KETTERING MAGAZINE

THE ALUMNI ISSUE

SPRING 2015

OUR CAMPUS RE-IMAGINED
A Major Surprise for Students

More than 50 Kettering University students attended a Student Alumni Council ‘Bulldog Insights’ talk by Mike Riggs ’76 in August. When they left, each of them had a $1,000 scholarship.

Cover Story: Campus Master Plan

A new vision for Kettering University’s campus will add facilities and space that enhance teaching and learning on campus, open new opportunities for collaborative research and industry partnerships, enhance student comfort and make the campus a vibrant place that intersects seamlessly with the surrounding community.

A Calling to Serve

Donna Ray ’79 has found a way to combine two passions – a desire for adventure and a desire to serve others.
Each term, Kettering University students compete in timed ‘Innovation Quest’ challenges meant to encourage creative and entrepreneurial thinking. In December, they did a ‘Super Quest’ challenge that required them to build boats out of cardboard and tape that could support two people. The challenges are supported by the Kern Entrepreneurial Engineering Network (KEEN).

Kettering University once again hosted open community skates at Atwood Stadium this winter. Kettering students installed the ice rink on the field at Atwood in December as part of a ‘Service Saturday’ project.

Kettering University hosted a reception to honor seniors who finished up their degree requirements in December at the Flint Institute of Arts. This year’s Commencement will be Saturday, June 20, 2015, at 11 a.m. on Kettering University’s campus.

Provost James Zhang helped the Formula SAE team test their car at Atwood Stadium.

Participants in the 2014 Academically Interested Minds (AIM) and Lives Improve Through Engineering (LITE) celebrated with barbecues at President Robert K. McMahan’s residence at the end of their programs.

Dozens of Kettering University students, alumni, faculty and staff participated in the annual Crim Festival of Races in Flint. Pictured here at the Kettering after-party at 501 Bar and Grill are Ben Fick, Chad Ketchem, Tes Mayner, Mitchell Koupal and John F. O’Brien.

Pi Kappa Alpha, Sigma Chi, Fiji, Theta Xi and Sigma Nu hosted a variety of lawn games, field sports, cookouts and other outdoor activities on campus over the summer.

Members of the Kettering University Greek community volunteered time and services for a large community cleanup along Chevrolet and University avenues over the summer.

Freshmen were welcomed to campus during Move-In celebrations for both A-section and B-section.

Kettering University staff and students had a large presence at last year’s Maker Faire Detroit.
Impressive Rankings Continue

Kettering University continued to receive national attention for its leading curriculum and alumni outcomes in national rankings this year.

In the 2015 *U.S. News and World Report* ‘Best Colleges’ rankings, released in September, Kettering was ranked No. 14 in the country among non-Ph.D. granting engineering programs. The Mechanical Engineering program ranked No. 4 in the country among non-Ph.D. programs. Kettering also ranked 20th in the Midwest among all regional universities.

In March of 2015, PayScale.com ranked Kettering No. 12 in the country in Return on Investment. Kettering, which was also No. 1 in Michigan and the Midwest in ROI, was featured in a CNN Money article looking at the top 10 colleges in the country for ROI.

Kettering was also featured in a December 2014 *Automobile Magazine* article looking at the best universities for students hoping to work in the auto industry. Kettering was one of five universities profiled in the article, highlighted in particular for the long legacy of producing leading automotive engineers.

In a December 2014 MLive.com article entitled, “Kettering University continues to put Flint in national spotlight,” Flint Mayor Dayne Walling said, “Kettering’s success has created a positive draft that has pulled our entire community forward. Kettering is one of the global hubs of talent for science, technology, engineering, management and entrepreneurship.”

New ‘Opportunity Lab’ Opens on Campus

Kettering University hosted a grand opening for a student-led collaborative and creative space called the ‘T-Space’ in December.

The Kettering T-Space is constantly evolving its mission and offerings, but currently provides students access to 3D printing, laser cutting, soldering and other utilities to work on small electric and mechanical prototypes.

The T-Space will begin as a place for light prototyping with access to whiteboards, moveable furniture, music creation, communication devices and a green room for animation and multimedia production. In the near future, the space will contain servers that will provide students with access to software that may not otherwise be common on campus. The tools currently provided are ample for computer scientists and mechanical and electrical engineers to experiment.

“The end is not to encourage our students to create businesses,” said Dr. Massoud Tavakoli, professor of Mechanical Engineering and faculty director of the T-Space. “That they can do on their own later in life. The underlying motivation for all of this is to get our students to adopt a mindset that might be alien or uncomfortable to engineering and science students. That mindset is the innovation and entrepreneurial mindset.”

The opening also featured an entrepreneurship roundtable that included Kettering President Dr. Robert K. McMahan, Provost Dr. James Zhang and alumni Dave Stenson ’86 (CEO of Inventev), Dr. John Suh ’90 (executive director, Hyundai Ventures), Paul Glomski ’99 (CEO of Detroit Labs), Jesse Alleyne ’07 (enterprise account executive at Microsoft), Kristina Kamensky ’09 (entrepreneur), Matt Gaidica ’10 (Silicon Valley entrepreneur and doctoral student at University of Michigan), Dan Kurin ’11 (entrepreneur) and Alex Barath ’13 (engineer with General Motors).

*Read more: www.kettering.edu/news/new-t-space-allows-kettering-university-students-space-think-tinker-thrive*
Michigan Gov. Rick Snyder visited Kettering University in September to help celebrate the grand opening of the FIRST Robotics Community Center — the first facility of its kind on any college campus in the country.

“To put it simply, this is awesome,” said Snyder, a prominent advocate for FIRST Robotics in Michigan.

The facility provides work areas for approximately eight FIRST teams, a regulation-size practice field, as well as a lab that will include machining tools and software. More importantly, the students on these teams will have unprecedented access to Kettering University’s faculty, staff and students as mentors and to the campus facilities.

The grand opening was attended by several dignitaries, including Don Bossi, president of FIRST Robotics, Flint Mayor Dayne Walling and Jennifer Liversedge from the C.S. Mott Foundation. Kettering President Dr. Robert K. McMahan and student Harrison Ford attended the 2015 Michigan State of the State address as guests of Snyder. In the speech, Snyder praised Kettering’s support of FIRST Robotics while giving a special call-out to the University.

Read more: www.kettering.edu/news/gov-rick-snyder-helps-kettering-university-open-first-robotics-community-center

For a span of four days November 22–25, a group of Kettering University students weren’t only representing the yellow and blue of the Bulldogs. In addition, they opted to add the white, green and red of Bulgaria and were honored by their peers for their efforts at the American Model United Nations International Collegiate Conference in Chicago.

Kettering received an award for “Exceptional Representation of Bulgaria” at the General Assembly First Committee. Kettering was just one of six (out of 100 total) delegations awarded for their excellence in leadership in bringing nations together, and writing and adopting resolutions concerning the worldwide illicit trade in small arms and light weapons.

“Our objective as an organization is to get engineers and business-minded students to apply their skills to the wider world,” said Michael Graham, president of the Kettering University Model United Nations (KUMUN). “It helps Kettering students to not only be good scientists, engineers and entrepreneurs, but also develop a global mindset to solve world issues.”

“Our objective as an organization is to get engineers and business-minded students to apply their skills to the wider world.” —Michael Graham

Read more: www.kettering.edu/news/gov-rick-snyder-helps-kettering-university-open-first-robotics-community-center
Nearly 100 Girl Scouts from southeastern Michigan worked to earn badges and learn STEM (Science, Technology, Engineering and Math) concepts at the third annual Kettering University Girl Scout STEM Daycamp on September 6. This is the third year for the program, and an increase in volunteers this year allowed female Kettering University students to mentor an even larger number of Girl Scouts.

“We had about 20 Kettering volunteers this year, and that really allowed us to grow,” said Beth Facemire, a Mechanical Engineering major and organizer of this year’s event. “In the past, we’ve only had about 50 girls in the camp. This year, we were able to serve a lot more young girls and help encourage them to explore STEM-related fields.”

“Spreading STEM”}

Through a major gift from a Flint couple, a new scholarship is now available to premedical students at Kettering University and the University of Michigan–Flint who are accepted into Michigan State University College of Human Medicine through MSU’s Early Assurance Program.

Mark Weiss, M.D., and his wife Susan Thompson Weiss established the “Charles and Lois Thompson and Alexander and Irene Weiss Endowed Scholarship” in honor of their parents. The endowed scholarship will provide one student a total of $10,000 ($2,500 per year) for a maximum of four years.


“In the past, we’ve only had about 50 girls in the camp. This year, we were able to serve a lot more young girls and help encourage them to explore STEM-related fields.” —Beth Facemire
A team of five Kettering University students won the annual ‘Innovation Encounter’ competition at Lawrence Tech in October.

The intercollegiate competition, which was sponsored this year by Faurecia North America, rewards inventive problem solving. The Kettering team, which was sponsored by the University’s Innovation to Entrepreneurship Across the University (i2e-AU) initiative (directed by Dr. Massoud Tavakoli, professor of Mechanical Engineering), competed against teams from Ohio Northern, Lawrence Tech, University of Detroit Mercy, Bucknell University and Worcester Polytechnic Institute. Team members were Andrew Mazzola (ECE), Anna Macherkevich (ME), Hunter Casbeer (ECE), Mihir Mistry (ME) and Vignesh Samban (ME).

Read more: www.kettering.edu/news/kettering-university-students-win-innovation-competition-lawrence-tech
Autoliv Funds New d.space on Campus

Kettering University students will soon have a new d.space in the Academic Building, thanks to a donation from AutoLiv ASP Inc. Autoliv has committed $75,000 to the project.

Earlier this year, d.space1 opened in the AB, giving students, faculty and staff access to technology-enabled space with two very simple rules — it is open to anyone at any time and it can’t be reserved.

“The key to this space is that nobody owns it,” said Kettering President Robert K. McMahan. “It is available for ad-hoc meetings for student groups, faculty or staff, but you can’t reserve it. It’s always open for anyone who needs the space to use it.”

The first d.space is located in an area that was formerly a small lounge near the library and the new Applied Biology labs. The d.space concept is intended to infuse open, collaborative and technology-enabled spaces throughout campus as a way to build an environment supportive of rampant creativity, innovation, teamwork and project work.

The first d.space includes a wall painted with dry erase paint, whiteboards, moveable furniture, a large screen and technology features that allow those using the space to connect devices and share information and ideas with collaborators. The second space, which will be located in or near the library, will have similar features.

“This is intended solely to be open collaboration space to foster creativity,” McMahan said. “It is intended to provide something we don’t currently have much of on campus — unclaimed space full of technology, whiteboards and other elements that creates a fluid, productive work area for anyone who needs it. Collaborative spaces like this are a component of the new Campus Master Plan, as well.”

For more than 60 years, Autoliv has focused on life-saving technologies. The company was the first to introduce the two- and three-point seat belt system and airbags for front and side impacts, and the first to launch pyrotechnic belt pretensioners and pedestrian protection systems. The company, one of Kettering’s more than 550 industry partners, manufactures a range of products and systems and is a leader in automotive safety. They also hosted an admissions event for Kettering at their Auburn Hills Technical Center in December.

“However, this donation will allow us the ability to expand the use of technology across campus,” McMahan said. “It will support student creativity and innovation and build a space that all students can use without having to think about the rules or reservations.”

Funding from the Centers for Disease Control and Prevention is providing $150,000 over three years to the University Avenue Corridor Coalition (UACC) and Kettering University to help fund a warming shelter during ice skating at Atwood Stadium, allow resources for cleanup of abandoned lots, and fund the purchase and installation of new lighting along the Flint River Trail, among other initiatives.

The Crime Prevention through Environmental Design (CPTED) grant is a partnership among Kettering University, University of Michigan School of Public Health (UM SPH), and the UACC. Kettering will serve as fiduciary for the community improvement projects, and a research team from the UM SPH will collect outcome data that includes local health and safety data, parcel assessment data, and a “Speak to Your Health!” community survey. Funds from the grant can be used for education workshops for schools and the community, community cleanup, community events and recreation supplies.

Read more: www.kettering.edu/news/cdc-grant-will-fund-community-cleanups-and-other-university-avenue-corridor-initiatives

“Autoliv Funds New d.space on Campus” – Robert K. McMahan
Graduate Gives Back Through Scholarship

Richard DeVaughn ‘77 has established a scholarship to help provide more opportunities for young African-American students to attend Kettering University.

DeVaughn is president and CEO of The Arcadia Group International, LLC. He is an International Coach Federation (ICF) Professional Certified Coach and has more than 30 years of diversified strategic and operational leadership in world-class companies.

“Students who graduate from Kettering are ready to participate in dynamic business environments,” DeVaughn said during a return to campus to speak to students as part of the Student Alumni Council’s Bulldog Insights series in the summer of 2014.

Kettering Receives $1 Million Grant to Promote Safety in Flint

Efforts to create a safe, walkable University Avenue Corridor region connecting McLaren Regional Medical Center, Kettering University and surrounding neighborhoods to downtown Flint along University Avenue received a major boost with a $1 million federal grant to Kettering University that will support neighborhood revitalization efforts.

The Byrne Criminal Justice Innovation (BCJI) Program grant – part of the Obama Administration’s Neighborhood Revitalization Initiative – will provide $1 million over three years to help convert the University Avenue Corridor into a vibrant region by developing and implementing sustainable crime prevention strategies that spur community engagement and development and promote health and safety. Kettering and Flint were one of only six communities nationally to receive the BCJI grants.

The grant encourages a wide cross section of partnerships. Kettering, along with the Flint Area Reinvestment Office (FARO) and the Local Initiatives Support Corporation (LISC), led the grant proposal process. Kettering will act as the fiscal agent for the grant.

The grant has also enabled research collaborations among many universities, including Kettering University’s Computer Science department, the Michigan State University School of Criminal Justice, the University of Michigan (Ann Arbor) Youth Violence Prevention Center and the University of Michigan-Flint’s Department of Health and Health Sciences and Department of Earth and Resource Science. MSU’s School of Criminal Justice will act as the lead research agent for the grant.

“This is tremendous news. This grant will bring in significant resources to further enhance an already rapidly improving part of the city,” said Kettering University President Dr. Robert K. McMahan. “The grant allows Kettering, the University Avenue Corridor Coalition and our many community partners to continue to lead Flint’s transformation into a world class research and knowledge center that is built upon the city’s vast higher education, healthcare, technology and industry resources. This grant is also a perfect example of how collaboration within the city can lead to significant progress. Not only did we work collaboratively with multiple organizations to secure this grant, but with it some of the country’s finest research institutions will be working closely right here in Flint over the next three years to develop and implement placemaking solutions for rebuilding our community that are sustainable and ensure a bright future for the region.”

Read more: www.kettering.edu/news/flint-kettering-university-receive-1-million-department-justice-grant-neighborhood
Ford Motor Company and Kettering University celebrated a growing partnership aimed at producing the next generation of multi-skilled engineers for the workforce on August 22. The day commemorated Ford’s support for Kettering, including the announcement of a major contribution from the Ford Motor Company Fund to the new FIRST Robotics Community Center at Kettering University. During the past year, Ford Motor Company and the Ford Motor Company Fund have provided more than $100,000 worth of support for various Kettering University programs, including a donation of a 2013 Ford F-250 truck to Kettering’s SAE competition teams, and a donation of a Ford Focus Electric to the Advanced Power Electronics Lab (APEL) and Dr. Kevin Bai, professor of Electrical and Computer Engineering. A group of Kettering University students also received a $25,000 grant from the Ford Motor Company Fund’s College Community Challenge to help fund an aquaponics project to create a sustainable local food source in Flint.

“Ford and the Ford Motor Company Fund are extremely supportive of programs like FIRST Robotics that get students excited about careers in science, technology and engineering fields,” said Raj Nair ’87, Group Vice President, Global Product Development, at Ford. “Our support for Kettering University’s programs is also done with a strategic eye on the future needs of industry. Kettering has allowed us over the past year to support programs like FIRST, the SAE competition teams and power electronics research. These programs are supporting high school and college students, as they develop varied and well-rounded skillsets, and also supporting cutting-edge vehicle research that will help shape the future of industry.”

1. Kettering once again hosted a ‘Tag Day’ for A-section students in November. Tags with QR codes telling the stories of philanthropy and donor impact at Kettering were placed on 25 items at locations all over campus. The tags and stories associated with them were intended to show students that donors support their education in many ways, both obvious ones and subtle ones. During the common hour, student teams competed against a University leadership team in a Tag Day scavenger hunt. Another Tag Day will take place for B-section in March.

2. A number of Kettering University students helped lead a successful Phone-a-thon. This year, student callers reached 632 donors for a total of $135,226 in pledges and gifts. Kettering student callers spent a total of 512.25 hours on the phone talking with alumni and donors.

3. For the first time, Kettering participated in the international #GivingTuesday campaign on December 6. More than 100 students, faculty, staff and alumni gave to a wide range of causes, bringing in nearly $4,000 in contributions to Kettering initiatives throughout the day.

4. Several Kettering University graduates learned about new initiatives at the University, caught up with fellow alumni, and even talked with prospective students and families at alumni and combined alumni/admissions receptions during the past year, including in Cleveland, Grand Rapids and Bay Harbor. Events were also held in Northern California, Los Angeles and Chicago.
LEADING THE WAY in Applied Research

Kettering University faculty have successfully secured more than $2 million in equipment through Major Research Instrumentation (MRI) grants through the National Science Foundation since 2013. Faculty have received five MRI grants in that span — tied for the most of any university in Michigan and further enabling Kettering’s capabilities as a leading applied research institution. Here’s a list of the grants:

• Kettering’s most recent MRI grant will, once installed, give Kettering something no other university in the country has — its own 4G long term evolution (LTE) wireless system. The equipment, made possible through the MRI grant worth $143,920, will take approximately one year to be installed, but once operational, it will have a wide range of research, academic and even community uses — including assisting law enforcement.
  
  Read more: www.kettering.edu/news/latest-nsf-grant-will-give-kettering-university-its-own-4g-lte-wireless-system

• Kettering faculty and students involved in nine different projects from the Chemical Engineering, Engineering Physics, Biochemistry and Applied Biology departments will benefit from the $552,650 award that will lead to the acquisition of an X-Ray Photoelectron Spectroscopy (XPS) instrument. The XPS is the industry standard measurement tool for the chemical composition of surface materials.
  
  Read more: www.kettering.edu/news/kettering-university-receives-fifth-mri-grant-national-science-foundation

• Materials science at Kettering University is about to be propelled to new heights as the school has been awarded a $77,808 National Science Foundation (NSF) grant which will be used to acquire an X-Ray Diffractometer.
  
  Read more: www.kettering.edu/news/nsf-grant-will-help-kettering-acquire-x-ray-diffraction

• Five faculty members combined their research efforts to garner a $114,039 grant that will allow for the acquisition of a three-position sensor 3D Investigator Motion Capture System by Northern Digital Inc. This instrument acquisition will serve faculty researchers from the Industrial and Manufacturing Engineering (IME), Computer Science (CS), and Electrical & Computer Engineering (ECE) departments (see Table 1). Their overlapping research specialties include ergonomics, human factors, human-computer interaction (HCI), haptic interfaces, virtual reality and simulation environments, medical robotics, and autonomous vehicle navigation.
  
  Read more: www.kettering.edu/news/collaboration-helps-faculty-secure-multi-disciplinary-nsf-grant

• Dr. Jaerock Kwon, Kettering University assistant professor of Computer Engineering, obtained a $341,563 grant for a program entitled, “MRI: Development of High Throughput and High Resolution Three-Dimensional Tissue Scanner with Internet-Connected 3D Virtual Microscope for Large-Scale Automated Histology.” The program focuses on the development of a three-dimensional brain tissue scanner.
  
  Read more: www.kettering.edu/news/nsf-grant-will-support-high-resolution-mri-research

A sixth NSF grant, this one focused on scholarships rather than equipment and research, provides nearly $600,000 to support academically talented but financially disadvantaged students in their pursuit to become leaders in science, technology, engineering and mathematics (STEM). The funding allows Kettering’s S-STEM for Undergraduate Education program — Support Through Robotics for Underserved Talented Students (STRUTs) — to award gap scholarships to students who are able to qualify academically for Kettering, but can’t secure enough financial aid to attend.

Read more: www.kettering.edu/news/kettering-receives-nsf-grant-support-robotics-students
Kettering Joins PEIC

Kettering University became the first university to join the Power Electronics Industry Collaborative (PEIC – pronounced ‘peak’), a national consortium of manufacturers, suppliers, researchers and other stakeholders working to advance the power electronics industry in the United States. Kettering is currently an associate member of the consortium, which includes major companies like General Motors, Delphi, Magna Powertrain, Dow Corning, NextEnergy and Argonne National Laboratories, among others.

“PEIC evaluates the power electronics workforce in the United States and helps fill gaps in education,” said Dr. Kevin Bai, assistant professor of Electrical and Computer Engineering and director of Kettering University’s Advanced Power Electronics Lab (APEL). “The organization is trying to identify the types of expertise needed in power electronics and develop solutions.”

Read more: www.kettering.edu/news/kettering-university-joins-power-electronics-industry-collaborative

Social networks are still relatively new as a communications technology, but rapid advances are already causing the original definition to evolve.

In particular, the proliferation of mobile devices along with increased networking capabilities has spurred development of an entirely new kind of social network – the opportunistic mobile social network. Opportunistic mobile social networks are platforms that provide services aimed at maintaining social connections through a handheld, wireless device. Characteristics of these networks include intermittent contacts, disconnections and reconnections, energy and storage limitations.

The study of opportunistic mobile social networks is of great interest to scholars, industry and consumers because of the potential for the technology, and Kettering University faculty member Dr. Yungsheng Wang, assistant professor of Computer Science, has co-edited a comprehensive new book on the topic called, Opportunistic Mobile Social Networks.

“This is a new and rapidly growing field,” Wang said. “Practically speaking, there is great interest in the potential of these networks because they can foster new forms of collaboration and offer new types of services.”


Using Tolkien to Teach Leadership

Tolkien’s stories have played a big role in the life of Liberal Studies faculty member Dr. Laura Miller-Purrenhage.

She has partnered with fellow faculty member Dr. Denise Stodola to make her lifelong passion for Tolkien into her professional pursuit as they have combined to offer LIT 374: Seminar on J.R.R. Tolkien as a Liberal Studies course for Kettering students.

Miller-Purrenhage wanted to develop a course that was relevant to Kettering students who split their educational careers between the classroom and corporate settings. She also wanted to direct her research to coincide with the themes of the classroom and chose to study leadership and withstanding evil - both narratives in Tolkien’s work that can be analogous to corporate environments.

“We look at leadership. What makes an effective leader?,” Miller-Purrenhage said. “Aragorn, Gandalf, Theoden and Denethor - what are the differences in the way they lead?”

Miller-Purrenhage uses the examples of Frodo and Sam to discuss how unethical behavior can be resisted in the corporate environments just as the hobbits resisted the temptations of the Ring.

“What causes unethical behavior?”, Miller-Purrenhage said. “We all hope to be good people but over and over again, we find that even the best of people can get corrupted.”

Read more: www.kettering.edu/news/using-jrr-tolkien-teach-corporate-leadership
Hospital Donates Birthing Simulator to Kettering

Genesys Regional Medical Center is contributing to Kettering University’s Bio-Mechanical and Bio-Engineering research efforts by donating a life-like birthing simulator to the University.

The simulator was designed for doctors and nurses at Genesys Regional Medical Center to mimic potential emergencies that may arise during the birthing process and allow them to practice working together to deliver care. At Kettering University, the birthing simulator is housed in the Mechanical Engineering department in the C.S. Mott Building, but will be used by faculty and students across campus.

“At Genesys they simulate situations that might happen during a birth and then practice how they deal with it,” said Dr. Theresa Atkinson, assistant professor of Mechanical Engineering at Kettering University. “Here we want to use the tool to simulate a broader range of medical procedures.”


Greener is Better

A team of researchers led by Kettering University’s Dr. Thomas Ngniatedema from the Department of Business have presented empirical evidence regarding the importance of corporate environmental consciousness and a company’s financial performance.

Ngniatedema and his research team, consisting of Dr. Suhong Li at Bryant University and Dr. Abdou Illia at Eastern Illinois University, used data from Newsweek’s environmental reports on the top 500 publicly traded companies in the United States. They compared the financial performance of organizations in the manufacturing and service sectors with their respective environmental metrics over the course of two years to look for profitable correlations. Metrics such as Environmental Impact Scores and Reputation Score were used in their study.

The Environmental Impact Score is a comprehensive, qualitative and standardized measurement of the overall environmental impact of a company’s global operations.

“We found that firms in the manufacturing industry tend to be more green-oriented than those in the service industry,” Ngniatedema said. Specifically, financial performance of Fortune 500 companies was improved in consumer products, food and beverage, healthcare and retail sectors when green operations were taken into consideration and therefore the industries received a higher environmental impact or reputation score.

Read more: www.kettering.edu/news/greener-better-kettering-university-faculty-member-finds-environmentally-friendly-practices

ENGINEERING
Tech Products for Human Design

The consumption of digital media on mobile phones, tablets and laptops is at an all-time high and technology is rapidly evolving to accommodate touch and motion interfaces as a replacement for the traditional mouse and keyboard. As technology expands, so does the pursuit of safe and ergonomically sound uses of digital devices in Dr. Justin Young’s lab at Kettering University.

“What did the introduction of laptops do to change how people do work? What about tablets? Ergonomists are constantly playing catch-up to technology and the idea hopefully is that we can be proactive to solve design issues before they arise,” Young said.

Young’s research focuses on touchless gestural controls for devices – the ability to control elements occurring on a screen without making physical contact with an interface.

“These types of interfaces have worked really well in certain types of situations,” Young said. “You aren’t likely going to use gestures to control Microsoft Excel but if I’m working in 3D environments, and I want to, for example, spin a map of the earth around, gestures may be better options than the mouse.”

Read more: www.kettering.edu/news/engineering-next-generation-tech-products-human-design
The Kettering University Crash Safety Center was featured in a segment on Canada Broadcasting Corporation’s (CBC) Marketplace, a consumer reports news show, in December.

The segment, which focused on consumer products on the market related to pet safety during vehicle crashes, was partially filmed in Kettering’s Crash Safety Center (CSC) in October. Dr. Janet Brelin-Fornari, professor of Mechanical Engineering and director of the CSC, along with research engineer Sheryl Janca and graduate students Craig Price and John Casci, conducted testing on five different products.

“This (Kettering) University lab is a regular stop for the auto industry,” the segment states. “Testing the safety of seatbelts, airbags, even child seats.”

Recent work in the Crash Safety Center includes contributing to soon-to-be-adopted standards by the U.S. National Highway Traffic Safety Administration (NHTSA) to develop a side impact test procedure for child restraint systems. That research helped inform new testing standards that were proposed by NHTSA. Kettering worked with NHTSA for more than two years and the Notice of Proposed Rule Making (NPRM) became public in 2014.


Researchers Working on Durable Joint Replacement Materials

Kettering University student Julia Carson’s mother is an oncology nurse and her father is a controls engineer – combine the two and you have the makeup of her passions and academic pursuits at Kettering.

Carson is a Mechanical Engineering major with a minor in Biology and is striving to solve engineering dilemmas involving the human body. At Kettering, she has partnered with Dr. Cheryl Samaniego, Applied Biology professor, to address the concerns of joint replacement materials.

Typically, joint replacement materials in the knee and hip last an average of 10-15 years after which they begin to deteriorate. The materials break down into smaller components and trigger the body’s immune response. Samaniego, Carson and colleagues are performing biocompatibility studies to test different coatings and surfaces designed by Chemical Engineering faculty Dr. Susan Farhat, Dr. Mary Gilliam and Dr. Ali Zand that can be used on joint replacement materials to enhance their durability and longevity and minimize the deterioration that leads to ill effects in the human body.

Read more: www.kettering.edu/news/kettering-university-researchers-working-more-durable-joint-replacement-materials

Transforming Ocular Cancer Treatment

A newfound partnership between Dr. Prem Vaishnava, professor of Physics at Kettering University, and Dr. Hakan Demirci at the University of Michigan Kellogg Eye Center is attempting to forever change the treatment of ocular cancer in the United States through a targeted and precise technique that has proven to mitigate the disease without the side effects of chemotherapy and radiation.

“We are confident our technique would work because we have results of preliminary testing in a petri dish,” Vaishnava said. “We have documented proof that our procedure would kill cancer cells without using chemotherapy and/or radiation.”

The treatment uses magnetic nanoparticles and magnetic microbubbles to specifically target Choroidal Melanoma and Retinoblastoma – both cancers of the eye. This technique is currently being used to treat cancer in humans in Europe but has not yet been approved in the United States.

“The science is there and there’s proof that it works. Phase I and Phase II trials have been conducted successfully using magnetic nanoparticles in animals in the United States,” Vaishnava said.

Read more: www.kettering.edu/news/kettering-university-michigan-researchers-partner-transform-ocular-cancer-treatment
CAMPUS OF THE FUTURE

ADDRESSING THE RAPIDLY CHANGING NEEDS OF THE NEXT GENERATION’S WORKFORCE

By Patrick Hayes
Kettering University has a nearly 100-year history of producing some of the world’s most prominent and successful leaders, innovators, entrepreneurs and philanthropists. To position the University to continue to build upon this legacy in the 21st century and beyond, the University unveiled a bold new Campus Master Plan in 2014. The Plan is aimed at reimagining the campus to ensure that it continues to meet the needs of future Kettering students and faculty for generations to come.

The Campus Master Plan responds in part to the findings of a two-year, in-depth study by the University of the priorities and preferences of current and prospective students. The Plan heralds the creation of new facilities that will enhance learning opportunities on campus, open new opportunities for industry research and partnerships, create collaborative learning and living environments, and make Kettering’s campus a vibrant place that seamlessly intersects with the surrounding community and the growing number of assets in a resurgent city of Flint.

“The Campus Master Plan is a physical roadmap of where we want to go as an institution and what we want to become in the future,” said Kettering University President Robert K. McMahan. “Our goal is to create a campus that is as exciting and innovative as our educational programs and outcomes, and I am pleased that the community as well as the Board of Trustees have so strongly embraced it.”

Aesthetically, the campus will become more open and more seamlessly connect with natural features of the surrounding community. This includes re-orienting the University to face the Flint River, downtown Flint and the new main campus entry/gateway on Chevrolet Avenue which is now accessed via I-69 and Hammerberg Road. The Campus Master Plan imagines an environment on campus conducive to the lifestyle and learning opportunities students need today; and it will also positively contribute to the revitalization of Flint by redeveloping industrial brownfields, creating new green space and walking paths, and enhancing natural features like the Flint River.

“As an institution, Kettering has a long and established history of innovation, collaboration and working across disciplines and across industries,” McMahan said. “The Campus Master Plan takes that essential nature of our institution and weaves it into the physical campus.”

The first new building that will be constructed under the plan is a Learning Commons. It will be built across the “beach” from the Campus Center and will connect with the CC as well as with the adjacent Connie and Jim John Recreation Center, creating a “main quad” and central outdoor meeting point for the entire campus community.

Some academic department functions will move into this building to encourage cross-disciplinary collaboration. There they will have increased access to flexible, technology-enabled, collaborative spaces that will foster small group learning in addition to a new, modern
electronic library and other resources. The building will also feature something that will likely be a part of every building on campus in the future – new food service venues and options. It will also have space to accommodate alumni and other campus guests, integrating them into the campus community for the entirety of their visit.

“Students want an immersive and social campus experience where they don’t have to leave campus,” McMahan said. “When it is built, the Learning Commons will become the focal point for faculty and student interaction and collaboration at Kettering.”

The philosophy of creating a more connected campus is also central to plans for new dorms to replace Thompson Hall. The new dorms, planned to be the second addition to campus after the Learning Commons, will feature technology-infused flexible spaces that mirror those in more traditional academic settings. The facility will also offer enhanced on-campus living options to students.

“Currently, all of our freshmen live on campus but after their freshman year many students choose to live elsewhere. We want to be able to offer modern housing options for our sophomore, junior and senior students that are safe and comfortable and that are a part of the social fabric of the campus,” McMahan said. “These new dorms will allow us to give students a modern housing option that will keep them connected to the campus.”

The University developed the Campus Master Plan with the assistance of Stantec, an international, award-winning design and architecture firm. The Plan was featured on the cover of the November issue of the Construction Association of Michigan Magazine and also won an American Institute of Architects (AIA) Detroit Honor Award for its visionary transformation of the campus as well as its thoughtful integration into the surrounding city.

Other components of the reimagined campus include a new, community-focused use for the current Academic Building. In the summer of 2014, Kettering unveiled the FIRST Robotics Community Center in what was formerly the campus gymnasium. The facility, the first of its kind on any college campus in the country, provides residential space for up to eight (and eventually, as many as 16) high school FIRST Robotics teams. In the FIRST Center these teams learn to build advanced robots using state-of-the-art equipment and resources, but most importantly, they also connect with Kettering students and faculty and gain an immersive experience on the Kettering campus. That concept – opening up space on campus for the community, in particular for pre-college students to gain exposure to STEM and business concepts on the campus of our nationally ranked University – is expanded in the Campus Master Plan with the redevelopment of the Academic Building.

“A reimagined Academic Building opens up partnership opportunities with local youth organizations and schools, and allows us to dramatically expand on our current pre-college programs - perhaps even to include the creation of a STEM charter school in the building,” McMahan said.

The Campus Master Plan also sets as a goal infusing the campus with the visual arts, reinforcing the importance and connections between science, engineering, business and the arts and humanities.

Other components of the plan include enhanced green space, natural connections to existing resources, including the popular Flint River Trail network and the city of Flint’s Chevy Commons project, which will convert the Chevy in the Hole property south of the river into a mixed use natural park, wetland and recreation area. Construction of the Chevy Commons project begins this spring.

“The futures of Kettering University and the city of Flint are linked,” McMahan said. “We thought it critical that our Campus Master Plan support and complement ongoing projects to revitalize Flint. We have an important role to play in the rebirth of this great city.”
Mike Riggs ’76 is so grateful for his educational experiences at Kettering University that he wants to propagate those onto others by giving back generously to the campus and its programs. Generously and spontaneously.

Mike Riggs ’76 is so grateful for his educational experiences at Kettering University that he wants to propagate those onto others by giving back generously to the campus and its programs. Generously and spontaneously.

At a ‘Bulldog Insights’ lecture sponsored by the Student Alumni Council on August 8, 2014, Riggs surprised the students in attendance by spontaneously giving each of them a $1,000 scholarship. The impromptu $60,000 donation directly to students is just one of Riggs’ many contributions to Kettering University.

“Mike has had a very successful career in industry and as an entrepreneur – and that career stands as a wonderful testament to the doors that a Kettering education can open,” said Kettering University President Robert K. McMahan. “More importantly, Mike has now inspired the students – who now sit where he once did – to continue to pursue their dreams while striving to make a positive impact on the lives of others. We are grateful to have alumni like Mike and are deeply appreciative for all he has done to support Kettering University.”
His desire to give to the school stems from his own professional success rooted at Kettering. Riggs is the CEO and owner of Jack Cooper Holdings Corp. which is one of the largest car haul companies in North America. Jack Cooper Holdings Corp. now has more than 5,000 employees and the company hopes to exceed $1 billion in annual revenue by 2016.

In 2013, Riggs was named the Ernst and Young Entrepreneur of the Year for the Midwest region. Riggs also received last year’s Global Outstanding Achievement Award from Automotive Supply Chain Magazine, which is based in London.

Jack Cooper Holdings Corp. has also been named the General Motors Global Supplier of the Year two of the last three years. The company also received the 2014 Ford World Excellence Award.

“I think the experience at Kettering helped me understand both the work and practical side of education as well as the theoretical classroom side,” Riggs said.

Riggs graduated from Kettering with an Industrial Administration degree and completed his master’s in business administration at Harvard in 1979. The graduate degree began as a daunting task that very quickly became feasible based on his strong undergraduate background.

“When I went to Harvard Business School, I was scared to death,” Riggs said. “As a young kid, I thought all these geniuses were there but after a month, I felt that I was the veteran guy. I was the youngest guy in the class but I had more work experience than most of them.”

Riggs credits his time at Kettering for his preparedness at Harvard and is now creating opportunities for future students to receive the same rigorous and transformational educational experience. Riggs and his wife Theresa Riggs personally contributed $100,000 and Jack Cooper Holdings donated an additional $100,000 for the Riggs Student Enrichment Program. The program is made up of two components: 1) Riggs Scholars; and 2) Riggs Business Hub.

The Riggs Scholars program will offer five incoming freshman pursuing a degree in business at Kettering a $5,000 award annually for four consecutive years for a total of $100,000 in scholarship support. The recipients of the scholarships will also be offered co-op and mentoring opportunities with Jack Cooper Holdings.

The Riggs Business Hub is a proposed interactive learning environment that will anchor the business program and curriculum. The hub will be a uniquely designed and technically innovative space that will permit networking between students, faculty and visitors; professional development opportunities; and the opportunity to collaborate across fields with engineering students on campus.

The hub will make Riggs’ belief in the necessary fusion of engineering and business a physical reality. Based on his own experiences, Riggs’ believes that both engineering knowledge (systems, processes, operations etc) and business skills (leadership, marketing, accounting etc.) are necessary for entrepreneurial success.

“The two are so synergistic that it makes Kettering the most perfect college to get either someone going to the engineering field or the business world,” Riggs said.
At a glance, Donna Kostiuk Ray '79's life story tells itself like an impromptu journey filled with adventure, longing for a greater purpose and the pursuit of selfless service.

Ray grew up in Livonia, Michigan, the daughter of an automaker, and it was her family background that led her to General Motors Institute (now Kettering University) in the mid-1970s.

"My father worked for over 35 years at the Fisher Body-Fleetwood plant of General Motors. He said I should apply to GMI, so I did. He said I should go, so I did," Ray said.

Ray graduated from Kettering in 1979 with a degree in Industrial Administration. She completed her co-op at Fisher Body-Fleetwood (a Cadillac body assembly plant in Detroit) and returned to work there after graduation. Shortly after starting her career, Ray received a General Motors Fellowship to complete her master’s in business administration at the University of Chicago (now Chicago Booth).

Ray worked at Fisher Body’s Tech Center in Warren until 1984, at which point she left to work as a quality manager at a tennis ball manufacturer in Phoenix, Arizona, and then at Oregon Steel Mills from 1984 to 1991, where she met her husband and fell in love with him and the area.

In 1991, Ray and her husband experienced a once in a lifetime shift in their fortunes — Oregon Steel Mills went public, which led both Ray and her husband to an early retirement. However, it was in their retirement when the focus of their lives shifted.

Ray and her family moved to Alaska in 1994 after falling in love with the landscape during a wedding in the northern most State.

During their time there, they continued to grow in their faith which prompted a calling to Costa Rica in 1999 where they helped build and grow two churches. They returned the States in 2002 and in August 2005, Hurricane Katrina ravaged the shores of New Orleans, Louisiana and the Rays responded by packing up and driving an RV just outside of New Orleans. Ray and her husband were there for a year-and-a-half assisting in the recovery and rebuilding process.

"It’s a very eerie feeling when you walk into a house and the entire ground level is filled with black mold ... and when you go into the attic, you can tell that people were living there, waiting to be rescued."

Ray said. "It’s easy to understand why so many people never returned."

After a two year post-Katrina stint in Florida, in 2008, Ray’s husband received an offer to pastor a Church in the northernmost municipality in the United States – Barrow, Alaska.

“It’s outrageously cold and windy and the sun goes down for over 60 days in the winter," Ray said. “It’s a barren place.”

In February 2009, the Arctic Slope Native Association offered Ray an opportunity to work in their finance department. The job marked her first paid employment since 1991. Ray worked in Barrow until 2012 after which she received an opportunity to be the Chief Financial Officer at Kawerak Inc. in Nome, Alaska.

“I was really sad when we left Barrow,” Ray said. “I loved the company I worked for. I loved the Inupiaq people. I loved the people in the Church. God had given me a heart to serve them.”

Kawerak is an organization that provides education, transportation, natural resource management and economic development services within the Bering Strait Region.

“I certainly don’t see it as amazing,” said Ray about her journey to her current position in Nome. “I have friends who have put their 30 years in and are retired, but I don’t have any regrets whatsoever. My husband and I have seen a lot of places, done a lot of things, made a lot of friends and have grown together as one. Can’t beat that.”
The Kettering University Alumni Association honored seven alumni for successes in business, community service, philanthropy and other endeavors during the 2014 Alumni Awards Dinner and Ceremony on Oct. 9.

This year’s recipients were:

- “I couldn’t ask for a better group of well-educated and prepared individuals to be connected to. I’m humbled to be a part of the Kettering/GMI legacy.” – Distinguished Alumnus - Troy Clarke ’78, CEO of Navistar

- “My engineering education taught me to think logically. Especially my work at GMI, it taught me to work with others.” – Outstanding Achievement Award - Ed Orlett ’61, retired state representative from the Ohio House of Representatives

- “My experience at Kettering in the classroom and in my co-op positions instilled discipline in me and taught me how to learn and how to lead.” – Engineering Achievement Award - Scott Kirchner ’92, vice president - engineering and CTO of Panasonic Automotive Systems

- “Be bold, stretch yourself, go with your heart and do the tough thing.” – Alumni Service Award - John Mahoney ’55, retired general partner for RLM Engineering Company

- “What you get at Kettering are individuals who are extremely hungry to advance in life and make a change in the world and those are the individuals that seek out what Kettering can offer.” – Entrepreneurial Achievement Award - Leonardo Rocco ’99, founder and former CEO of GoPago

- “Kettering played an important role in helping me grow into the person and leader I am today.” – Civic Achievement Award - Carol (VanDeVoort) Goodman ’79, community volunteer in Baltimore, Maryland

- “Keep your options open to learn more, discover more. You never know when something will open up to you.” – Young Alumni Award - Jon Kowalski ‘06, Ph.D.

Find links to profiles all of this year’s recipients here: www.kettering.edu/news/seven-graduates-be-honored-during-annual-alumni-awards-ceremony
Strong ties – through a legacy family as well as his own personal experiences – drew Steven Bandurski ’10 back to Kettering University.

Bandurski was named Kettering’s new Alumni Engagement Director in November of 2014, and sees his new role as an opportunity to give back.

“This University has done so much for me on a professional level, having the opportunity to come back and help with the growth of the school is truly an honor,” he said. “I am very proud to have joined the University Advancement team and look forward to working with all of our successful alumni.”

Bandurski, who has a BS in Mechanical Engineering, had previously worked for Biohorizons as a Dental Implant Product Specialist. His family has a long history with the University. Alumni from his family include grandfather Vince Bandurski ’64, father Gary Bandurski ’85, brother Tyler Bandurski ’13, aunt Karilyn Perry (Bandurski) ’83, uncle Michael Perry ’83, aunt Anne Britt (Bandurski) ’87 and uncle Thomas Britt ’86.

“We were impressed with Steve’s passion for Kettering, and his ability to articulate the value of his degree,” Davies said. “We believe he’ll be a valuable addition to our team as we continue to share the exciting growth of the University with our alumni.”

Bandurski, who grew up in Grand Blanc, Michigan, said that coming back to Kettering was an easy choice for him.

“Kettering gave me not only the experience, but more importantly, the confidence to go out and become successful,” Bandurski said. “I remember being in the hospital operating room, guiding orthopedic surgeons through total joint reconstructions three months after graduating.”

Bandurski can be reached at sbandurski@kettering.edu or (810) 762-9517.

### Upcoming Events

**APRIL**

7  ‘What is an Engineer?’ event for high school students, Grand Rapids, Michigan

17-18  Kettering on the Move: Miami, Ritz Carlton, (see details on page 18)

21  SAE Alumni Reception, Detroit Athletic Club

**MAY**

15-17  Kettering University Homecoming, Flint, Michigan

**JUNE**

13  Major Sobey Alumni and Student Golf Outing, The Preserve, Fenton, Michigan

20  Kettering University Commencement, Connie and Jim John Recreation Center, Flint, Michigan

Contact Laura Difilippo at ldifilip@kettering.edu or (810) 762-9883 for information about these events.
As time progressed the importance of retaining our student deferment status (2S) became apparent. As the draft call increased dramatically from 1967 through 1970, many of us engineers were forced to make a decision for our futures. Some local boards granted critical skills deferments, married men with a families were deferred, and the State of Ohio deferred all engineers who requested it. Some of us transferred to defense jobs or quit GM for defense jobs.

Coincidentally GMI’s physician until 1966, Dr. Robert Anderson, was in charge of the Detroit Induction Center medical exams at Fort Wayne where most of us received our physical exams and were sworn in. I chatted with him briefly. He has always supported community health programs for Genesee County, and during the 1970s he became the Physician for the University of Michigan Football Team and worked for Washenaw County. The draft lottery program was implemented in December 1969 for the 1970 call-up.

These were turbulent times: The riot in Detroit in July 1967 resulted in Federal Troops being flown in from Ft. Riley, Kansas. Curfews were put in place in the Detroit and Flint areas. No liquor could be sold in four counties, and most businesses closed at night. Our graduation ceremony at the IMA Auditorium was pulled ahead four hours, and armed guards with rifles were posted at the entrance. The speakers were quick to finish. Flint was considered a “powder keg” waiting to explode.

Many of us GMI grads found ourselves in the various branches of the service with leadership and technical responsibilities, and some became pilots and navigators. Some draftees were assigned army engineering development jobs but some went into combat in Vietnam. GMI prepared us well to serve our country. Our real world co-op experience and excellent engineering education allowed us to take on new jobs and challenges. We had already learned how to survive. Indeed it was the best of times and the worst of times.
DEAN BELL: U.S. Air Force/Captain; 320 Bomb Wing (B-52G), Strategic Air Command (SAC); Avionics, AGM28 Air-Launched Hound Dog (nuclear) missile maintenance supervisor. The 320 AMMS Squadron earned the Air Force Outstanding Unit Award in 1971, for best missile reliability in SAC. Mather AFB, Sacramento, Calif., 1968–72.


FORD COTTON: U.S. Army/SGT/ E-5; Army Electronics Command Laboratories, Ft. Monmouth, N.J. Project Electrical; Engineer for the development of the AN/PSN-4, man carried LORAN-C receiver (LOng RAnge Navigation), the first application of microchips. He conducted extensive field testing of this device in various regions of the U.S. LORAN was replaced by GPS in recent years. Ford met his wife, Vickie, a civilian employee at Ft. Monmouth, where they married in 1971.


TOM DOLL: U.S. Army; Fort Campbell, Ky., Basic Training 1969.


JOHN NOVAK (DTD): U.S. Navy/Lieutenant (O-3); San Diego Calif., 1969-72; two deployments in Western Pacific including Vietnam, R.P.I., and Japan aboard the USS Jason (AR-B) repair ship as Damage Control Officer and Main Propulsion Assistant.


STEVE TOTH: U.S. Army/Spec. 5; 9th Infantry Div.-Combat Engineer – Mekong Delta Vietnam 1968–69; Combat Wounded Veteran; Awarded Bronze Star, Purple Heart, and Army Commendation Medal with two Oak Leaf Clusters (awarded three times); Presidential Unit Citation awarded to his organization; Medals awarded by the Republic of Vietnam (RVN) include: RVN Armed Forces Honor Medal First Class and RVN Cross of Gallantry.
RALPH R. MCCOY passed away on July 29, 2013. He is survived by his wife of 55 years, Donna McCoy; two daughters; six grandchildren; 10 great-grandchildren; a brother; a sister; and several nieces and nephews. He worked as an engineer for General Motors and the Ormet Corporation and as a plant manager for Ernie Green Industries. He was a 46-year Mason, member of the Dayton Antioch Shrine and the Ancient Accepted Scottish Right, Valley of Dayton. He enjoyed travel and watching sports, and was an avid golfer.

MICHAEL J. TAHY, president of Michael J. Tahy and Associates, is hoping to locate a copy of the book, The Good Old Days at the Buick, by Lynn Ruester. The book was published in 1990. Anyone who has a copy and would be willing to share it can contact Michael Tahy at (248) 652-1044.

JOHN MAHONEY passes on this note: “May 15-17, 2015, will be the 60th reunion for the Class of 1955. It doesn’t seem that long, but as they say, do the math. I received a lot of interest from fellow classmates and we hope to plan something fun and meaningful for this great opportunity to reunite the class. Let me know your interest in attending and any ideas for making it a memorable occasion. Perhaps we can set an attendance record. Best wishes to you all, John Mahoney, class of ’55 secretary, email - johnm3430@comcast.net; phone – (248) 214-5061; address – 3430 Devon Rd., Unit B, Royal Oak, MI, 48073.”

GRETCHE N W I L T S E ’: U.S. Air Force/Colonel; Commander of the 512th Mission Support Command Unit, located at Dover Air Force Base, Delaware; the senior officer responsible for the 800-person organization which supports the Air Mobility Command’s worldwide airlift mission operating C-5 and C-17 cargo aircraft. She graduated from the U. S. Air Force Academy in May 1989. Prior to her current position, she held various aircraft maintenance positions and commanded the Field Training Detachment at McChord AFB, which was recognized as the best FTD in the Air Force. Overseas assignments included Lajes Field, Azores, and Aviano Air Base, Italy. At Dover, she was selected to command Dover’s first C-17 reserve aircraft maintenance squadron. Daughter of Kris and Bob Wiltse GMI 1967 (ATO).

WALT ZYCH: U.S. Army/Spec .5; 3/82nd Artillery supporting 196th Lt. Infantry Division Americal–Viet Nam 1969–70. As a jump battery forward observer operated fire director computer for 105mm cannons; served in combat areas of Queh Son and Hiep Duc Valleys including the city of Tam Ky between Chu-Lai (Americal HQ) and Da Nang. His organization, A battery, 3/82 Artillery, received two Presidential Unit Citations in 1970 and he was personally awarded the Vietnam Service Medal, Republic of Vietnam Campaign Medal, Army Commendation Medal, two Overseas Service Bars, and numerous awards for fire accuracy and timing.
1958
DAVID MERRION was elected a Fellow in the American Society of Mechanical Engineers, ASME, in 2014, with the following citation: “Mr. Merrion has been involved with diesel engineering for 60 years and has distinguished himself as an engine designer, exhaust emission expert, engineering manager, company executive, emissions compliance auditor, consultant and member of Board of Directors. Accomplishments include designing five new diesel engines, discovering the cause of hydrocarbons and odor in diesel exhaust, leading the engineering department of a major diesel engine and transmission manufacturer, being a member of the team to take a company public, serving as compliance auditor reporting to EPA and consultant to several companies and the National Academy of Science.”

1961
Three graduates – HERB ADAMS ’61, JOE BRADY ’69 AND JEFF YOUNG ’70 – were featured in a recently published book called Blood, Sweat & Gears: The Story of the Gray Ghost and the Junkyard Firebird by David Barnes. The paperback and eBook versions just went on sale on Amazon, Barnes & Noble, iTunes, Kobo, etc. The publisher is Telemachus Press. The book is historical fiction - based on a true story - about a group of independent engineers led by Adams at GM’s Pontiac Division who designed and built a racecar from an old 1964 sedan and seriously competed with it in the 1971 professional Trans-Am circuit. They did this on their own time and money. In 1972 they did it again starting with a wrecked Firebird and surprised a lot of people at the Mid-Ohio Sports Car Course.

1972
TOM LOCKWOOD retired from General Motors after 47 years. He is now working at Isuzu Manufacturing Services of America in Plymouth, Michigan, as a Project Engineer.

After retiring, GRAHAM SMITH and his wife moved to Gibraltar, a British territory on the southern tip of the Iberian Peninsula, probably best known as the Rock of Gibraltar. It is the only place in Europe where there are free-roaming monkeys. Smith was a GMOO co-opted to AC Spark Plug. His home plant was AC Delco in Dunstable, England.

KARL KRAPEK of Avon, Connecticut, has been selected by the North-American Interfraternity Conference Foundation as this year's recipient of the Outstanding Foundation Volunteer Award.

1979
LOREN C. REX, an independent financial advisor with Generations Financial Planning and Wealth Management, was named to Cambridge Signature Club 2014 by his independent broker-dealer, Cambridge Investment Research, Inc. Cambridge is among the largest privately controlled independent broker-dealers in the U.S. This honor recognizes a financial advisor’s success based on production, client service and commitment to values.

MIKE RICHARDSON is now Executive Board Director and SVP Global Strategy for Nexteer Automotive. Richardson led the roadshow team to both list Nexteer on the Hong Kong Stock Exchange & issue a corporate bond in 2014.

1980
CAROL BEATTY graduated with a Juris Doctorate degree from the University of Tulsa in May. She passed the law bar exam at the end of July and was sworn in as a lawyer on September 24. She now works full time for Legal Aid Services of Oklahoma doing exactly the type of work she hoped to do: providing legal assistance to people with disabilities, the elderly and other Oklahomans with low income. Carol and her husband TOM WITTE, who is also a 1980 graduate of Kettering, celebrated their 33rd wedding anniversary in September.

1982
JOHN CACHAT has left manufacturing and is now working in healthcare. One of his companies, Directed Medical Systems, was recently acquired by COMS Interactive. Cachat’s current focus is improving end-of-life care with advance care planning and advance directives.

1986
GARROLD DEGRACE received a promotion to technical fellow in September 2013, leading the Manufacturing Process Analysis Group in General Motors Powertrain in Pontiac, Michigan. He’s received numerous GM Intellectual Property Awards, including patents in the usage of advanced structural analysis tools in the simulation of powertrain manufacturing processes.

1987
DANIEL NICHOLSON was promoted to vice president, global powertrain at General Motors on November 20, 2014.
1998
SCOTT RICHARDSON joined Halliburton Energy Services, Inc. as Counsel in Carrollton, Texas.

1999
DR. CLEAMON MOORER was named Dean of the School of Business at Madonna University. He was also featured in Crain’s Detroit Business’s 2014 ‘30 in their 30s’ edition.

2000
MICHAEL VARVEL was promoted to Vice President - Operations for Sodexo in June 2014.

2002
SHANNON D. PETERS joined Husch Blackwell’s Product Liability group. He received his J.D., cum laude, from the University of Illinois College of Law (2014), where he was president of the Intellectual Property Legal Society, a student member of the American Bar Association and member of the Black Law Student Association. Prior to law school, Peters spent more than 10 years in the automotive industry working for industry leaders including Moog Automotive, Electronic Data Systems, Saturn Corporation, General Motors and Nissan Extended Services North America. An entrepreneur, Peters also owned and operated Music City Customs LLC, an automotive aftermarket accessories company.

2003
RYAN and COURTNEY GARN are proud to announce the birth of their son, Henry William, on July 28, 2014. He weighed 9 pounds, 13 ounces and was 22.25 inches long. Henry was welcomed home by older siblings Grace, George and Lucy.

2006
BRYAN ’06 and CHRISTINA KNOWLES ’07 welcomed their second child, daughter Aubrielle Grace, on March 21, 2014.

COREY M. BEAUBIEN co-authored an article titled “Patent Eligibility and Medical Diagnostic and Treatment Methods—Principles to Apply,” published in BNA’s Patent, Trademark & Copyright Journal in September 2014. He is a shareholder at the intellectual property law firm Reising Ethington P.C.

2007
ADAM RIEGLE is now a manager with Prism Healthcare Partners.

2010
DEREK B. LAVENDER has joined Taft Stettinius & Hollister LLP’s Indianapolis office as an associate. Lavender is an associate in Taft’s Intellectual Property group and focuses his practice on patent prosecution. Lavender received his B.S. in Mechanical Engineering. He earned his J.D. with an IP Certificate from Indiana University Robert H. McKinney School of Law in 2014. While in law school, Lavender worked for Taft’s Intellectual Property group and gained experience in patent prosecution through an externship with the Naval Surface Warfare Center.

2012
ELIZABETH (CASCI) BIER is currently in her second year of medical school at Ohio University.

ENGAGEMENTS/WEDDINGS:
Lee Hutchinson ’09 and Patricia Mays ’09
Kenneth Krasowski Jr. ’05 and Nicole R. Childers

IN MEMORIAM:
Charles A. Beeley ’67
Jonathan M. Dascher ’08
Donald S. Demo ’57
Ronald B. Embrey ’67
Robert E. Gustaveson ’56
Raymond J. Haefner ’49
Jerry C. Harman ’56
Raymond G. Ingalsbe ’51
Ralph R. McCoy ’52
James B. McGregor ’47
Lawrence M. Means ’57
Donald E. "Mike" Mikesell ’59
Dr. Dane Miller ’69
Glen R. Ohi ’57
Darwin J. Ripperda ’54
Stephen T. Root ’12
Vincent P. Sardone ’76
Charles F. Sirl II ’54
Clarence Uel Snyder ’55
Gordon A. White ’54
Richard D. Whitney ’50
KEEP THEM MAJORING IN EXPERIENCE

... So that they can change the lives of others.

“I’ll be working with Beaumont Hospitals my first year of college; that isn’t something your typical college student would ever get to experience! Kettering is a unique school, and I know I made the correct choice in attending here. The Keep Me Kettering scholarship helped scale down my overall costs, and, for that, I am immensely grateful.”

– Zach Brozowski, Kettering University student and Keep Me Kettering scholarship recipient

Kettering University prepares students for lives of extraordinary leadership and service by linking transformative experiential learning to rigorous academic programs in STEM (Science, Technology, Engineering and Mathematics) and Business. Scholarships are absolutely critical in bringing the brightest minds like Zach to experience Kettering and in keeping them here.

Your support of the Keep Me Kettering Scholarship Fund will immediately help incoming and returning students who might not otherwise be able to attend. Last year, alumni provided $222,746 through Keep Me Kettering Scholarships, yet the need is greater than ever before. This past academic year, 88 percent of Kettering students received some form of financial aid or scholarship support.

To read more about the impact of Keep Me Kettering and add your support, visit kettering.edu/keepmekettering. If you wish to learn more about establishing an endowed scholarship fund in your or your family’s name, please contact the University Advancement Office. The University is equipped to receive appreciated stock or securities, as well as work with donors who wish to provide a charitable bequest in their will or trust for Kettering or to establish a plan to produce income for retirement.

University Advancement, (810) 762-9863, www.kettering.edu/give

keepmekettering