MOBILITY NOW
MSU BUILDING A FUTURE WITH APPLIED RESEARCH
MSU’s NEXT PRESIDENT

The Michigan State University Board of Trustees, along with a diverse 18-member search committee, have selected Samuel L. Stanley Jr., M.D. by unanimous vote as the university’s 21st president. Stanley, who has been the president of Stony Brook University since July 2009, will begin his tenure Aug. 1, 2019.

Last August, the trustees appointed an 18-member search committee, co-chaired by MSU Board of Trustees Chairperson Diane Byrum and Melanie Foster, MSU trustee. As part of a national search, the committee solicited input through 22 campus-wide input sessions and an online submission form where community members shared their ideas on the characteristics they desire for Michigan State’s next president. The committee used those comments as the basis for the Presidential Prospectus and the criteria by which the committee evaluated each candidate.

“MSU is one of the world’s leading research universities, and I am grateful to the Board of Trustees and the Presidential Search Committee that so ably represented the entire MSU community for giving me the opportunity to serve this great institution,” Stanley said. “MSU’s core strength is its amazing students, superb faculty, dedicated staff and proud alumni, and I cannot wait to get to campus to meet with you and learn from you. I know the Spartan community has been profoundly troubled by the events of the past years that have shaken confidence in the institution. We will meet these challenges together, and we will build on the important work that has already been done to create a campus culture of diversity, inclusion, equity, accountability and safety that supports all of our endeavors. I am so excited about MSU’s legacy as the pioneer land-grant university, its remarkable progress over this decade and its amazing potential for the future. I believe our best days are ahead, and I appreciate the chance to be a part of this extraordinary journey.”

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- SAMUEL L. STANLEY JR., M.D.
MSU PRESIDENT-DESIGNEE

President-designee Stanley has been the president of Stony Brook University since 2009 and has nearly 15 years of higher education leadership experience. After earning his medical degree from Harvard Medical School, he completed his residency-training at Massachusetts General Hospital. He then went to Washington University in St. Louis for a fellowship in infectious diseases, eventually becoming a professor in the Departments of Medicine and Molecular Microbiology and one of the nation’s highest recipients of NIH funding. He was appointed Vice Chancellor for Research at Washington University in 2006, serving in that position until he was appointed president at Stony Brook.

Dr. Stanley is a member of the Board of Directors of the Association of American Universities and the Association of Public and Land-Grant Universities and recently completed terms on the NCAA Board of Directors and NCAA Board of Governors. He served for seven years as chair of the National Science Advisory Board for Biosecurity, which advises the United States government on issues related to the communication, dissemination and performance of sensitive biological research.

In addition to his extensive background in science and research, Dr. Stanley championed student achievement, access to higher education and advocating for more state and national funding for financial aid at Stony Brook. He also has been an international advocate for gender equity and ending sexual violence in his role as one of two U.S. university Impact Champions for the HeForShe UN Global Solidarity Movement for Gender Equality.

Dr. Stanley is married to Ellen Li, M.D., Ph.D., a distinguished biomedical researcher, and they have four adult children.

THE FUTURE OF MOBILITY

MSU LEADS IN APPLICATION OF SENSOR, SOCIAL AND SAFETY RESEARCH

BY DEVON BARRETT

Driving a car can be an experience in informational and sensory overload. Drivers are distracted, stressed, and more obsessed with multitasking than ever before, making every moment behind the wheel an opportunity for human error.

So, what happens if we take humans out of the equation and let the cars do the driving instead?

Welcome to the world of mobility, where researchers at Michigan State University are asking that question in ways that capitalize on the strengths of the university’s research enterprise, namely the in-depth analysis and synthesis of information about human behavior. Multiple streams of information helps to reduce the risk of human error.

Driving a vehicle requires cognition, perception, decision making and reaction time, all of which can be heightened by distraction, stress, or fatigue. Researchers at Michigan State University are asking that question in ways that capitalize on the strengths of their research enterprise, namely the in-depth analysis and synthesis of information about human behavior. Multiple streams of information helps to reduce the risk of human error.

Taking sensor technology to school

Autonomous vehicles cannot be expected to do everything we need them to do right away. But they can be taught, and that’s where sensors—such as camera, radar, lidar, and multispectral cameras—come into play. Sensors translate the world into useful information for the cars to use.

“Some of the challenges with these sensors is that they each have weaknesses, particular conditions in which they don’t work as well. So you have to be able to correlate data from multiple sensors,” says John Verbica. Verbica is an associate dean for research and graduate studies, and a faculty member in the College of Engineering. He oversees CANVAS, and acts as an evangelist, a motivator, and a coordinator of mobility efforts at MSU.

He explains further, “Think of it like having two or three different viewpoints of the same scene, and from each of those viewpoints, you see a different perspective that you couldn’t see from the other position. Data from each sensor serves as a backup and augmentation for the other sensors, and combining multiple streams of information adds more detail.

“For example, multiple visual perspectives can provide depth perception, such as human stereoscopic vision. Multiple spectral components let us see details that one spectral component alone may not reveal, such as tests revealing information in low-contrast visible light, or infrared providing information about temperature. And the visible camera image is washed out by direct sunlight.”

CANVAS researchers are working on ways to automate that sensor’s ability to fuse all that information together into one very detailed, real-time picture of its surroundings. Perhaps the sensors will pick up on a stray d Raders that have made the perimeter wet, a deep pothole a few meters ahead and a set of orange barrels blocking off a curb repair project in the opposite lane. The sensors will also see the cyclist in the adjacent bike lane, a maintenance worker slowly driving a mower through the crosswalk and a student on a skateboard rolling down the sidewalk nearby.

Then, researchers will teach the sedan to classify these objects and conditions, and make informed decisions about how to proceed.

“Imagine a sedan, outfitted with a variety of sensors, including radar, lidar, and multispectral cameras, as well as a powerful Graphics Processing Unit based computer. It’s a lot of technology that works together to form a perception, such as human stereoscopic vision. Multiple spectral components let us see details that one spectral component alone may not reveal, such as tests revealing information in low-contrast visible light, or infrared providing information about temperature. And the visible camera image is washed out by direct sunlight.”

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more left to give the cyclist space, go slow over the pothole, allow

"This is more than just our research. This is about MSU providing

Putting it all together—to solve a real problem, today

MSU researchers are using this specialized

Nicolas Lapointe, associate professor of civil and environmental

RESEARCH

MATTERS

"Today on the internet, some of the biggest issues aren’t in the

"Our engineers want to say, ‘Here’s the technology,’ and we want to

Once the vehicles reach a certain level

"This is about MSU providing a service to the public. We need to be

"Our engineers want to say, ‘Here’s the technology,’ and we want to

"Right now, we think we can be the center of the universe for

Putting it all together—to solve a real problem, today

"Our engineers want to say, ‘Here’s the technology,’ and we want to

"I need to get from point A to point B. What is the best way to do

Nicolas Lapointe, associate professor of civil and environmental

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Beckman Young Investigator Award supports MSU Biochemist Michaela TerAvest

Michaela TerAvest, Michigan State University assistant professor of biochemistry, was recently awarded the Beckman Young Investigator Award by the Arnold and Mabel Beckman Foundation. The award program provides research support to the most promising young faculty members in the early stages of their academic careers in the chemical and life sciences, particularly to foster the invention of methods, instruments and materials that will open new avenues of research in science.

TerAvest joined the MSU Department of Biochemistry and Molecular Biology in 2015 after completing a position as research associate at the University of California, Berkeley. She received both her master’s and doctoral degrees in biological and environmental engineering at Cornell University.

“For the TerAvest Lab, this award represents a special opportunity to pursue a high-risk, high-reward project,” TerAvest said. “With this funding, my lab will develop microbial electrochemical technology to simultaneously capture carbon dioxide, store renewable energy and produce valuable chemicals.”

TerAvest’s research involves better understanding bacterial respiratory processes and their impact on engineered metabolic pathways for sustainable biotechnology. Her BTI project will tackle the reduction of greenhouse gas emissions and excess electricity storage by engineering a bacterium to use electricity as an energy source to produce fuels.

“I believe this technology has the potential to reduce global climate change, which is my highest professional goal,” TerAvest said. “I am deeply grateful for the Arnold and Mabel Beckman Foundation for helping me work toward that goal. Personally, I am inspired by Dr. Beckman and Mabel’s philanthropy and honored to receive an award from their foundation. I hope to follow in their footsteps and use the products of my scientific work to give back to my community.”

“Michaela TerAvest is to be congratulated for being the recipient of this very prestigious award, which recognizes the innovative and high caliber research conducted in her laboratory,” said Erich Gutermuth, RMB chair. “Her project is ambitious and has the potential to be a game-changer for how excess electricity is stored and utilized.”

Since 1990, the Beckman Young Investigator program has given 360 awards totaling more than $38 million. The program provides research support to the most promising young faculty members in the early stages of their academic careers in the chemical and life sciences, particularly to foster the invention of methods, instruments and materials that will open new avenues of research in science.

Next Generation Nutrition supports at-risk pregnant women in Uganda

Researchers in MSU’s Department of Food Science and Human Nutrition will develop and test a system to deliver vital nutrients to at-risk pregnant women in Uganda, thanks to support from the Bill & Melinda Gates Foundation. The Next Generation Nutrition in Uganda project is spearheaded by Dr. Lorraine Weatherupsoon, with co-principal investigators Dr. Muhammad Siddiq and Dr. José Jackson-Malete. Their work will evaluate the effectiveness and appeal of a nutrient-enriched, bean-based instant sauce product for Ugandan pregnant women who are at risk for complications including microcytic anemia, low birth weight and neural tube defects.

Weatherupsoon is professor and director of the Didactic Program in Dietetics in the College of Agriculture and Natural Resources Department of Food Science and Human Nutrition. A native of Durban, South Africa, she is internationally regarded as a leading expert in community-based nutrition and related research. Dr. Siddiq is a research associate professor, also in the Department of Food Science and Human Nutrition. Dr. Jackson-Malete is the co-director of the Alliance of African Partnership at MSU.

Several years ago, Weatherupsoon was a co-principal investigator on a project focusing on the nutritional health of children with HIV in Botswana and Tanzania. Her work involved developing bean-based products to improve child nutrition, and ultimately led to the Next Generation Nutrition in Uganda project. The Bill & Melinda Gates Foundation, which focuses on poor health in developing countries, awarded the first phase of the project a $100,000 grant through the foundation’s Grand Challenges Explorations initiative, with the potential for a five-year, $1 million grant for phase two if successful.

Dr. Weatherupsoon notes that most of the current international efforts to combat nutrition issues are focused on children.

Weatherupsoon and her team are trying a food-based approach. The product also must be commercially viable, easy to store, convenient to use and culturally acceptable. Knowing that beans are popular in most African countries, as well as locally available and nutritious, the team chose beans to formulate the product.

The final result is a composite of beans that are thermally processed, dried, mixed and mixed with roasted and milled silver fish and a mix of iron, folate and vitamin A. The product will then be packaged in an edible film pouch that dissolves and releases the contents when exposed to hot water, which can be made into a tasty sauce.

However, a lack of iron and folate during pregnancy can have severe ramifications such as placental and fetal anemia, low birthweight, prematurity, birth and perinatal maternal and child mortality. So the Next Generation Nutrition in Uganda project aims to prevent common nutritional issues from the start, focusing on pregnant women and the critical periods from conception through delivery of their babies.

Since adherence to pills has not proven to be effective in developing countries, Weatherupsoon and her team are trying a food-based approach. The product also must be commercially viable, easy to store, convenient to use and culturally acceptable. Knowing that beans are popular in most African countries, as well as locally available and nutritious, the team chose beans to formulate the product.

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Weatherupsoon and her team already are in the initial stages of product formulation.

(Above): Two undergraduate students from Rwanda, Dr. Josue Mulema, Dr. Sharon Hooper, Dr. Muhammad Siddiq and Dr. Lorraine Weatherupsoon as they taste-tested the fortified bean product.

Dr. Weatherspoon notes that most of the current international efforts to combat nutrition issues are focused on children.
Forbes CMO Symposium brings C-suite executives to campus

Chief marketing officers from across the country shared advice on growth, disruption and innovation in a changing world during the Forbes CMO Alumni Symposium held November 2, 2018 at Michigan State University.

Nine chief marketing officers—all MSU alumni from the Eli Broad College of Business and the College of Communication Arts and Sciences—shared insights from their decades of industry experience in building brands through customer engagement, powering marketing strategies through technology and data, and achieving competitive advantage through superior value creation.

“The industry is changing so dramatically, and now, more than ever, marketing practitioners need to connect with academia, and vice versa, so everyone can benefit, and we can develop and nurture the next generation of marketing leaders,” said Jennifer Rooney, Editor, CMO Network, Forbes, who has been helping connect CMO’s across the country with their alma maters for almost six years.

Douglas E. Hughes, chairperson of the Department of Marketing and the United Shore Faculty Fellow in Sales Leadership at the Broad College said: “This event, and MSU’s partnership with Forbes, represents our institutional mission which is to disseminate knowledge through collaborative relationships while developing transformational leaders who make business happen.”

The featured presenters included:

• Andrea Brimmer, Chief Marketing and Public Relations Officer, Ally Financial
• John Costello, Chief Executive Officer, Bottom Line Branding
• Tom Dobry, Senior Vice President and Chief Marketing Officer, Lithia Motors
• Chris Fredrickson, President and Founder, Traverse City Whiskey Co.
• Casey Hughes, Chief Marketing Officer, Quickie Loans
• Elizabeth Ross, President and Chief Executive Officer, Periscope
• Andy Rayston, Global Chief Marketing Officer, Kerry Group
• Jay Spaulding, Senior Vice President, Marketing, U.S. Cellular
• Tamara Steffens, GM, Business Development for Microsoft
• Jim Tishbiokick, Chief Concentrate and International Officer, Keurig Dr. Pepper

The event attracted nearly 400 students, as well as faculty and members of the Mid-Michigan business community, who were joined by Forbes editors, and deans and department chairs in the Eli Broad College of Business and the College of Communication Arts and Sciences.

Andrea Brimmer, Chief Marketing and Public Relations Officer, Ally Financial, received her B.A. in Advertising from the College of Communication Arts and Sciences and was the key driver to bring the Forbes CMO Symposium to MSU.

“I think about my tenure at Michigan State University, and when I was here, I did not imagine myself as the CMO of a Fortune 500 company someday. But I believe I am proof that if you really hustle, there are endless opportunities in this industry for your career,” she said.

Throughout the symposium, business executives reflected on a wide range of topics including data analysis, disruption in established markets and pointers for building about innovation. Panel discussions covered broad trends, ranging from the prevalence of social media marketing and ad retargeting to the renewed focus on reaching consumers on an emotional level. The presentations and panel discussions also were packed with advice for undergraduate students.

“Putting your head down and working hard is the key to success,” said John Costello, CEO of Bottom Line Branding. Costello earned his M.B.A. from the Broad College of Business in 1970. He shared his view with the students in attendance on the importance of building a personal brand and rising above the competition. “The strategies and principles of building business brands are actually pretty similar to the strategies in building your own personal brand.”

He said one of his key strategies is to “differentiate or disappear,” a goal that he believes both individuals and companies should strive to attain.

The day provided multiple forums for CMO alumni to share their stories, interact with faculty and inspire students.

“I think the things you will remember most,” said Dean Prabu David, College of Communication Arts and Sciences, “are the creativity, the surprise and the humor from the campaigns today. This human element will remain a key component of consumer interaction for years to come, and all of you will have the opportunity to be a part of it.”

For students and others in attendance, the CMO Alumni Symposium fostered many memorable moments, according to Melissa Priebe, a Communication Arts and Sciences student, who wrote of her appreciation for “actionable insights into business leadership, inspiring the next generation of C-Suite executives.”
Foundations helping Education Policy Innovation Collaborative to provide evidence-based learning approaches in Michigan Schools

Michigan State University researchers will help develop a new student-centered approach to learning with nearly $1.5 million in private grant funding from the William and Flora Hewlett Foundation.

Seven Michigan school districts are piloting competency-based education, or CBE, programs, which give students individualized support and opportunities to advance based on their own levels of mastery. Michigan’s Department of Education is partnering with the Education Policy Innovation Collaborative, or EPIC, at MSU to study how those districts implement the concept.

“Initial funding in 2017 by a $1.9 million grant from the Laura and John Arnold Foundation, now Arnold Ventures, EPIC is a relatively young initiative, but that has not stopped many other philanthropic organizations from taking notice and supporting its work. Since 2017, researchers at EPIC have received more than $4 million in funding from foundations such as Arnold Ventures, the Smith Richardson Foundation, Bloomberg Philanthropies, and the Hewlett Foundation, in addition to $2.3 million in federal and state grants.”

Katherine Strunk, co-director of EPIC.

Growing research, growing support

Philanthropic support is essential to EPIC’s ability to be flexible, and tailor its work to the various issues faced by Michigan schools in real-time, in accordance with its research findings. A recent grant of $400,000 from the Smith Richardson Foundation will support these efforts. The Smith Richardson Foundation has a long history of contributing to public debates and addressing some of the country’s most serious public policy challenges, including those related to education. To particular, Smith Richardson has an interest in human capital development, and how to make schools more productive by increasing teacher quality and creating more effective curricula—two things EPIC is excelling at.

Chudgar to take a closer look at secondary education for marginalized populations in 2015. With a grant from the MacArthur Foundation, Chudgar’s initial research project focused on studying the access to and outcomes of secondary education in five countries. Chudgar saw the usefulness and effectiveness of secondary education research after its conclusion and was encouraged to further her research with help from the Lyle Spencer Research Award.

“Global youth aged 15-25 are a very crucial demographic for our planet going forward for a number of reasons,” said Chudgar. “From maintaining a good civic presence, to environmental awareness, economic growth and so forth. Young people are our leaders for change and reform, and an exploration of what it means to educate youth is still limited and in need of urgent attention”

Chudgar and her team will travel to three continents in the coming months to begin their research. They are looking forward to gaining insights on the relevancy of secondary education and returning with new insights from the perspectives of marginalized youth that have the potential to challenge and inform the current thinking and dialogue around secondary education.

Secondary education research for marginalized youth

Amita Chudgar, associate professor

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Promising young education for global youth is currently an incredibly popular topic in education discourse,” said Chudgar. “We have very little understanding of what youth secondary education experiences and aspirations truly are at the ground level, especially the youth that are marginalized in these low-income countries. It is difficult to determine what makes an education truly relevant to youth without understanding their experiences and aspirations.”

The current focus on secondary education in the educational community first inspired
Students graduate career-ready: Engineering and Science Success Academy expands with corporate support

Michigan State University and its three primary STEM colleges are making strides to support and retain underrepresented student populations to ensure they leave MSU career-ready. The Engineering and Science Success Academy (ESSA) is a program offered to incoming freshmen who come from at-risk backgrounds and want to pursue degrees in the colleges of Agriculture and Natural Resources, Engineering or Natural Science.

To strengthen ESSA and the opportunities offered to participating students, Marathon Petroleum Corporation recently renewed its support of the program with a commitment of $150,000 over the next three years. Marathon Petroleum’s philanthropic vision is centered on strengthening communities. The company has a strong commitment to education, and particularly to ensuring those from socially or economically disadvantaged backgrounds have opportunities to succeed. The company has supported the ESSA program at the same level for the past three years.

“We have long recognized that employees from a wide variety of backgrounds make us a much stronger company,” said Buffy Day, Marathon Petroleum’s Vice President of Talent Development and Organizational Capability, whose responsibilities include the company’s recruiting activities. “When we hire skilled college graduates who bring to us their unique perspectives, it helps us keep our edge in innovation and honors our competitiveness. Michigan State’s Engineering and Science Success Academy gives students of all backgrounds an opportunity to live up to their tremendous potential, and gives our company and other STEM-focused companies the opportunity to gain from these students’ talent and drive.”

Students who meet the qualifications are able to apply to ESSA and the program currently has a capacity of 60 students. The program lasts for two years and its hallmark is rigorous engagement with academic advisors, career placement staff, faculty and each other, ensuring students experience an open and comfortable learning environment. It brings structure and guidance to students who may need added support adjusting to a more demanding schedule. Once students are enrolled in the program, all components are mandatory, and the program currently has a capacity of 60 students. The program was designed to help students coming into MSU who did not receive the pre-college math training they needed to pursue degrees in science-related fields. Based on their pre-MSU math testing scores, the statistical prediction for these students to successfully graduate in a STEM field was less than six percent.

The inaugural graduates earned degrees in kinesiology, biomolecular laboratory science, zoology, human biology, biochemistry and molecular biology, and genomics and molecular genetics. The first graduates’ future plans include medical school, an accelerated nursing program and other advanced degrees. At the MSU convocation ceremony, two Dow STEM scholars were selected to deliver the student addresses for their colleges. The program’s success also has had an impact well beyond the success of the students participating. The program has helped to inform decisions and policy changes to improve MSU’s entry-level math and science courses as well as to enhance academic advising and tutoring support for all students.

This May the first cohort of Dow STEM scholars received degrees from Michigan State University in a wide range of STEM fields, helping to blaze a path for future students who aspire to careers in science, technology, engineering and math, or STEM.

The Dow STEM scholar program launched in 2014 with a $5 million grant from the Herbert H. and Grace A. Dow Foundation to further their goal of increasing the number of STEM degree holders graduating from Michigan’s universities. The program was designed to help students coming into MSU who did not receive the pre-college math training they needed to pursue degrees in science-related fields. Based on their pre-MSU math testing scores, the statistical prediction for these students to successfully graduate in a STEM field was less than six percent.

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“Because of the Dow STEM Scholars, all MSU students will have expanded opportunities in STEM-related disciplines,” said Kristen Renz, professor of higher, adult, and lifelong education and associate dean of undergraduate studies. “We are grateful to the Herbert H. and Grace A. Dow Foundation for its investment that drew upon MSU’s leadership in STEM education to help more students prepare for careers in STEM professions.”

The foundation’s support helped fund the program in its first four years and created an endowment to provide ongoing support for peer mentors and opportunities for the scholars to participate in research.

The program also provides professional advisors, summer learning experiences, access to gateway courses to help new students transition from high school, and opportunities to interact with faculty and industry professionals. The MSU Neighborhoods initiative also played a key role, as the Dow STEM Scholars were clustered in two of the five MSU Neighborhoods to take advantage of concentrated professional and peer support and to foster learning communities of STEM scholars.

At a recent Dow STEM Scholars honors ceremony, 92 students were recognized for academic achievements, including cumulative GPAs of 3.0 or higher. The students honored were quick to express gratitude for the Dow STEM Scholars program.

Graduate Jessica Knoll who received a special recognition award for her commitment to the program said: “Becoming a Dow STEM Scholar was the best part about Michigan State for me. I will be forever grateful for all the support I received.”

Since its creation 12 years ago, ESSA has become a critical tool for student success. In 2018, 84 percent of ESSA students were able to improve their math placement exam results at the completion of the summer bridge program. Additionally, the six-year STEM graduation rate is 60 percent for ESSA students, and only 38.8 percent for students in the same target demographics who do not participate in the program. ESSA students may also have better career placement success post-graduation, as they are introduced to a myriad of career opportunities through the program.

In addition to the partnership with Marathon Petroleum, funding for the program has also been provided by ArcelorMittal, BP, Eli Lilly, Ford, P&G, PPG and ZF.
**Rethinking Dialogue: Rethinking History Museums**

Scholars, students and museum professionals from MSU and South Africa’s Stellenbosch University are partnering to strengthen the Ubuntu Dialogues.

Michigan State University has a long history of involvement in South Africa, dating back to the era of apartheid when MSU became the first major public university in the US to totally divest from its South African portfolio in 1978. Following the advent of democracy in 1994, MSU established new partnerships with universities and other institutions in South Africa to support the transition. To continue this legacy of partnership continues as Michigan State’s African Studies Center and South Africa’s Stellenbosch University Museum have received an investment of $801,000 from The Andrew W. Mellon Foundation to deepen an existing initiative, the Ubuntu Dialogues.

Support from the foundation will allow the two universities to bring together scholars, students and museum professionals from the United States and South Africa over a three-year period to break down barriers, build trust among communities, and encourage constructive dialogue.

The Ubuntu Dialogues project began two years ago with seed funding from MSU’s Alliance for African Partnership. “What is unique about this project is that the agenda is set by our South African partners, and we are bringing our rich knowledge and expertise gained from years of partnerships to support our mutual goals,” says Dr. Jamie Monson, the Director of Michigan State University’s African Studies Center.

To further promote the growth of democracy, MSU had adopted a policy to only work with historically black universities from South Africa. The Ubuntu Dialogues project is a departure from Michigan State’s post-apartheid stance because Stellenbosch University is a historically white institution. Many of the prime ministers who ruled South Africa during the days of apartheid studied at Stellenbosch University. However, the Stellenbosch University of today is far cry from the past. The University has actively sought to redress its wrongs and to embody the values of being inclusive, transformative and future-focused.

In addition, museums in South Africa have long been regarded as deeply compromised colonial institutions, in which low-income persons of color are invariably relegated to subordinate subject positions. Yet, at their best moments, museums can emerge as vital arenas of transformative dialogue, mutual discovery and debate, and in doing so actively create a visible tableau of interdependent human communities, the very essence of “Ubuntu.” This has been the approach taken by the Stellenbosch University Museum under the leadership of its current director, Bongani Mgijima.

“The promise of this project is that museums can accommodate both curation of art and creation of ideas,” notes Dr. Monson, to serve as dynamic and digital crossroads and contact zones within which diverse people and communities from around the world can engage on equal footing to discuss common issues facing them across the continents. Dr. Monson pointed to U.S. movements to address pressing issues such as Black Lives Matter, while in South Africa students have formed movements such as Fees Must Fall. The Ubuntu Dialogues project will allow young people from both countries to share different perspectives and strategies related to these challenges. In addition to the discussions, there will be virtual and in-person seminars, an exchange program and graduate fellowships to encourage the sharing of ideas and the development of a professional pipeline for individuals who have traditionally been underrepresented in museum leadership positions.

**Transforming the Exhibit Experience**

A $50,000 grant from the Knight Foundation to the Eli and Edythe Broad Art Museum at Michigan State University will help create a system of smart labels that combine ultra-thin touch displays and microcomputers to deliver interactive, informational content about artwork.

While standard content delivery in the form of printed labels and wall text at museums often reach the largest segment of visitors, they pose significant limitations due to static, one-size-fits-all delivery. The MSU Broad is reinvigorating the content delivery system with help from the Knight Foundation.

“The move toward smart spaces is a very contemporary idea,” said Brian Kirschstein, chief preparator at the MSU Broad. “It’s happening in our homes and businesses and needs to happen in museums.”

Kirschstein and Associate Curator Steven Bridges worked with a team of MSU students to create “prototype 1” of the new, interactive label this past year, and put their design to the test in an Optical Art exhibition at the MSU Broad Art Lab. The content for the label was created with help from Director of Education at the MSU Broad Michelle Wold and Assistant Professor of Psychology Jan Beaucamp and his class of MSU psychology students. The students generated the basic text description for the exhibition and built in tiers of content that users can move through depending on their interest. Certain key words are hyperlinked, leading users to additional content.

Museums around the country including the Metropolitan Museum of Art, the Newport Art Museum and Crystal Bridges Museum of American Art have all contacted Kirschstein with interest in the technology. While other museums have been using iPads to create layers of content, an iPad on a wall becomes an object. What this team has done is create an interactive label that looks as much like a standard label as possible.

“The team is now actively laying the groundwork for “prototype 2.” This version will allow users to ask questions and post comments which will turn white and blend into the wall when not in use and provide analytics to better understand how visitors interact with exhibitions. This idea will further move the museum experience from static and passive towards dynamic and interactive.”

Kirschstein has no plans to keep this technology self-contained and is actively working on ways to collaborate with peers at other institutions. The team is transforming the future of the museum and helping others do the same.

**North American International Auto Show Reception**

To conclude a week of exhibiting and engaging with industry partners, MSU hosted a reception for Detroit corporate partners. Addressing the crowd was Bill Golling, an MSU alumnus, president of Golling Chrysler, Dodge, Jeep, Ram, Inc. and chairman of the NAIAS. Deans from the Colleges of Natural Science, Social Science, Engineering, Communication Arts and Science and the Eli Broad College of Business helped highlight the unique role MSU plays in the auto industry.
MSU STUDENT START-UPS SHOWCASED AT 2019 CONSUMER ELECTRONICS SHOW

Three student startup teams from Michigan State University participated in the 2019 Consumer Electronics Show, where they showcased their innovative projects and start-up ventures.

Students in the Colleges of Engineering, Business, and Communication Arts and Sciences had the opportunity to showcase their own concepts and ideas, network with major corporations, and enter a start-up competition. The experience was offered to students in partnership with Spartan Innovations.

The MSU student teams included: AgileCare Solutions, which works to build a suite of software solutions to help inform family caregivers on options and resources for their ailing loved ones; Vloggle, advertised as “video at your fingertips,” allowing users to shoot, edit, share and stream video or vlog content in real-time; and Social Movement Media, offering a breadth of social marketing services to clients that include Chevrolet and Hard Rock Café.

CES is the world’s gathering place for all those who thrive on the business of consumer technologies. It has served as the proving ground for innovators and breakthrough technologies for 50 years—the global stage where next-generation innovations are introduced to the marketplace.

Taking place in Las Vegas, CES hosts more than 4,500 companies. The high definition television, Microsoft Xbox, Android device and Satellite Radio represent some of the products announced at past shows.