Inaugural Mike Sadler Competitive Edge Award Presented at 2017 Design Day

Mike Sadler was part of the MSU College of Engineering for three years, earning a bachelor’s degree in Applied Engineering Sciences (AES) in 2013. Those years were well spent, he liked to say. “I am very proud to call myself an Applied Engineering Sciences alumnus,” Sadler had said. “The program has fostered within me maturity, discipline, leadership, and a worldly sense of systems thinking.”

Sadler was also an award-winning punter and scholar-athlete for Michigan State’s football team and known for giving the Spartans a competitive edge by pinning opponents back near their own end zone with perfect punts. Tragically, Sadler was only 24 when he died in a car accident in Wisconsin in July 2016.

Sadler’s competitiveness and creative solutions were honored April 28 during the College of Engineering Design Day awards ceremony with the introduction of a new AES recognition—the Mike Sadler Competitive Edge Award.

Sadler’s mother, Karen, and MSU football coach Mark Dantonio officiated with the inaugural presentation, assisted by AES Director Laura Genik.

The award honors the AES capstone team that strives to achieve the highest possible outcome to attain the next level of success. The winning project is considered to have “flipped the field” with an innovative and creative solution that results in a competitive edge that not only solves the problem but distinguishes itself from the competition.

“I am honored and humbled to represent my son here today,” Karen Sadler said. “When he came here to Engineering, Mike was really good at critical thinking and critical writing. When he left, he was great at it.”

Winners of the first Mike Sadler Competitive Edge Award were presented with medallions. Honored were the Johnson Controls/MSU IPF team for their Design of a Decentralized, Decarbonized District Energy Strategy. Team members were Chang Joon Kim, Edward Okuniewski, Derek Stockman, Daniel Feenstra, (front) Coach Mark Dantonio, Junyu Liu, Jasmine Lim, Rachel Gasparovich, Hanish Mehta, and Karen Sadler.

AES Director Laura Genik, Coach Mark Dantonio, and Karen Sadler presented the first Mike Sadler Competitive Edge Award during Design Day April 28. Pictured are (back, l to r) Laura Genik, Chang Joon Kim, Edward Okuniewski, Derek Stockman, Daniel Feenstra, (front) Coach Mark Dantonio, Junyu Liu, Jasmine Lim, Rachel Gasparovich, Hanish Mehta, and Karen Sadler.

Design Day showcases competitions and project presentations from a variety of engineering classes at the end of each semester. For seniors, the 15-week capstone course provides a platform for students to apply the knowledge and experiences gained throughout their engineering education at MSU.

Mike Sadler was on an award-winning AES Design Day team in 2013.

An AES award honoring the late Mike Sadler (AES ’13) was introduced in April as a memorial to the talented scholar-athlete.

Applied Engineering Science (AES) students study a core that combines math, statistics, and basic science across most engineering disciplines. It prepares students with strong analytical capabilities, business knowledge, leadership, and communication skills, with concentrations in the College of Agriculture & Natural Resources, College of Business, College of Communication Arts & Sciences, and College of Engineering (computer science).
Give Back to AES by Paying It Forward!

The time, talent, and treasure being invested in AES are all greatly appreciated.

AES funds include A309 (AES Discretionary Fund), A3091 (AES Discretionary Endowment Fund), and A3092 (AES Scholarship Fund). The various funds go to supporting current AES students through scholarships and activities. In addition to financial support, the AES program actively seeks alumni to help mentor and develop outstanding graduates.

If you would like to be more involved, here are a few ideas:

• Volunteer your time to participate on an industry panel or speak at a meeting of the Society of Applied Engineering Sciences
• Serve as a mentor to a current AES student
• Volunteer to serve on the AES Alumni Advisory Board
• Encourage your company or organization to financially sponsor an AES activity, especially the senior capstone projects

For further information contact Laura J. Genik, AES program director, ljgenik@egr.msu.edu.

AES Support Team Helps Students “Make the Grade”

Joyce Samuel and Janet Lam (see photo below) are experts at helping AES students get started in MSU’s specialized engineering program.

Joyce is assistant director of advising for the College of Engineering and the academic advisor for AES’s 360+ students. Janet is an academic teaching specialist who teaches within AES and CoRe, the freshmen engineering program. In her first year, she taught Introduction to Engineering Modeling, where Spartan Engineers are introduced to structured programming and data analysis, as well as working in the AES curriculum.

“We’re here to guide students to graduation by providing resources, study strategies, and encouragement,” Joyce explained. “We see it as connecting students to what they need, including to other students.”

Janet enjoys the challenge of teaching AES students what AES is all about. “I love talking to them about how systems are all around them, improving their everyday lives,” Janet said. “I enjoy teasing out of my students the AES skills they already have, but don’t know they’ve got.”

Both also work to connect AES students to AES alumni.

“We’re always looking for alumni volunteers willing to share practical knowledge on what students can do with an AES degree,” Joyce added.

Volunteers willing to chat with AES students can reach Joyce at samueljo@egr.msu.edu.

2017 AES Alumni Advisory Board

The AES Alumni Advisory Board facilitates the exchange of ideas between board members and the faculty and students of the AES program.

• Holly D. Aikens (Chair) (EA ’93), Ford Motor Company (Dearborn)
• Monica Braman (EA ’03), Modern Technology Solutions Inc. (Las Vegas)
• Haridik Dalal (AES ’06), Boeing (Seattle)
• Donnie Haye (EA ’80), IBM (Chapel Hill)
• Nathan Harrison (AES ’06), General Motors (Detroit)
• Charles Kosmas (EA ’90), Chrysler (Auburn Hills)
• Daniel McNulty (EA ’82), Brookfield Financial (New York City)
• Anthony Messina (EA ’90), BorgWarner (Troy)
• Keith Preston (AES ’03), Microsoft (Redmond)
• Ross Scott (AES ’09), Sandvik (Auburn Hills)
• Eric Seger (EA ’94), Integrated Capital Management (Bloomfield Hills)
• Randy Shacka (AES ’04), Two Men and a Truck (Lansing)
• Chad Steiner (EA ’93), Dow Corning (Midland)
• Eric Thomas (AES ’12), General Motors (Detroit)
• Brian Tochman (AES ’06), (Beverly Hills)
• Lauren Zrebski (AES ’11), Apple (San Francisco)

Attending the April board meeting were (l to r, top to bottom, top row): Eric Thomas, Chair Holly D. Aikens, second row: Charles Kosmas, Mary Pease, and Eric Seger, third row: Kyle Newman, Morgan Bujold, Katie Ryan, Joyce Samuel, and Janet Lam, front: Laura Genik, Nick Kilpatrick, and Colin White.
2017 AES Distinguished Alumni Award

Renee Jennings Collins (‘81), of Rochester Hills, received the 2017 Applied Engineering Sciences Distinguished Alumni Award at the 12th annual Engineering Alumni Awards Banquet in May. She is vice president of Owner Sales for Johnson Controls.

She began her career at Johnson Controls Inc. as a sales engineer, right after graduating with her bachelor’s degree from MSU in Engineering Arts in 1981. Since then, she has held many positions within the company, including sales, sales management, and region general management within the Building Efficiency group.

In her current role as vice president for Owner Sales, she develops service strategies to achieve desired business outcomes for JCI customers. She works with broad, cross-functional product, sales, marketing, and operations experts to improve sales productivity and success.

She is known for her experience in strategic planning and employee development. She is passionate about influencing culture to grow recurring revenue through tools such as continuous improvement workshops and playbooks for planned service, sales project development support and enabling tools, sales management practices, and field marketing support.

In her tenure at JCI she has received the Diversity Business Impact Award and participated in the CEO-led Extreme Leadership Program. She is also a LEED Green Associate.

Renee is a board member of the Boys & Girls Club of Southeastern Michigan and was a recipient of the Detroit Crain’s 40 Under 40 award. In her free time, she enjoys skiing and golfing with her four boys and her husband, Michael.

2016 AES Distinguished Alumni Award

Anthony A. Messina (’80), of Troy, received the 2016 Applied Engineering Sciences Distinguished Alumni Award at the 11th annual Engineering Alumni Awards Banquet in May 2016.

He has held executive leadership positions in manufacturing, product engineering, sales, and mergers/acquisitions, and has been responsible for profit and loss, top line growth, operational effectiveness, product development, and commercial management.

He is currently vice president of global engineering for Borg Warner, a leading supplier of automotive powertrain technologies. In this role, he has responsibility for the global engineering organization and oversees all aspects of the product portfolio. Previously, Tony held the positions of vice president and general manager—Transmission Controls, vice president—North American Operations, and vice president and general manager—Emissions, where he was responsible for factory operations across Dixon, Bellwood, and Frankfort, Illinois; Water Valley, Mississippi; Juarez and Ramos, Mexico; Markdorf, Germany; Tulle, France; Monaco; and Ningbo, China.

He was also vice president of worldwide sales and marketing while the company was expanding its North American presence into Europe through the creation of a joint venture, and into Japan, Korea, and China through partnerships and new business pursuits.

Tony has served as a board member for the NSK-Warner joint venture out of Fukuroi, Japan; was a supervisory board member for Borg Warner Turbocharger Systems out of Kirchheimbolanden, Germany; and an operating board member of Morse TEC Japan out of Nabari, Japan.

He also holds an MBA in finance and business economics from Wayne State University in Detroit and has continued his education through select courses within the Harvard Business School.
The Society of Applied Engineering Sciences (SAES) is the professional development organization associated with the Applied Engineering Sciences major at MSU.

As with the major as a whole, the society has been growing year after year. SAES helps students become more involved in their major, embrace the full benefits of the extended alumni network, learn about potential job leads, build individual skills, and much more.

Being elected as the president of SAES meant a lot to me because I am very proud to be majoring in AES. I chose AES during my freshman year after talking with professors, advisors, and AES director Laura Genik. It was then I realized that I do not necessarily fit the mold of the traditional engineer. This is a common trend among AES students, and I believe it is an advantage in the eyes of employers.

In 2016–17, SAES had its most successful year to date. The club saw an increase in attendance and participation across the board. Paying members reached 75+ for the first time ever, and we saw continued attendance throughout the school year like never before.

The fall 2016 AES Career Gallery had 85+ participants in the Towers at Spartan Stadium. The event was made possible by the college’s Center for Applied Engineering Sciences (SAES) and was considered a great success by employers, faculty, and students.

Our first AES Breakfast Mixer was initiated in spring 2017. It was strategically planned by the college’s Center for Spartan Engineering and led by the center’s director Garth Motschenbacher on the morning of the Supply Chain Career Fair. The AES Breakfast Mixer began with breakfast at the Breslin Center, followed by the opportunity for students to network with the different companies in attendance. It wrapped up with an informative presentation about what AES is and what separates these students from the rest, presented by Dr. Genik. This event was a crowd favorite and will return in both fall and spring semesters.

The 2017–18 incoming E-Board was selected in April and is committed to continuing SAES’s recent successes. We have three returning members to the E-Board: former president Nick Kilpatrick, who will serve as webmaster, along with communications chair Morgan Bujold and myself to help SAES grow.

Our three main goals for the upcoming year are to: continue to increase attendance and engagement, continue to give students the essential resources to ensure success at the career fairs and in professional development, and to build a better and more involved AES student community.

The general assembly of SAES is made up of students who want to get involved and make a difference. In the upcoming year, we hope to develop future SAES leaders by enhancing volunteer opportunities outside of E-Board. Our goals include orchestrating an employer breakfast event, freshman mentorship program, technical skills workshops, a Welcome Back Bash, and AES tailgates, along with meeting with the alumni advisory board and creating more volunteer opportunities.

This is a very exciting time to be a part of the growing AES major and SAES. As president, I hope to continue the momentum that AES has recently generated and get the most out of the great students in our major. Students inside of AES are uniquely technical, motivated, social, and leading individuals, which makes my job as president both fun and rewarding.

—Kyle Newman, SAES President

Executive Board Member Highlight

If you ask senior Erin McDonald what’s the best part of being an AES major, an energetic “Oh my gosh!” comes throttling out.

“I just love the diversity and the broad range of skills you develop for competitive industry. Because of AES, I’m able to sell my skill sets to employers,” she said.

Erin served as an intern this summer at Under Armour Gear & Apparel, where she put her AES–Supply Chain concentration to work in the company’s global headquarters in Baltimore, Maryland.

“I work with a lot of people from different schools at my internship. Mostly they are supply chain majors and have more of a learning curve on projects because they don’t have an option like AES. I find it gives me advantages in working cross functionally because I have the skills for things like programming, software, and understanding CAD projects.

“I think my maturity grows each year as a professional, too,” she continued. “I was so lost as a freshman and year-by-year the AES courses have challenged me. You get stronger and build confidence as you work your way through. And hey, if I can get through thermodynamics, I can do anything!” she quipped.

Erin took that confidence with her to Cuba two years ago when MSU provided her with an international study abroad.

“I spent the summer of 2015 in Cuba. It was a very cool opportunity most people haven’t had. I took a sustainability class there. We talk a lot about sustainability in AES, and we look at environmental issues on a global scale. That experience blended in well with my MSU studies.”

Erin will spend her final year at MSU serving as the college liaison officer for the student group—the Society of Applied Engineering Sciences (SAES)—and as a varsity athlete for the Spartans.

“I spend three hours a day running in cross country and track and field for Michigan State. That’s my thing. I love it. I can’t imagine my life without it.

“I’ll graduate in spring 2018 and would love to stay in the retail side,” she added.

Erin McDonald is from Midland and is second-generation AES. Her mother, Maura McDonald, earned a degree in Engineering Arts in 1987 and is a past member of the AES Alumni Advisory Board, serving as chair in 2013–14. Maura received the AES Distinguished Alumni Award in 2015.
As I write this note in the heat of summer, I’ve just attended the first Michael Sadler Celebration of Life event at Founders Brewing Company in Grand Rapids. The event brought academics and athletics together, friends, family, and alumni to join in sharing memories and raising funds for the Michael Sadler Foundation.

The Michael Sadler Foundation exists to support programs and awards that emphasize the core values Michael embraced: academic excellence, athletic achievement, character strength, and leadership. It was a wonderful event that was heartwarming to see the outpouring of love and support for the values held so dear to Sadler and his family. I encourage you to read more on the foundation (www.michaelsadlerfoundation.com) and support its mission.

The current enrollment for the AES program is about 370 students. We graduated more than 90 in the spring/summer of 2017. Our graduates in recent years have had a placement rate at or higher than the College of Engineering average, going to such companies as Whirlpool, JCI, Ford, Trane, and Toyota to name a few.

A number of our recent alumni have also chosen graduate studies in law, international business, engineering management, and data analytics. AES is providing a broad background for a number of careers and opportunities in this ever-changing global landscape.

In order to stay in touch and maintain a strong alumni network, the AES program makes use of two social media outlets. In LinkedIn we have a group, “AES Alumni and Students,” and in Facebook, “MSU AES/EA Community.”

Please consider joining our group on LinkedIn and liking our Facebook page to continue to grow this networking resource, keep in touch with other AES grads, and see where the program has taken so many Spartans.

I am looking forward to the coming academic year and hope to hear from any alumni who would like to share their time or story with the program, a class, or students.

Go Green!

FROM THE DIRECTOR
Laura J. Genik

Current AES enrollment: 368

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27.4% MALE
82.5% FEMALE

What Do AES Alumni Do with Their MSU Degree?

An AES degree provides core preparation while being both versatile and flexible. Take George North, for instance. His interest in hospitality, love of hotels, and his knowledge of computer science proved to be an excellent foundation for his current leadership role.

A 1993 Engineering Arts graduate, today he is the vice president of revenue management for Spire Hospitality, one of the nation’s leading hotel management companies. He leads the revenue management efforts for both owned and managed properties of Spire Hospitality. George lives in Jackson, Michigan, but works all over the U.S.

“While the hospitality industry may seem a long way from the traditional path engineers normally look to take, the blending of engineering and business has given me a unique view on how to optimize revenue in the hotel industry,” he said.

“An engineering background gave me the skills and logical thinking needed to excel in an industry that was evolving in its use of technology. The business training provided me with the ability to bring those technical skills to practical use for hotels and their owners,” he added.

AES Major Takes Grand Prize at Event for Entrepreneurs

An AES major, with a minor in entrepreneurship, won the $1,000 grand prize earlier this year at MSU’s Hatching event, a monthly pitch competition in Lansing that gives entrepreneurs the chance to share new ideas.

Hew Hamilton pitched a company he created called Giggot (http://giggot.com/), which provides a way for performing artists to connect with the community. The service will function as an app and online service, making it easier for people to book artists for events.

Hamilton said his goal is to empower local artists in their local communities.

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I am looking forward to the coming academic year and hope to hear from any alumni who would like to share their time or story with the program, a class, or students.

Go Green!

Katelyn Dunaski (AES ’16) (right) upgraded her internship into a full-time job with Apple’s Retail Systems team in California. She runs into other MSU grads from time to time, including Jordyn Castor (’15) and NBA star Draymond Green. All were attending an MSU Empower Extraordinary event in San Francisco last fall. “At the event, we highlighted several extraordinary Spartans. I was humbled and amazed to think that five years earlier I was a freshman, and now I am an AES graduate working in one of the most technically innovative companies in the world,” Katelyn said.
let us know what's happening with you!

Got a new job? Been promoted? Received an award? Tell us about it by email at mroczekp@egr.msu.edu—and include your graduation year. Or mail us at MSU Engineering Publications, 428 S. Shaw Lane, Room 3415, East Lansing, MI 48824.

One More Special Spartan Celebration for Michael Geiger

Michael Geiger (‘17) celebrated his new AES degree at commencement on May 7 the same way he celebrated a special victory for the Spartan football team in Ohio Stadium a couple years ago.

The kicker for Michigan State inserted himself into Spartan lore in November 2015 when he nailed a 41-yard field goal with no time left for a 17-14 win over No. 3 Ohio State. The kick is now historic, but Geiger’s celebration turned him into a social media phenomena as he circled his arm in windmill fashion for the length of the football field in Ohio Stadium.

Michael joyfully broke out his famous windmill celebration one more time as a Spartan during spring graduation ceremonies in the Breslin Center when he crossed the stage to collect his bachelor’s degree.

Since then, he has propelled himself into the workforce as a technical sales engineer at Johnson Controls in Cleveland.