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Dear Alumni, Faculty, Students, Staff, and Friends,

In a few short months, this extraordinary University will embark upon a once-in-a-lifetime event: the celebration of its Centennial. What a celebration it will be!

As we celebrate our centennial year — a milestone in the life of this great institution — thousands of alumni and friends will be returning to campus. If you have not been back in a while, we are excited for you to see all of the wonderful changes and tremendous growth that has taken place. The Kettering campus looks spectacular. You will feel the energy and excitement from the moment you arrive. It’s everywhere, and it’s electrifying and contagious!

This celebratory time is a fantastic opportunity for alumni to return, spend time on campus, reconnect with former classmates and friends, and take part in a variety of great events that we have planned. The Centennial Planning Committee has been planning all year to ensure that events surrounding the Centennial celebration are extraordinary!

Founder’s Week Celebration festivities begin on October 14. Grab some friends or favorite faculty members and join the Pub Crawl on October 18. Downtown Flint is experiencing a revitalization that is glorious and not to be missed! The Block Party on October 19 will be a chance for faculty, staff, students, and alumni to spend a fun-filled, casual afternoon together. You will have a spectacular time reconnecting with old friends and are certain to make a host of new ones at the same time!

Later that evening, the celebration builds to a magnificent, long-awaited crescendo with our Centennial Gala and Alumni Awards. We will honor distinguished alumni whose leadership, professional accomplishments, and civic achievements have brought distinction to the University. Then, together as one, the Kettering University family will celebrate the end of the University’s first century, reveling in its rich and noble heritage while simultaneously welcoming a second-century filled with unbridled greatness. It will be an evening in which we celebrate both our past and our future — each filled with greatness beyond measure and propelled by an entrepreneurial spirit that has been the hallmark of Kettering University for the past one hundred years.

I encourage everyone to reach out to the University Advancement team. Let them know you’re returning to campus, and allow them to share with you all the activities they have planned, and assist you with anything you may need. Whether you graduated three years or three decades ago, our alumni are a cherished part of the Kettering family. With extraordinary pride, we look forward to our next one hundred years and welcoming you back home!

Now, get ready to celebrate!

Dr. Robert K. McMahan, Kettering University President
Kettering University Student Creates Sustainable Greenhouse on Reservation in South Dakota
Noah Lukins ’19 and his thesis advisor Dr. Laura Sullivan, designed, developed, and installed a photovoltaic system that would power both a rain harvesting/water pumping system and ventilation system for use in a greenhouse on the Pine Ridge Reservation in South Dakota.

New 3D Printing Factory at Kettering University Allows Students to Bring Designs to Life
Students can now bring their design ideas to life with ease thanks to the new 3D Printing Factory that houses 12 3D printers available for students of all majors and faculty to access as part of a class project or an extracurricular project. With 3D printing becoming more popular and prevalent in industry, having access to the technology is important for Kettering students.

Kettering University Faculty, Students Granted Patents for Chemical Engineering Process
Chemical Engineering faculty members Dr. Mary Gilliam and Dr. Susan Farhat, Chemistry faculty member Dr. Ali Zand, and former students were granted two patents in 2018. One patent is on a method for chemically changing the surface of micro- and nanoparticles to expand the use in applications, such as composites, paints and coatings, and biomedical applications. The other is on coatings for internal biomedical devices, such as hip and knee implants, to increase the lifetime and potentially reduce the chance of inflammation or rejection.

Kettering University AutoDrive Team Places Fourth, Wins Five Awards Overall at AutoDrive Challenge
The Kettering University SAE AutoDrive team finished in fourth place overall and received five awards at the conclusion of the inaugural competition on May 5, 2018, in Yuma, Arizona.
- Second place, Social Responsibility report
- Second place, Technical Reports (based on the interface analysis and safety concept document)
- Second place, Lateral challenge
- Third place, Design Concept report
- Third place, Design Concept event (based on their presentation)
The AutoDrive Challenge is a design engineering collegiate project partnered between and administered by SAE and General Motors. It focuses on reaching SAE Level 4 of autonomy using a Chevrolet Bolt EV vehicle donated by GM. Kettering is one of eight universities worldwide selected to participate.

National Science Foundation Grant Will Allow Kettering University to Expand Cancer Research
Dr. Ronald Kumon, Physics faculty member at Kettering University, along with collaborators from multiple disciplines across campus, has been awarded a National Science Foundation - Major Research Instrumentation grant for $251,274. The grant allows Kettering to purchase an advanced fluorescence microscopy system, which will allow faculty and students to take high-resolution, three-dimensional imaging of cells on a microscopic scale. Among other research, faculty members will conduct interdisciplinary research broadly themed around physical, chemical, and biological methods cellular processes with the goal of improving treatment of cancer and other diseases.

Most Successful Men’s Soccer Franchise is Headed to Atwood Stadium
The newly-renamed Flint City Bucks soccer club, the most successful franchise in the history of the Premier Development League — now known as USL League Two — will relocate from Pontiac to Flint beginning with the 2019 soccer season. Kettering University’s Atwood Stadium will serve as the team’s home field.

Kettering University Launches Alumni Admissions Ambassador Program
Kettering is working with alumni to recruit students in a new University Advancement initiative, the Alumni Admissions Ambassador Program. The program is recruiting one to three alumni in geographical regions around the United States who will meet with potential students at college fairs, high schools, trade shows, and events to talk about the value and benefits of a Kettering education. Another goal is to create new alumni networks in addition to the strong groups already in place.
THE EVOLUTION OF KETTERING UNIVERSITY

In a century, Kettering University has grown from a humble evening school in Flint, Michigan, to a national leader in STEM and business. Remarkably, the educational model has had an important constant for much of the institution’s history: cooperative education.

What is now Kettering University was founded in 1919 by Major Albert Sobey when he took over the night school that the Industrial Fellowship League ran with the YMCA. In 1924, he launched the Cooperative Engineering Program with 20 students. The students learned how to become mechanics for Buick in the early days until General Motors agreed to take over the institution in 1926. The ‘20s and ‘30s saw expansion and growth. More than 11,000 students were enrolled in the late 1930s.

A major shift for GMI was the creation of a degree program in 1945. The Army wouldn’t accept GMI students during the war, making GMI’s leaders realize they needed the degrees, said Tim Troupe Noonan, an author who is writing a book on Kettering University’s history set to be released in October 2019. Eighteen men graduated with the first degrees on August 23, 1946.

In the ‘50s and ‘60s, GMI continued to evolve. Electrical Engineering was added as a major. GMI dropped 53 outdated courses and added 70 new ones, along with an optional fifth year for students. Co-ops became a standard six weeks. The University established faculty committees and took a more active role in planning curricula. Alumni wanted a way to connect, and the Alumni Association was born.

Presidents Guy R. Cowing and Harold P. Rodes made moves to update the Academic Building with modern equipment and new lab space, and in the mid-1960s, Rodes started the process of building the campus on 34 acres. By 1969, the GMI campus featured the Campus Center, Thompson Residence Hall, and a parking deck, which no longer exists.
THE DIVESTMENT
In 1974, General Motors gave the institute a directive to cut the program by a third, which meant reducing the student body by 1,000 students. That was the writing on the wall about GM’s involvement with GMI, Noonan said.

By 1981, a GM task force recommended the company drop GMI within two years. Although there were ideas to phase out GMI or transition it into either the University of Michigan or Michigan State University, GMI President William B. Cottingham and Trustee William McKinnon made a presentation to GM leaders to make the institution its own school. General Motors Vice President David Collier also wanted GMI to be independent. GM provided a $24.6 million transitional grant during a three-year period, and GMI Engineering and Management Institute stood on its own.

Part of the challenge for GMI was expanding its co-op program.

“If there’s a business with one client and that client goes away, nine times out of 10 the business will fold. But GMI found other partners,” Noonan said.

Bob Nichols, now Kettering University FIRST Robotics Community Center Director, recruited companies to join GMI’s co-op program in the early ‘80s.

“We worked really, really hard to come up with employers. If we found alumni with companies outside GM, we didn’t have to sell the program to them. We just convinced them to take students,” he said. “It took us a long time to get to where we are today.”

Kettering University now has more than 500 co-op partners worldwide.

Kettering President Dr. Robert K. McMahan attributes GMI’s survival and subsequent success to the leadership of the University administration, Board of Trustees, and dedicated faculty and staff.

“There were a lot of people passionate about the model of education and its relevance. The University had the people it needed at the time it needed,” he said.

Diana Tremblay ’82, a former Board of Trustees Vice President, was a student in the late ’70s and early ’80s. Despite the changes and the institution losing its brand, the best elements about GMI remained, she said. GMI-EMI maintained a quality education, co-op, small classes, professors, and an intense program with a lot of great bonds.

“When I went, you didn’t go for the campus experience. There were a couple buildings: the dorm, the Campus Center, and the Academic Building. The gym was in the basement. There wasn’t even the rec center,” she said. “When I think it about now, there’s a much more rewarding campus experience.”

THE 1990s AND KETTERING UNIVERSITY
The ‘90s was another decade of growth for GMI, with more major changes on the horizon. The ‘90s saw

“WE WORKED REALLY, REALLY HARD TO COME UP WITH EMPLOYERS. IF WE FOUND ALUMNI WITH COMPANIES OUTSIDE GM, WE DIDN’T HAVE TO SELL THE PROGRAM TO THEM. WE JUST CONVINCED THEM TO TAKE STUDENTS. IT TOOK US A LONG TIME TO GET TO WHERE WE ARE TODAY.”

- Bob Nichols
Kettering University FIRST Robotics Community Center Director
the construction of the Recreation Center, C.S. Mott Engineering and Science Center, Campus Village Apartments, and a 25-acre outdoor sports complex called Harris Fields, among other things. Several labs were installed, including the Kettering University Crash Safety Center, Bosch Automotive Electronic Systems Laboratory, Ford Design Simulation Studio, and the PACE Lab for e-design and e-manufacturing.

In 1997, President James John and the Board made the decision to leave behind the GMI name after more than 70 years and rename the institution Kettering University after Sobey’s friend, the GMI supporter, businessman, and inventor, Charles F. Kettering. Provost and Vice President for Academic Affairs John Lorenz believed the designation as a university would be more significant than an institute.

Kettering University was the final of the institution’s seven names. Despite the changes, the heart and soul of the university remains, McMahan said.

“Alumni of GMI would recognize the experience of students today,” he said.

While some alumni lost connection with Kettering because of the name change, McMahan has done a great job reconnecting with the University’s heritage and history, Tremblay said. The GMI brand had a lot of strength at the time.

EXPANDING THE SCIENCES AND BUSINESS

From 2005 to 2011, the University expanded its academic offerings with new or restructured degree programs, minors, and areas of concentration including Pre-

med, Bioinformatics, Engineering Physics, Chemical Engineering, and Business. Kettering launched and expanded the MBA program during this time.

When Tremblay was a student, there were four majors: Electrical Engineering, Industrial Engineering, Industrial Administration, and Mechanical Engineering. Now Kettering has 12 undergraduate majors and is continuing to evolve to meet the needs of a technology-infused and rapidly changing society, whether in the automotive industry or in science and business.

The preparation from the experiential learning, however, has stayed consistent.

“As a GM executive, I’d see lots of students coming through. Students from Kettering were a step apart because they had real life experiences,” Tremblay said.

In 2015, construction started on the Kettering University GM Mobility Research Center (MRC) on campus. The outdoor lab space and proving ground is used to enhance research and development of autonomous vehicles, vehicle safety standards, and hybrid and electric vehicle technologies. The center was completed in 2017, and the Harris Mobility Research Annex was constructed in 2018 to provide office and lab space on the proving ground.

Kettering University adopted Community Vitality to its Pillars of Excellence in 2011 and began its work to be a good neighbor and strong leader in Flint.

The University is a leader in transforming Flint into a safer, more walkable, and more vibrant city with ongoing
blight removal and beautification along University Avenue. Kettering took ownership of and renovated the historic Atwood Stadium in 2014. Students contribute to the community with Service Saturdays and projects with area organizations such as the Flint River Watershed Coalition and Habitat for Humanity.

The efforts continue with new community events at Atwood Stadium and new businesses along University Avenue.

THE NEXT CHAPTER
Kettering is expanding on-campus access to the arts. The Jane Boon ’90 and Norman Pearlstine Music Studio and Practice Rooms in the Campus Center are a first step in this direction.

“The A in STEAM has been present on campus. Even when I was a student, it was there,” Boon said. “There’s always been a curiosity and hunger for arts programming on campus.”

Arts introduce a sense of fun and play to engineering, Boon said, and that’s increasingly valued at workplaces. There are classic tools to overcome writer’s block that are very relevant to product development that individuals can use to boost their technological and engineering efforts. The more engineers become aware of tools of other disciplines, the better they become, she said.

Kettering remains committed to growing its science programs in the College of Sciences and Liberal Arts. Newly added to the academic program, course clusters allow interested students to study sustainability (GREEN), pre-med and health (K-HEAL), Artificial Intelligence, and Robotics with courses and electives tailored to those topics. The pre-med program is growing through a club, and students with degrees in engineering are going on to become physicians and surgeons.

With more than 50 clubs and organizations, students are applying their knowledge and love of computer science, computer engineering, business, biology, chemistry, and mechanical and electrical engineering to projects in the Flint community and beyond.

Mobility remains a steadfast focus of the University despite the rapidly-changing industry. Electric motors, connected and autonomous vehicles are replacing the combustion engines of the past 100 years. Alumni such as General Motors CEO Mary Barra ’85, GM Chief Engineer of Autonomous Vehicles Mandi Damman ’07, President and CEO of the Center for Automotive Research Carla Bailo ’83, and Senior Vice President and Chief Technology Officer for Delphi Technologies Mary Gustanski ’85 are leaders in the world of mobility.

The MRC makes Kettering a location for companies such as Delphi Technologies to test new technology and for students to pioneer that technology in competitions such as SAE AutoDrive Challenge and Formula SAE.

Boon noted the increased diversity of the student body and academic programs in the past three decades. The single-mindedness and commonality of the experience made for a specific, but atypical university experience, she noted of her time at GMI. The new incarnation of the school offers a wider breadth of intellectual offerings and a commitment to the community, she said.

“You’re not hemmed in by opportunities in the auto industry. You have everything at your disposal,” Boon said. “There’s also a hunger for meaning in the intellectual pursuits. There was a great ambition when I was a student, but I don’t remember as much drive toward meaning. I think that’s exciting.”
Kettering University has a powerful history in the Flint community. Founded 100 years ago in a time of incredible expansion and growth in Flint and in Michigan, Kettering has done more than bring a unique education model to students.

Kettering leaders believe that Kettering only succeeds fully if the City of Flint succeeds as well. Community vitality and community service have been ingrained into the campus atmosphere with the University’s students, faculty, staff, and alumni partnering with city changemakers to bring positive energy and change.

The landscape around the university was once dotted with blighted properties, overgrown yards, and a decaying historic football stadium. Driving down University Avenue (previously Third Avenue) the landscape is now drastically different, more vibrant, and continuously growing.

Kettering University played a major role in the positive trajectory.

Many freshman students, in fact, serve in the community before they even step into a classroom as part of their first weekend on campus. Service Saturday events began in 2009, but a truly transformative vision for the university started to form in 2012. It was then that community vitality truly became a part of Kettering’s identity.

“KETTERING UNIVERSITY IS A WORLD-CLASS SCIENCE, ENGINEERING, AND BUSINESS POLYTECHNIC IN THE HEART OF FLINT. WE ARE PART OF OUR COMMUNITY. AS PART OF THAT STEWARDSHIP, WE BELIEVE WE HAVE THE OPPORTUNITY, OBLIGATION, AND THE ABILITY TO BE A FORCE FOR POSITIVE CHANGE IN OUR CITY.”

- Dr. Robert K. McMahan, Kettering University President
“Kettering University is a world-class science, engineering, and business polytechnic in the heart of Flint. We are part of our community. As part of that stewardship, we believe we have the opportunity, obligation, and the ability to be a force for positive change in our city. We do this by using the resources of the university and encouraging our faculty, staff, and students to apply their talents to help reset the underlying economics of Flint and reinforce positive community action,” said Kettering President Dr. Robert K. McMahan. “We also believe that there are implicit obligations of service and professional ethics in the disciplines we teach. The best way for us, as an institution, to teach those to students is to model them as an institution — and to strive to live them in all we do.”

McMahan became the University’s seventh president in 2011 and heavily integrated community vitality into Kettering’s mission and made substantial contributions to regional socio-economic development.

A transformation began to take place.

**Community Collaboration Leads to Change**

In August 2012, Kettering University created a new position to boost community outreach by naming Jack Stock the Director of External Relations to act as a liaison between the University and community. Shortly thereafter, the University Avenue Corridor Coalition (UACC) was created, bringing together residents and area institutions, including Hurley and McLaren hospitals, Kettering University, and the University of Michigan-Flint, to work collectively to beautify and draw investment to the area.

The UACC region extends from McLaren Hospital on the west to the University of Michigan-Flint on the East. It is bounded by Hurley Medical Center and Whaley Children’s Center on the north and the Flint River on the south. Kettering is in the heart of the corridor. The organization’s mission is to transform the region into an attractive and crime-free community that is conducive to sustainable development.

Throughout the years, the group has led community cleanups that involve neighborhood associations, college and high school students, private residents, and many others. Those cleanups have successfully beautified and maintained landscaping, fixed broken windows, painted both residences and businesses, and — most importantly — brought a fresh perspective and collaborative spirit to the avenue.

And, in a short amount of time, those efforts became a model for community engagement and neighborhood stabilization in areas around the country.

Kettering University has played an active role in organizing the many people and organizations invested in the corridor and providing resources to ensure those collaborative efforts are successful. Kettering’s efforts have included taking on neglected properties, demolishing more than 100 unsafe structures, and creating and maintaining natural green spaces.

“The success of the Flint-area community relies on partnerships between many institutions, community groups, and engaged businesses and residents,” said Tim Herman, CEO of Flint & Genesee Chamber of Commerce. “Over the years, Kettering University has been an active partner in the rebound of downtown Flint and revitalization of the community. We appreciate all that the institution brings to the region and congratulate them on their 100th anniversary.”

Kettering and a coalition of community partners led a historic revitalization of Atwood Stadium, including installing a state-of-the-art playing surface rivaled only by those at Ford Field in Detroit and Michigan Stadium in Ann Arbor. The facility gives the city a venue capable of hosting concerts, major sporting events, and community events. Since reopening the stadium in 2015, Atwood has become home to high school football games, including the annual Vehicle City Gridiron Classic; professional soccer teams; community events; and much more. Kettering University also took over the Atwood Stadium Races in 2018 to carry on the nearly 40-year history of the races.

Partnerships with organizations like Carriage Town Ministries and the Ruth Mott Foundation have transformed two formerly blighted corners at University Avenue and Grand Traverse into attractive mini-parks, both of which have hosted community gatherings and family-friendly events since their creation.

“Kettering University has made neighborliness a part of its DNA. They are a catalyst of relentless daily attention to friendliness, bridge building through collaboration, and continuous improvement through investments of time and resources up and down the University Avenue Corridor. Dr. McMahan and his team have led by example, engaging neighbors and partners from all walks of life to bring vitality to the corridor and Flint,” said Dallas Gatlin, executive director of Carriage Town Ministries, a shelter for homeless men, women, and children on the east end of the University Avenue Corridor.

“The leadership and people of Kettering University have been especially kind to my organization. Staff and students have served as volunteers and work-study students have brought youth and energy to our programs. Kettering’s facilities crew also helped us create a park. There’s much more to say. Just come to the corridor and you’ll see life, health, growth, and neighborliness, in large part, led by the positive culture and good people of Kettering University.”
Community Restoration Starts With Action

In October 2014, the UACC, with Kettering University acting as the fiduciary, received a $1 million community engagement grant from the U.S. Department of Justice. The grant, along with other partnerships, focused on crime prevention and blight elimination along the corridor.

Along with removing blighted properties, monthly service projects focus on CPTED — Crime Prevention Through Environmental Design — methods. This allowed community leaders, neighborhood residents, and other institutions to be empowered to be part of the change.

Student groups have partnered with community groups in many service projects along the University Avenue Corridor, including cleaning up and enhancing Flint parks, assisting local businesses and schools in beautification projects, and working with youths in the community to facilitate STEM and art projects and workshops.

Faculty, staff, and students champion change in the community. It’s ingrained in what they do. Dr. Laura Sullivan, Mechanical Engineering faculty member and faculty advisor for Kettering’s SAGE (Student Association of Global Engineering), is one of those driving forces.

Sullivan pushes community collaboration by connecting Kettering students with local initiatives. She was key in bringing a grant from the Ford Motor Company Fund to Flint to design and build a self-sustainable hoop house. She then connected students’ skills and knowledge to crucial projects in the city.

Tom Wyatt, Director of Neighborhood and Community Services at Kettering, started at the University as the Byrne Grant coordinator. He worked to connect with neighborhoods, organize placemaking and block party events, and sought out feedback from the community with every step.

The changes both Wyatt and Stock have seen in their roles throughout the years has been significant.

“Flint is in a rebirth. The University was founded on innovations and continues to innovate with the work we do within the community. We have the flexibility to be creative,” Wyatt said. “It’s not just the Kettering campus that’s important. It’s the neighborhoods. It’s the businesses. It’s the corridor and the city as a whole.”

There’s still work to be done. Stock and Wyatt say it’s key to continue making connections and getting others involved in the city’s rebirth. Kettering will continue to be a driving force. Listening to community members to learn what they need will create an even brighter future.

“We continue to try to draw in partners. Part of the strategy is to draw in other anchor institutions and partners to help us with this vision,” Stock said. “We will continue to connect the dots, so people don’t feel like they are alone or isolated, whether they are businesses, people, or organizations.”

Kettering vows to continue to be a steward in the community. The University, its staff, faculty, and students, will continue being a driving force in the Flint area to facilitate positive change and success.

Kettering succeeds when the City of Flint, its residents, future generations, and the neighborhoods succeed.

“I am confident that a belief in the importance of giving back through community involvement has become an organic part of who we are as a University. I know our contributions to the community will continue to grow as will our positive impact on Flint,” McMahan said. “I am deeply proud of the passion and energy that our students, faculty, and staff bring to these efforts and of how they work every single day to make a difference in our world and in our home.”
1919
Albert J. Sobey
Major Sobey founded Kettering University and served as its president until 1950. Under his leadership, the institution grew from a night school to an accredited, degree-granting engineering institution.

1923
Four-Year Cooperative Education Program
By 1923, the school had grown to offer a full four-year cooperative education program enrolling more than 800 full-time students.

1942
First Army soldiers received for training.

1943
First Coast Guard members received for training.

1945
By 1945, the Institute had added a fifth-year thesis requirement and had evolved into a full degree-granting university with a unique educational model.

1951
GMI adopts the Bulldog mascot.

1961
Alumni Association established.

1963
First black student admitted.

1965
First woman enrolled in a degree program.

1966
Campus Center constructed
The Campus Center is the activity center for the campus. It houses Kettering Dining Services, C-Store, BJ’s Lounge & Grill, the Wellness Center, television studios, WKUF, Financial Aid, Admissions, Campus Safety, a recycling center, student activities areas, and other administrative offices.

2003
C. S. Mott Engineering and Science Center constructed
The building houses Biochemistry, Chemistry, Mechanical Engineering, and alternative energy and automotive laboratories.

2010
Innovation Center built
The Innovation Center is a LEED-certified laboratory facility on campus that supports scientific and technologically-based start-up companies.

2013
Atwood Stadium
Kettering University takes ownership of and renovates Atwood Stadium, an 11,000-seat stadium that opened in 1929 and now is home to sports teams and community events.

2013
University Corner Building added to campus
Einstein Bros. Bagels, located in the University Corner Building across from the Campus Center.

Orbits of Isaac
The University installed the sculpture by Michael Dunbar as an iconic centerpiece of the campus.
1924
Adopting Flint Institute of Technology
School of Automotive Trades adopts Flint Institute of Technology to reflect broadening functions of the school.

1926
Academic Building
A Groundbreaking ceremony was hosted in 1926 for the construction of the Academic Building (AB) at the corner of Chevrolet and 3rd Avenues. The Academic Building was completed in March 1927.

1927
Interfraternity Council organized; Robots was established; student chapter of Society of Automotive Engineers established.

1929
Academic Building: first expansion
First expansion for Academic Building authorized.

1932
General Motors Institute
General Motors Institute became the school’s official name, which represented a further broadening of the educational program.

1937
Business training for women organized in cooperation with the Commercial Club.

1969
Frances Willson Thompson Hall built
The on-campus residence hall was constructed with single rooms, lounges, a community kitchen, gaming area, and more.

The Bell Tower
The Bell Tower, also called Carillon, was erected as a part of the campus expansion, built with funds donated by GMI/Kettering Alumni and friends.

1982
GMI Engineering and Management Institute
In 1982, GM divested itself of the school, which became a private, non-profit University under the name GMI Engineering & Management Institute (GMI-EMI).

1995
Connie & Jim John Recreation Center built

1998
Kettering University
GMI-EMI changed its name a final time to Kettering University, to honor a founder of the institution, Charles Kettering.

2014
d.space
The first d.space opened in the Academic Building.

T-Space
This space is formed in order to allow access to materials, tools, resources to complete class projects, and for students express creativity via science and engineering.

2014
FIRST Robotics Community Center
Kettering opened the center to host nine area FIRST robotics teams and host summer camps for local students.

2016
Kettering University GM Mobility Research Center
Kettering opened an autonomous vehicle testing pad and track, the first of its kind on a college campus.

2017
Kettering University archives moved to Factory One.

2018
Kettering Gateway
Kettering Gateway constructed on the corner of Chevrolet Avenue and Glenwood Avenue.

Harris Family Mobility Research Annex constructed
THE EVOLUTION OF CO-OP
Kettering University graduates carry a storied and extraordinary heritage.

By Marge Sorge

“THE THEORY AND THE PRACTICE ARE OF EQUAL WEIGHT AND IMPORTANT IN THE GROWTH OF OUR STUDENTS. OTHER SCHOOLS DO CO-OP AS AN ADD-ON. WE DO IT IN A WAY THAT REFLECTS OUR BELIEF THAT THEY ARE OF EQUAL IMPORTANCE.”
- Dr. Robert K. McMahan, Kettering University President

From the institution’s founding in 1919 to becoming General Motors Institute in 1932 and Kettering in 1998, it has graduated men and women who became captains of industry, entrepreneurs, venture capitalists, inventors, leading researchers, and much more. The co-op program was the cornerstone of their success.

Today, that program continues to be the envy of educational institutions around the world and gives its students a strong return on investment. Kettering ranked No. 1 in Michigan and the Midwest and 16th in the country for return on investment in PayScale.com’s 2019 study. On average, Kettering University graduates see a 20-year return on investment of $766,000.

“What makes Kettering unique is that it was founded on the notion that experience is not subordinate to the classroom,” said President Dr. Robert K. McMahan. “The theory and the practice are of equal weight and importance in the growth of our students. Other schools do co-op as an add-on. We do it in a way that reflects our belief that they are of equal importance.”

GMI GRADS REFLECT ON CO-OP
General Motors and the university separated in 1982, but for the first 50 years, GMI’s robust co-op program was GM’s feeder system for engineering and executive talent. Many of those GMI students began and often ended their careers at the company, frequently in high-level positions.

Gary Cowger ’70 was one.

As a high school student in Kansas, engineering was not his first love. It was baseball, and he planned to go to Kansas State to play. Then his mechanical drawing teacher and counselor saw another talent, stepped in, and suggested GMI.

“GM had a network across the country and had an in with high school advisors,” Cowger said.

In those days students had to find their own GM sponsor, and the competition was intense. According to Cowger, for every 20 people applying, there was one opening.

He started at GMI in 1965 as a co-op at the Kansas City assembly plant and spent 45 years with the company. He held several senior positions, including president.
of GM North America, chairman of Opel, president of GM de Mexico, and group vice president of global manufacturing and labor relations.

“I owe a lot of where I ended up to co-op,” said Cowger, who has served as chairman of the Board of Trustees. “It provided the foundation. The advantage of being a GMI student was you learned how to work. You either made it or you didn’t. GM was creating its own crop of leaders.”

Other GMI graduates stayed with GM for a while and then took executive positions at other companies.

Bruce Coventry ’75 began his co-op career at GM’s Tonawanda engine plant in Buffalo, New York, and stayed with General Motors for 18 years before moving to leadership positions at Ford and Chrysler, including vice president of Powertrain Operations and president of the company’s joint venture, Global Engine Manufacturing Alliance. He is now a consultant for start-up companies.

“He started at the plant at age 17, but he couldn’t work on the plant floor until he turned 18. The delay gave him the opportunity to take a Dale Carnegie course, which was required for all supervisors in the plant. He was the only student in the class.

“That wouldn’t have happened at any other university,” said Coventry, who became a supervisor at 18.

Jacqui Dedo ’84 had already been accepted to Cornell when she heard about GMI. She applied and came for a tour of the University and the Cadillac assembly plant in Detroit, which would be her co-op. She was hooked.

“It captivated my interest and the idea that I could pay for my education on my own and could see what I could do with my life,” she said.

Dedo later moved on to Motorola, where she held several executive roles and then became president of Timken’s Automotive Division. From there, she became senior vice president of strategy and business development at Dana Holding Corp.

“If I had to do it all over I would do it again,” she said. “Co-op teaches you how to learn and prioritize and gives you a good look at what it takes to be successful at what you are going to be doing for the next 40 or 50 years. Perhaps more importantly, you graduate with hundreds of friends focused on the technology industries. It’s an invaluable network.”

Today, like many Kettering graduates, she’s an entrepreneur and is the co-founder of Aware Mobility LLC, which focuses on connected and electrified vehicles.
Jane Boon ’90 started her co-op career at Magna in Canada. She found some supervisors did not have an ambient understanding of the co-op program, so she had to teach them what was expected. It worked. Since it was a small program, Boon was in many meetings where decisions were made and her input solicited.

“I got to observe how managers manage one-on-one and in the board room and how they solicit ideas,” she said. “Being socialized in a workplace is a rich opportunity.”

Boon quickly understood companies want what Kettering delivers: people with big minds, not small minds.

LEADERS OF TOMORROW
Today, Kettering partners with more than 500 co-op sponsors ranging from major companies to startup and non-profits. When they graduate, they have 2.5 years of professional experience.

Kira Miller ’21, a Kettering student working on dual degrees in Chemical Engineering and Biochemistry, is focused on products that support life-changing and life-saving research at Corning Life Science Division in Kennebunk, Maine.

She was given a special project to fix mistakes a supplier made in manufacturing a raw material. While the supplier had gone out of business and there was no way to work with them, she was confident she could do the job.

“The application required a lot of rework to make it useable for us,” Miller said. “I ran it. It worked great and the operators where able to use the stuff. It was my favorite project.”

Tanashki Frater ’22, an Industrial Engineering major from Jamaica, co-ops at Lear in Southfield, Michigan.

“Co-op prepares you for the real world,” Frater said. “Without that experience you wouldn’t know how work differs from being the classroom, and you learn it at an early age.”

Mikko Huotari ’22 is working on his Mechanical Engineering degree and spends his co-op time with the Magna Exterior Division in Troy, Michigan, working on plastic exterior panels for cars.

“The greatest part about co-op is the firsthand experience you get about your major,” he said. “If you don’t know what you want to do in life it is a great opportunity to find out rather than graduating with a major and finding out you don’t like it.

Huotari will work overseas at an operation in Germany in 2020 and plans to stay with Magna after he graduates.

He will start with a big leg up. He already has a 401K started with the company and will end up with no debt thanks to some tuition reimbursement and raises from Magna, scholarships, and help from his parents.

Kettering graduates earn an average starting annual salary of more than $60,000 and move up quickly, which helps most repay their debt in three years.

Co-op brings much more than dollars. It gives graduates a head start, a drive to succeed, an ongoing thirst for knowledge and wisdom, and an understanding of true leadership.

“A Kettering degree and its heritage are things students earn and own,” McMahan said.

“The greatest part about co-op is the firsthand experience you get about your major.”

- Mikko Huotari ’22
GMI/KETTERING AT 100: THE FUTURE of EDUCATION BUILT A CENTURY AGO

By Troupe Noonan, author and publisher at Heritage Histories

Noonan, an author who has written more than 25 memoirs and family and institutional histories, has written a coffee-table-style pictorial and narrative history of the first 100 years of GMI and Kettering University against the backdrop of the automotive history.

Noonan’s work has appeared in Life, Forbes, and American History Illustrated, among others. Heritage Histories is one of the nation’s leading custom publishers of corporate histories, school histories, club histories, and specialty publications.

The book will be available for purchase in October 2019.

Kettering University is hosting a black-tie gala during Founder’s Week to celebrate the institution’s rich history while we look toward our future. The Kettering University Centennial Gala and Alumni Awards will be held in the Connie and Jim John Recreation Center on Saturday, October 19. A cocktail hour starts at 6 p.m. with dinner, and the program will follow at 7 p.m. For ticket information, visit kettering.edu/centennial.

On Sunday, October 20, University President Dr. Robert K. McMahan and Mrs. Karen McMahan will host the Golden Circle Brunch for alumni who graduated 1969 or earlier.

For a full calendar of Centennial and Founder’s Week events, visit kettering.edu/centennial.
OLD AND NEW KETTERING
A LOOK AT THE PAST
A LEGACY OF LEARNING

Four generations and six members of the Retsema-Spiegel family have chosen Kettering University for a world-class education. Their time at the General Motors Institute of Technology, GMI, and Kettering has spanned most of the institution’s 100-year history.

By Lindsay Knake

"WE HAD WILDLY DIFFERENT EXPERIENCES. AT GMI, WE WERE AHEAD OF THE CURVE. IT WAS SUCH A FUNDAMENTAL BUILDING BLOCK OF EDUCATION.”

- Brad Spiegel ‘86

Jay Retsema attended the Flint Institute of Technology for two years and finished in 1928. Bob Retsema ’55, his oldest son, graduated with a degree in Mechanical Engineering. Jay’s middle son, Art Retsema ’57, earned an Industrial Engineering degree. Janet Spiegel ’87, Bob’s daughter, earned a Mechanical Engineering degree.

At GMI, she met and later married Brad Spiegel ’86. Their son, Ben Spiegel ’16, earned degrees in Mechanical Engineering and Industrial Engineering and was awarded the President’s Medal.

Each of the family members ended up at GMI or Kettering for different reasons. For some it was an interview with an employer, while the co-op program was attractive to others.

Janet was looking for an engineering program after testing well in the subject in career tests in middle school. She was accepted to GMI, found a sponsor, and was on her way, she said.

Brad initially wanted to pursue medicine, but did well on his application to GMI. An interview with GM convinced him to go. Their son Ben enrolled because of the co-op program.

Janet and Brad were active students at GMI. Janet was heavily involved in student government, in which she served as president; her sorority; intramural sports; and the Robot Society. Janet and Brad met when they both worked as resident assistants in Thompson Hall. Both Brad and Janet were members of the Robot Society and earned travelships from the Alumni Association. Janet worked in Luxembourg for six weeks; Brad worked at Opel in Germany, then a GM-owned company. He made a request to follow the entire car process from design to selling, which his bosses allowed.
“It was a great introduction,” he said. “I didn’t want a classic engineering job.”

When Ben came to Kettering, Brad and Janet noticed many changes to the campus. The Connie and Jim John Recreation Center stood out to Janet — a big upgrade from the AB’s gymnasium. Brad noted the city of Flint changed dramatically. Buick City and Chevy in the Hole were there, and now the former Chevrolet factory is a green space near campus.

Ben made great connections at Kettering.

“It was a team sport,” Janet said. “They all knew why they were there and what they needed to accomplish.”

THE KETTERING MODEL
Kettering’s model of experiential education was valuable for the whole family.

The co-op model at Kettering allows students to figure out what they like and don’t like, and they don’t waste five years of education and then find out they don’t like the day-to-day realities of a career, Janet said.

Kettering students have to grow up fast, Brad said. While some of his high school friends spent their summers flipping burgers, he worked in an auto plant. Prior to attending graduate school, he worked at foundries and engine plants in the United States and in Europe. His peers in graduate school didn’t have the experience to match that, he said.

“We had wildly different experiences. At GMI, we were ahead of the curve,” he said. “It was such a fundamental building block of education.”

Brad also believes in the thesis, which he described as a unique project for undergrads. The writing aspect of the thesis is good preparation for graduate school, and the entire project differentiates Kettering graduates from graduates from other institutions.

“It’s tremendous learning. It’s the first time co-ops have to really deliver something huge,” he said.

The co-op and thesis both proved beneficial to Ben as he completed his master of mechanical engineering degree with the Chrysler Institute of Engineering and in his current pursuit of a MBA at Michigan Ross.

The hands-on nature of the institution benefited engineers like Jay, Bob, and Ben. Jay was an inventor and had several patents for gas pumps and lubrication systems. Bob and Ben are similar as they rarely see a product they can’t make better with a little customization.

“Jay was a constant learner. Janet’s dad is the same. You walk into his office and he has rows of books. He’s constantly learning,” Brad said.

Kettering has been a foundation for education, global business ventures, and successful careers for the Retsema-Spiegel family. Everyone understands the value of experiential learning and the broad perspectives it gives early in their careers, and Kettering taught them all learning is a lifelong process, he said.

“Let’s see what the 2040s bring — could there be a fifth generation?”

KETTERING HAS BEEN A FOUNDATION FOR EDUCATION, GLOBAL BUSINESS VENTURES, AND SUCCESSFUL CAREERS FOR THE RETSEMA-SPIEGEL FAMILY.
FIRST ROBOTICS INVESTMENT STORY

For more than two decades, Kettering University has invested in FIRST Robotics to give back to the community and inspire students to pursue STEM careers.

By Lindsay Knaake

"KETTERING’S INVESTMENT IN FIRST ROBOTICS IS A WAY IN WHICH WE CAN HAVE REAL IMPACT. THERE ARE MANY STUDENTS FROM THE COMMUNITY WHOSE LIVES AND TRAJECTORIES HAVE BEEN CHANGED BECAUSE OF FIRST."

- Dr. Robert K. McMahan, Kettering University President

FIRST Robotics is an international high school robotics competition with more than 3,600 teams and 91,000 students worldwide.

Each year, high school teams take six weeks to construct and program a robot to compete in a game that changes annually. FIRST alumni, parents, teachers, and industry engineers and programmers mentor students during the season, in which students compete at several tournaments and can qualify for the World Championships. Aside from building and programming, FIRST teaches students teamwork, problem solving, and working well under pressure.

Kettering is the only university in the nation to have a dedicated FIRST Robotics Community Center with building areas, a machine shop, and practice field on campus.

The University’s investment in FIRST Robotics started in late 1997 when a Powers Catholic High School student asked Bob Nichols, then the Vice President of Enrollment, to sponsor his school’s team. Kettering partnered with the Genesee Area Skill Center, which hosted the team.

Nichols attended a competition at Eastern Michigan University and became more interested in the program. At the 1998 national competition at Disney World’s EPCOT Center in Orlando, he watched as two universities offered scholarships on stage.

“I knew we were going to be on the stage the next year,” said Nichols, who is Director of the FIRST Robotics Community Center. “Kettering was the third university to offer scholarships. We awarded two that year, and the scholarship program has grown ever since.”

Since 1999, Kettering has awarded more than $5.3 million in student scholarships. The University awarded 37 scholarships in 2018, and 30 of the recipients went on to attend Kettering. More than 30 percent of current Kettering students were on FIRST Robotics teams in high school.

In 1999, Kettering leaders made the decision to host an off-season competition called the Kettering Kickoff each September. It’s an opportunity for new team members to
see what FIRST is about in a low-key environment. The first year, Kettering hosted approximately 15 teams. Now it’s one of the most popular off-season events in the state and sells out in three days.

“It gets the kids on campus,” Nichols said. “We learned a long time ago if we can get families on campus, we have an 80 percent chance of recruiting them.”

When FIRST in Michigan created the idea for district competitions ahead of the State competition in 2009, Kettering was a beta site. There are now 28 district competitions in Michigan. Kettering also led the way on hosting back-to-back districts, and now the University isn’t the only one hosting them. At the district events in March, more than 80 teams visit Kettering during the two competitions.

During that time, Kettering continued to sponsor teams, including Flint-based Team 1506, Metal Muscle. Dr. Henry ‘Doc K’ Kowalski, professor emeritus at the University, was head mentor.

When McMahan arrived on campus, he wanted Kettering to increase its investment and involvement with FIRST Robotics and FIRST in Michigan. Doc K had the idea for
using the old gym in the Academic Building for a practice arena for local teams. What Kettering built was a center that could host multiple teams for building, a practice site, a machine lab, meeting spaces, and a design lab. The center and machine lab opened in 2014, and the meeting spaces and design lab were completed in 2018.

“We have become a go-to place for new teams to solve problems. They call us,” Nichols said. “I have a group of Kettering students who are FIRST alumni who help the teams.”

Kettering offers current students an opportunity to be involved with FIRST Robotics through an alumni group, work-study positions, and volunteering as a mentor or contractor. The contractors are experts in one area of robotics and are on-call when a team needs help in that area. Kettering students, such as Joel Hurd ’19, also volunteer as game announcers.

Also at the FIRST Robotics Community Center, the University offers programs and camps for elementary and middle school students with the FIRST LEGO League, FIRST LEGO League Jr., and FIRST Tech Challenge. The center staff are working with Flint schools to establish FIRST teams.

Kettering’s investment in FIRST has given both area high school students and Kettering students new opportunities to build robots, travel, and compete.

Harrison Ford ’16 has been involved with FIRST Robotics since he was a sixth grader in Flint. He was on 314 Megatron Oracles at Carman-Ainsworth High School in Flint Township and mentored Team 322 Flint F.I.R.E. at Kettering.

Ford believes Kettering’s investment in robotics and in local schools is assisting Flint’s restoration to its past success in the automotive industry. The center gives students the opportunity to be in a university and gets the gears turning in their minds about what’s possible for them, he said. By working with students from around the Flint area, they learn from people who are different from them, and yet, everyone involved has the same mindset.

“FIRST Robotics is a great example of what an innovative process is like. It teaches kids at a young age that you can think about building something and use your imagination.”

Kettering University’s Metal Muscle, FIRST Robotics Team 1506, traveled to HangZhou, China, for the Qianjiang International Robotics Invitational in July 2018. The team was one of nine international teams invited, and they were on the winning alliance, alongside Team 694 StuyPulse and Team 5522 Stargazer.

In January, Kettering hosted a pilot FIRST collegiate competition in the center. After kickoff, college students and mentors construct this year’s robot in three days to give FIRST teams ideas about what they can do with their robot. This was the first year the college students and mentors competed with their robots.

Kettering is continuing its commitment to FIRST as a major sponsor at FIRST Worlds Detroit in April. The University is sponsoring the Student Lounge and will have booths at both the Innovation Faire and Scholarship Row. Kettering students, will be in the pits to talk with FIRST students, and the University also will host conferences and an international reception.

More than 45,000 students will attend the three-day competition from April 24 to April 27 at the Cobo Center.

“Many FIRST alumni and new Kettering students earn great co-op jobs because of the many skills they learned being involved in FIRST,” Nichols said. “FIRST students are such a perfect match for Kettering. Kettering is a hands-on school; they are coming from a hands-on program.”
A line of T-shirts, sweatshirts, and coffee mugs, available at Kettering’s C-Store and online, show the General Motors Institute crest and Bulldog. On the back, the gear says Kettering University and “Honoring our past and creating our future.” Newly-released sweatshirts show the GMI Engineering and Management Institute crest and Bulldog.

“The gear really brings people together,” said Neal Fusner ’81. “I’m very proud of where I was educated, and I’m very proud of what Kettering has become. Every time I set foot on campus, I come away with a smile on my face.”

The idea for the shirts came from University President Robert K. McMahan in December 2017, said Katie Jones, Kettering Auxiliary Services Assistant. It was something Jones had wanted to do for a long time.

Jones started with a smaller order to see how it would go, but she didn’t expect the gear to be as popular as it is. Many of the students who are going here now have family members who attended Kettering. That’s one of the biggest reasons they are purchasing the retro gear, she said.

“I have seen staff, students, alumni, and people in the community with it on,” she said. “People who have lived here in Flint are proud of the city, and GMI was a huge part of the history of Flint. They like to honor that.”

She is working with a vendor to create more gear with designs from various eras of the institution.

Fusner saw the gear on a visit to Kettering and took one home with him. Soon after, he purchased another. People stop him at the
When Warren “Pos” Poslusny ’69 established the Warren Paul Poslusny Scholarship for Outstanding Student Leaders Endowment in late 2017, he launched the first university-wide scholarship program recognizing Kettering students in the Robot Society.

Pos also designated his scholarship fund as the beneficiary of several of his financial accounts (“Transfer upon Death”), one of the easiest ways for alumni and friends to make a gift to Kettering in their estate plans. Pos’ legacy will help even more Kettering students than originally planned.

To learn more about leaving your mark at Kettering University, please contact the Office of Major and Planned Giving at (800) 955-4464, ext. 9746 or cboeff@kettering.edu

A favorite item among students is the crewneck sweatshirt, which is soft and comfortable, said Alexandra Broom ’21, a Mechanical Engineering major. She loves the gear because of the heritage within the community and the way it connects the past with the future. When she wears the sweatshirt on tours, people go to the C-Store and buy the gear afterward.

Parker Authier ’22, an Electrical Engineering and Computer Engineering major, said the GMI gear brings more recognition outside of the school. Alumni see his shirt and tell him stories about when they were at the University, he said.

“It’s a smaller private school, but it’s had an impact on so many things. This gear celebrates that,” he said.

Abigail Spiaggi ’20, a Computer Science major, said a Kettering alumnus in her sorority, Alpha Sigma Alpha, sent a box of T-shirts and gear to the sorority, including some with the GMI Bulldog. That prompted her to buy the GMI sweatshirt.

“I like the design. It has an old school feel,” she said. “Aesthetics-wise, I like it. The 90s are coming back.”

Kevin Connor ’17 purchased a GMI sweatshirt when he saw a friend wearing one during a visit to campus. One day, he wore the sweatshirt to work, and several Kettering alumni asked him where he bought it. He hadn’t known so many people from his group graduated from GMI.

Connor started taking orders, and someone sent an email to 273 people at Ford. In the end, he placed an order with Jones for 89 GMI sweatshirts. Half of them were Ford employees.

“It snowballed really fast. I thought I’d order 15,” he said. “Kettering’s history is GMI, and it’s cool to wear a piece of it.”

A grocery store to ask if he’d attended GMI. He’s purchased two more T-shirts — one for a ’76 alumnus he met through the Michigan Clays Association and one for a new Kettering student whose mother he met at a restaurant in Wixom.

“It’s a powerful conversational catalyst. They get people talking,” he said. “It’s amazing how those T-shirts tied a lot of my life together in a few short months.”
IN MEMORIAM

SHARE YOUR STORY!
Share your GMI/Kettering story as a part of our Centennial celebrations!

Kettering University
Kettering.edu/ShareYourStory

*Through January 31, 2019
Throughout 2019, we are hosting a friendly competition to see which section is Better or Awesome. When you donate to the Kettering Gift Fund or area of your choice, your name and year will be posted in the Great Court (in the appropriate section, of course.) If you do not associate with a particular section, you can help to sway the outcome by picking a side or choose to be neutral. The section with the greatest number of alumni donors will receive special recognition during our Founder’s Week Celebration on campus October 14 – 20.

Put your best foot forward and celebrate Kettering’s Centennial year by supporting Kettering students. Make a gift of $35 or more to the Kettering Gift Fund or other area of your choice and receive an exclusive pair of Centennial Bulldog socks to rock.

These limited-edition Centennial socks are only available this year. Visit build.kettering.edu/100years to preview the design, make your gift, and be counted!