrollment Management, and Corporate and Community Partnerships. She has led and supported the development and implementation of new undergraduate and graduate programs that differentiate Lawrence Tech, among them biomedical engineering, architectural engineering, robotics engineering, industrial engineering, chemical biology, molecular and cell biology, media communication, transportation design, and game art. She has established an environment of collaboration and interaction between the academic colleges to generate interdisciplinary academic programs and research. She also oversaw the launch of LTU's B.S. in nursing program in partnership with Ascension Providence.

Vaz implemented LTU's leadership curriculum program required for all undergraduates as well as an initiative on sustainability education. She established Lawrence Tech's Center for Teaching and Learning and the Research Support Service Committee to support faculty development in both teaching and research. In addition she supported the creation of LTU's eLearning Services office to provide online teaching and the expanded use of technology in the classroom.

In Enrollment Management, Vaz was an early advocate of

integration of all student services and the one-stop shop concept, including the programmatic development and implementation of LTU's A. Alfred Taubman Student Services Center.

She expanded LTU's Student Affairs Division as an important partner in student education. As a result, a dynamic student life, the re-introduction of varsity sports, the support of healthy choices, and the well-being of all students are important components of the integrated student experience, and the professional and personal growth of students at LTU.

As associate provost and dean of graduate programs, Vaz led the establishment of the University Assessment program, and in 2001 the development and establishment of the first of three doctoral programs at the University.

Vaz joined the Lawrence Tech faculty in 1984 after completing her master's and PhD in physics at Kent State University, and a licenciatura in physics from the University of Lisbon. In 1992 she was named chair of the **Department of Natural Sciences** and in 1994 became associate dean of the College of Arts and Sciences. In 1998 she was appointed associate provost and dean of graduate programs. Vaz is also a trustee of Rose-Hulman Institute of Technology. □BJA

Johnson named to 'Notable Women in HR'

Deshawn Johnson, executive director of human resources. was named one of "Crain's 2019 Notable Women in HR" by Crain's Detroit Business magazine.

The article honoring Johnson lauded her for a "calm and analytical approach to hiring, training and retaining staff in alignment with the University's strategic objective." Linda Height, vice president of finance and administration, said Johnson "has initiated many programs that have saved the University both time and money and have improved the level of customer service to all our employees."

Added Lisa Kujawa, associate provost for enrollment and outreach: "I have to thank Deshawn for all the work she has put into my staff and how much time she has given to provide advice, counsel, and also good management strategy for what they want to create and make our goals a reality. Without Deshawn, we could not have started those conversations and begun to create a better environment for the future."

Recent achievements include implementing two voluntary early retirement programs and



Deshawn Johnson

a benefits renewal process that cut health and welfare costs to the University by \$1.1 million. She also streamlined the University's benefits administration process by moving from a manual entry system to an electronic data feed process. In addition, Johnson developed and implemented an updated talent acquisition strategy, which included background checks and electronic access to all employee forms through DocuSign. She also improved employee retention by adding Employee of the Month and Department of Excellence to the University's employee recognition programs. And she took the lead in developing Lawrence Tech's conflict resolution policy.

Johnson is a member of the Society for Human Resources Management and the HR Certification Institute. She also holds the Professional in Human Resources (PHR), Certified Professional Coach (CPC), **Energy Leadership Index Master** Practitioner (ELI-MP) and Society of Human Resources Management Certified Professional (SHRM-CP) certifications.

Johnson earned a MS in human resources administration from Central Michigan University and a BA in management and organizational development from Spring Arbor University. $\square MR$



Movie premiere heralds 'Women Untold' of STEM

LTU held a world premiere in April of a student-produced movie on previously little-known African-American women who achieved great things in science and related technical fields.

Called "Women Untold," the

film was based on a series of articles written by Sibrina Collins, executive director of LTU's Marburger STEM Center, and published in Undark, a non-profit scientific publication.

The women profiled were Jewel Plummer Cobb, a pioneering cancer researcher and later university president; Alice Augusta Ball, a chemical and pharmaceutical researcher who developed a treatment for leprosy; and Evelyn Boyd Granville, a mathematician who worked

on orbital calculations from the earliest U.S. satellite launches through the Apollo moon landings, and later taught mathematics at several universities.

The film was a senior research project funded by LTU's grant from the Howard Hughes Medical Institute. The grant is focused on course-based undergraduate research experiences,

particularly for students from historically under-represented populations.

Collins said she plans to use the film both in LTU classrooms and as an educational tool for middle and high school teachers. It will also be entered in film competitions.

The film is now available on LTU's YouTube channel. $\square MR$

From left to right in the front row are Isabella Forsthoffer, editor, producer and videographer on the film; Sibrina Collins, executive director, **Marburger STEM Center; Marie** Anne Torres-Lopez, director, producer, writer and editor; and Genna Skalski, the film's voice-over talent. In the back row, left to right, are Carlos Gonzalez, graphic designer; Tristan Littles, videographer; Dacey Cook, editor and motion graphics developer; Elise Ritschdorff, editor and videographer; Stephen Baird, assistant producer and director of photography; and Chase Kaufman, producer, editor, and videographer.



Nuclear nonproliferation expert details latest science

A university consortium is developing new technologies to detect both weapons-grade nuclear materials and underground nuclear testing, a leading scientist in the effort said in delivering LTU's annual Walker L. Cisler Lecture.

Sara Pozzi, professor of nuclear engineering and radiological sciences and professor of physics at the University of Michigan, said the Consortium for Verification Technology has won a five-year extension of its work out to 2024.

The consortium, of which she is founding director, consists of 12 universities and nine national laboratories—and is about to expand—working together to develop new technologies for nuclear treaty verification.

She noted that nuclear nonproliferation has played an important role in preventing the spread of nuclear weapons beyond the eight countries that now possess them, and that

safeguards will require continuing international cooperation. She said that despite political tensions, scientists in different countries can still cooperate on nonproliferation "because they have a common language," science-although she acknowledged that tensions between the United States and Russia are rising again.

LTU President Virinder Moudgil also spoke of the fear of nuclear confrontation. Moudail said he grew up in India, 18 miles from the Pakistan border, during the last war between the two countries, and there were



blackouts every night to prevent air raids. The countries weren't nuclear powers in his boyhood, he said. Now they are. And they're in conflict again.

Pozzi's presentation was the 23rd annual Walker L. Cisler Lecture, a series sponsored by a generous gift from the Holley Foundation, where Cisler served on the board for many years. Cisler, CEO of Detroit Edison Co. from 1954 to 1971, enjoyed a career that spanned a lifetime of personal, professional, civic, and business accomplishments.

Past Cisler lecturers have included Nobel laureates, university presidents, professors from Harvard and CalTech, and science writers from The New York Times. □MR

Sara Pozzi makes a point during the 2019 Cisler Lecture.

Seventh annual Research Day sets more records

Lawrence Technological University's seventh annual Research Day set more records in a new, larger home.

LTU faculty and students made 17 oral research presentations in the morning of the April 5 event, and an afternoon poster session—moved to larger quarters in LTU's Buell Buildingfeatured 95 posters, for a total of 112. That's up from 102 presentations a year earlier, according to Research Day chairman Matthew Cole, associate professor in LTU's College of Business and Information Technology.

Topics presented varied widely, from experiments in particle physics, to sports injury prevention, to wind turbine design, to the development of flying and hopping robots, to an analysis of the U.S. roofing industry work force, to mathematics teaching techniques.

The presenting sponsor of Research Day was the Howard **Hughes Medical Institute. LTU** is one of only 23 schools across the country, and the only one in Michigan, to receive an HHMI grant to boost diversity in scientific and technical fields through increased involvement of undergraduates in research, particularly undergraduates from

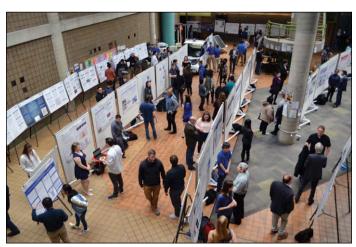
historically under-represented populations.

LTU President Virinder Moudgil called Research Day "a transformational event for this University. The level of talent on display here today has always existed at LTU, but we did not have the formal platform to present it until Research Day was established. You can really feel the excitement and enthusiasm of our young scholars and researchers, as well as their faculty mentors. Best of all, at LTU, there are opportunities for undergraduates—as early as freshman year—to do significant, groundbreaking research."

Research Day also includes the LTU Presidential Colloquium, in which a faculty member is honored for their research efforts with a keynote presentation. This year's honoree was Robert Fletcher, professor in LTU's A. Leon Linton Department of Mechanical Engineering.

Fletcher and his students conduct research on hybrid vehicles and energy systems. Since join-

More research presentations required a bigger space, so this year's Research Day poster session moved from the Architecture Gallery to the Buell Building.



ing LTU he said he's brought about \$1.7 million in research funding to the University, much of it from the corporate sector and the military. Because of corporate competitiveness and government secrecy, the research funding hasn't led to many papers published in peerreviewed scientific publications. But Fletcher said research—of any and all types—is vital to the

mission of a university.

"Research is critical," he said. "It is absolutely mandatory for a university to survive. And it can take a lot of different forms, but it is critical. Not because of the number of papers that get published, even though that is important—but because of the people it can impact and benefit. You get to help people. And that's fun." $\square MR$

LTU takes second in worldwide **ASHRAE** competition

A cross-disciplinary student team from Lawrence Tech took second place in the international ASHRAE Student Design Competition.

The five students won in the Integrated Sustainable Building Design category of the competition. Their award was one of just two earned by Michigan schools at the event, held as part of the 2019 ASHRAE Winter Conference and Expo in Atlanta, Ga. in January. Sixty colleges and universities participated in four categories at the event, having been selected from hundreds of entrants.

Team members were London Jocham of Pontiac, Shawn Kitchen of Troy, Erin Moran of St. Joseph, Brittany Davis of Petoskey, and Josie Queary of Midland. Queary and Moran attended the event and displayed a poster on the project. Ralph Nelson, associate professor of architecture, was the faculty advisor for the team.

Jocham, Moran, and Queary were studying in LTU's five-year combined bachelor's and master's degree program in architectural engineering, while Kitchen and Murray were students in LTU's Master of Architecture program. Queary, Kitchen and Davis have graduated from Lawrence Tech since completing the project.



Josie Queary (left) and Erin Moran, members of the second place Lawrence Tech team, at the ASHRAE Winter Conference and Expo.

In the competition, students were asked to integrate elegant, efficient, and sustainable building systems in the design of a four-story, 70,000-squarefoot resort hotel and spa near Istanbul, Turkey. Architectural and structural design, along with mechanical, electrical and plumbing engineering all played a part in the students' design, Nelson said.

ASHRAE, formally known as the American Society of Heating, Refrigerating, and Air-conditioning Engineers. is a global professional organization to advance heating, ventilation, air conditioning, and refrigeration systems design and construction, with more than 56,000 members worldwide. $\square MR$

Concrete toboggan team gets top marks for safety, steering

Though they couldn't quite duplicate last year's "King of the Hill" award for the fastest sled. members of this year's LTU concrete toboggan team did take home several top rankings at the 2019 Great Northern Concrete Toboggan Race (GNCTR), held Feb. 1-3 in Edmonton, Alberta, Canada.

Lawrence Tech remains the only American university to participate in the Canadian-studentmanaged, concrete-industrysponsored event, thanks to a personal connection of Edmund Yuen, chair of LTU's Department of Civil and Architectural Engineering.

"Without Dr. Yuen, we couldn't do this competition," said civil engineering graduate student and team co-captain Chris Bragg of Fraser, "He's the backbone."

In the GNCTR, students design and build a four-person toboggan with runners made of concrete, and the sleds must demonstrate steering and braking ability. The maximum weight allowed this year was cut 50 pounds to 300 pounds.

For the 2019 event, held at Sunridge Ski Area, conditions were brutal-well below zero, with wind chills of more than 40 below. But 24 college and university teams still sent their sleds down the hill.

LTU finished seventh out of 24 teams overall, but got top marks for both its steering system and its toboggan's safety features specifically, an impact-attenuating crumple zone at the front of the sled, made of honeycombed aluminum. LTU also earned third place for its technical display, its best ranking ever in this part of the competition.

This year's theme involved cartoons, so LTU's team dressed as DC Comics' Justice League, and the sled itself had a Batmobile motif.

While not the fastest, this vear's sled was no slouch, hitting speeds of nearly 35 mph. Its advanced light concrete runners used synthetic fibers and manufactured beads of recycled glass called poraver to cut weight. Besides Yuen, Bragg and Woods credited the team's financial sponsors: Inland Diamond Products, a concrete cutting firm in Madison Heights; Ruby and Associates Inc., a structural engineering firm in Bingham Farms; LTU Engineering Dean Nabil Grace; and LTU Engineering **Technology Department Chair** Ken Cook.

Driving the sled to Edmonton



The LTU concrete toboggan completes a run down a frigid hillside in Edmonton. Alberta.

fell to Ray Zeigler, supervisor of LTU's fabrication laboratory. With the sled in LTU's Blue Devil Motorsports trailer, Zeigler drove through blizzards and road closures-more than 4,000 miles roundtrip.

Other team members were Austin Curtis, BSME'19; Logan

Dewan, BSME'19; Ashley Jordan, BSME'19: Brittnev Bult, BSCE'20: Andra Malburg, BSCE'21; and Kyle Schmidt, BSCE'19.

Bragg said the team is looking to double its size to 16 members for the 2020 competition, which will be a lot closer to home—in Toronto. □MR



The team in more conventional cold-weather garb after the sled's

LTU's concrete toboggan team won third place out of 24 competing schools for their presentation area before the competition with their theme, Justice League.





The team's concrete formulation was shown off in this poster at their presentation.

Women in STEM panel deals with bias, offers hope for the future

The bias women still feel when pursuing careers in the STEM disciplines—science, technology, engineering, and mathematics—was the topic of a "Women in STEM" panel hosted by the Lawrence Technological University Alumni Association in November.

The discussion, held at Alumni House, featured three distinguished women from various sectors of the STEM industry, all Lawrence Tech alumnae— Donna Bell, BSEE'89; Nicole Kennedy, BSEE'95; and Terry Onica, BSBA'90. Along with student Marissa Bradley, BSBME'19, they shared their experiences and insights as women in maledominated fields.

The panelists, led by moderator Julia Elliott, addressed a number of their industry concerns—among them, the current shortage of women in STEM, and the pervasive bias still felt against girls who wish to pursue such careers. Building off of one

another's input, they additionally proposed strategies on how to challenge the standards which have given rise to the phenomenon.

"I hope one day people see women in STEM as the norm, and not the exception," said

Bradley, a biomedical engineering student and president of LTU's chapter of Society of Women Engineers, as well as winner of this year's Donley Distinguished Graduate Award.

The panel finished on a note of optimism, for women, for the STEM industry, and for societal progress.

"I think this panel was important as it exposed women to other women that have been successful," said Bell, director, technology and features strateav and planning at Ford Motor Co. "It's important to be there (for other women), to be represented, to be present." $\square MR$



LTU student Marissa Bradley describes her experiences as a STEM major at the November meeting.

LTU celebrates excellence at annual awards ceremony

The LTU family gathered during Homecoming Week in October to celebrate the very best of its faculty, staff, and students at the annual Lawrence Excellence Awards ceremony.

Recognized were the following award winners:

The 2018 Henry B. and Barbara J. Horldt Excellence in Teaching Award was granted to Chris Reidel. Reidel joined LTU in 2000, and was awarded tenure and promoted to associate professor in 2006. He teaches both undergraduate and graduate courses in mechanical engineering and was faculty advisor for the SAE Baja competition for five years. He helped create the Master of Science and the Doctor of Engineering in Mechanical Engineering program and developed courses for these programs. He has published numerous papers with students. Since 2011, he has

been the assistant chair of the department and the director of the BSME program. He led the 2016 ABET accreditation visit for the BSME program which received a full six year accredita-

The 2018 Teaching and **Learning Using Technology** Award was presented to Keith Kowalkowski. He is a specialist in structural steel design and is currently focusing his research in that area. Kowalkowski teaches several classes, performs research in steel design, and is director of civil engineering graduate programs and chair of the Faculty Senate.

The 2018 Mary Ann Marcum **Customer Service Award** was granted to Erin Burklow. This award was established in memory of Mary Ann Marcum by her husband, Frank Marcum, in 2008. Burklow is an admissions counselor who is the "go to"

person in her department, and has mentored many new staff members. Her positive attitude, empathy, and Blue Devil passion were clear in her leadership and tireless dedication to help students transferring from The

Art Institute of Detroit when it announced the school's closing. Burklow helped the students find their new educational home at LTU and eased their transition to a new institution.

The 2018 Hsu Family

Distinguished Award in **Creativity** was granted to Nick Paul, BSCS'17. During his undergraduate studies, Paul was a mathematics and computer



Virinder Moudail, Henry B. Horldt, and Chris Reidel.

President Virinder Moudgil, Nicholas Paul, and former Dean of the College of **Arts and Sciences** Hsiao-Ping Moore.



Continued

science tutor in LTU's Academic Achievement Center and Math Club president. In LTU's graduate program, he was a graduate research assistant scholarship team leader for LTU's Hackathon team that has participated in three events, and has published several papers, one abstract, two research day posters, and was a technical editor for a programming textbook. Paul also manages the registration server for LTU's Robofest competition, used by contestants around the world, and is team leader for LTU's autonomous car project, ACTor, which won world championships in the Intelligent Ground Vehicle Competition in 2017, 2018, and 2019. Paul's work on ACTor has included developing several algorithms crucial to operating an autonomous vehicle.

The 2018 Mary E. and Richard E. Marburger Fund for Excellence in Achievement Award for Administrator of the Year was awarded to Kim Jerdine, director of residence life in University Housing. Jerdine started her LTU career in 2008 as residence hall coordinator in Donley Hall and became director of residence life in 2011. In addition to housing, Jerdine oversees programming for Title IX through the It's on Us campaign. In 2016, she co-wrote the Campus Sexual Assault grant for the State of Michigan in which

the University was awarded \$20,000 for Title IX programming. Jerdine also organized Phenomenal Women's Week and the Phenomenal Women's Brunch on campus, which allows women to be recognized by faculty, staff, and their peers.

The 2018 Mary E. and Richard E. Marburger Fund for Excellence in Achievement Award for Staff Person of the Year was awarded to Catherine Phillips, reference librarian and head of technical services at the LTU Library. In 2014, she founded the LTU Archives Task Force to preserve LTU's historical collections. In 2015, she initiated the submission for a National **Endowment for the Humanities** (NEH) grant, for the preservation assessment of LTU's Albert Kahn Library Collection, which was successfully funded. This led to Phillips founding the Albert Kahn Research Coalition, which now counts as its members representatives from LTU's College of Architecture and Design, the University of Michigan, the Detroit Institute of Arts. the Detroit Historical Museum, Cranbrook Archives, the Belle Isle Conservancy, the Henry Ford Estate, and Albert Kahn Associates.

The 2018 Mary E. and Richard E. Marburger Fund for Excellence in Achievement **Award for Faculty Member** of the Year was awarded to Pavlo Tsebro, assistant profes-



Erin Burklow with President Virinder Moudail.

sor in the College of Business and Information Technology. Tsebro ioined LTU as an assistant professor in 2013. He teaches undergraduate and graduate courses in finance, and researches investments and derivatives with emphasis on running joint projects with LTU students. He is working on various initiatives to enhance students' out-of-class professional experiences by participating in CFA Institute and FEI events, the Holt Valuation Challenge, and more. $\square MR$



Keith Kowalkowski with President Virinder Moudgil.



President Virinder Moudgil, Kim Jerdine, and President **Emeritus Richard Marburger.**



President Virinder Moudgil, Pavlo Tsebro, and President **Emeritus Richard Marburger.**

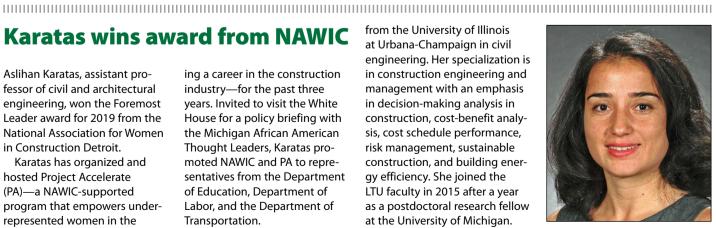
Karatas wins award from NAWIC

Aslihan Karatas, assistant professor of civil and architectural engineering, won the Foremost Leader award for 2019 from the National Association for Women in Construction Detroit.

Karatas has organized and hosted Project Accelerate (PA)—a NAWIC-supported program that empowers underrepresented women in the Detroit area interested in pursuing a career in the construction industry—for the past three years. Invited to visit the White House for a policy briefing with the Michigan African American Thought Leaders, Karatas promoted NAWIC and PA to representatives from the Department of Education, Department of Labor, and the Department of Transportation.

Karatas' degrees include a PhD

from the University of Illinois at Urbana-Champaign in civil engineering. Her specialization is in construction engineering and management with an emphasis in decision-making analysis in construction, cost-benefit analysis, cost schedule performance, risk management, sustainable construction, and building energy efficiency. She joined the LTU faculty in 2015 after a year as a postdoctoral research fellow at the University of Michigan. $\square MR$



Aslihan Karatas

Big crowd again for LTUX anime con, gaming expo

A cold, driving rainstorm cancelled many outdoor activities, but about 1,000 people still packed the campus in April for the LTU Expo (LTUX), formerly known as the LTU Anime Con and Gaming Expo.

Mars Ashton, assistant professor and director of LTU's Bachelor of Fine Arts in Game Art program, said the event included more than 30 local game developers, student projects, an art gallery, and numerous game tournaments. There were also plenty of game-related swag, musical performances, an indie game room featuring local developers and LTU students, fandom panels and presentations, cosplay events and contests, vendors, artists, and a new after party event.

"This was a celebration of the anime and game-focused community throughout Michigan," Ashton said. "So we kept it free for our attendees and introduced even more events to give back for all of the support we received last year. For students, LTUX is a great interpretation of a venue to present their final projects for the spring semester, and be able to enjoy themselves and express their passion that led them to Lawrence Tech to begin with."

Last year, LTU ranked No. 34 on The Princeton Review's list of the top 50 undergraduate schools for game design. The organization chose the schools based on a survey of 150 institutions offering game design coursework or degrees in the United States, Canada, and some countries abroad. LTU offers both a Bachelor of Fine Arts in game art and a Bachelor of Science in computer science with a game software development concentration.

Computer and console gaming has become big business,



A display of more than 30 LTU studentdesigned computer games was a big part of the LTU Expo.

with many employers and the government using gaming techniques to train and communicate with employees, customers, and the public. And the industry is huge—the U.S. video game industry generated a record \$43.4 billion in revenue in 2018, up 18 percent from 2017, according to data released recently by the Entertainment Software Association (ESA) and The NPD Group. $\square MR$







A jammed market for game and anime related merchandise filled the Buell atrium for LTU Expo.

Team from Ghana wins Robofest

A team of high school students from the West African nation of Ghana took first place in the Senior Game Division at the Robofest World Championships, held on campus in May.

Team Acro-Bot hailed from the Ghana Robotics Academy Foundation, a robotics organization in Accra, Ghana's capital city.

Taking second place were the Tegg Televisors, a team from Hyderabad, India, while third place went to team Joe Bots of the Trov school district.

In the Junior Game Division for grades 5-8, first place went to the Robobuilders of Novi, with second place to team JABs of Aurora, Ill., and third place to Robowarriors of Troy.

Robofest was invented in 1999

Bottle Sumo, a simple game in which robots try to push each other or a 2-liter pop bottle off a table; RoboParade, in which robots are judged on elaborate decorations as well as their ability to stay on a path; RoboArts, in which robots are programmed to accomplish artistic objectives like music or dance; the Unknown Mission Challenge, in which students are given a task to complete with limited time to build a robot and write the software to accomplish it; the Vision Centric Challenge, a competition for high school and college teams in machine vision; and

From left to right are DENSO **Community Affairs Lead Melissa** Smith, the winning Robofest Senior Game team from Ghana, and LTU Provost Maria Vaz.

the Exhibition, where students dream up any task they choose, and design and program a robot to accomplish it.

In all, approximately 600 students competed at LTU in Robofest events from May 16-18



Don Ridler Field House is a beehive of activity during the Game competition of Robofest.

Study finds LTU tops in tri-county for alumni patents

A study on the characteristics of inventors found that LTU alumni received more patents than any four-year university in the tricounty area during the study period.

Economists from Harvard University, Stanford University, the London School of Economics, MIT and the U.S. Treasury conducted an exhaustive study of the socioeconomic characteristics of all U.S. citizens born between 1980 and 1984 who received U.S. patents. The study was published in late 2017.

The study found LTU alumni within the study period had received 89 patents—more than any other four-year school in Wayne, Oakland, or Macomb counties. $\square MR$



by LTU computer science professor C.J. Chung, and since inception has seen more than 28,000 students compete worldwide. Robofest features robots that are completely autonomous controlled solely by software, not remote-controlled by joystick—and has low barriers to entry, with a \$50 entry fee and a robot kit that costs approximately \$400.

Robofest is also seven competitions in one. A Game competition, which changes every year, is the most popular event, but there are also competitions in:



LTU President Virinder Moudgil was honored at the **Indian American Legislative** Day in June to celebrate the leadership of Indian Americans in public policy and higher education. Dr. Moudgil spoke about his career and passion for education. The event was hosted by State Rep. Padma Kuppa (D-Troy). Serving as master of ceremonies was former State Rep. Sam Singh, the first Indian American to serve in the state Legislature.

LTU, MSU med school link up in 'early assurance program'

The Michigan State University College of Human Medicine and Lawrence Tech have a new agreement that will provide positions for LTU premedical students at MSU's medical school. Called the Early Assurance Program (EAP), the agreement is designed to assist qualified premedical students from traditionally under-represented populations, as well as areas that are underserved by medical professionals.

Officials of the MSU College of Human Medicine, LTU, and LTU's partner in medical education programs, Ascension Providence Hospital in Southfield, joined in the signing ceremony in June at MSU's Southeast Michigan medical campus at Ascension Providence Hospital.

"Our pre-medical students have long excelled in the classroom, and we are very pleased that they will now have greater opportunity at one of the nation's foremost medical schools," said LTU President Virinder K. Moudgil. "This agreement continues Lawrence Tech's increasingly significant presence in medical science, along with our growing programs in biomedical engineering and nursing."

The EAP offers an enhanced opportunity for admission to

medical school for premedical students. Preference for EAP admission will be given to those who meet one or more of the following criteria:

- First generation college student
- · Graduate of a low-income high school as defined by the U.S. Department of Education
- · Eligible for, or a recipient of, an undergraduate Pell or institutional need-based grant
- Graduate from an underserved (health professional shortage) urban or rural area
- Demonstrates interest in a high-need medical specialty or practicing in a medically underserved community

Students who excel in LTU's premedical program may apply to the MSU College of Human Medicine during their junior year. If accepted, they will be assured of admission and begin a relationship with MSU College of Human Medicine during their senior year at LTU. There will be at least one, and up to two, seats reserved for LTU premedical students per year under the agreement. Nationally, medical school admission is highly competitive. The MSU College of Human Medicine this year received 7,983 applications for 190 seats available this fall—including 19



President Virinder Moudgil (seated, at right) joins LTU and MSU College of Human Medicine staff for the signing ceremony linking LTU undergrads with the med school's Early Assurance Program.











ESD honors four with ties to LTU

The Engineering Society of Detroit honored four alumni, staff and students with ties to Lawrence Technological University at its 2019 Annual Awards Dinner in June.

William A. Moylan Jr., BSCE'74, received one of ESD's highest honors, its Lifetime Achievement Award. The award is presented to an ESD member in recognition of a lifetime of achievement to the benefit of education and the field of engineering. Moylan is an associate professor of construction management at Eastern Michigan University. Moylan is also a trainer, consultant, and expert witness in construction engineering and project management. Moylan is also involved with numerous professional and civic societies. Within ESD, he has been a judge for the Michigan Regional Future City Competition since 1991, a member of the ESD Construction and Design Committee since 2004, and a member of the editorial board of TechCentury, ESD's quarterly magazine, since 2008. He won the ESD Distinguished Service Award in 1998, 2010, and 2016, and its Outstanding Committee/Council Leadership Award in 2009 and 2016. He was inducted into the ESD College of Fellows in 2005.

Matthew J. Chynoweth, adjunct instructor in LTU's College of Engineering and director of the Bureau of Bridges and Structures at the Michigan Department of Transportation, received an ESD Distinguished Service Award. This award is given for exemplary service and contributions to ESD.

Chynoweth, who joined the MDOT in 2003, was named director of the new bureau in 2017. One of the initial projects under his supervision is the Gordie Howe International Bridge spanning the Detroit River. Earlier, Chynoweth managed the Zilwaukee Bridge bearing replacement project to extend the life of the bridge carrying I-75 over the Saginaw River.

Matt Roush, director of media relations and managing editor of the university news bureau, won ESD's TechCentury Image Award. This award goes to individuals who have improved the public understanding and appreciation of engineering and related fields through the media. Roush had an award-winning 35-year journalism career, the last 20 years as a science and technology writer, before joining ESD as its director of communications in 2014. He joined LTU in 2016. He received ESD's Distinguished Service Award in 2012 and 2016.

Matthew J. McAllister Jr., BSME'19, was named an ESD **Outstanding College Student** Engineer of the Year Scholarship Recipient. McAllister is also pursuing degrees in electrical engineering and computer engineering from LTU, and is LTU IEEE student chapter chair and LTU ESD student chapter president. He spent three years as a tutor in LTU's Academic Achievement Center, and plans on pursuing a graduate degree at LTU while working as an engineer at Yinlun TDI LLC, a Chinese-owned manufacturer of thermal management products for the automotive, commercial truck, and recreational vehicle markets.

LTU Sports

Bowling squad finishes second in nation

The Lawrence Tech men's bowling team finished second in the nation in the Intercollegiate Team Championships, falling to Webber International (Fla.) University on April 20.

The match was broadcast nationally on the CBS Sports Network.

The Blue Devils had one bowler participate in the ITC Singles Championships, Kyle McGrath. The Davison native finished in the top four individual bowlers nationally after winning his way into the semifinals.

First contested in 1975, the ITC

is sanctioned by the United States Bowling Congress and is the pinnacle event of college bowling, bringing together the top 16 men's

LTU's keglers ruled the lanes in the 2018-19 season, finishing second in the country.

and women's college bowling teams in the nation.

Team members Joseph Alvord, Nicholas Guillemette. Chase Kaufmann, Kyle McGrath, Kyle Sherrell, and Chad Stephen were named 2019 Daktronics NAIA Men's Bowling Scholar Athlete for their performance in the classroom.

During the regular season, Lawrence Tech won the Wolverine-Hoosier Athletic Conference tournament title for the third year in a row, beating Indiana Tech in the final. $\square MR/IN$

Student-athlete profile:

Nicole Buckingham

Nicole Buckingham went from role player to All-American at Lawrence Technological University.

Now, she's on to the next phase in her life—biomedical engineer. And everyone around her says she'll bring tenacity, organization, and a superb work ethic to wherever she lands.

Buckingham said she was a role player during her basketball days at Saginaw Nouvel Catholic Central High School, averaging under eight points a game. The highlight of her high school career was a Class C state championship her junior year.

"I think I still have the school record for most wins in the state tournament," Buckingham said. Still, she said, "Lawrence Tech was the only school that really recruited me." In college, she was convinced by the coaching staff that she should become the team's go-to scorer. "They kind of forced me to believe in myself and changed my mentality and instilled some confidence, and I ran with it," she said. "A big part of that was my teammates."

Buckingham finished her LTU career with 1,864 points, 695 rebounds, 309 assists, and 196 steals, and was captain her final three years on the squad.

Buckingham earned several honors this season, including NAIA First Team All-American, Wolverine-Hoosier Athletic Conference (WHAC) Player of the Year, WHAC First Team All-Conference, WHAC Academic All-Conference Team, Daktronics NAIA Scholar-Athlete, and CoSIDA Academic All-District Team-NAIA-District One. In addition, Buckingham was named WHAC Player of the Week four times during the 2018-19 season.

But now, on to her more important numbers— Buckingham graduated May 11 with a Bachelor of Science in biomedical engineering with a 3.98 grade point average. Her senior project was the develop-

ment of a medical device to help women cope with incontinence after childbirth.

On campus, Buckingham was vice-president of the LTU chapter of Tau Beta Pi, the national engineering honor society; vice president of the Student Athlete Advisory Committee; and was a Blue Devil Dialer, calling alumni on behalf of the University.

In the community, Buckingham spent two years as a celebrity reader at local elementary schools, volunteered as a tutor at the Southfield Boys and Girls Club, volunteered for the Gleaners food bank, and helped rake senior citizens' lawns every fall as part of Southfield's Big Rake project.

Buckingham says she's looking for work at area biotech companies in prosthetics and other medical devices.

"Nicole is the epitome of a student-athlete," LTU Athletic Director Scott Trudeau said. "She has a 3.98 grade point and she's an All-American. There's not much more you can do. She's an awesome person." $\square MR$



Nicole Buckingham splits the defense and heads to the hoop during a road aame last season.

LTU to add track and field

LTU's athletic roster will grow in the next few years as the University adds a men's and women's track and field program.

The teams will compete as an independent squad in the 2019-20 academic year, and join the NAIA and the Wolverine-Hoosier Athletic Conference in 2020-21, according to Eric Green, one of three co-coaches named to lead the program. Home meets will be played on the outdoor track and field facilities of Farmington Hills Harrison High School, which closed after the 2018-19 school year ended.

Green said LTU's decision to add a football program made adding track "a no-brainer... a lot of the football players have track experience, and some of them were state champions in other states."

Green has served for seven years as LTU's cross-country coach, and has also run its Tech Transit student bus service the past three years. The other cocoaches will be football assistant coach Mike Davis, who will coach the sprinters, and Joe Lightfoot, a men's basketball

assistant, who will coach the field events.

Green said about 25 of his cross-country runners have expressed an interest in participating in track and field, and the program appears likely to add another 20 to 25 athletes from the football team. Green said one of the advantages of collegiate sports at the NAIA level is that multi-sport participation is more common.

In the NAIA, there's an indoor track season from January through March, and an outdoor season from March through lune

Dean of Students Kevin Finn noted that "the addition of track and field continues our strategy of attracting more students by offering experiences in athletics." Athletic Director Scott Trudeau added that "track and field is our next logical sport offering. There are many high school students looking to continue competing in track and field while going to college. This will add 60 to 100 more athletes to our campus by the time we are in the conference." □MR



ome Football Tailgates

Football is BACK! Join us for a home football game tailgate this season and show off your Blue Devil spirit! Tickets are available at https:// Ituathletics.com/sports/fball/2018-19/releases/20190301i0wfnn. More details for each tailgate's events and special guests will be shared as they become available.

LTU Blue Devils vs. St. Xavier <u>Saturday, Sept. 7, 2019 | 1 p.m.</u>

LTU Blue Devils vs. Wisconsin **Lutheran University**

LTU Blue Devils vs. University of St. Francis (IL) Saturday, Sept. 28, 2019 Tailgate hosted by the College of Arts & Sciences LTU Blue Devils vs. Siena Heights Univesrity HOMECOMING

Saturday, Oct. 19, 2019 Tailgate hosted by the College of

LTU Blue Devils vs. University of

Saturday, Nov. 2, 2019
Tailgate hosted by the College of

LTU Blue Devils vs. Concordia University

otherwise noted.

Tailgates always begin 4 hours before kirkoff



LTU's cross country team will provide a natural base for its new track and field program.

Winter sports highlights

NAIHA Hockey

The NAIHA program went 20-16 in the 2018-2019 season, including 2-6 in the conference. They finished in the third seed overall in the NAIHA conference. Senior

Drake Gentile broke three records this season, includ-

An LTU player moves the puck toward the goal past an attempted poke check.

ing all time goal leader with 73, assist leader with 74 and points' leader with 147. The NAIHA team will move to the American Collegiate Hockey Association Division 1 next season.



Women's Basketball

The LTU women's basketball team finished with a 22-10 overall record and 13-7 in the Wolverine-Hoosier Athletic Conference. This is the third

time the team has topped 20 wins since the start of the program in 2012. At season's end, LTU bid farewell to Head Coach Kylene Biggs, who finished her career at LTU with a 65-30 record in three seasons.

The Blue Devils finished with an average of 70.9 points per game while giving up just 55.4 points per contest. LTU ranked fourth in the nation and third in the conference for defense scoring points per game. In addition, the Blue Devils finished shooting 41.2 percent from the field, 35 percent from three-point range, and 75 percent on free throws. Nicole Buckingham was named First Team All-Conference and Player of the Year, while Kendall Fisher earned Second-Team All-Conference, All-Freshman Team and Newcomer of the Year honors. Hope Dollarhide was named Lawrence Tech's Champion of Character, Cherilyn Banas, Buckingham, Danielle Hanson, Rachel Price, Alex Ruster, and Kaitlyn Smith earned WHAC All-Academic Honors for their work in the classroom. In addition, Buckingham was named WHAC Player of the Week four times during the season. On a national level, Buckingham was named NAIA First Team

> LTU's Carter Frantz (2) pulls up for a shot.

All-American, NAIA Scholar-Athlete, CoSIDA Academic First Team All-America (2018-19), and CoSIDA Academic All-District One (2018-19).

The opening tip goes up to start another exciting women's basketball contest.



Men's Basketball

The men's basketball team had its best season since its re-establishment in 2012, finishing 13-17 overall, 8-12 in the Wolverine Hoosier Athletic Conference. They beat their program record for wins by four, and had a ranked upset, with an 80-77 win against Siena Heights, which was receiving votes in the NAIA poll. Senior Ty Searles was named to the 2019



NAIA Men's Basketball All-Star Game, earned the program's first ever Player of the Week nod, earned WHAC First Team All-Conference, was named an NAIA All-American, and was added to the 1,000-point club this season. Head coach Joshua Pickens was named the Champions of Character Coach of the Year.

Men's Lacrosse

The Men's Lacrosse team qualified for the NAIA National Tournament with an 11-6 record



LTU's Joseph Rosales (5) goes low to avoid a defender in indoor lacrosse action.

and a 6-7 conference record.

Despite losing in the WHAC

Conference Championship, the
men held the third overall seed
and were third in the nation.

Alex Schlueter, Nik Kubik and Brendan Oles were all honored with WHAC All-Conference second team honors. They ranked fifth in the nation for total goals with 204, including a third in the nation ranking for Maveric Muscat who had 31 assists this year, and a fifth overall ranking for the goalie, Joel

Trent, for saves this season. They fell 10-9 to Aquinas in the first round of the NAIA National Invitational Tournament.

Women's Lacrosse

The Women's Lacrosse team received an at-large bid to the NAIA tournament, despite a loss in the WHAC Conference Championship. It was the team's fifth national tournament appearance in a row, capping a season that finished 10-8 overall, 8-1 in the WHAC. Headlining the team were the WHAC Offensive and Defensive Players of the Year, with Anna Gagnon winning the offensive award and Abby Barnewold winning the defensive accolade. Five Blue Devils, including Anna Gagnon, Maddie Barnewold, Kady Waits, Ashley Sherry and Abby Barnewold, all earned WHAC First Team All-Conference honors. Gabi Larkin, Teagan Laier and Dorie Coggin received WHAC Second Team All-Conference accolades. Brooke Hepditch won the team's Champions of Character Player while Head Coach Mary Ann Meltzer won the Champions of Character Coach. Three Blue Devils also were named WHAC All-Academic Honors, which goes to upperclassmen, which included Gagnon, Katja Nuler and Kaylee Patterson. The Blue Devils fell to No. 1-ranked Savannah College of Art and Design in the NAIA Tournament. $\square JN$



The women's lacrosse team gets fired up before the start of play.

Alumn

CoBIT alumna: Technology key to surviving 'mind-boggling' change in auto industry

Terry Onica, BSBA'90, had plenty to say to Lawrence Tech business students about supply chain best practices in her keynote speech for LTU's College of Business and Information Technology Alumni Week in March.

But first, she had words of encouragement for LTU's students. "It took me 10 years to get my bachelor's (degree)," Onica said, explaining how she earned an associate's degree at Macomb Community College, started at Oakland University, then was convinced to give LTU a try by her sister's then-boyfriend, nowhusband, who was attending Lawrence Tech.

"I tried it here and I really liked it," Onica said. "So, you might have lots going on, multiple jobs, a lot of things on your plate, but

you can get through this."

Onica made the most of her LTU degree, working at General Motors, Ford, and Johnson Controls before starting at the manufacturing management software developer QAD in 2002.

"When I started my job at QAD 17 years ago I had never been off the North American continent." Onica said. "Now I have been to 32 countries."

QAD provides ERP software to 4,000 sites and 300,000 users, and posted \$305 million in revenue in its 2018 fiscal year. It has 1,900 employees in offices in 19 countries.

Onica, whose title at QAD is director of automotive, described how OAD software is managing the "mind-boggling change" in the auto industry, which includes adapting to volatile demand, longer supply chains, and compliance with a barrage of industry and government standards.

High-quality manufacturing also takes into consideration everything from equipment failure to natural disasters to labor shortages to geopolitical risks like trade wars.

"The industry is going through major transformation," Onica said. "Technology is the key to survival." □MR



Terry Onica



Terry Onica (at left) addresses LTU students, faculty, and staff during the College of Business and Information Technology's annual Alumni Week.

Lakeland Tigers Spring Training



Spending some fun in the sun with ITU Florida alumni and friends is a rite of spring! This year LTU President Virinder Moudgil joined more than 80 Blue Devils to cheer the Detroit Tiaers on to a 2-2 tie against the New York Yankees at the March 10 exhibition game in Lakeland, Fla.

Alumna seeks to 'change the face of architecture,' wins new university award

Despite being 7 percent of the nation's population, black women make up less than 0.4 percent of the nation's licensed architects—just 400 out of 111,000. That's why architect Tiffany D. Brown, BSAr'05, MAr'07, MBA'15, created a program to bring more information about architecture to black girls. And that's a big reason why Brown was honored with LTU's inaugural John G. Petty Community Champion Award.

Presented in front of an audience of more than 100, the 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 observa-

Among many other career and community accomplishments, Brown created 400 Forward, an initiative to double the number of black female architects as quickly as possible, through free art and architecture summer camps for African-American girls and help in pursuing degrees. The initiative won a grant last

year from the Knight Founda-

In accepting the award, Brown said she started 400 Forward, "to be the face I was looking for when I was growing up." She said she got into architecture through art, and into Lawrence Tech through a visit of an LTU admissions officer to her high school.

Brown grew up in the Herman Gardens public housing development in Detroit—and now, after three degrees from Lawrence Tech and a successful career in construction management at SmithGroup, Brown is overseeing construction of the

redevelopment of that site.

While working in construction management, Brown said, "I've been mistaken for the person who comes to clean up the construction debris...Being from Detroit has helped me develop thick skin in an industry where black women are not always welcome."

Brown, who also works as an adjunct professor in LTU's College of Architecture and Design, praised CoAD Dean Karl Daubmann, whom she said "understands and is completely on board with the need to change the face of architecture."

Her advice to current students:

"Community service, community service, community service. That is how I met Michelle Obama...I never would have been in a position to meet her had I not been involved in mentoring the next generation." The award is named after John

G. Petty, BSME'65, a prominent Detroit engineer. Petty spent most of his career at defense contractors in the Detroit area, including Williams International and General Dynamics, where he was 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, on whose board he served, along with the Lawrence Tech Board of Trustees.

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

Petty's 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," Petty said. "Where there is vision, there is hope." $\square MR$



From left to right are LTU President Virinder Moudail, Tiffany D. Brown, John G. Petty, and LTU Black Student Union officers Kayla Bowen, first vice president; Curleshea Daniels, president; and Victoria Smith, second vice president.

FCA executive named a trustee

Mitch Clauw, BSME'86, vice president and head of global pre-programs, program management and planning at Fiat Chrysler Automobiles NV, has been named a member of the Board of Trustees at Lawrence Technological University.

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

At FCA, Clauw is responsible for ensuring worldwide application of standard and robust ER&D Planning, product development timing, governance and financial processes. His career started with various component and systems design assignments, evolving into overall vehicle assignments.

The Detroit native joined Chrysler Corporation in 1986 as a chassis packaging engineer and has advanced steadily to

positions of greater responsibility, including, in 2014 to vehicle line executive—E-SUV Programs (Wrangler, Durango, Grand Cherokee-based programs); in 2011 to architecture line executive—C/D Segment Global FCA Programs; and in 2010 to chief engineer—300/Charger/ Challenger.

"We are delighted to have Mr. Clauw serve as a trustee," said Lawrence Tech President Virinder Moudgil. "He is one of our exemplary graduates and his company is among the largest employers of LTU alumni. Manufacturing

and vehicle design continue to be fields where large numbers of our students seek employment and enjoy great success." $\square BJA$



Mitch Clauw

1960 architecture alumnus worked on many landmark projects, including St. Louis Arch

A 1960 LTU architecture alumnus who had a "Forrest Gump"-like career of working behind the scenes on numerous famous building projects returned to campus for a visit over the winter for the first time in decades.

James W. Smith, 91, BArE'60, started at LTU in 1950, but had his academic career interrupted by Army service. Smith pronounced himself thoroughly impressed with LTU's many campus improvements since his commencement.

Smith, a Toledo native raised in Detroit and Philadelphia, Pa., graduated from high school in 1946 and worked for a time in his uncle's machine shop. The son of a stone mason, Smith said he was inspired to take up architecture when he helped his brother Gus build a house. So he took a class at what was then Lawrence Institute of Technology. "The next thing I knew, I was in college," Smith said.

Soon after starting his studies, Smith began working for architect Arthur DesRosiers. But after just six months, he was drafted into the Army, so college—and architectural work-would have to wait out his two-year hitch, served mostly in Germany.

After the Army, Smith returned

to LIT. On a field trip to Frank Llovd Wright's Johnson Wax office building in 1956, he met a fellow LIT student, Yvonne Rochon, who was studying interior design. The two would marry in 1957, and raise nine children born between 1958 and 1974.

In 1958, Smith won an LIT student design award for a "home of the future." Smith said the \$1,000 prize (about \$9,000 in today's dollars) came in handy as he and Yvonne started their family. Family members said the two were a devoted couple until Yvonne's passing in 2014.

By now a family man, Smith said he knew of one Detroit architect who always seemed to have work, no matter what shape the economy was in— Eero Saarinen. He pulled together a newspaper article about his design award, a drawing, and a model he built of an LIT student project, a bandshell. Saarinen protégé Kevin Roche gave Smith an impromptu interview on a Saturday, and Smith got a job. Notable projects Smith worked on at Saarinen included building the scale model of St. Louis' famed Gateway Arch out of aluminum, and working on models of JFK and Dulles airports. His low-key design for the

ticket counters at Dulles won an internal company competition and still stand today.

Smith and his family spent a few years in Connecticut after the Saarinen firm moved there following the founder's death in 1961. After moving back to Michigan, Smith worked at wellknown Detroit architectural firm Giffels and Rossetti, and later, Rossetti and Associates, Sauriol **Bohde Wagner Architects and** Associates Inc., and Archeonomics. He became a licensed architect in Michigan in 1966,





A portrait of Jim Smith in the 1960s, and Smith on a visit to LTU's campus in February.

and over the course of a long career designed and managed projects involving several major plants and office buildings for

Continued



Among Jim Smith's projects over the years was this Bendix Corp. building in Southfield.





Ford Motor Co. and a renovation of Tiger Stadium.

Smith's daughter, Patricia Shaw, said her father offered advice and ideas to many architects during his career. "He points to features on all these buildings around town and says, 'That was my idea." Shaw said.

Smith's passion for architecture was passed on to one of his children, Daniel Smith, BSAr'96, a vice president at the Atlanta, Ga. office of WSP USA (formerly Parsons Brinckerhoff), working in the science and technology sector with expertise in high containment laboratories.

"I feel quite lucky to have Jim



Jim Smith also participated in the design of this General Motors Technical Center building in Warren.

as my father," Daniel Smith said. "Whether coaching my Cub Scout softball team, or teaching me valuable lessons I would later use in life, he would always approach the work with good humor, a sense of what is right about the world or design—and the honest caring that only a parent can give his children. It is guite amazing that all eight of my siblings are smart, talented and quality people. Our dad and mom raised us right."

And of James Smith's current work status, Daniel Smith said: "We think he's retired now, but not sure...he always has something going." □MR

LEAVE A LEGACY

Dave's uncle, Ray Moy, BSChE'43, was one of Lawrence Technological University's most prolific volunteers and supporters. And with the establishment of an annual award in his name, given to dedicated faculty or alumni, Ray became a permanent part of Lawrence Tech's history. His passion for LTU inspired Dave to also pursue his degree at the university, where he discovered for himself the transformational power of a Theory and Practice education.



LTU's Legacy Society recognizes those who have included the university in their estate plans



To learn more about planned giving –including beguests, gift annuities, and more -visit Itu.planmylegacy.org

"Our lives have been enriched by the education I received at LTU. We want to carry on my uncle's legacy of Blue Devil Pride, which is why we made the decision to include LTU in our estate plans. We'll be able to support future generations of students for many years to come!"

DAVE GABRIEL, BSEE'93 & HIS WIFE LAURA





Lawrence Technological University

When Good People DO Something



When Good People DO Something: Holocaust **Memorial Center Tour &** Storytelling: Alumni, students and friends gathered at the Holocaust Memorial Center on April 8 to tour the museum and hear the remarkable story of Denmark's efforts to save their Jewish neighbors during the Holocaust, told by LTU professor, Corinne Stavish.

Spring Open House



Visits with the Easter Bunny are an annual tradition on Lawrence Tech's campus!



Kids of all ages enjoyed this year's Spring Open House + Easter Bunny Brunch.

Hockey Game



The LTU Blue Devils defeated Concordia University 8-4 on Feb. 15 with a little help from our spirited alumni section!

The Student Veterans **Association**



Giving Back

Steve Stout supports student veterans through an endowed scholarship he established to provide financial aid to current and former service members struggling to afford their education. His efforts aiding LTU educate bright and dedicated students helped him earn membership in the Benefactors Society and as an ambassador in the True Blue Society. He is also an LTU Electrical Engineering Advisory Board member.

Lawrence Tech held its annual Student **Veterans Scholarship** Gala in April. The keynote speaker was Maj. Gen. Michael A. Stone, who has served since 2017 as commander of the 46th Military Police Command of the Michigan Army National Guard in Lansing. Also at the event, Ford Motor Co.'s Veterans Network Group received the **Corporate Veterans** Impact Award, and the Sam Bernstein Law Firm received Service to Veterans Award, Steven C. Stout, BSEE'92, received the LTU Alumni Veterans Award.

Upcoming Alumni Events



Detroit Tigers Baseball Game

Friday, Sept. 20, 2019 | 5:30 p.m. Comerica Park | Detroit



LTUAA Annual Dinner Meeting

Tuesday, Oct. 15, 2019 | 5:30 p.m. Hear from the LTU Alumni Association's Board of Directors about their plans for the upcoming year. Welcome Center, Taubman Student Services Building | LTU Campus



President's Symposium

Tuesday, Oct. 15, 2019 | 6:30 p.m. The College of Business and Information Technology will host this year's symposium, titled "How Electric Vehicles Will Reshape Urban Planning."

Marburger Auditorium, Science Building LTU Campus



Jubilee Brunch

Saturday, Oct. 19, 2019 | 9:30 a.m. Celebrate the Class of 1969's induction into the Jubilee Society. See page 36 for more information. UTLC Gallery | LTU Campus



Alumni Homecoming Tailgate Brunch

Saturday, Oct. 19, 2019 | 8 a.m. Celebrate Homecoming alongside your fellow LTU alumni at this year's alumni reunion brunch! Parking Lot A | LTU Campus



Homecoming: Football Game & Tailgate

Saturday, Oct. 19, 2019 | 8 a.m. tailgate,

Join the party early by tailgating in Parking Lot A before heading over watch our Blue Devils take on the Siena Heights University Saints! LTU Campus



Gleaners Food Bank Volunteering

Saturday, Nov. 2, 2019 | 9 a.m. Gleaners Food Bank | Detroit



Oakland County Alumni and Friends Reception

Location TBD



Holiday Open House

Sunday, Dec. 8, 2019 | 10 a.m. and noon **Buell Building | LTU Campus**

Learn more about all of Lawrence Tech's upcoming events at Itu.edu/alumni or contact Krysta Coleman, Director of Alumni Relations, at kcoleman@ltu.edu or 248.204.2307 for more information.

Class of 1969 to be honored at Jubilee this fall

You may not be able to go back to the summer of '69, but you can always come back home to Lawrence Tech!





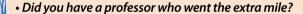
most treasured traditions and will once again be held this year during Homecoming Week. Graduates from 1969 and prior are

invited to attend on October 19.

Alumni reunions at Lawrence Tech are a great opportunity to visit old stomping grounds and reconnect with classmates.

But they're also a time for reflection—on the experiences you had as a student and how the time you spent at

LTU has impacted your life.



- Were you part of a student organization that introduced you to lifelong friends?
- Did your education set you apart from your peers and translate to career success?

Whatever the source of your Blue Devil pride, we hope you'll join your fellow Jubilarians this fall to celebrate it! One of the most meaningful ways to commemorate this major milestone is by making a meaningful gift to the University. You'll give today's students the chance to make the memories and achieve the goals they will reflect on when they join the Jubilee Society many years from now.





Saturday, Oct. 19, 2019 | 9:30 a.m. LTU Campus, University Technology and Learning Center

To RSVP for the event and make a gift to support the Jubilee Society Endowed Scholarship, visit www.ltu.edu/jubilee or call 240.204.2203.



LTUAA names Ray, **Distinguished Volunteer winners**

The LTU Alumni Association and the LTU Advancement office has bestowed its annual Alumni Awards. This year's winners are:

Ray Award 2018 Recipient: Mark Farlow (BSAr'81, BAr'82, MAr'09)

The "Ray" award was established to recognize the leadership and service of alumni volunteers at the University. The namesake of this award is Raymond L. Mov. ChE'43, who received the first award in 1997.

Alumni volunteers are vital to the success of Lawrence Tech and the "Ray" was created to honor and thank these individuals. The name symbolizes the rays from the sun, representing its great energy, life force, and hope for the future which sustains all of us, and it is no coincidence that the "Ray" is named for a man who embodied each of these characteristics. Ray Moy gave years of tireless service and devotion to Lawrence Tech. Moy was a leader of the University's STARS program, where he crisscrossed the state of Georgia to identify and inform potential students about opportunities at Lawrence

Tech. He also established a special scholarship for local students to attend the University.

Farlow, BAr'82, MAr'09, is director of design and principal at Hamilton Anderson & Associates in Detroit. He has been an adjunct professor at LTU for nearly 23 years. He has volunteered his time at LTU's Affleck House and the AIA student chapter. He received the Distinguished Architectural Alumni Award and the Henry B. Horldt Excellence in Teaching Award, both in 2016, and is also a previous chair of the Architecture and Design Alumni



Mark Farlow

Learning Using Technology Faculty Award in 2013.

Cabinet. He

Teaching &

also won the University

LTU Distinguished Volunteer Recipients 2018: Ben Tiseo (BSAr'78) Deirdre Jimenez (BSAr'83, BSIA'85)

This award is given annually to alumni who go above and beyond the call of duty of volunteerism. Tiseo and Jimenez have spent countless hours volunteering their time to the restoration of the Affleck House. $\square MR$





Ben Tiseo

Accelerator SAVE THE DATE -Friday, Oct. 4

On National Manufacturing Day, the Centrepolis Accelerator will launch a new 6,300-square-foot center on the LTU campus. The Accelerator will provide clients and partners with co-working space, workshops, mentors, technical and business services, a digital design lab, a mixed-reality lab, and much more. The focus will be on physical product innovation and manufacturing, a unique niche among business accelerators.

LTU and the Accelerator would like to thank alumni for their involvement in this effort to support startups and growing companies in hardware and manufacturing.

- Lee Gorman, BSME'97, Accelerator Mentor-In-Residence
- David Darbyshire, BSME'87, co-owner and engineer, DASI Solutions
- David Bolognino, BSME'95, president, Integrated Additive Solutions, and former director, fabrication design operations, General Motors

The **Centrepolis Accelerator** is part of the LTU Enterprise Center, Building 18 at www.ltu.edu/map. More at http://www.centrepolisaccelerator.com/

Women in STEM Panel



Marissa Bradley, BSBmE'19; Nicole Kennedy, BSEE'95; Terry Onica, BSBA'90; and Donna Bell, BSEE'89. discussed their experiences as women in predominantly male-dominated STEM fields in a November event at Alumni House.

Alumni Notes includes news aathered 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 to share news about you and alumni you know!



Douglas G. DelGrosso. BSME'84, was named president and chief executive officer of Adjent, a Plymouth-based

automotive seating supplier. DelGrosso joined Chassix, a Southfield-based auto supplier. in 2016 to help the company emerge from bankruptcy. Doug is a former member of the LTU Board of Trustees.

Michele D. Tucholke, BSMCS'84, has joined the Lakes Area Chamber of Commerce in Walled Lake in the newly created position of office and event manager.



Joseph L. Petrosky, BSME'85, was named associate vice chancellor for academic

affairs at Oakland Community College. Petrosky had been dean of engineering and advanced technology at Macomb Community College since 2008.

Rayna Handelman, BSME'87, was named president and chief executive officer of Angstrom Energy Solutions in Dallas, Texas.

Ronald R. Henry, BSAr'89, AIA, was named senior vice president at Sachse Construction in Detroit. Sachse is a commercial construction management firm. Ron's prior experience includes leadership roles with Beaumont Health, Detroit Medical Center, and Plante-Moran CRESA.

James J. Schinker, BSME'89, has joined Miller Industries in Fenton, Mich. as vice president of operations. Jim has 30 years of industry experience in manufacturing in a variety of planning and production roles.



Rajeev Batra, BSFF'90, was appointed to the Board of Directors of MKS Instruments, Inc., a global provider of technologies

to enable advanced processes. Rajeev is president of the Digital Factory division for Siemens Corp. in the United States. He received LTU's Alumni Achievement Award in 2017.



Terry Onica, BSBA'90, director of automotive for OAD, Inc. in Farmington Hills, was named one of 2018's Notable Women

in Tech by Crain's Detroit Business.



Christopher Smude. BSBA'90, was named senior director of donor relations and stewardship at The Community

House Foundation of Birmingham. For 14 years prior, he was president of Smude & Associates, a financial advisory firm in Farmington Hills.

Lisa A. West, BSAr'91, was appointed to the American Cancer Society stakeholder team where she will serve as one of four ad hoc stakeholders for 2019. Starting in January 2020, she will serve a two-year term. ACS stakeholders are volunteers without formal science or oncology training, but have a strong interest in cancer research and serve on peer review committees. West owns a residential and commercial design firm in Alpena.

Dwane G. Adle, II, BSAr'92, BSIA'92, BAr'94, MAr'13, AIA, has been inducted to the American Society of Interior Designers (ASID) for his outstanding contributions to the profession. Dwane owns Comprehensive Design Group, Inc., in Royal Oak.



Saundra R. Little, BSAr'94, MAr'98, AIA, LEED AP, NCARB, NOMA, has joined Quinn Evans Architects as a senior

associate. 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.

Kevin Adkins, BSAr'95, AIA, NCARB, has started ad | ROOM architecture + design in Ann Arbor, and is a lecturer at the University of Michigan.



Stephen Pyrkosz, BSAr'95, BAr'97, has joined the architectural team at CPL, a full-service design firm

in Rochester, NY. Stephen has more than 20 years of industry experience, most recently with Bergmann Associates.



Tricia Beck. BSAr'96, MAr'97, AIA, LEED AP, NCARB, has been promoted to a vice president at SmithGroup.

She continues in her role as the higher education studio leader in the design firm's Detroit office. Tricia has been with SmithGroup since 2012, and was named one of 2018's Notable Women in STEM by Crain's Detroit Business.



Deborah A. Brazen, BSAr'99. MAr'02, RA, NCIDQ, LEED AP, BD+C, PM-LPC has graduated from the Robert C. Larson

Leadership Initiative Program, offered by the Urban Land Institute. Deborah is an associate at the Bloomfield Hills firm TMP Architecture. She has served on the Ferndale Planning Commission since June 2006.



Jeremy J. Terrell, BSAr'01, AIA, has ioined Cornell Architects as an associate designer draftsperson. Jeremy has

worked as a draftsperson/designer for more than 20 years.

Matteo Pedini, BSEE'02, was promoted from associate to counsel at Cantor Colburn, one of the largest patent law firms in the United States.



Amy M. Baker, BSAr'03, MAr'06, RA, LEED AP, CSI, CDT, SCIP, has opened an architecture and specifications consulting firm,

Amy Baker Architect, in Royal Oak. She was also elected a director of the Building Enclosure Council of Greater Detroit.



Rosemary Bayer, MBA'03, was elected in 2018 to represent District 12 of the Michigan Senate. Prior to her election, she

cofounded the Michigan Council of Women in Technology, a nonprofit that provides STEM support and educational programs for girls and women around the state. Rosemary received LTU's Alumni Achievement Award in 2007.



State Rep. **Shane Hernan**dez, BSAr'05, MAr'09, has been representing Michigan's 83rd House District since his

election in 2016. He was named House Appropriations Committee chair for the 2019-20 legislative session.



State Rep. Sue Allor, MBA'06, has been representing District 106 in Michigan's House since her election in 2016.

She is on the House Appropriations Committee where she is chair of the Natural Resources subcommittee, as well as vice chair of the Health and Human Services subcommittee. She also serves on a number of other subcommittees.



Jason Smith, BSAr'07, has ioined Hennebery Eddy Architects, Inc. in Portland, Ore., as a designer.



Andriana G. Stefanov, BSAr'12. BSCvE'12. MAr'15, LEED, has joined the architectural department of TMP

Architecture, Inc. in Bloomfield Hills. She became a LEED Green Associate in 2017.

Joseph R. Knoff, BSCh'16, was selected to represent the Midwest region as a referee in the 2018 US Youth Soccer National Finals in Texas. As a student, Joey played soccer for Lawrence Tech.



Lee LeRoy, DBA'17, was named complex manager by Wells Fargo Advisors of its Mid-Michigan Complex. Lee is

senior vice president of investments, a producing manager with 22 years of experience as a financial advisor, and a founding member of the LeRoy/Bartnikowski Group of Wells Fargo Advisors. Based in the company's Flint branch, Lee also serves as branch manager for the Saginaw/Bay City branches.



Andreas Reger, DBA'17, has joined Austrian-based plastic packaging company Alpla as general manager of US

manufacturing operations. Andreas is overseeing all activity at the company's 17 US plants.

He joined Alpla with 27 years of experience in automotive, equipment manufacturing, and injection molding industries.



Stefanie M. Smith, MBA'17, was named director of donor and alumni relations for Detroit PAL, a nonprofit group celebrat-

ing its 50th anniversary this year. Detroit PAL works in partnership with the Detroit Police Department to create safe and supportive places for children to play, while also training and certifying more than 1,800 volunteers each year as coaches and men-

tors. Stefanie has more than 15 years of experience in nonprofit management, including six years as alumni relations manager at Detroit Country Day School. In 2018, Stefanie was recognized by the Michigan Chronicle as one of their annual Women of Excellence Award recipients.

Shane J. Gamrat, BSCvE'18, received a Come Home Award from the Community Foundation of St. Clair County. The county's Come Home program pays recent college graduates with STEAM degrees up to \$15,000 to move back to St. Clair County to live and work. Shane works at BMJ Engineers & Surveyors Inc. in Port Huron.

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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Name

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Email

Use the email address above or mail to: Lawrence Technological University, Office of Alumni Relations 21000 West Ten Mile Road, Southfield, MI 48075-1058 Fax: 248.204.2207

FRIENDS WE'LL Friends We'll Wiss

Information for this section is aathered from family and friends of the deceased, and from newspaper and electronic media accounts. When providina 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 a newspaper clipping, please include the date and name of the paper.

James N. Neumann, BSME'49, of Leesburg, Fla, Dec. 31, 2018. Mr. Neumann was a World War II veteran, and a mechanical engineer for General Motors in Elyria, Ohio. He is survived by a son.

Harold R. Snooks, BSCvE'49, of Alpharetta, Ga., May 27, 2018. He is survived by his wife, Ethel, and three children.

Jack N. Topalian, BSME'49, of North Palm Beach, Fla., July 29, 2018. He served in the Army Air Corps during World War II, serving as an aerial navigator and reconnaissance officer. Mr. Topalian retired from Floridabased Pratt & Whitney in 1991. He is survived by two children.

William C. Bubniak, BSME'50, of Troy, June 28, 2018. Mr. Bubniak served in the Air Force during World War II in Guam and Okinawa, and achieved the rank of staff sergeant. He retired from the General Motors Research Laboratory Division after 32 years as a design engineer, with 10 patent awards. He is survived by a son.

William S. Heitman, BSBA'50, of Melvindale, Oct. 14, 2018. Mr. Heitman was a World War II veteran and dedicated member of the American Legion, Veterans of Foreign Wars, 40+8, and the

Knights of Columbus. He retired from Ford Motor Company after 37 years. He is survived by four children.

J. Ralph Chamness, BSME'51, of Troy, Nov. 6, 2018. He is survived by his wife, Barbara, and three children.

Melburn E. Huebner, Jr., BSME'51, of Scottsdale, Ariz., Dec. 21, 2018. Mr. Huebner loved engineering, and working on defense and aerospace projects at General Electric, Honeywell and Motorola. He is survived by six children.

Charles R. Leith, BSME'51, of Mesa, Ariz., June 28, 2018. He is survived by his wife, Janice, and three children.

Louis DeRocco, Jr., BSIM'52, of Clare, Aug. 10, 2018. Mr. DeRocco served as a corporal in the Army Air Corps during World War II. He worked as an accountant for General Motors, and later as an insurance adjustor. Mr. DeRocco was involved in restoring the Redford Theatre, and played the theatre's organ. He is survived by many nieces and nephews.

John B. Pettypool, BSME'52, of Imlay City, Sept. 21, 2018. He is survived by his wife, Dolores, and eight children.

Richard C. Rocco, BSME'52, of Lathrup Village, Feb. 19, 2018. Mr. Rocco served as an aviator in the Navy.

Frank D. Poslajko, Jr., BSME'53, of Huntsville, Ala., July 14, 2018. Mr. Poslajko was in the Army during the Korean War. After graduating from LTU, he worked for Chrysler Aerospace, the Corps of Engineers, and retired from the Army Space and Missile Defense Command in 1996. He is survived by his wife, Joan, and four children.

William M. Doty, BSME'56, of Huntsville, Ala., July 9, 2018. Mr. Doty worked for Chrysler as an aerospace engineer, then shifted to the company's automotive electronics business. He retired after 41 years with the company. He is survived by his wife, Patricia, and five children.

Stephen J. Seiner, BSME'56, of Troy, April 18, 2017. Mr. Seiner's professional life began at age eight with a \$5 per week paper route. Later, he worked two years for Chrysler Defense before becoming an engineer at General Motors where he stayed for 42 years. During his time at GM, Mr. Seiner was heavily involved with operations in Mexico and China. He is survived by his wife, Alice, and three children.

James F. Franzen, ARACT'57, of Oconomowoc, Wisc., Nov. 28, 2017. Mr. Franzen was a Marine Corps veteran. He worked as an **HVAC** contractor in the Detroit area, and was a retiree member of UA Pipefitters Local 636. He is survived by his wife, Shirley, and three children.

Gordon E. DuCharme, AEEtT'58, of New Baltimore, May 14, 2017. Mr. DuCharme served in the Army, and was a repairman for AT&T. He is survived by his wife, Delores, and two children.

James R. Ritzema, BSIE'59, BSEE'60, of Holland, Mich., Sept. 2, 2018. Mr. Ritzema worked for General Motors. In retirement, he enjoyed woodworking. He is survived by his wife, Peggy, and a son.

Robert G. Summers, AEEtT'59, of Redford, Sept.18, 2018. Mr. Summers was a vice president at Jensen, Inc. before operating his own business for 25 years. He is survived by his wife, Wanda, and two children.

John G. Avey, BSIM'60, of Redford, Sept. 7, 2018. Mr. Avey served in the armed forces during the Korean War. He was a member of the Veterans of Foreign Wars and the Knights of Columbus. He is survived by his wife, Joan, and five children.

Richard D. Rusas, BSIM'60, of Brighton, June 20, 2017.

Howard F. White II, BSME'61, of Granbury, Texas, Oct. 30, 2018. Mr. White is survived by his wife, Patricia, three children and three step-children

Earl E. Priestaf, BSIM'62, of Hot Springs, Ariz., Aug. 19, 2018. Mr. Priestaf served in the Air Force. He then worked for the GMC Truck Division of General Motors, retiring after 38 years. He is survived by his wife, Suzanne, and two children.

Philip Michael Steffes, AMT'62, of Lexington, Mich., June 13, 2018. Mr. Steffes worked at Holly Carburetor, and retired from Chrysler Corp. after 30 years. He is survived by his wife, Krystal, and four children.

Roger T. Allen, AMT'63, of Allenton, Mich., Jan. 7, 2019. Mr. Allen worked at the Ford Motor Company's Utica Trim Plant, retiring as maintenance supervisor. He was also a volunteer firefighter and a dedicated member of Lions Club International where he served as State Drug Awareness chairman for Michigan and governor of District R in Florida. He is survived by his wife, Carollyn, and five children.

Conrad Niezur, BSArE'64, of The Villages, Fla., Feb. 13, 2019. Mr. Niezur started his career with Viking Contracting, and retired in 2011 from Walbridge where he spent many years as a vice president. He is survived by his wife, Rosalie, and three children.

Robert L. Walters, AMT'64, of Grosse Ile, Mich., Sept. 19, 2017. He is survived by his wife, Myrna, and four children.

James L. McCally, BSME'66, of New Hudson, Mich., Aug. 28, 2018. Mr. McCally was a longtime employee of Ford Motor Co. prior to his retirement. He is survived by four children.

James E. Cook, AEEtT'67, of Lady Lake, Fla., Nov. 27, 2016. He is survived by his wife, Charlene, and three children.

Gary L. Dikin, BSIM'68, of Harrisonburg, Va., Jan. 9, 2018. Mr. Dikin was an organizational change management consultant, nationally and internationally. He is survived by his wife. Teresa, and two children.

Lanny M. Englund, BSME'68, of Clarkston, Mich., Dec. 10, 2015.

Gene F. Rak, BSEE'68, of Baton Rouge, La., Jan. 10, 2019. Mr. Rak worked for Exxon, specializing in corrosion, then established his own consulting business. He served in the Navy Reserves, 1955-63. He is survived by his wife, Maxine, and five children.

James P. Harrison, BSIM'69, of Sterling Heights, Feb. 26, 2014.

Lawrence W. Parrish. BSME'69. of Davenport, Fla., Feb. 17, 2018.

James R. Grigsby, BSAr'70, AIA, of Farmington Hills, May 15, 2018. He is survived by his wife, Denise.

Robert C. Boswell, BSME'71. BSBA'75, of New Smyrna Beach, Fla., July 30, 2018. He is survived by his wife, Suzanne, and two children.

David P. Pike, BSIM'71, of Royal Oak, Mich., April 22, 2017. He is survived by his wife, Charlene.

Marvin L. Wehr, BSIM'71, of Marietta, Ga., Jan. 31, 2018. He is survived by three children.

Michael V. Moosh, BSME'72, of Harrison Twp., Mich., Aug. 10, 2018. Mr. Moosh is a patent holder, and he retired from Ford Motor Co. after 35 years. He is survived by three children.

Dennis Lawrence Langkam, BSAr'73, BAr'76, of Tampa, Fla., Nov. 22, 2008.

Norman G. Nelson, ACmT'74, of Livonia, Sept. 26, 2015. He is survived by his wife, Julie.

Donald L. Kowalski. ADP'76. of Roseville, Mich., Feb. 9, 2019. Mr. Kowalski served in the Army, then he worked many years as a deli manager at Kroger. He is survived by a daughter.

Howard W. Knorr, BSAr'78, of Beverly Hills, Mich., Feb. 8, 2019. Mr. Knorr served in the Army, 1961-63. He was a freelance writer, photographer, political campaign aide and private investigator, as well as an ardent environmentalist. He and his wife, Frances, created a water garden at their home, which was featured on the cover of a locally written book about water gardens. He is survived by a stepson.

John F. Prainito, BSEE'78, of Buckeye, Ariz., April 19, 2018. He is survived by his wife, Susan.

Gerard P. Castle, BSBA'92, of Huntington Woods, Aug. 1, 2018. Mr. Castle worked many years for the American Red Cross, starting as a staff accountant and ending up as director of finance for the ARC National Testing Labs and Patient Services.

Jettie Ann Sweeney, BSEE'96, BSME'02, of Sumpter Township, Mich., July 28, 2018. Ms. Sweeney was a quality engineer for Ford Motor Company's Michigan Assembly Plant.

Joseph M. Gorman, BSBM'09, of Farmington Hills, April 14, 2018. Mr. Gorman worked as a sales engineer for several companies. and was an avid boater.

I A W R F N C F T F C H F A M I I Y



Joseph Champagne, trustee and education leader

Dr. Joseph E. Champagne, of Rochester, an LTU Trustee since 2001, died December 11, 2018. He was a member of the Academic Affairs and Executive Committees.

Dr. Champagne had a broad background in education. He served as the third presi-

dent of Oakland University 1981-91 and Crittenton (Hospital) Corp.1991-93. He did undergraduate work at St. Mary and St. Thomas University. He earned his Master's degree at Fordham University and his PhD at Purdue.

Soon after graduating, he was appointed director of research for the state of South Carolina and was very proud of his work to improve the lives of the underprivileged through education and job training. He later was named associate director of the Institute for Labor and Industrial Relations at the College of Business Administration at the University of Houston. He led a feasibility study for establishing a community college and became the founding president of Houston Community College in 1970. He later returned to the University of Houston to become vice president for academic affairs.

At Oakland, he was one of the main forces behind the technology park that surrounds the university. He was named the chancellor of the Lamar University System in 1994. He moved back to Rochester to start his own corporation and educational consulting business. He became vice president for advanced studies and dean of the University Center. He was passionate about increasing educational opportunities for students by providing access to upper college level courses from local universities.

Lawrence Tech Board Chairman Douglas Ebert said that "Dr. Champagne leaves an indelible mark on our institution from his years of dedicated service. We will miss him but his legacy will never leave us."

Survivors include his wife, Emilie, and three daughters. □BJA

LAWRENCE TECH FAMILY



Richard Darbyshire, father of legacies

Richard A. Darbyshire, BSME'54, BSEE'61, of Lake Orion, passed away January 21, 2019. Mr. Darbyshire was an active engineer and passed along his love for the profession to his eleven children, most of whom also became Lawrence Tech graduates. He

and his wife, Genevieve, who survives, were married 61 years.

Mr. Darbyshire's employers included Burroughs, General Motors, Chrysler, and General Dynamics. His work included the lunar rover during the Apollo era, thrust gyros for missiles, tanks, and automotive components. He was an enthusiastic supporter of Lawrence Tech and served the Alumni Association as a director 1979-82 and treasurer 1982-88.

His children who became alumni include David, BSME'87; Robert, BSME'80; Edward, BSME'84, Leonard, BSME'87; Richard, BSME'94, and Louise (Bjelobrk) BSME'00. Another brother, James, attended LTU.

Several of the siblings have leadership roles at Pontiac-based DASI Solutions, which develops engineering software and 3D printing. The Darbyshires and their firm also sponsor a popular alumni car show during the Woodward Dream Cruise. Read more about the family in the fall 2016 issue of this magazine.

The family asked that memorial contributions be made to the Lawrence Tech Alumni Association. □BJA



MJ Morell, development leader

MJ Morell, of Gladwin, died Feb. 17, 2019 at age 88. Mr. Morell served in various fund raising capacities at Lawrence Tech 1985-95, including as director of development. He played an active role in raising funds to build the 18,000 sq. ft. "high bay" addition to the Engineering Building, complete the

Don Ridler Field House, and helping to fund restoration of LTU's Affleck House designed by Frank Lloyd Wright. He focused primarily on corporate "in house" campaigns and soliciting small to medium businesses.

Mr. Morell had previously worked in sales, personnel, and management for 30 years with Michigan Bell and AT&T, most recently as zone manager for metro area Phone Center stores. He held a BS in economics and business administration from Michigan State University. His survivors include two sons and two daughters. □BJA



Judge **Damon J. Keith** mourned

Damon J. Keith, HD'01, distinguished U.S. circuit judge on the United States Court of Appeals for the Sixth Circuit, died April 28. Judge Keith was highly regarded and ruled on a number of precedent setting cases.

Appearing on campus on several occasions, Judge Keith was a treasured friend

of Lawrence Tech. In 2001 he presented LTU's Commencement address and was awarded an honorary degree. Excerpts from the citation LTU presented to him at that time highlight the admiration so many others shared:

"Esteemed Champion of the Constitution. Ardent Protector of the Powerless. Tireless Defender of Democracy. Your life epitomizes the bedrock upon which the American edifice rises—that all men are created equal and that, under the rule of law, all can achieve that equality....

"You have made exceptional contributions to the advancement of the law, to the administration of justice, and to the improvement of society. Your decisions have changed the course of history and have enlightened the struggle to secure and preserve the rights of free people everywhere...." □BJA



Harry "The Horse" Kazanjian, honorary captain of football squad

Harry "The Horse" Kazanjian, DIT'50, the honorary captain for Lawrence Technological University's return to football competition in 2018, died February 3, 2019 at age 90. Mr. Kazanjian was the leading rusher for the

football team of what was then Lawrence Institute of Technology in the fall of 1946, its last season of football competition until 2018. He attended LIT for a single year, 1946-47.

When Mr. Kazanjian's son, Roger, read a newspaper story about Lawrence Tech bringing back a football team, Mr. Kazanjian reconnected with the University. As the only known living member of the 1946 squad, Mr. Kazanjian was honored at the 2018 season opener Sept. 1, and flipped the coin for the gameopening coin toss at the October Homecoming game.

When Lawrence Tech dropped its football team in 1947, Mr. Kazanjian transferred to the Detroit Institute of Technology so he could continue playing. He earned a degree and went to work for Ex-Cell-O Corp. on a team that perfected the paperboard milk carton, replacing glass bottles. Then, he worked 30 years for Chrysler Corp. as an engineer and supervisor, retiring

In addition to his wife, Margaret, Mr. Kazanjian's survivors include two sons and a daughter. $\square MR$

LAWRENCE TECH FAMILY



Lee laccoca, outstanding automotive executive

Lee A. lacocca, HD'71, who died July 2, was LTU's commencement speaker in 1971 and received the Doctor of Industrial Management degree, honoris causa.

At the time, Mr. lacocca was the president of Ford Motor Company. He noted in his remarks that LTU (then LIT) was fourth in the nation among colleges that supplied Ford employees, and fifth among some 2,500 colleges in providing Ford's management and technical personnel.

In his address, he mused that the Class of 2000 would be coming along in "just 29 years," and when they do, the Class of 1971 will be in charge of the world that that class would be moving into.

"I am genuinely concerned that too many young people today seem to see the world as a place of problems - instead of a place of promises.... So many of them seem unshakably sure of what they are against, but distressingly uncertain of what they are for."

He spoke to the need for graduates to take an active role in solving societal problems. "To me, the intellectual potential and humanistic resources of you young men and women and others in your generation loom larger than all the promises of science and technology put together. Yours is not just a new generation, but a new kind of generation," he asserted.

Mr. lacocca was introduced during the ceremony by alumnus William Innes, BSME'53, then the number three executive at Ford. □BJA

DIT IN M F M O R I A M

Robert E. Crompton, BSME'48, of Sun City West, Ariz., July 9, 2018. Mr. Crompton worked as a consulting engineer from 1949 until he retired in 1988. He is survived by his wife, Anita, and three children.

Theodore "Ted" Karmazin,

BSIE'51, of Grosse Ile, Mich., June 5, 2018. Mr. Karmazin served in the Army Corps of Engineers during the Korean War in the Chief of Engineers Headquarters in Washington, DC. After the war, he joined his father's business, Karmazin Products Company (KPC) in Wyandotte. In 1966, he was named KPC's vice president of sales and marketing. Mr. Karmazin left KPC in 1971 to pursue other opportunities, including acquiring Mutual Metal Products, Inc. (MMP) in Cleveland, Ohio. After the economic recession of the early 1980s led to closing MMP, Mr. Karmazin established a manufacturers' representative business, T.K. Associates, Inc., which he oper-

ated until the early 2010s. He is survived by his wife, Nancy, and a son.

Robert "Bob" Mullane.

BSME'55, of Punta Gorda, Fla., June 30, 2018. Following his service in the Army Air Corps, Mr. Mullane worked for Continental Motors and later opened Mullane Industries, a balancing and spin testing business. He is survived by many nieces and nephews.

Raymond J. Heitchue, BBA'58, of Spring Hill, Fla., Oct. 14, 2014. Mr. Heitchue worked for Great Lakes Steel and WWK Investments. He is survived by his wife, Geneva, and two children.

John A. Kline BBA'58, of Midland, Mich., Oct. 18, 2018. Mr. Kline was a revenue agent for the Michigan Department of Treasury for 22 years; he then established and operated Kline's Accounting for 23 years. He is survived by his wife, Melanie, and two children.

Clement J. Roberts, BSME'60, of River Rouge, April 14, 2018. He is survived by his wife, Olive, and four children.

Charles W. Baisch, BSCvE'63, of Grosse Pointe Park, Dec. 28, 2017. Mr. Baisch was a structural engineer for Shymanski & Associates LLC. He is survived by a daughter.



Report to Investors

FROM THE PRESIDENT AND CEO

he London-based Economist news magazine recently ranked Lawrence Technological University's young alumni, born between 1980-84, relatively high in earning patents. LTU's young alumni earned patents in numbers above all other fouryear colleges and universities in the Detroit metropolitan area-totals nearly double and triple the numbers of two much larger neighboring public universities.

This data reveals an important differentiator about Lawrence Tech students and alumni. They are doers. They invent things. They build things. And they create in a disproportionately high ratio to their numbers. This also says a lot about the experiential, theory and practicebased education they receive at Lawrence Tech, and says a lot about the highly motivated and energetic young people who are attracted to LTU.

Theory and practice, a real world, project-based approach to learning, engagement in our communities and the professions—these have always been the hallmarks that set the Lawrence Tech experience apart.

And the coming year promises to be even more exciting. Our collaboration with the City of Southfield is resulting in two major partnerships. This October, we are unveiling the City of Southfield/ Lawrence Tech's new Centrepolis Accelerator to help Michigan's emerging small manufacturing, hardware, and product development companies grow and excel. This new accelerator is being housed in Lawrence Tech's Enterprise Center on the north side of campus where great synergies are expected between it and its neighbor, the Oakland County Southfield Office of Michigan Works!, the agency that helps support the state's workforce development. We're told it is the only American Jobs Center at a Michigan university.

The Accelerator and many more innovative projects on

President Virinder Moudgil representing the University to local media.

campus means even more opportunities for Lawrence Tech students to participate with some of the most entrepreneurial people and organizations in the Midwest and from around the world. This will create valuable engagement for both students and faculty. Imagine the learning experiences they will have and the results they will be able to achieve working with these intrepid new start-ups as well as more seasoned organizations embarking on new directions or seeking new solutions. An entire new level of cuttingedge experiences are being provided for our students as they prepare to contribute to and lead in their professions.

Over the past year we have launched a number of other important initiatives:



Dr. Moudgil gathers with LTU faculty and staff prior to the **Cisler Lecture** from nuclear nonproliferation expert Sara A. Pozzi (left).



- LTU's Marburger STEM Center (Science/Technology/ Engineering/Mathematics), led by Dr. Sibrina Collins, has engaged dozens of groups and hundreds of pre-college students in introducing concepts leading to better understanding of these fields and opportunities.
- A new middle college agreement with the Detroit Public Schools is providing opportunities for Detroit students to learn about and better prepare for higher education and professions in technical fields.
- A new agreement with Michigan State University opens the door to more of our pre-med students being accepted in MSU's highly competitive medical programs.
- Progress is being made in developing a new master's degree program in physician assistant studies, expected to launch in fall 2021. Adding this program helps LTU meet high demand in that field but also expands our academic mix. It is important to look to diversifying our programs so LTU can remain strong even when the demand for certain programs may wane due to economic cycles.
- LTU is putting renewed emphasis on attracting more non-traditional and graduate students.
- In addition to varsity football that gets underway in earnest this fall, LTU will launch new track and field and e-Sport teams. We now offer 30 men's and women's sports on campus.

You can be proud of the new strategic community collaboration between Lawrence Tech and West Bloomfield High

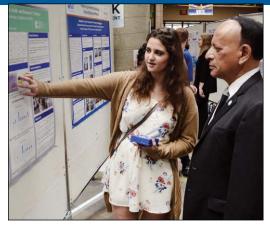
School that is bringing our faculty and WBHS students together in dedicated space (Tech Hub) at the high school. A number of students from WBHS and from other local schools are also co-enrolled in classes here that will help them accelerate their collegiate progress.

As noted in the cover story in this magazine, a new nursing skills laboratory has been built in the Science Building and will be an important augment to our growing Bachelor of Science in Nursing program begun in 2017.

The transformation of Lawrence Tech from a commuter campus to more of a residential one also continues. This year we attracted students from 43 states and 48 countries and, due to high demand, were forced to turn away students who wanted to live here. LTU's fourth dormitory, East Residence Hall, opened in August 2018 with facilities for 308 students and housing staff.

The nearly 1,000 students living on campus also strengthens demand for more activities and a robust campus life. Lawrence Tech attracts students with strong scholastic aptitudes, many of whom also enjoy the competition, discipline, and camaraderie of intercollegiate athletics. That and their good time management has helped the GPAs of LTU's student athletes rise higher than those of our general student population.

Progress on the new outdoor athletic field continues with grand new stadium seating, completed this fall, thanks to an anonymous \$2 million donation. Eventually, funds are sought to make available



A student explains her LTU Research Day project to Dr. Moudgil.

locker rooms, restrooms, and concession stands that will be built beneath it.

Important guests on campus over this past year included commencement speakers James Nicholson, chairman of Detroit-based PVS Chemicals, Inc., in 2018, and the Honorable Debbie Stabenow, U.S senator, in 2019. The first commencement ceremonies ever held at our Southfield campus in May 2019 were a huge success and the weather was terrific. The fall 2018 Convocation speaker was former Michigan Governor and Ambassador to Canada James Blanchard, who also received our Global Citizen Award.

LTU's location in the dynamic City of Southfield remains among our greatest assets. The "town and gown" relationship between the City and Lawrence Tech has experienced tremendous success and growth under the leadership of Mayor Ken Siver, Southfield's city council, and the city administration. The campus environs is developing as a beautiful, pedestrian-friendly, mixed-use community with more and more residential, dining, and retail options for students and visitors. You'll be amazed at all the new construction and improvements that have occurred in recent years.

A hallmark of a great university is its ability to earn support from like-minded individuals and organizations that have concluded that what we do here has value and importance. Thanks to the hard work of our students, faculty, and staff, the wise counsel and helpful guidance of our Board of Trustees, and the generosity of our alumni and other donors, Lawrence Technological University has had another exceptional year.

With your continued support, we could do even more. The new Strategic Plan, www. ltu.edu/strategicplan, created by a broad campus coalition and LTU's Board of Trustees, sets forth goals to add more student scholarships, expand endowment funds, and continuously improve facilities and technological resources.

Your contributions and those of other alumni and friends have a huge influence on Lawrence Tech's reputation and the services we provide. Your continued involvement, support, and contributions are key to the University's future.

With grateful appreciation,

Vudu fagen Dil

Virinder K. Moudgil

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Virinder K. Moudgil President and CEO Lawrence Technological University

FROM THE VICE PRESIDENT FOR **ACADEMIC AFFAIRS AND PROVOST**

uring the past year we have seen the positive culmination of several strategic initiatives and we have started new ones that continue to enhance academic offerings, campus life, and career opportunities for all Lawrence Tech students.

The most important accomplishments in academic affairs include:

- After the retirement of Dr. Hsiao-Ping Moore, the dean of the College of Arts and Sciences for 12 years, a committee including faculty members and administrators started the search for the new dean. The committee reviewed more than 70 applicants. It is a pleasure to inform you that Dr. Srivinas Kambhampati was named the new dean of the College of Arts and Sciences as of Aug. 15, 2019.
- Dr. Kambhampati comes from the University of Texas in Tyler where he was the associate provost for research, and before that the S.A. Lindsey Professor and chair of the Biology Department. He was also a faculty member at Kansas State University. We welcome Dr. Kambhampati to the University and we are sure that together with the faculty and administration he will continue to develop the college as a model of liberal education for the 21st century.
- This fall of 2019 we welcomed our third cohort of nursing students. In addition to the director, Dr. Therese Jamison, we have hired three new faculty members who represent the core of the program



in along with adjunct and clinical faculty. Our partnership with Ascension Providence in providing our students with both laboratories and clinical training has been invaluable.

- In our effort to continue to serve the health care industry and diversify the offerings at Lawrence Tech, we are also in the process of developing a new Physician Assistant program, with the first student cohort starting in fall 2021. This year we hired the founding director for the program, Professor Eryn Smith, who joined us in August. The development of the curriculum, working to receive program accreditation, and the hiring of faculty will be his main functions until we admit our first cohort of students.
- The faculty of the College of Arts and Sciences continues to make great strides in involving undergraduate students in research. More than 20 faculty members are involved in the

\$1 million Howard Hughes Medical Institute grant to extend course-based undergraduate research experiences (CRE) across the entire college and to high schools and community colleges. In addition, two faculty members in the College recently received NSF grants that involve undergraduate students. Dr. Franco Delogu's grant will purchase an Eye Track System for multidisciplinary research that includes faculty and students of psychology, architecture, computer science and engineering. Dr. George Moschelli's project focuses on theoretical methods for modeling the expansion and cooling of quark-gluon plasma.

• LTU's College of Management changed its name to the College of Business and Information Technology. The new name better represents the strengths of the College, which educates students in

At LTU's first-ever Southfield campus Commencement are (L-R) Trustees Howard Padgham and Ray Khan, Provost Vaz, Sen. Debbie Stabenow, and President Virinder Moudgil.

business administration, leadership, and management, and its interface with information technology. The Advisory Board of the College encouraged and acclaimed this important change.

• In April 2018 the College of Business and Information Technology, then still the College of Management, received its initial accreditation by the Association to Advance Collegiate Schools of Business (AACSB), after a very successful visit of the evaluation team in November 2017 and a decision of the AACSB board in February 2018. Dean Bahman Mirshab and the faculty and staff of the College worked extremely hard for five years to prepare and receive this most notable accreditation. Now, we are the only university in

Michigan that has three business accreditations: IACBE (International Accreditation Council for Business Education), ACBSP (Accreditation Council of Business Schools and Programs), and AACSB. Congratulations to the dean, faculty, staff, and students for this important accomplishment.

- The College of Architecture and Design has made several changes in its facilities to accommodate curriculum changes and to improve students' experience. The print-Lab moved to the third floor of the University Technology and Learning Center, allowing more interaction among students doing different projects. The freshmen wing is being renovated with the purpose of providing an active learning classroom for a shared experience with a multi-disciplinary learning model.
- The College of Architecture and Design also continues to increase its research orientation. With the help of Justin

Ballard, BSME'05, the College started the Ballard International Fellowship Program, awarding a recent graduate the opportunity to do research in robotics and teach at the College. In addition, a new program called Seed IN and Seed OUT allows faculty members to apply for seed grants to work with students in research projects in design education (Seed IN) or with an industry partner (Seed OUT). Projects funded must be collaborative and multidisciplinary.

• Lawrence Tech continues to be part of the Integrated Path for Architectural Licensure (IPAL). This allows students, through internships and co-op programs in architectural firms, to fulfill the professional requirements to sit for their licensure exam. This allows students who finish their Master of Architecture requirements to sit for the exam at the time they graduate. To achieve this goal, Lawrence Tech works closely with several architecture firms that are partners in the IPAL program and provide internship opportunities for LTU students.

- In the College of Engineering several new laboratories and new equipment help our students to integrate Theory and Practice:
- A new Industrial Engineering Laboratory, which includes a robotic assembly line and manufacturing work stations, was developed with donations of partner companies, Siemens Corp., Electro-Matic Inc., Faurecia, Cintas Corp., Sylvannia Osram, and others. In the new lab, our students learn about designing and optimizing manufacturing operations and production lines. Dr. Ahad Ali was instrumental in the development of this laboratory.
- A new printed circuit board laboratory in the Department of Electrical and Computer Engineering provides to our students complete and unlimited circuit board fabrication capability.

- Dr. Nabih Jaber worked with faculty in the department to develop this laboratory.
- New sound analysis hardware and software will be used for noise, vibration, and harshness engineering research. Dr. Nikolina Samardzic worked with the Danish company Brüel & Kjær to secure the equipment that allows our students and faculty to partner in this research.
- A program providing faculty members with seed grant funds to start new research with students with the goal developing new projects which can be externally funded started in the College of Engineering this academic year.
- A pilot of the third year IDEAS (Interdisciplinary Design and Entrepreneurial Applications Sequence) course, Leadership and Professional Development for Engineers, was taught in Fall 2018. Two sections of the course were offered in Spring 2019. IDEAS is now implemented in its entirety, with courses required in the curriculum across four years of undergraduate study. Lawrence Tech engineering graduates will demonstrate that in addition to their technical skills, they learn interdisciplinary design, and develop an entrepreneurial mindset.

Each year, Lawrence Tech hosts a variety of special speakers, lectures, and scholarly symposia, often with the support of alumni, corporations, and other friends. Among these were Walker Cisler lecturer Sara A. Pozzi, professor of nuclear engineering and radiological sciences

Provost Maria Vaz congratulates LTU studentathlete Marissa Bradley at the President's Dinner.



R F P O R T T O I N V F S T O R S



Provost Maria Vaz chats with a young student at the Detroit Public Schools' Sampson-Webber Leadership Academy, where a special Blue Devil Scholars program has been established to ease the path to college of those from underrepresented populations.

at the University of Michigan, who presented a fascinating discussion of the physics and politics of nuclear disarmament. James Blanchard, former governor of Michigan, U.S. ambassador to Canada, and U.S. House member, was featured during the Convocation for new students. He also received LTU's fifth annual Global Citizen Award.

LTU's President's Symposium Series, hosted this year by the College of Engineering, welcomed an informative panel speaking on "Accessibility, Mobility, and Connectivity: The Edge of Future Transportation Systems."

The College of Business and Information Technology's Young Women's Leadership Conference keynoter was Lynn M. Torossian, president and CEO of Henry Ford West Bloomfield Hospital.

Celebrating the gifted architect Albert Kahn, whose personal library is housed at LTU, was a group of events and presentations championed by the College of Architecture and Design and LTU's library.

LTU's monthly Leaders & Innovators series, offered in partnership with WWJ Newsradio 950, covered topics ranging from "financial fitness" to women in entrepreneurship to upheavals in the automotive industry.

Lawrence Tech's undergraduate enrollment continues to increase. In fall 2018 undergraduate students rose 2.9 percent from fall 2017. The freshman class increased by 15.4 percent. Freshmen have an average high school GPA of 3.5 and an average ACT score of 25. We continue to work on strategies to attract both undergraduate and graduate students, since a Lawrence Tech education in the STEAM fields continues to be an investment with enormous return, according to the Brookings Institution, PayScale, the Wall Street Journal, and others.

Lawrence Tech's athletic program, competing as part of the National Association

of Intercollegiate Athletics (NAIA), continues to represent the University well. Our men's bowling team was runner-up in the Intercollegiate Team Championships, with matches televised nationally on CBS Sports Network. The men's soccer team qualified for their first national tournament appearance. Both women's lacrosse and women's basketball teams had strong seasons and were ranked nationally. Our football team finished their inaugural season with five wins. This coming fall, with a second round of recruiting and a full roster, we will start competing at the NAIA varsity level. The new marching band surely changed fall Saturday afternoons on campus.

Once again, LTU's campus housing is completely full, including students we had to house in the nearby Arbor Lofts apartment building. Nearly 1,000 students now reside on campus.

Our Division of Student Affairs is always looking for ways to support students and improve their experience on campus. In addition to the clinical counseling services LTU provides on campus, starting in fall 2019 the University will have a 24/7 counseling service available to students in multiple languages.

A new award that honors our former trustee John Petty, BSME'65, the John Petty Community Champion Award, was given to Tiffany Brown, BSAr'05, MAr'07, MBA'15, for her leadership in attracting and supporting black female architects. Tiffany founded the Urban Arts Collective with the goal of giving children from under-represented groups opportunities to learn about the design professions.

Lawrence Technological University's faculty and staff strive every day to provide an excellent education with outstanding value. The contributions of our alumni and friends are essential for that success. Thank you for your generous support!

lova laz

Maria J. Vaz

FROM THE VICE PRESIDENT OF FINANCE AND ADMINISTRATION

awrence Technological University ended Fiscal Year 2017-18 with a modest surplus of \$449,092. We continue to make great progress on our strategic initiatives of residential undergraduate growth; however, recruitment of graduate students and international students continues to be a struggle for the entire academic community.

The athletic program continues to positively affect both our enrollment numbers, our retention rates, and the overall grade point average of our students. This was an area where we invested heavily this year, including in our fledgling football team. Student athletes are now 20 percent of the entire student population, and account for 25 percent of the gross tuition and fees. As you can see, the area of athletics is a key driver to LTU's recent success.

Because of the growth of the residential undergraduates, all of our housing units continued to be fully occupied, and we continued to lease beds from a third party. The new East Residence Hall was open in time for fall 2018 students, and was completely filled. With the additional bond financing, we were able to begin substantial infrastructure renovations to South Housing, the oldest residential unit. In order to minimize disruptions to student residents, one-half of the building was taken offline, and was unavailable for the academic year 2018-19. To be sure there were enough units for all residential students, we

continue to utilize a nearby building owned by a third party for approximately 60 beds. Housing was another of our strategic initiatives that we invested in for the benefit of the campus community and LTU's continued growth.

As there are many areas in which we are investing resources, it continues to be important that we look for opportunities to gain cost efficiencies wherever possible. Using a program costing model, we achieved slight improvements in net reimbursement, and continue to work with all departments to achieve a larger savings. Through our Department of Purchasing, there were savings achieved of over \$140,000 through contract pricing, vendor selection, and negotiations.

As another recognition of efficiency, LTU earned the distinction of being a 2019 HealthCare Trendbender. Results were measured by the Michigan Mid-Market Group Benefits Survey, which collects data from 420 employers. The award honors organizations that have had the lowest average cost increase (or in some cases a decrease) over two consecutive years. On average, these organizations saw a 3 percent decrease in 2019. The survey was conducted by Marsh & McLennan Agency.

As full-time undergraduates increase, so does our student scholarship account. A significant analysis of all scholarships was undertaken, in order to improve the process and ensure that the monies are used judiciously. This



year, scholarships declined by approximately \$1,000,000 to \$16,677,985 without negatively impacting recruitment. All of this money is funded directly through operations. Additionally, there is approximately \$1,000,000 of funded scholarships that are awarded annually, thanks to the generosity of Lawrence Tech's donors.

Human Resources and the Benefits Committee continued to look for ways to enhance employee benefits while reducing overall costs. This year, we were able to maintain the same level of employee costs during open enrollment without making changes to the benefit levels. The HR Department also moved many administrative processes to an electronic format, which saves both time and money. HR created two inaugural Special Voluntary Retirement Programs for staff and faculty, which were very well received and successful. As seen elsewhere in this magazine, Deshawn Johnson, executive director for human resources, was named a 2019 Notable Women in Human Resources by Crain's Detroit Business-a well-received recognition!

Linda Height, vice president of finance and administration

The Office of Campus Facilities has completed several major renovations and improvements across campus. Besides the South Residence Hall project already mentioned, a major renovation of the dining hall and kitchen were begun, and completed for fall 2018. Additionally, the Einstein Bagels site was moved to an interior store front in the Buell Building atrium. Besides the larger projects, the department handles over 400 work orders monthly with an average response time of under 48 hours.

Thanks largely to the efforts of Campus Facilities staff, the landscaping and beautiful appearance of the campus was recognized with another community pride award from the City of Southfield.

With "technological" as LTU's middle name, we continue to invest in IT infrastructure, educational programs, and security systems. The LTuZone™ program that provides a high end laptop and program-specific software to all undergraduates provided updated equipment to students in the College of Engineering.

Similar updates are beginning for students in the other colleges.

The Canvas Learning System was installed to replace the old Learning Management System software. The transition was completed from the old Banner system to a new web-based model. This system change affected nearly everyone on campus, but was managed very effectively by all. A significant benefit of the new Banner has been a student success initiative to improve the advising process flow for both students and advising faculty. As with all organizations across the world, we experience constant and increasing cybersecurity threats such as malware, ransomware, and attacks from foreign states. Cybersecurity monitoring, training, and remediation continues on a daily basis. Because of the diligence of Lawrence Tech's Information Technology (IT) team, disruption from any of this has been minimal.

All of the efforts from both IT and Campus Safety are meant to protect people and their information. The Office of Campus Safety is a critical

Linda Height poses with Jerry Cuper at last fall's Service Recognition Awards event. Cuper, professor of engineering technology, received longest-serving honors at the ceremony—40 years.

element for recruitment and retention of both students and employees. Most surveys of parents and students list safety as one of the top five issues that are considered when choosing a university.

We have invested a significant amount of money in additional camera coverage; there are currently almost 400 cameras across campus, both inside and outside our buildings. The Safety Office continues to maintain strong relationships with the City of Southfield Police and Fire Department; in fact, the Southfield SWAT team uses our old Art and Design Building for various training exercises throughout the year. In the past year, Campus Safety has conducted almost 5,000 foot patrols of residence halls and 500 patrols of other buildings on campus. They also responded to over 2,000 calls for service and handled almost 200 reported incidents.

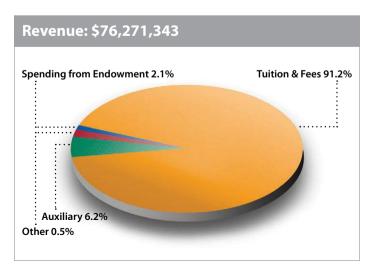


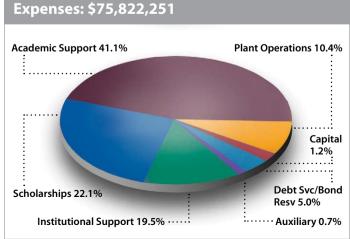
Investments in the University endowment performed well in this fiscal year. Lawrence Tech outperformed similar institutions and the S&P 500 over a one-year period, and kept pace with them over a three- and five-year interval. In 2018, several changes were made to reduce interest rate risk, broaden the domestic market, reduce international trade risks and re-establish a cash reserve. These investments are monitored constantly, and the University's investment strategy is reviewed with the Finance/Investment Committee of the Board of Trustees.

Overall, the University is making progress in its goals to

increase enrollment and retention. The addition of nursing, football, and additional housing space are critical to Lawrence Tech's continued success, particularly since our revenue comes primarily from student tuition. To assure LTU's financial health, we must continue to focus on alternative revenue opportunities, cost efficiencies, debt reduction and increasing our endowment. Improvements in these four categories will help us improve the financial health of the University as well as its reputation.

Linda L. Height





Financial results for fiscal year ending June 30, 2018

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Lawrence Technological University Annual Honor Roll of Donors

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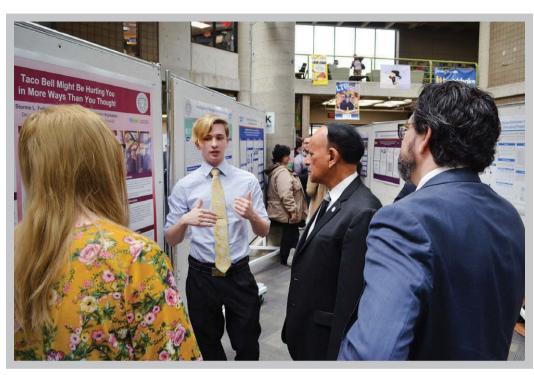
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especially those who are under privileged, to help them also be successful."

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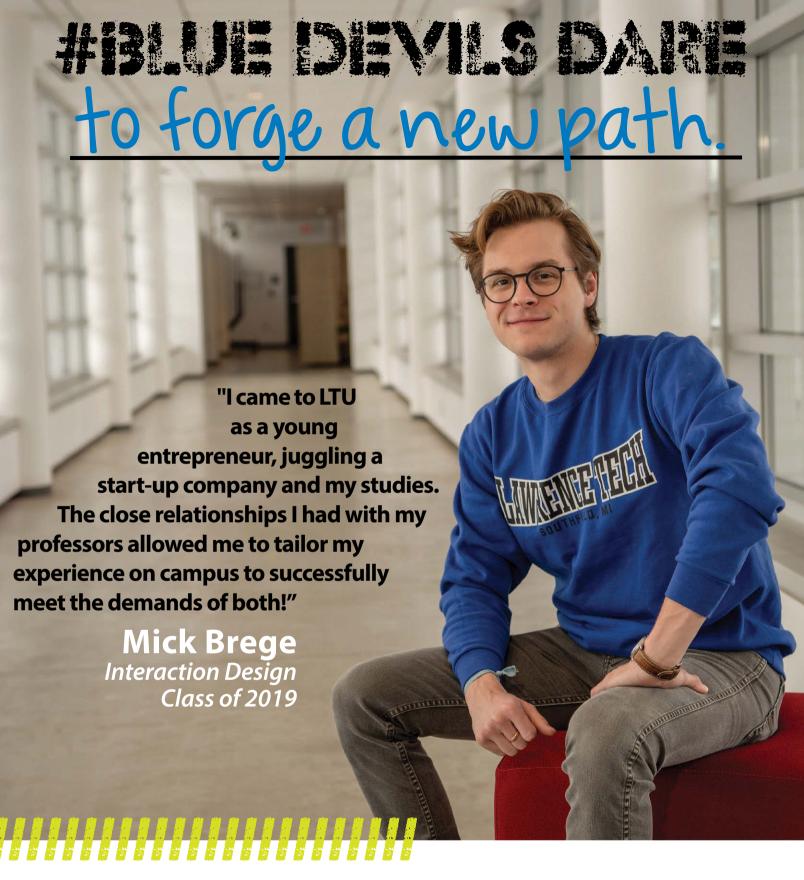
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THE BACK PAGE

It's a three-peat! LTU wins autonomous car world championship

or the third consecutive year, Lawrence
Technological University has won first place in
the Self-Drive Challenge event at the 27th
annual Intelligent Ground Vehicle Competition.
LTU was crowned champ in early June after four
days of competition at Oakland University in
Rochester.

The winning vehicle is called ACTor, for Autonomous Campus Transport/Taxi. The two-seat Polaris Gem electric vehicle was donated to the University through a gift from Hyundai MOBIS, the parts and service division of the Korean automaker.

Dataspeed Inc., a Rochester Hills engineering firm specializing in mobile robotics, converted the vehicle to a drive-by-wire system. Also donating were two Ann Arbor high-tech firms. Soar Technology Inc. provided a LIDAR (laser-based radar) unit to help the vehicle find its way, while Realtime Technologies Inc., a simulation technology firm, and the auto supplier Denso provided cash donations for onboard computers and other parts. Veoneer, a spinoff of the Swedish auto supplier Autoliv, provided a 3D LIDAR as well



Team members get the LTU vehicle ready for a practice run.

as automotive radars.

The win included a \$3,000 prize and plaque.

Embry-Riddle Aeronautical University finished second in the event, while Bob Jones University finished third. Other competitors in the Self-Drive Challenge included Oakland University, the University of Detroit-Mercy, the U.S. Military Academy at West Point, and New York University.

Coached by C.J. Chung, professor of computer science at LTU, the team was comprised of undergraduate computer science majors Sean Bleicher of Fenton, Charles Faulkner of Aurora, III., and Mitchell Pleune of Rochester Hills, team

captain. Nick Paul of Plymouth, an LTU IGVC team alumnus now employed at Soar Technology and an adjunct professor at LTU, was a co-coach.

The IGVC was established in 1993 by the U.S. Army's Combat Capabilities Development Command (CCDC) Ground Vehicle Systems Center (formerly known as TARDEC) and the Association for Unmanned Vehicle Systems International

(AUVSI). Sponsors include GLS&T, RoboNation, Hyundai MOBIS, the Michigan chapter of the National Defense Industrial Association, Continental, Northrop Grumman, Veoneer, Molex, OpenJAUS, Roush, Robotic Research, Fiat Chrysler Automobiles, FEDITC LLC, FEV, IAmRobotics, Magna, General Dynamics Land Systems, Brightwing, Dataspeed, and MathWorks. □MR



Under the watchful eye of Professor C.J. Chung, the team goes over last minute software tweaks before sending the driverless car on its way.



From left to right are IGVC judges David Agnew and Jane Tarakhovsky, LTU team captain Mitchell Pleune, co-coach Nick Paul, LTU team members Sean Bleicher and Charles Faulkner, LTU computer science professor and team coach C.J. Chung, and IGVC judge Olivia Eddy.