Laura J. Genik Appointed New AES Director

Laura J. Genik is the new director of the MSU Applied Engineering Sciences (AES) program. She assumed the leadership role of the growing interdisciplinary undergraduate program on Jan. 1, 2015.

AES has more than 250 students—nearly double its student population of just six years ago. The employment rate for AES graduates is among the best at MSU—at 96 percent.

Genik is an academic specialist in the MSU College of Engineering Undergraduate Studies Office, with teaching responsibilities in the college’s Cornerstone and Residential Experience (CoRe) and AES programs.

“I am humbled by the appointment to lead this established program in the college of engineering,” Genik said. “I’m looking forward to honing the vision of AES for the college, the university, and the broader community.”

She replaces Jon Sticklen, who retired last year to take over the Fundamentals of Engineering Department at Michigan Technological University.

Genik earned her BS, MS, and PhD degrees in mechanical engineering from MSU. She began her academic career at the University of Portland, in Oregon, and served as visiting faculty at Wayne State University before coming to MSU in January 2007.

Her scholarly research emphasizes engineering pedagogy. She has been recognized with outstanding teaching nominations and awards at each institution in which she has taught, including the Withrow Teaching Award at MSU from the Department of Mechanical Engineering. Most recently, Genik was selected to participate in the National Academy of Engineering (NAE) Frontiers of Engineering Education (FOEE) in October 2014, a symposium for innovative engineering educators.

AES at MSU

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 communications skills, with concentrations in the College of Agriculture & Natural Resources, College of Business, College of Communications Arts & Sciences, and College of Engineering (Computer Science).

“AES strikes a balance between technical knowledge and business acumen, better than any other major at MSU. The diversity of companies and positions that an AES student may end up with is unlimited.”

Nathan Harrison ’06, management consultant, Oliver Wyman

“In many other majors, the path is defined. But with the AES program, you can help define your own path. I loved having that option.”

Randy Shacka ’04, president, Two Men and A Truck International

“I was able to succeed thanks to faculty who were willing to go out of their way to not only ensure that students learned the material, but were prepared for life moving forward.”

Mike Sadler ’13, MSU’s first four-time Academic All-American, who will enter the 2015 NFL draft as a punter
I am elated to be selected as the director of the AES program, a new role I began in January. As part of my new tenure in the position, I plan to continue with our robust curriculum while exploring possible new concentration options.

A particular success is our concentration associated with the College of Business Supply Chain Management Program (which is #1 in the country) and is in high demand by our employers. New this semester, we've added Supply Chain Management students to our senior design course (about 10 of the 60 students in the course). This brings the opportunity for truly interdisciplinary teams in the course. We also have secured 13 projects, 7 of which are externally funded. This gives our students the valuable experience of working with industry partners.

My vision for this already successful program begins with disseminating the program and its accomplishments to a broader set of employers and to increase awareness and knowledge for AES at our university. I am looking forward to working with the alumni board, and I welcome our new chair Nathan Harrison (’06) to his leadership position.

On the development front, and with the help of the alumni board, the AES scholarship and discretionary fund has significantly increased. More than 250 students are now enrolled in the program—an increase of more than 65 percent during the six years that Jon Sticklen was director. Employer interest is at an all-time high as an increasing number of employers are seeing the need for the mix of technical and business skills inherent in the program; among May 2014 graduates, AES ranked as one of the highest placement rates of any major at MSU.

The Society for Applied Engineering Sciences (SAES), our student organization, held a successful career “pre-fair,” which saw 13 employers visit for an evening focused only on AES students. Their efforts have been thriving under the leadership of President Katelyn Dunaski and expanding to include free attendance to the popular Supply Chain Management Career Fair in January (non-SAES members pay a $10 fee to attend).

I’ll look forward to working with you in the months ahead. Feel free to contact me at ljgenik@egr.msu.edu. I send my best wishes to you as we begin this new era for AES.

FROM THE DIRECTOR
Laura J. Genik

FROM THE ACTING DIRECTOR
Thomas F. Wolff

For those of you who may not have heard, AES director Jon Sticklen retired from MSU in July 2014 and accepted a position as chairperson of the Department of Engineering Fundamentals at Michigan Tech. I served as acting director while a search for a permanent director was underway. Above on this page you will see a greeting from new director Laura J. Genik.

In his six years as director, Jon brought passion, energy, and change to the Applied Engineering Sciences program. On the curricular front, Jon worked to take the number of AES-specific courses from two to three, and implemented quality improvements in all three. With development by Dr. Ron Rosenberg and Dr. Sticklen, AESC 210 (Global Systems: Economics, Engineering, Environment) and AESC 310 (Sustainable Systems Analysis) took the place of EGR 300 (Technology, Society, and Public Policy)—and in doing so, introduced systems approaches to engineering problem solving and increased the use of computational tools. The capstone course, EGR/AESC 410 (System Methodology) will become AESC 410 (Capstone Project in Applied Engineering Sciences) in summer 2015, and under Jon’s direction, “real-world” team design projects were added, involving both industry sponsors and nonprofit agencies.

Jon certainly “moved forward” the Applied Engineering Sciences program, building further on the achievements of past director Dr. Les Leone. We look forward to continued success of this unique program under the leadership of the new director.

Former AES director Jon Sticklen, pictured here with Mauro McDonald (’87), retired from MSU after 27 years and became chair of the Department of Engineering Fundamentals at Michigan Technological University in August.

IN REMEMBRANCE
Members of the AES community were saddened to learn of the sudden death of Anthony John Hawley, 21, of Bloomfield Hills. The AES senior was found in his off-campus apartment in East Lansing on Jan. 29. He graduated from Brother Rice High School in Bloomfield Hills.

At MSU, he was a member of Alpha Sigma Phi fraternity. His fraternity brothers shared their favorite memories of him during a vigil at “the rock” on Jan. 30.

The AES Discretionary Endowment Fund was established to help build the AES program, support students, and enhance the quality of an AES education. If you are interested in making a contribution, or to learn about other opportunities for giving, please complete the gift information form in this newsletter.

In addition to financial support, the AES program actively seeks alumni to help educate outstanding graduates. Here are a few ideas:

- volunteer your time to participate in 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 Applied Engineering Sciences activity, especially the senior capstone projects,
- consider charitable giving to one of the AES funds, that supports current-year scholarships, and the endowment.

To start giving back to AES or to discuss all the possibilities, contact Laura J. Genik, AES program director, ligenik@egr.msu.edu.

2015 AES Alumni Advisory Board

The Applied Engineering Sciences Alumni Advisory Board facilitates the exchange of ideas between board members and the faculty and students of the AES program. Board members serve on three teams to facilitate activities: Alumni Outreach, Student Outreach, and Marketing.

- Nathan Harrison (Chair) (AES ’06), Oliver Wyman (Detroit)
- Holly D. Aikens (EA ’93), Ford Motor Company (Dearborn)
- Monica Braman (EA ’03), Boeing (Las Vegas)
- Hardik Dalal (AES ’06), Boeing (Seattle)
- Donnie Haye (EA ’88), IBM (Chapel Hill, NC)
- Charles Kosmas (EA ’86), Chrysler (Auburn Hills)
- Maura McDonald (EA ’87), Dow Corning (Midland)
- Daniel McNulty (EA ’82), Rockwood Realty Estate Advisors (NY, NY)
- Anupama Prasad (AES ’12), Ford Motor Company (Dearborn)
- Keith Preston (AES ’03), Oracle (Portland, Ore.)
- 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)
- Jonathan P. Wiita (AES ’10), IBM (Chicago)
- Lauren Zrebski (AES ’11), Whirlpool (Tulsa)

2014 AES Distinguished Alumni Award

Eric Seger, CFP, MBA, (AES ’94) received the 2014 Applied Engineering Sciences Distinguished Alumni Award at the 11th Annual College of Engineering Alumni Awards Banquet in May 2014.

Seger, of Birmingham, Mich., is a principal at Integrated Capital Management. Prior to working in the financial and investment arenas, he worked his way up in the engineering field. He started as a technical support engineer, was quickly promoted to sales engineer, and ultimately ascended to the role of program manager. In 2001, he transitioned to a successful career in financial planning and wealth management at Lincoln Financial Advisors.

In addition to his bachelor’s degree in engineering arts from MSU, Seger earned his MBA from the University of Michigan, with a concentration in finance. In May 2004, he attained the Certified Financial Planner® professional certification. He is one of only 1,800 financial planners in the state with this designation.

Seger has been involved with the Society of Financial Service Professionals and served as president of the organization from 2008 to 2009. In 2010 and 2012, Hour Detroit magazine recognized him as one of the top-scoring wealth managers in the Detroit area. He joined MSU’s Applied Engineering Sciences Alumni Advisory Board in 2010 and currently serves as its marketing team leader.

Seger has focused his practice on comprehensive financial planning advice for business owners, physicians, and other high net worth individuals. He contributes to the medical community in particular by presenting financial planning advice to hundreds of physicians and physician groups at area hospitals. For each of his clients, he specializes in creating tailored plans that coordinate wealth transfer strategies, investment management, retirement planning, and fringe benefit options. He is well known for working diligently to ensure that each of his clients receives personalized care.

AES Alumni Advisory Board

Front, l to r: Randy Shacka, Maura McDonald, Donnie Haye, and Kathy Dehshiri (AES program assistant); middle: Daniel McNulty, Eric Seger, Holly Aikens, and Chuck Kosmas; back: Dalal Hardik, Ross Scott, and Thomas F. Wolff, who served as the AES acting director.
The list of notable awards presented to Diane E. Mills (EA ‘82) has grown significantly of recent. Mills is an account executive with Ameresco, a leading energy efficiency and renewable energy company.

On Sept. 30, she was honored as the Chapter’s president for two years. She is a founding member of Michigan’s Energy Efficiency Projects Coalition chapter and has served as the chapter’s president for two years.

The coalition’s goal is to promote energy efficiency in the state of Michigan, including using Energy Savings Performance Contracting (ESPC) as one model. She has successfully led a number of efforts to encourage ESPC projects in Michigan, including Farwell Area Schools, Ovid-Elsie Area Schools, Mesick Consolidated Schools, Montcalm County Community College, City of Battle Creek, and Alpena County.

“I am honored to be recognized by the AEE for my work,” she said. “It is exciting to be part of the tremendous change that is occurring in Michigan in providing affordable funding for energy efficiency and renewable energy projects.”

Her national recognition was followed up in November 2014 with a project award from the Michigan Economic Development Corporation and Energy Services Coalition for her work in the City of Battle Creek. The award recognized the project’s sustainability focus and leadership in efficiency initiatives.

“I have worked to remove barriers specific to Michigan that were limiting large-scale energy efficiency and renewable energy projects,” she said. “I’ve helped create a public-private partnership with the State of Michigan; developed an industry coalition; worked to organize, write, pass, and implement two pieces of legislation (PA 625 in 2013 and HB 5806); and worked with the utilities and the Michigan Public Service Commission and several nonprofit and trade organizations.

“We have come a very long way but still have a lot to do. Michigan still has great potential,” she added.

Mills has made MSU a family affair. Her three Spartan daughters are:
- Allison Marie Mills (AES ‘10, Supply Chain Cognate)
- Jennifer Mills (BA, Political Science ’11)
- Lauren Mills (MS, Marketing Research ’14, BA, Advertising with Psychology major ’10)

MSU’s newest academic department is in the College of Engineering. The Department of Biomedical Engineering (BME) was approved by the Board of Trustees on Oct. 24, opening the door for collaborative health care research. Read more about this new department at http://bit.ly/1vk6LNC and its first $500,000 fellowship from Jack and Dottie Withrow at http://bit.ly/nk6LNC.

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Fall 2014 was not only a very exciting season for our football team here at Michigan State, but also for the Society of Applied Engineering Sciences (SAES) students. Our executive board was expanded to 13 members.

We have a strong representation from many grade levels, and we are excited that we are bringing on a freshman as well. Not only has our executive board grown, but so too has our membership. Our official membership list is 35, and we have at least 20 students attending every meeting. This growth is truly a result of the drive and dedication of our executive board, demonstrated by their involvement with events, meetings, and initiatives.

Our current goal is to focus on creating and developing opportunities that will help AES students grow professionally. To do that, we hold an annual AES Company Gallery; we plan meetings on various professional topics; and host sessions that encourage student discussion on jobs, internships, and courses.

Our meetings often feature two very different companies, both bringing diverse perspectives on the same topics. Our AES Company Gallery is structured as a small-scale career fair specifically for AES students. The event grew by about 5 percent in student involvement from last year, attracting 80+ AES students. We also grew from 9 to 13 companies. This year we were able to engage companies from several industries, including automotive, industrial product manufacturing, technology, and insurance.

Beyond the opportunities developed directly for our membership, our team was able to successfully launch our official sponsorship program and begin working to create an official SAES website. Our two-tiered sponsorship program will engage companies in in-depth ways, exposing our membership to the companies and providing priority opportunities for corporate sponsors. SAES is proud to announce our first corporate sponsor for spring 2015—International Paper. The corporate sponsorship program is one that we expect to grow and transform as we identify opportunities to create strong relationships with great companies. We have recently brought on a new webmaster, who will lead the initiative to create our new, professional website, which will serve as a valuable resource for our members.

Overall, this academic year has proved to be a success for several reasons, but the underlying fact is that this group has continued to provide valuable opportunities for AES students. The growth in our student involvement this year has been outstanding, and we are excited to take on new projects and ideas to expand our membership even more.

Executive Board Member Highlight

The treasurer of the Society of Applied Engineering Sciences (SAES) is a good example of the typical SAES member these days.

Sophomore Alec Wilhoite joined SAES his freshman year and has been involved in Triangle Fraternity and Leadership Advantage in the college—holding executive-level positions in all three student organizations.

AES, he said, is the best fit for his degree path. “I chose this major coming into Michigan State because it is unique and well rounded. Since I enjoy math and technology, this degree is preparing me for opportunities in these fields.”

He said he values the SAES sessions that cover diverse topics and feature “big-name” companies seeking to meet AES students. “There’s also the friendly atmosphere and the free food,” he quipped.

SAES president Katelyn Dunaski said Wilhoite is a strong example of a current SAES leader. “Not only has he gained solid experience through his student groups, but also during his internship at GE Aviation this past summer. He has also been growing his skills through our E-board.”

Dunaski said Wilhoite was the leading force in creating and implementing the corporate sponsorship program for SAES. “We can anticipate great success from Alec. Our organization will work with more AES students and help them demonstrate their skills the way that Alec has.”

Back: Colin White, Matt Bloom (event coordinator), Jeff Kaman (supply chain chair), William Waldron (chief concentration chair), Ben Roberts; front: Katelyn Dunaski (president), Darcy Greer (membership communication chair), Alex Warner (vice president), Kora Nixon (tech sales chair), Kyle Swinkin (interactive college liaison), Gordon Ewald (pre-law chair). Not pictured: Alec Wilhoite (treasurer), Brooke Donahue (packaging chair).
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Please return to: MSU Engineering Development, 428 S. Shaw Lane, Room 3536, East Lansing, MI 48824, or make your gift online at www.givingtomsu.edu

The MSU Board of Trustees approved a $1.5 billion capital campaign intended to build on Michigan State’s traditions while empowering critical initiatives for the 21st century. The theme of the campaign is Empower Extraordinary.

A major goal of the campaign will be to double MSU’s number of endowed chairs and professorships, which, currently at 100, is among the smallest in the Big Ten. Endowed chairs and professorships are the gold standard of faculty distinction and recognition for academic institutions.

“The tremendous support we have received over the past three years has positioned us perfectly for the public launch of the university-wide capital campaign, which in turn will empower MSU to make unimaginable discoveries that impact all our lives while also preparing new generations of game-changing Spartans,” said MSU President Lou Anna K. Simon.

The College of Engineering plans to raise $80 million as part of the Empower Extraordinary campaign, and its priorities will dovetail with those of the university. “We will create real-world engineering solutions that will solve global problems,” Dean Leo Kempel said. “Our job is not just to prepare students to ride the wave of change, but to actually cause that wave to occur.” Read more on the college’s campaign funding priorities at http://bit.ly/ya4pz.