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## EMERGING LEADER

# Alexis Wasserman, Ph.D.

MERCK

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For significant contributions that have positively impacted human health; for commitment to developing young people; and for career-long, passionate support of diversity and inclusion.

Alexis Wasserman, Ph.D., is an associate principal scientist, engineering, in the sterile liquid commercialization department of Merck. She also serves as chief of staff for the company's Global Vaccines and Biologics Commercialization organization.

Dr. Wasserman has spent most of her career working on late-stage process development and technology transfer for sterile drug products. In her current role, she led the drug product working group for Zinplava™, a therapeutic protein indicated for the prevention of recurrence of *C. difficile* infection, from phase 3 clinical studies through marketing approval. During this process, Dr. Wasserman developed a series of studies that included small-scale studies, computer simulations, and manufacturing scale experiments. A portion of this work was shared and adopted as a best practice for development within her organization.

She has supported numerous other programs, including a new treatment for psoriasis, and ProQuad™, a combination pediatric vaccine for measles, mumps, rubella, and chicken pox. Dr. Wasserman has also published externally on the topic of freeze drying vaccine drug products. Most recently, she led late-stage drug product process development for several key products targeting cancer. For the first of these programs, she was requested to help implement phase 1 clinical manufacturing for a new therapy at a commercial facility.

Through Dr. Wasserman's cross-functional leadership, the team was able to shorten the timeline for the new product introduction significantly as compared with typical timelines.

Dr. Wasserman is committed to mentoring and developing her fellow employees, informally and formally, as the communications lead for the Women in Science and Engineering program in the Merck Manufacturing Division. She enthusiastically serves her community, most significantly via her various roles within SWE. Dr. Wasserman spearheaded Girls in Engineering and Related Sciences (GEARS) Day at the University of Pennsylvania, first held in 2011, and now a STEM event reaching 50 to 100 high school girls annually. She has held multiple elected offices at the section and region levels, chaired the 2010 Region E conference, and is currently a senator. Dr. Wasserman has also volunteered in the Merck mentorship program, which provides tutoring and role models for underserved students.

She received a B.S. in chemical engineering from Stanford University, and her M.S.E. and Ph.D. degrees in chemical and biomolecular engineering from the University of Pennsylvania. Dr. Wasserman lives with her husband and two young children near Philadelphia and enjoys running, cooking, and travel, along with a healthy dose of spontaneous preschool dance parties.

## EMERGING LEADER

## Theresa Wesley

BOOZ ALLEN HAMILTON



For multidisciplinary leadership; for taking one career leap after another to achieve long-term goals; and for encouraging others to achieve at the highest level through thoughtful mentoring.

Theresa Wesley is a lead associate and senior lead systems engineer for Booz Allen Hamilton. As a systems engineer technical advisor (SETA), she provides independent technical expertise, assessments, and recommendations to clients across multiple subject areas. Her extensive expertise in assembly, integration, and test of complex electro-optical (EO) and radar systems enables her to assist in multiple programmatic areas across high-value client programs. Wesley's previous career has included positions as lead product engineer, operations strategic planning, task force lead and project manager, and senior lead engineer.

In her SETA role, she applies her knowledge across various technologies, providing clients full life-cycle systems engineering support, and identifying and recommending solutions to multidisciplinary, complex, and time-sensitive problems. She conducts research and evaluates technological concepts and tools for technical feasibility on space systems applications.

She is often requested, by name, to provide on-site support for major program management reviews, physical and functional configuration audits, and various test and environmental testing milestones for both clients and contractors. In 2016, she was selected from thousands of Booz Allen engineers to lead an independent assessment of a supplier's preliminary design review (PDR) of a complex instrument for one of the firm's

international clients. She led her team in providing a comprehensive report and evaluation of the review. Because of her exemplary work on the PDR, Wesley was asked to lead Booz Allen's continuing efforts the following year, at the critical design review (CDR); a vital milestone in the project's timeline. In 2017, she branched into market capture and proposals, leading her team to present a key area within the market at a technical solution review. In 2018, she was asked to join the project's proposal team, where she led risk identification and assessment efforts for contract transition.

Wesley is an integral member of Booz Allen's Women in Engineering and Sciences organization, first with her involvement in the 125-member Northern Virginia region, and then at the firmwide level. She subsequently served as deputy program manager and as Corporate Partnership Council representative. She continues to consistently mentor women engineers in the firm, both personally and professionally, donating hundreds of hours to the betterment of women in STEM.

A lean Six Sigma black belt, Wesley holds a B.S. and M.S. in mechanical engineering from the Rochester Institute of Technology. Her free time is spent with systems engineering husband, Todd, and two children. She enjoys assisting at her son's preschool as the classroom parent and is actively engaged in her church.



## SWE DISTINGUISHED NEW ENGINEER

# Letia Blanco

RAYTHEON COMPANY

For outstanding work in systems engineering; for excellent team leadership; and for extraordinary initiative in creating the Design Your World STEM programming series impacting more than 1,800 girls.

Letia Blanco is a systems design engineer and an integrated product team lead in the Space and Airborne Systems business segment of Raytheon Company in McKinney, Texas. She is responsible for executing all aspects of the advanced targeting forward-looking infrared upgrade program, including cost, schedule, and technical performance. She was formerly the lead engineer for the multispectral targeting system (MTS) C-130 program suite, tasked with creating and maintaining the technology road map, leading requirements development, integrating new technologies, production execution, and sustaining technical support.

Blanco joined Raytheon in 2008 and has worked as a mechanical engineer, integration verification and validation engineer, software systems engineer, and a systems design engineer for a variety of ground based and airborne electro-optical infrared systems. A level 6 certified program manager, Blanco has completed BD600 series capture manager training and proposal writing certifications. A three-time conference chair, she is the primary inventor for patent 11-2640-US-NP and the author of three peer-reviewed journal publications and eight technical symposia presentations.

She is a graduate of the Raytheon Leadership Development Program and a recipient of the 2014 Women to Watch: Up and Coming Award for Raytheon North Texas. Blanco was the Raytheon corporate-level winner of the 2015 YESNET Technology Network Innovation Challenge and the recipient of the 2012 NCS Excellence in Engineering and Technology Team Award. In 2011, she won the ASM International Engineering Design Competition.

After working with HR and senior engineering leadership to compile and distribute a list of women in technical management and volunteering with an investigation into gender disparity among Raytheon

engineering fellows, Blanco became convinced that women needed role models and opportunities, and she dedicated herself to being an advocate for women engineers at Raytheon. In 2014, she received the Raytheon President's iVolunteer coin for exceptional community involvement and the 2017 Raytheon STAR Award for Advocacy for Women in STEM.

A SWE member since 2008, Blanco served as the SWE "star point" to the Raytheon Women's Network, championing a partnership between Raytheon and The University of Texas at Arlington to support STEM service projects, career conferences, and mentoring for female students. In addition to serving as an initiative lead, she served as the SWE Dallas Section vice president of outreach and executive vice president.

In 2012, Blanco founded the SWE Design Your World – STEM Conference for Girls. Partnering with Raytheon Women's Network, the American Institute of Aeronautics and Astronautics, and Women in Technology International, she recruited more than 110 female engineer volunteers from the area to create 10 tracks of original hands-on STEM activities for elementary school girls. She also recruited Anousheh Ansari, the first female commercial astronaut, as a keynote speaker. The conference drew 200 fourth- and fifth-grade girls. Special emphasis was placed on reaching girls from low-income communities, and 60 percent of conference attendees were provided scholarships and transportation. The Design Your World STEM Conference for Girls has been presented 12 times to date, impacting more than 1,800 girls.

Blanco holds a bachelor's degree in mechanical engineering from The University of Texas at Arlington. In her spare time, she plays the mandolin and practices yoga. She and her husband, Charles, welcomed their first child in December 2017.

## SWE DISTINGUISHED NEW ENGINEER

## Kaitlyn J. Bunker, Ph.D., P.E.

ROCKY MOUNTAIN INSTITUTE



For contributing valuable research and renewable energy solutions in the Caribbean, and to underserved communities; and for steadfast leadership at all levels of the Society of Women Engineers.

Kaitlyn J. Bunker, Ph.D., P.E., is a manager with Rocky Mountain Institute (RMI), a nonprofit organization that transforms global energy use to create a clean, prosperous, and secure low-carbon future. Dr. Bunker's work focuses on microgrids and how renewable energy technologies can be applied in alternative energy system structures.

She leads a team in RMI's Islands Energy Program that partners with island governments and electric utilities in the Caribbean to define and achieve their energy goals. The program aims to accelerate the transition of island economies from a heavy dependence on fossil fuels to a diverse platform of renewables and energy efficiency, while establishing a blueprint for other isolated economies. Currently working with the Turks and Caicos Islands, Dr. Bunker has managed teams completing energy planning in Saint Lucia, Saint Vincent and the Grenadines, and Belize. Beginning in September 2017, when Hurricanes Irma and Maria devastated the Caribbean region, Dr. Bunker worked on creating an energy plan for the British Virgin Islands that includes resiliency.

Dr. Bunker joined RMI as an associate in the fall of 2014. In her first year with the organization, she contributed to several key projects, including modeling electricity distribution feeders in California. Noting an information gap around microgrids, she interviewed engineers and operators at 10 microgrids from around the world and compiled the results in a microgrid casebook that informs industry stakeholders and supports advancement of renewable energy in other isolated electricity systems.

A SWE member since 2006, Dr. Bunker held a number of leadership positions in the Michigan

Technological University section, including two terms as president, and is currently active at the local and Society levels. After earning her Ph.D., Dr. Bunker moved to Colorado and joined the Rocky Mountain Section, where she currently serves as president. She has also been a member of the collegiate leadership coaching committee, providing coaching and support for SWE collegiate sections. As FY13 collegiate director, Dr. Bunker helped write SWE's current strategic plan, and in 2014, she chaired SWE's curriculum committee, leading an analysis of SWE's professional excellence portfolio and identifying gaps in content and methods.

In 2016, she co-chaired the SWE Region *i* conference (iCON16), held in Boulder, Colorado. The conference drew more than 250 attendees, the result of a strong collaboration between the two hosting SWE sections — Rocky Mountain and the University of Colorado Boulder. For the past three years, Dr. Bunker coordinated the Collegiate Technical Poster Competition held each year at the annual conference. She recently completed a term on the nominating committee. In 2014, she received the Outstanding Collegiate Member award.

Dr. Bunker volunteers with GRID Alternatives to install solar photovoltaic panels. She has worked on projects in Steamboat Springs and Fort Collins, Colorado, providing electricity to low- and middle-income families. Dr. Bunker is a member of IEEE, the Women in Engineering ProActive Network, and Women of Renewable Industries and Sustainable Energy (WRISE).

She holds B.S., M.S., and Ph.D. degrees in electrical engineering, all from Michigan Technological University in Houghton, Michigan. Dr. Bunker enjoys outdoor activities year-round with her husband, Kris, and their dog, Winston.



## SWE DISTINGUISHED NEW ENGINEER

# Paola Chavira

SOCALGAS

For technical accomplishments in support of energy efficiency; for stellar community service; and for making inclusive outreach the keystone of her SWE leadership.

Paola Chavira is a project manager at SoCalGas in Los Angeles. A member of the CNG/LNG Services in the Pipeline Safety Enhancement Plan (PSEP) team, she manages and directs major projects within the department and is responsible for developing work scope, budget, schedule, and resource requirements. In addition, she provides support for tracking and reporting on PSEP project status and progress; and responding to public information requests.

Chavira joined SoCalGas in 2011 as an account executive, responsible for the utility's largest customers, ensuring they were aware of energy efficiency programs, rate options, new technologies, and new programs. In 2015, she was promoted to project manager, tasked with coordinating all activities leading to the successful completion of a liquefied natural gas/compressed natural gas support project. This included scoping project cost estimates, budgeting, permitting, design, and material procurement and inspection of field activities. She provided direction to the engineering design firm, construction contractors, consultants, and engineers. Before joining SoCalGas, Chavira worked as a piping material engineer for Fluor and as a regulatory compliance specialist for Southern California Edison.

A SWE member since she was an undergraduate, Chavira has made it her mission to inspire young Latinas to become successful engineers. She has served the Orange County Section as a section representative and collegiate relations director. She has also served as Region B secretary and social media/communications director for the SWE Latinos affinity group. As a consistent volunteer for STEM outreach activities, she

organizes and attends K-12 schools throughout Orange County to promote engineering as a career, focusing on low-income communities and underserved minorities. Chavira has also been involved in training incoming and outgoing collegiate section leaders to foster an environment of learning for professional SWE involvement.

Dedicated to community service, Chavira has participated in numerous charity activities, including Operation Santa Claus; Habitat for Humanity; and Canstruction® Orange County, a national program in which local architectural, engineering, planning, and design firms, and students mentored by professionals, build structures of canned food that are then donated to hunger centers. Chavira is also a little sister volunteer for the Big Brothers Big Sisters of the Inland Empire organization.

For her contributions to STEM and the community, she received the 2017 Phenomenal Woman Award from the YWCA Greater Los Angeles. She has been recognized twice by the Orange County Engineering Council: She received the 2014 STEM Service Award for outstanding work in promoting engineering as a career and the 2015 Young Engineer Award for her contributions to the engineering field.

The daughter of Mexican immigrants and the first member of her family to attend college, Chavira earned a B.S. in mechanical engineering and an M.S. in engineering management from California State Polytechnic University. She has a project management certificate from the California Institute of Technology and is a certified energy manager. Chavira lives in Riverside, California, with her husband and their two husky rescue dogs.

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## SWE DISTINGUISHED NEW ENGINEER

# Stephanie Foege

AMBITECH, A ZACHRY GROUP COMPANY




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For significant cross-disciplinary workplace contributions in computer engineering; for wholehearted community service; and for inspiring and effective leadership at all levels of the Society.

Stephanie Foege is a senior estimator for Ambitech, an engineering services organization in the gas and oil refinery, chemical, and petrochemical fields. She constructs estimates for demolition, revamp, and greenfield work in a variety of settings, from oil refineries to food manufacturing plants. She has developed macros to automate reports that track project hours and personnel, as well as create and update schedules. Foege's estimating work influences safety improvements and cost-saving design modifications. She is Ambitech's go-to person for report automation and standardization and for increasing quality and efficiency throughout the organization. Her leadership in training new team members and developing new policies and procedures was rewarded in 2017 with an in-role promotion.

Foege joined Ambitech as an instrumentation and controls engineer in 2011 and transitioned to a joint role in the estimating and project controls departments in 2013. Prior to that, she worked for IBM doing hardware development and verification, most notably on the Xbox 360 chip. She helped develop a new method of semicustom chip design with improved timing, trained new team members, and consistently led the team in number and complexity of line-item coverage. Foege filed for a patent, US9047135, which was granted in 2015.

Her involvement with SWE began with the University of Illinois at Urbana-Champaign Collegiate Section executive board. As a professional, Foege served the Chicago Regional Section on the programs, finance, and WE11 annual conference planning com-

mittees. She was recording secretary and received the Key Contributor Award in 2011; she was treasurer and received the Consistent Contributor Award in 2012. In 2013, she was president and received the Outstanding New Engineer Award.

Foege went on to serve as section representative and awards committee chair. She remained active as an alternate section representative as she transitioned into leadership positions with Region H. Her efforts as Region H mentor program coordinator earned her the 2014 Governor's Choice Award — "Leadership Pipeline Builder." She frequently speaks at SWE events regarding work/life integration and the importance of providing a supportive environment for all STEM professionals.

As 2018 Region H lieutenant governor, Foege was honored with the final Governor's Choice Award in recognition of performance far above her job description, particularly at events such as the 2017 governance summit, which the region governor could not attend. At the Society level, Foege served on the WE Local awards task force, capturing best practices from regional programs and implementing new processes and procedures. She has been involved with the awards committee since 2014 and is the Emerging Leader award coordinator. She is currently serving as the FY19 bylaws chair-elect.

Foege holds a degree in computer engineering from the University of Illinois at Urbana-Champaign. In her free time, she enjoys sewing, cake decorating, spending time with her five young daughters and very supportive husband, and taking naps.



## SWE DISTINGUISHED NEW ENGINEER

# Natalie Miller

JAMES G. DAVIS CONSTRUCTION CORPORATION

For setting a high bar for success in architectural engineering; for long-standing service to SWE; and for commitment to educating and inspiring current and future women engineers.

Natalie Miller is senior project manager – integrated construction engineer at James G. Davis Construction Corporation (DAVIS) in Rockville, Maryland, where she has worked full time since 2010, following two student internships there. Miller gained valuable construction engineering experience during her internships, working on the Constitution Center, in Washington, D.C.; the Command and Control and Communications Network Transport (C2/CNT) East Facility in Aberdeen, Maryland; and the Hamaker Court medical office building in Fairfax, Virginia.

Now a senior project manager, Miller is responsible for development and management of multimillion-dollar projects and is recognized for her attention to detail and the ability to handle confidential and high-profile projects. She is currently in charge of a \$35 million renovation of the National Geographic headquarters in Washington, D.C., which involves 14 concurrent projects on 17 floors of two buildings. Miller is the primary project representative, managing budgets and schedules, strategic objectives and day-to-day technical activities, and using lean project planning to oversee multiple contracts.

In 2016, Miller tackled a project for the Maryland State Archives that involved detailed planning for protecting thousands of fragile artifacts. She has also completed a 91,000-square-foot project for The Aspen Institute, and an interior renovation of a forensic imaging laboratory to accommodate a state-of-the-art terrorist explosive device analytical center. Miller's most demanding assignment was building a transition office for a former U.S. president. She led her team to complete the project successfully under severe time and budget constraints and extremely tight security.

Miller's SWE involvement began with the Pennsylvania State University (Penn State) section in 2004. As

a collegiate member, she planned and implemented a wide range of activities, including engineering career fairs, networking receptions, and Girl Scout programs. She served the section as secretary, service director, and president. Miller joined the Baltimore-Washington Section in 2009, and as outreach vice president and K-12 outreach chair, she inspired thousands of students, hundreds of parents and teachers, and scores of SWE volunteers. Since 2012, as part of SWE's outreach committee, Miller has organized volunteers for the three-day USA Science and Engineering Festival, held in Washington, D.C.

She has made a great impact on the engineering pipeline during her six-year term on the board of directors for the Penn State Alumni Society of Architectural Engineers (ASAE), taking the lead on board initiatives and serving as an alumni mentor in ASAE's mentorship program. In 2014, Miller was the first recipient of ASAE's Early Career Impact Award for her contributions to architectural engineering. In addition, she has volunteered for the District of Columbia Building Industry Association and Commercial Real Estate Women and advocated for the Young Constructors Forum of Associated General Contractors. She has guest lectured at Virginia Tech, Penn State, East Carolina University, and the University of Maryland Eastern Shore.

Miller pursued an integrated bachelor's and master's degree program in architectural engineering at Penn State and received both degrees in 2009. She is a LEED green associate.

She is married to Charles Miller, who also earned an architectural engineering degree from Penn State, and they have a 1-year-old son. Born and raised in Charleroi, Pennsylvania, Miller is the daughter of Edward and Nancy Bryner. Her two brothers, Nicholas and Neil, are also in the construction industry.

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## SWE DISTINGUISHED NEW ENGINEER

# Amy Jo Moore

NORTHROP GRUMMAN CORPORATION




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For dedication to the future of engineering through technical leadership in the workplace; for commitment to SWE's mission; and for working to increase female representation in the profession.

Amy Jo Moore is currently the mechanical engineering department manager at Northrop Grumman Technology Services in Clearfield, Utah, leading a department of more than 100 mechanical engineers working on various missile programs in Utah and California. As a working manager, she spends most of her time as a technical contributor. Moore is a mechanical engineer on the ground subsystems support contract launch control center block upgrade program, responsible for the design, manufacture, test, and requirement verification of the oxygen regeneration unit replacement. This unit provides a breathable atmosphere in a contained environment.

Moore has worked for Northrop Grumman since 2010, focused mainly on intercontinental ballistic missiles. She started in guidance and control systems, where she led the product support, risk management, and configuration management efforts. She soon moved into ground systems and has supported Minuteman III sustainment and many new design programs. Moore represents her local Northrop Grumman organization at SWE events, both professional and collegiate. She is the liaison between Utah State University (USU) and Northrop Grumman in Ogden, Utah, and is one of the outreach and recruiting points of contact for the Ogden facility.

Active in SWE since an undergraduate at USU, Moore has served the organization at the collegiate, professional, and Society levels. She has held many leadership positions, including region collegiate representative, collegiate senator, professional section representative, professional senator, and mega issues

committee chair, as well as deputy and speaker of the senate. One of her most lasting contributions as speaker was creating the senate website. This new communication platform streamlines and clarifies senate communications, enabling members to see the issues that are before the senate, as well as the outcomes of meetings and calls. Moore's first leadership position was vice president of her collegiate section, at which time there were only four active members. As a result of her energy and determination, the USU section is now a thriving, medium-sized section and the strongest student organization on campus.

Moore is involved with various employee resource groups and outreach activities at Northrop Grumman. She leads events with the Ogden Astro Camp, local schools, and SWE collegiate sections, promoting STEM careers to school-aged children and showing them how engineering can unleash their potential. She has participated in Northrop Grumman's Expanding Your Horizons event for several years. Moore also advised SWE's pilot SWENext high school club at Weber High School, where she helped club members identify engineering degrees available to them, supported their outreach efforts, and briefed them on SWE and the engineering profession.

She received a B.S. in mechanical aerospace engineering with a minor in mathematics from Utah State University in 2009. She earned an M.S. in engineering management from Ohio University in 2013, while working full time at Northrop Grumman in Utah. In her free time, Moore enjoys kayaking, softball, cheering for her husband's rugby team, and watching her toddler learn.



## SWE DISTINGUISHED NEW ENGINEER

# Rupali Patil

JOHN DEERE

For wide-ranging technical expertise, coupled with a strong desire to create positive social change; and for extraordinary service to SWE, especially in international initiatives.

Rupali Patil is a lead engineer in the turf and utility product engineering group at the John Deere Technology Center in India (JDTCI), where she has worked since 2011. She is responsible for leading design projects in the area of product engineering, including vehicle system designs for powertrain mounting, controls, frames, and seats. This involves developing concept models and proposing design solutions for customers. Patil's project on new product development was recognized with the John Deere Enterprise Innovation Award in 2016.

Patil has made presentations at internal and external conferences and shared her expertise through both product domain knowledge training and multiple knowledge sharing platforms. Her technical presentation on powertrain isolation design methodology won the best presentation award at the first annual JDTCI technical conference. To expand her process management competence, Patil earned design for Six Sigma BMGI green belt certification. She completed a Master of Technology in design engineering, an employer-sponsored program at the Birla Institute of Technology and Science (BITS), Pilani, India. Her thesis on rice transplanter design examined challenges in mechanization in rice farming, ergonomic evaluation of current practices, and design solutions for the Indian market.

Prior to joining John Deere, Patil was a design engineer in the research and development department at Larsen and Toubro Ltd., an Indian engineering firm. Her responsibilities included concept development for an operating mechanism of molded case circuit breakers, development and validation of mathematical

models, testing prototypes, and developing optimization methodology. As a result of her work at Larsen and Toubro, Patil, along with her cross-functional team, filed eight patents.

Patil first joined SWE as an employee at John Deere India. Inspired by SWE's vision and mission, she served as international senator, international ambassador, John Deere Enterprise SWE awards committee member, and SWE conference advisory board member for WE Local Pune 2017. Patil has initiated many SWE projects and events, including Introduce a Girl to Engineering, to bring awareness about engineering disciplines and to address the myth that engineering is for boys only. Thirty-seven girls from Sadhana School participated in the first year of the event. Patil helped found India's first SWE professional affiliate in Pune and currently leads the mentoring activities for the affiliate.

She is active in SAE International and with a corporate responsibility group. She volunteered as a teacher for children from underprivileged schools and slum areas in Mumbai. Having grown up in a small farming village, Patil has a strong interest in community development, which led her to participate in Tata Jagriti Yatra (Journey of Awakening), an annual, 15-day train journey through India to learn about social entrepreneurship in small towns and villages. The change-makers she met reinforced her commitment to community development.

Patil earned her undergraduate degree in mechanical engineering from the College of Engineering Pune, in Pune, Maharashtra, India. In her free time, she enjoys socializing with family and friends.

## SWE DISTINGUISHED NEW ENGINEER

## Adriana Porter, P.E.

BLACK &amp; VEATCH CORPORATION



For being a trusted leader with proven technical and organizational skills; for encouraging students, especially young women, to enter STEM professions; and for long-term dedication to SWE.

A licensed civil engineer and an advocate for women in STEM, Adriana Porter, P.E., has embraced every opportunity to contribute to the future of engineering on the job, through community service projects, and through more than 10 years of service to SWE. She is a transmission line project engineer with Black & Veatch, a global engineering, consulting, and construction firm headquartered in Overland Park, Kansas. She currently oversees engineering for overhead transmission line, geotechnical, and site design for two engineering procurement and construction (EPC) projects for a major electrical utility and is responsible for collaborating with right-of-way acquisition, environmental, and construction teams.

Porter started at Black & Veatch as a Water Leadership intern. After signing on as a full-time engineer in the overhead transmission line group, she quickly established herself as a top performer with a talent for project execution and building relationships with clients, contractors, and colleagues. She sharpened her proficiency in PLS-CADD™ design software and MFAD, and in 2013, was the design engineer for a 25-mile-long transmission line that involved a rebuild of an existing line to new standards using 254 steel monopole structures. The soil conditions were poor in several areas, and Porter helped engineer a nontraditional solution for cost savings to the client. For five years, Porter coordinated monthly brown bag sessions to increase engagement and collaboration in the overhead transmission line group. These lunch sessions now include up to 100 professionals from across the company.

Her dedication to promoting STEM inside and outside the company also sets Porter apart. As chair of Black & Veatch's Women's Network (B&VWN) Employee Resource Group, she focuses on empowering women through professional development events, networking, and STEM-related outreach. She served on Kansas City's Introduce a Girl to Engineering Day (IGED) planning committee for five years since 2012 and now serves as co-chair for an annual IGED Jr. outreach event for middle school girls.

Crediting a Discovery Day outreach activity co-sponsored by the SWE Purdue section with inspiring her to become an engineer, Porter has been active in SWE since 2007, holding numerous leadership roles on the section, region, and Society levels. These various leadership roles include collegiate section treasurer and president, as well as professional section representative and president. She currently serves as chair of the leadership coaching committee and was the FY18 Region *i* lieutenant governor. In 2015, she received the Region *i* Impact Award for establishing a scholarship program for the region. In 2017, Porter received the Rising Trendsetter Award from the Central Exchange's Women in STEMM.

Porter holds a B.S. in civil engineering, with an emphasis in structural engineering, from Purdue University. She was active in the Purdue SWE section and received the Sandra Postal Leadership Award. She lives in Overland Park, Kansas, with her husband, Joshua, and enjoys running, traveling, and spending time with friends and family.



## SWE DISTINGUISHED NEW ENGINEER

# Cathleen Saunders, P.E.

QUIBLE & ASSOCIATES, P.C.

For making a mark in civil engineering, ensuring safe stormwater management; for earnest engagement in community service; and for directing boundless energy toward SWE's mission.

Cathleen Saunders, P.E., is a project manager with Quible & Associates, P.C., an engineering consulting firm in Powells Point, North Carolina. She is responsible for project management, design, and permitting of site development projects, ranging from less than an acre to 80 acres. She makes sure that networks collecting and directing runoff to stormwater management facilities meet state and federal regulations for water released in the Chesapeake Bay, Albemarle Sound, and other bodies of water in the region. She recently completed site development for a \$46 million water park in North Carolina's Outer Banks.

A professional engineer, licensed in Virginia and North Carolina, Saunders has eight years of experience in project and construction management in water, wastewater, stormwater, and roadway design. Before joining Quible, she was an intern, then a staff engineer, at Draper Aden Associates, where she worked on utilities projects and rehabilitation of sewer systems. She moved on to engineer II and III positions with the city of Newport News, Virginia, where she managed multiple stormwater, sanitary sewer, and Virginia Department of Transportation design projects.

A former president and current vice president of the SWE Hampton Roads Section, Saunders has held leadership positions at all levels of the organization. As deputy chair of the leadership coaching committee, she managed a team of approximately 45 collegiate coaches from the East Coast and the U.K. She has presented at leadership summits and conferences in New York, Philadelphia, and Houston. Her regional service includes representing the Hampton Roads Section to Society governance, regional LCC coaching, and performing duties as secretary to Region E in

FY18. In February 2016, she co-chaired the Region E Mid-Atlantic Conference in Newport News and worked with the Old Dominion University Collegiate Section to obtain the bid to host the conference, which brought 400 engineering students and professionals to the area. She ensures that the local professional section maintains a presence at school career days, summer camps, and other weekend events in Hampton Roads. Through SWE, Saunders mentors many college engineering students and has served as professional counselor at Virginia Commonwealth University.

Since high school, when she joined a campaign that successfully prevented demolition of an elementary school building in her hometown, Saunders has been active in community service. Involved in her church in Newport News, she volunteered at the on-site café to raise money for community outreach; visits homeless shelters; and helps with building maintenance, including cleaning, painting, and yardwork. She is a 2017 graduate of the Newport News, Virginia, Citizen's Fire Academy and certified in first aid and CPR. Saunders is also a member of the Camden County, North Carolina, planning board and reviews development proposals for compliance with land use and environmental impact.

Saunders earned her B.S. in civil engineering from Virginia Tech in 2010 and has been a member of the American Society of Civil Engineers since 2015. She was a 2017 nominee for the Doug Ensor Award for Young Engineer of the Year.

Outside of work and SWE, Saunders is learning to paint with oils and acrylics from her grandmother and makes crafts in her free time. She enjoys traveling the world with her husband, Mark, and going to the movies to see the latest superheroes.

## SWE DISTINGUISHED NEW ENGINEER

## Cassandra Zook

NAVAL SURFACE WARFARE CENTER, PHILADELPHIA DIVISION



For exemplary resourcefulness in critical U.S. Navy computer engineering assignments; for dedication to the well-being of her community; and for long-term commitment to SWE's collegiate sections.

Cassandra Zook graduated from Drexel University with a B.S. in computer engineering in 2011. After completing three co-ops at the Naval Surface Warfare Center, Carderock Division – Ship Systems Engineering Station, she joined the Aircraft Carrier Navigation and Ship Control (CVN) branch as a computer engineer and graduated from the Scientist and Engineer Development Program. While working full time, she completed an M.S. in systems engineering from The Pennsylvania State University and a graduate certificate in fundamentals of cybersecurity from the naval postgraduate school.

Zook currently works in the CVN branch at the Naval Surface Warfare Center, Philadelphia Division, remaining with the same group through three reorganizations and the commissioning of the Philadelphia Division as its own warfare center. She is responsible for the planning and execution of the life-cycle engineering plans (LCEPs) for two aircraft carriers. She is an integral member of the team supporting design, development, and maintenance of the LCEP for all aircraft carriers and several amphibious class ships. Zook manages all testing efforts for her branch and acts as her division liaison to the organization's Principal for Safety.

When she joined the CVN branch, Zook initiated the design of a new, government-owned ship control system. She became the on-site installation coordinator, overseeing the 25-member contractor team installing the system, tracking progress, conducting quality assurance surveillance, and ensuring work was done on time and within budget. Zook then led a team of six to load software, train the sailors, test the system and troubleshoot problems, and take the ship out to sea.

A SWE life member, Zook joined the Drexel section as a sophomore and served as webmaster, treasurer, and president. Following graduation, she joined the Philadelphia Section, and has held many section and region leadership positions, including section representative, science fair coordinator, region nominating committee chair, newsletter editor, scholarship judge, awards judge, a member of the leadership coaching committee, and Region E lieutenant governor. She has also served as the scholarship coordinator for the Society and has been a SWE Capitol Hill Day participant. In 2016, Zook was elected Region E nominating committee chair. That same year, she joined the leadership coaching committee for Region E, focusing on collegiate sections. Still active in this position, she does presentations at conferences and other SWE events and mentors new and struggling sections.

Zook is a board member of the West Philly Tool Library, an organization that enables low-income residents to maintain and improve their homes and neighborhoods. She is an advocate for STEM in the Philadelphia area by volunteering at multiple outreach events. She mentors a robotics team at a local, all-female high school; regularly speaks at career days; judges science fairs; and speaks on panels encouraging young women to become engineers. For all of these efforts, Zook earned the Outstanding Mentor Award, presented by Region E, in 2013 and the Drexel Young Alumni Distinguished Service Award in 2018.

She lives in South Philly with her husband, James Jackson, and two cats. She enjoys outdoor activities such as hiking, camping, and kayaking. Zook also loves to travel, both for work and personal reasons.




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## FELLOW GRADE

# Elizabeth Bierman

COMCAST

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For exceptional commitment to shaping public policy and its role in K-12 STEM education; and for expanding outreach and participation at every step of her SWE career.

Elizabeth Bierman is director of engineering for Comcast Cable, Twin Cities Region. She is responsible for the overall technical vision and strategic direction of the engineering department, focused on capacity bandwidth and the network. Bierman leads the engineering organization in four states: Minnesota, Wisconsin, Kansas, and Missouri, which designs and architects Comcast's network.

Previously, Bierman was a senior technical manager for Honeywell Aerospace in Minneapolis, where she oversaw test solutions for navigation, sensors, and lighting. She was with Honeywell for 13 years in a variety of roles in systems engineering, customer support, and program management.

Bierman's involvement with SWE reaches back to 1994. Impressed by the organization, she held leadership positions during college, one of the highlights of which was bringing space shuttle astronaut Sally Ride, Ph.D., to campus. After college, Bierman sought SWE out wherever she moved, from Iowa to Boston to Minnesota, where she has lived since 2003. She has served on the board of directors as secretary and as FY15 president. While president, she set an example by bringing her infant daughter to many meetings, proving that women can continue their SWE service even when they have young children.

As president, Bierman spoke on behalf of SWE and women engineers at every opportunity, often

overseas, to advance the Society's goal of globalization. Highlights included being interviewed by Mashable and National Public Radio; interviewing Gwynne Shotwell, president of SpaceX, at WE14/ICWES16; and giving the keynote address at the Japan Women's Innovative Network (J-WIN) conference in Tokyo. Another major achievement of her term was updating SWE's logo and branding, which succeeded through thoughtful and constant communication.

Since serving as president, Bierman has remained involved with the government relations and public policy committee, as both chair-elect and coordinator. She is passionate about public policy, especially concerning K-12 STEM initiatives. Bierman continues to represent SWE, most recently at a National Academy of Engineering forum on Title IV for women in postdoctoral programs. Locally, Bierman continues to support the Minnesota Section and has served on the Advisory Council since its inception.

She received SWE's Distinguished New Engineer award in 2006. She was inducted into the Space Camp Hall of Fame in 2015 and named a New York Moves Power Woman in 2016.

Bierman has a B.S. in aerospace engineering and an M.S. in systems engineering from Iowa State University, and an MBA from Bentley University. She is married to David Bierman and has two daughters.

## FELLOW GRADE

# Pamela Dingman, P.E.

LANCASTER COUNTY, NEBRASKA



For trailblazing entrepreneurship; for ongoing contributions to the vitality of SWE; and for raising the visibility of women engineers in private practice and as civil servants.

Pamela Dingman is an entrepreneur, a business owner, and an engineering public servant. Her engineering career began in the Denver area. She moved to the Omaha, Nebraska, area in 1996, where she embarked on her entrepreneurial journey. She joined Engineering Design Consultants (EDC) in 2003 and became the business owner in 2005. EDC flourished under her leadership and grew to be a \$3 million/year consulting business with 34 employees in the Omaha/Lincoln area.

In 2013, Dingman was appointed as the Lancaster County Engineer and won election to the position in 2014. She implemented many needed improvements in the county engineering department and is responsible for the county's civil engineering assets: 300 bridges; 1,000 box culverts; 6,900 pipe culverts; 14,000 signs; 1,440 miles of roads; 18 properties; 23 road graders; and 23 dump trucks. Dingman successfully manages an annual budget of \$30 million and 100 employees (50 percent women in the engineering group). Her department is also responsible for maintaining all county vehicles, including those from the sheriff's department. She implemented geographic information system tracking and inventory for all county assets, which aided in quickly applying for FEMA assistance after the 2015 flood.

Dingman has maintained consistent and substantial participation in SWE throughout her career. She has served in many capacities at the section level (both the Rocky Mountain and the Eastern Nebraska sections), at the region level (Region *i*), and at the Society level. She was elected as a special senator for entrepreneurship by the SWE senate in FY16 and FY17. As a member of

the SWE editorial board, she represented the small business perspective, and later, the perspective of a civil servant and an elected official.

She has worked steadily for the recognition of other women engineers, by personally preparing numerous SWE award nominations and judging Society-level awards, including the SWE National Freshman Scholarships in FY00, which drew more than 1,800 applications. She received the SWE Entrepreneur Award in 2013 and was a SWE Distinguished New Engineer in 2002.

Dingman has also been recognized outside of SWE. She has been named on two "40 Under 40" lists, received numerous business association awards and an alumni award, and was a 2013 TedxLincoln speaker.

She has an impressive history of promoting women in engineering in a variety of venues. She has given countless county engineering tours to local groups ranging from Rotary to SWE for adults, and from Smart Girls to home-schooled children. Dingman introduces girls and boys to the engineering profession through innovative outreach events, and inspires students at the University of Nebraska. Dingman created the County Engineering Program for Clover College for the Lancaster County 4-H Program and the University of Nebraska Extension Program. She is a regular speaker for the professional practice class in the University of Nebraska civil engineering department.

Dingman received her B.S. in civil engineering from the University of Nebraska and is a professional engineer. She has two adult sons — Steven, who recently graduated with a B.S. in computer science, and Thomas, who is currently on active duty with the U.S. Navy.




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## FELLOW GRADE

# Cindy Hoover

SPIRIT AEROSYSTEMS INC.

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For exhibiting exemplary leadership and inclusiveness in the workplace and beyond; and for consistent contributions to process improvement and advocacy at all levels throughout SWE.

Cindy Hoover was named chief engineer of operations, Spirit AeroSystems Inc., in March 2018. In this role, she provides engineering and technical support services to all operations across Spirit's locations in the U.S. and abroad.

Hoover has more than 28 years of industry experience in engineering, project and program management, Six Sigma, and a variety of operations management roles. Previously, she held vice president positions for the Boeing Twin-Aisle Programs, the 777X program, and the 737 MAX program, where she oversaw the development, execution, and integration of the products into existing operations and delivery to customers. Hoover was also program director for the 767 tanker program, where she developed program management best practices to successfully execute program milestones. Prior to these roles, she was director of fuselage engineering for the 777, 767, and 747 programs and was director for lean operations within the fuselage business.

Hoover's outstanding contributions to SWE span the section, regional, and Society levels. She contributed to boosting membership in the Wichita Section while raising her family, giving membership drive presentations and emphasizing professional development. She succeeded in doubling the section's membership in FY08 and maintained that success over subsequent years.

As Region *i* governor, Hoover improved communications by conducting regular leadership calls and keeping student sections engaged and growing. She

has also been involved in substantial outreach to young people for more than 20 years. In the late 1990s, she was instrumental in rolling out the Wichita Section's Engineering Expo, a local event that now draws some 3,000 elementary school children and parents.

At the Society level, Hoover served as finance committee chair, implementing a three-year, strategic rolling budget that was a resounding success. Also, to help committee members better engage, she implemented a subcommittee structure that included training modules for new members. As treasurer, Hoover helped improve communications between board members and trustees, the finance committee, and headquarters. Following a term on the board of trustees and currently SWE's president-elect, she looks forward to serving as SWE FY20 president. In 2014, Hoover received SWE's Prism Award and in 2017, SWE's Work Life Integration Award.

An active member of the Wichita community, Hoover is vice chair of the board of trustees for the Wichita Area Technical College and a board member for the Wichita State University Alumni Association. She has also served on the boards of multiple local and regional organizations.

Hoover received a B.S. in electrical engineering from Wichita State University, an MBA from Friends University, and Six Sigma black belt certification from Six Sigma Academy. She and her husband, Bryan, live in Wichita and have three adult sons.

## FELLOW GRADE

## Gina Janke

MODINE MANUFACTURING COMPANY



For a sterling record of professional achievement; for expanding the scope and reach of SWE, especially through scholarship promotion; and for decades of leadership and outreach.

Gina Janke is a principal manufacturing engineer with Modine Manufacturing Company, where she has worked for more than 20 years. She is a subject matter expert and corporate reference for industrial engineering at Modine, and a key liaison for the company's facilities, human resources, and financial departments.

A SWE senior member, Janke joined the Society in 1986 as a mechanical engineering student at Harvey Mudd College. After receiving her B.S., she was hired by Rockwell International to resolve component anomalies on the space shuttle main engine, then worked on a cross-functional business team as a contract specialist at Hewlett-Packard.

In 1997, Janke accepted a position with Modine as a Truck Division manufacturing engineer. Over the next decade, most of Modine's large commercial truck copper-brass radiators were redesigned using aluminum, substantially increasing market share. Janke was instrumental in this successful transition. Her project management experience grew as she led 15 product transfer programs that included transferring a copper-brass radiator product line to a Modine facility in Brazil, bringing new technology to the region.

Transitioning into the industrial engineering department, Janke grew as both an engineer and mentor. In addition, she championed the success of other women in engineering, supervising numerous college interns.

Janke's 30-plus-year SWE career is highlighted by leadership roles in the Wisconsin Section and Region H, including treasurer for 12 years and scholarship committee founder. In this role, she led the collection of \$25,000 for the section's first endowed scholarship and coordinated \$14,000 in scholarships for local female students. Her many outreach activities included workshop presentations for Girls Empowered by Math and Science and regularly representing SWE at Milwaukee's annual STEMfest.

In 2016, Janke became the treasurer for Region H. In addition to her regular duties, she has participated in the creation of endowed, designated funds for section vitality and public policy. She has been instrumental in the restructuring of SWE, serving on governance, WE Local, and other Society and region teams to identify best practices, and she received the Region H Distinguished Service Award in recognition of her efforts.

In addition to work and SWE activities, Janke is a founding member of the Racine Women Engineers Network, which provides a much-needed mentoring and teaching resource for the community. A longtime member of the American Society of Mechanical Engineers, she volunteers for the local United Way as a fundraiser and reading tutor.

Janke also volunteers at her church in a variety of roles. She lives with her husband and two teenagers and enjoys sailing and cross-country skiing.




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**FELLOW GRADE**

## Andrea Karalus

PRATT & WHITNEY

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For decades of inspired service as role model, mentor, and leader in the workplace, SWE, and the community; and for serving all three with dedication and enthusiasm.

Andrea Karalus is the mechanical design discipline chief for Pratt & Whitney's Global Services Engineering (GSE) organization. In this role, she chairs the GSE technical team that includes the design, structures, validation, repair tooling, and project management discipline chiefs. This entails coordinating weekly discussions and action plans on process improvements, discipline health, and emerging issues to maintain the engineering quality system for Pratt & Whitney's Maintenance, Repair and Overhaul business. Karalus establishes training for mechanical design practitioners, creates or improves tools for repair design assessment, and implements processes to produce and provide superior mechanical repair solutions to airline customers and overhaul repair shops.

Karalus' career spans more than 32 years at Pratt & Whitney. She began as an analytical engineer, performing external aerodynamic analysis on engine components and installations. Building a miniature wind tunnel first exposed Karalus to design and fabrication services, which led her to the mechanical design discipline, with subsequent exposure to conceptual, preliminary, and detailed design phases of gas turbine engine development.

While working at Pratt & Whitney, Karalus became an adjunct professor at the University of Hartford, teaching statics and strength of materials. In 1993, she patented an aerodynamic pylon configuration that reduced installation drag of aircraft.

A senior life member of SWE, Karalus first joined while a sophomore in college. As a student, she was

president of the engineering student association and worked closely with other engineering societies, such as SWE, at the college to improve the engineering discipline. After graduation, she joined the SWE Hartford Section and held many leadership positions, including treasurer, vice president, president, and section representative. Karalus then took on various region positions, was part of the region conference subteam developing the initial plan for WE local conferences, and was a representative on the Region F nominating committee. She also served as FY18 nominating committee deputy chair and is currently serving as the FY19 nominating committee chair. Karalus impacts women's and girls' lives by speaking to dozens of young women in GSE's women's network at Pratt & Whitney about career development, reaching out to collegiate leadership on setting short- and long-term goals, and by connecting with more than 400 eighth-grade girls during a STEM promotion at the University of Connecticut.

She holds a B.S. in mechanical engineering from The State University of New York at Buffalo and an M.S. in mechanical engineering from Rensselaer Polytechnic Institute. She lives in East Hampton, Connecticut, with her husband, Bob, and their two children, Alex, 20, and Emilee, 18, both of whom are attending college. In her free time, Karalus enjoys hiking and playing tennis with her family and friends.

## FELLOW GRADE

# Mary Roybal, Ph.D.

RAYTHEON MISSILE SYSTEMS



For steadily raising the standards for what women engineers can achieve; and for exceptional service to SWE that maintains mentorship and advocacy at its core.

Mary Roybal, Ph.D., is the mechanical analysis chief technologist for Raytheon Missile Systems (RMS), a technology and innovation leader specializing in defense, civil government, and cybersecurity solutions. An expert in bonded joints, nonlinear analysis, and anisotropic material systems, Dr. Roybal is the RMS structural analysis lead for all structural and thermal analysis for the mechanical subsystems directorate. Her 30-year career has focused on nonmetallic (composite) structural analysis and design in failure investigations and future design on mechanical systems.

A senior engineering fellow in the structural analysis and test department, Dr. Roybal recently led structural analysis on the Tactical Boost Glide program. She also has led an integrated product team and several mechanical subsystems teams. She is the technology lead for advance analytical concepts and integration of multidiscipline analyses that are critical to missile development, and the mechanical subject matter expert for qualification testing, from test planning to final test execution.

Dr. Roybal is also an educator and author. She has taught as an adjunct professor at both the Massachusetts Institute of Technology and the University of California, Los Angeles, and at RMS for an after-hours course in composite and structural analysis. She has chaired the American Institute of Aeronautics and Astronautics Structures Technical Committee, and published many papers on composite and mechanical issues.

A SWE life member, Dr. Roybal has dedicated time and energy to advancing the goals of the Society, no matter how large or small the task. As section treasurer, she improved the financial health of both the Tucson and Los Angeles sections and also served both as president. For Los Angeles, she created the section's first webpage in the late 1990s, which helped it survive and grow in a large metropolitan area. She served Region B as treasurer, working with a diverse group of senior leaders.

She is currently an active member of the Tucson Section and promotes SWE and its values at RMS. At every turn, Dr. Roybal passionately advocates engineering for women of all ages. She is active in many student science competitions and fairs. She encourages STEM activities in the grade school and high school levels through a wide variety of volunteer activities for both the Girl Scouts and Boy Scouts, always with ideas for engineering projects at the ready.

Dr. Roybal holds a B.S. in aerospace engineering from the University of Missouri, an M.S. in aeronautical engineering and an M.S. in engineering management from the Georgia Institute of Technology, and a Ph.D. in mechanical engineering from the University of California, Los Angeles.

She is an avid scuba diver with more than 1,200 dives around the world. She has dove off the coast of the U.S., Mexico, Central America, Micronesia, and Indonesia. She enjoys hiking and bicycling with her husband in Tucson, Arizona.




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## FELLOW GRADE

# Alyse R. Stofer

MEDTRONIC

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For exemplary technical and collaborative skills as a global leader; and for building enthusiasm and participation through mentoring and leadership at every level of SWE.

Alyse R. Stofer is a program director in the Mechanical Circulatory Support (MCS) business for Medtronic, the global leader in medical technology, services, and solutions. Her 20-year career in the medical device industry has included significant technical and leadership contributions recognized by patents and numerous awards.

Over the course of her nine-year career with Medtronic, Stofer served as both a program and people leader for Medtronic's Neuromodulation business unit. She launched three medical devices that were increasingly complex in terms of technology, manufacturability, and business dynamics. Through these programs, Stofer developed credibility, respect, and a reputation as a global R&D leader. In 2014, she leveraged her collaborative leadership style and transitioned from a program to functional leader, serving two years as Neuromodulation's R&D project management office leader, before transitioning to the endoVenous business with R&D product life-cycle responsibility for the superficial venous disease portfolio. Now in the MCS business, Stofer is leading development of the next-generation left ventricular assist device system.

A leader, mentor, and role model for women engineers at Medtronic, in 2016 Stofer was Medtronic's Global SWEnet chair, inspiring employer-sponsored memberships, increased participation in SWE's annual and region conferences, and launching the first WISE Lean in Circle. She is also a leader for Medtronic's Women in Science and Engineering (WISE) initiative, where she served as development team co-lead and

Twin Cities Regional Deployment lead for 11 R&D sites, and is now the WISE co-chair. Stofer has been Medtronic's engineering liaison to SWE's Corporate Partnership Council since 2009.

Her breadth of leadership in SWE began with collegiate membership in the University of Iowa Section, where she focused on outreach opportunities for elementary and high school students. As a professional member, Stofer has served the Minnesota Section as president, vice president, section representative, secretary, and membership and awards chairs. She has been Region H governor, lieutenant governor, and secretary. In 2008, she was elected to SWE's board of directors and was director of regions, director of membership initiatives, and president-elect before serving as SWE's 50th president in FY13. Since completing her term, Stofer has served SWE as nominating committee chair, achievement award coordinator, and is currently the local conference advisory board chair for WE18. In addition to her SWE achievements, Stofer completed a two-year term as the American Association of Engineering Societies chair in 2017.

While much of Stofer's volunteer time focuses on SWE and advocating for women engineers, she is also involved in her community in a variety of activities. She cherishes the time she spends with her husband, 13-year-old son, and 11-year-old daughter. She cheers them on at hockey, soccer, and baseball games, and took up hockey herself this year, skating in the Women's Hockey Association of Minnesota.

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## DISTINGUISHED SERVICE AWARD

# Nora Lin, F.SWE

NORTHROP GRUMMAN CORPORATION




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For sustained contributions to SWE, her workplace, and community; and for inspiring women in the engineering profession through advocacy, volunteering, and visionary organizational leadership.

**N**ora Lin, F.SWE, is a chief engineer at Northrop Grumman Corporation (NGC) in Rolling Meadows, Illinois. She is responsible for Infrared Countermeasure (IRCM) system installation and integration on aircraft for several international programs. Before joining NGC in 1993, Lin was a software manager at McDonnell Douglas (now Boeing) in St. Louis.

She received the Women of Color in Technology Career Achievement Award in 2008 and the Asian American Engineer of the Year Award in 2009. A naturalized U.S. citizen, Lin received her bachelor's degree in physics in Taiwan and her master's in physics from The University of Alabama at Birmingham.

Joining SWE as a senior member in 1997, Lin has dedicated herself to pursuing and advancing the Society's mission ever since. Active in SWE through her employer, Lin initiated the creation of the corporatewide Northrop Grumman Women Engineers group in 2003. She campaigned for the Suzanne Jenniches Upward Mobility Award and helped her employer endow this award in conjunction with SWE. She also secured several other NGC sponsorships for SWE, including for the collegiate leadership coach program and Region H conferences.

Lin became a SWE life member in 2003 and a Fellow in 2011. In 2016, she received SWE's Advocating Women in Engineering Award. She has held many SWE leadership positions, including SWE president in FY10. Prior to that, she was director of regions, section vitality task force chair, and president of the Chicago Regional Sec-

tion. As the first Region H governor, Lin led an effort to improve the region conference planning process, and, as a result, attendance at all Region H conferences grew dramatically. As director of regions, she collaborated with other board members, region governors, and committee chairs to improve the yearly transition process for the sections and regions, combine several SWE entities, and pilot a leadership pipeline process to support SWE's diversity and inclusion strategy. When the U.S. economy took a downturn in 2008, and SWE had its first significant operational budget shortage, Lin led the board to stabilize the Society by controlling the budget and initiating a strategic financial planning process. A tireless and skillful fundraiser, Lin has enabled SWE sections and regions to provide valuable programs to their members for more than 15 years.

After completing her term as SWE president, Lin went on to serve as leadership election task force chair and the Region H representative on the nominating committee. She has been a member of the SWE conference advisory board since 2015. Her most recent contribution to the Society is setting up the well-received Pathfinders program for seasoned SWE members.

Lin was a member of the Illinois Engineering Council and served as treasurer from 2001 to 2002. She is a frequent panelist and keynote speaker at technical and professional conferences on the subject of women in engineering.



## DISTINGUISHED SERVICE AWARD

# Linda M.S. Thomas, F.SWE

THE BOEING COMPANY

For being a shining example of SWE's mission — pushing for personal success and promoting women in engineering; and for unwavering advocacy of diversity and inclusion within the Society and beyond.

Linda M.S. Thomas, F.SWE, is a Boeing Technical Fellow, system safety engineer, and chemical risk integration leader at Boeing Defense, Space and Security in Seattle, Washington. She is project manager and subject matter expert for environmentally preferred chemicals and materials affecting Boeing's military aircraft, network and space systems, global services and support operations, and joint ventures. She was previously lead system safety engineer for global transport and executive systems aircraft, where her technical contributions enabled continued performance of Boeing aircraft in the U.S. government executive fleet. She also consults to a variety of domestic and international programs within Boeing.

Thomas has received numerous honors and awards for her professional achievements and community involvement. Highlights include being named the 2016 National Society of Black Engineers Celestial Torch Outstanding Woman in Aerospace and receiving the 2012 Puget Sound Engineering Council Industry Engineer of the Year Award. Thomas was also named the 2014 Black Engineer of the Year Modern Day Technology Leader, and, in 2004, she received the Boeing Defense and Space Group Spirit Award for championing diversity through mentoring at Boeing and for her work through SWE.

A SWE senior life member, Thomas received the Fellow Grade award in 2013 and has held many SWE leadership positions, often guiding the Society in new directions. She has served as president, vice president of professional development, and as a member of the joint membership task force for the SWE professional development committee to allow the inclusion of the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE), and the

American Indian Science and Engineering Society (AISES) as joint members. As SWE director of regions from 2010 to 2012, Thomas implemented strategic initiatives crucial to SWE's plans for the future, notably diversity and inclusion and international expansion. She spearheaded scheduling a diversity and inclusion topic in the monthly regional governor teleconference about SWE activities. In addition, she instituted new region reporting procedures, launched an effort to prevent section dechartering, advocated for engaging international members, and helped form the first international collegiate interest group in Turkey. During this time, she represented SWE at SHPE's and NSBE's annual conferences. In 2016, she was named one of *SWE Magazine's* "Women Engineers You Should Know."

She has dedicated many hours to the Issaquah School District as a volunteer science instructor for a science and technology magnet program and currently serves on the school district's STEM advisory board. She is a SWE senator, currently serves as director of member services for the System Safety Society, and is a member of NSBE. In addition, Thomas participates on industry committees sponsored by the Aerospace Industries Association and the International Aerospace Environmental Group, both of which organizations Boeing is a member.

A native of Washington, D.C., Thomas received her bachelor's degree in chemical engineering from Howard University and a master's degree in systems architecture and engineering from the University of Southern California.

She enjoys leisure time with her husband, son, and pet birds. She also likes reading, bicycling, and photography. Thomas is an accomplished amateur clarinetist and performs regularly with local community orchestras and wind ensembles.

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## OUTSTANDING SWE COUNSELOR

# Ann Peedikayil

CATERPILLAR INC.




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For bringing the wisdom, energy, and compassion gained as an engineer and a SWE member to her role as counselor for the University of Illinois at Urbana-Champaign Collegiate Section.

Since 2012, Ann Peedikayil has been the counselor for the SWE collegiate section at the University of Illinois at Urbana-Champaign (UIUC), the largest student engineering organization on campus. A hands-on counselor and mentor, Peedikayil is always available to answer questions, provide guidance, and attend meetings. She has provided conflict resolution and guidance to the officer nomination committee, and her mediation skills have helped improve relations between the collegiate section and the UIUC faculty and administration. Serving as a bridge between SWE UIUC and the Central Illinois Section, she represents SWE UIUC at the professional section's monthly meetings, promoting the collegiate section's events. Because of her contacts, the collegiate section has strong participation from professional SWE members at career-development, networking, and mentoring events.

Currently, a data scientist with Caterpillar Inc., Peedikayil began working for the company at the Champaign Simulation Center (CSC) as part of the engineering student practicum program in 2004. She was hired full time in 2006 into the company's engineering rotation program, where she had rotations as a structural analyst, a product support engineer, a design engineer, and a test engineer. She then joined Caterpillar Global Mining as a structural analyst, and in 2012, returned to the CSC to work as a machine simulation analyst with the Advanced Virtual Product Development group. Three years later, she moved into the Engineering Talent Competency group, where she recruited, trained, and managed parallel co-op students, while also working on projects to resolve product issues on motor graders. In July 2017, Peedikayil transitioned into data analytics and started in the analytics

professional development program. Since then, she has had rotations with the Machine Data Insight group and the Digital Dealer Enablement Group.

Involved with SWE since she was an undergraduate, Peedikayil was the community service director for the UIUC section from 2000 to 2002. In this position, she worked with other SWE members to volunteer in the community and build relationships with community leaders. Peedikayil is active in the Central Illinois Section, where she is helping to expand professional membership in the Champaign, Urbana, Decatur, and Danville areas. She works with the SWE-UIUC Team Tech as an industry advisor, as Caterpillar and the SWE Illinois Team Tech collaborate on a project for the Team Tech Competition at WE18.

Peedikayil holds two bachelor degrees from UIUC — in aerospace engineering and in engineering mechanics. While working full time, she earned a master's in mechanical engineering from the Missouri University of Science and Technology in 2012, and she completed an MBA from UIUC in 2017.

An active community volunteer, Peedikayil works with the *FIRST*<sup>®</sup> LEGO<sup>®</sup> League to help organize the Champaign-Urbana Illini qualifier and Tesla Championship Tournament in Champaign. She previously served as a mentor for the local *FIRST*<sup>®</sup> Tech Challenge and *FIRST*<sup>®</sup> Robotics Competition teams. She has coordinated activities and personnel for many STEM-related events at CSC, such as the UIUC GAMES (Girls' Adventures in Mathematics, Engineering, and Science) camp for the last six years.

In her free time, Peedikayil loves to travel, hike, and camp with her husband, Anthony. She also enjoys discovering and cooking new dishes from all over the world.




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## OUTSTANDING COLLEGIATE MEMBER

# Saheba Bhatnagar

RICE UNIVERSITY

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For outstanding academic accomplishments in bioengineering; and for a stellar record of civic and professional activism expressed through SWE leadership, community service, and international volunteer work.

Saheba Bhatnagar graduated in May 2018 from Rice University with a B.S. in bioengineering. She worked in the Grande-Allen Integrative Matrix Mechanics Lab and served as a peer academic advisor and a teaching assistant for the bioengineering fundamentals class. Bhatnagar received a Loewenstern Fellowship in International Service and Civic Research from Rice, which she used to research the high incidence of cancer among underserved women in Bangalore, India. In 2015, she received a National Science Foundation grant for bioengineering research. She is the co-author of an abstract accepted for the Heart Rhythm Society conference in spring 2016, the co-author of an article published in the *Journal of The Royal Society Interface*, and first author of an abstract accepted for the Biomedical Engineering Society fall 2015 conference.

A member of the Rice University SWE section (Rice SWE) for four years, Bhatnagar served as treasurer and outreach chair. She sparked Rice SWE's involvement in Project Pumpkin, for underserved children at Halloween, and the annual Girl Scout Day, which brings 100 Girl Scouts to campus for STEM activities. Bhatnagar also worked with the SWE Houston Area Section to organize Introduce a Girl to Engineering Day, mobilizing volunteers, recruiting speakers, and organizing facilities for the event. Along with two other members of the Rice SWE leadership team, Bhatnagar worked with Rice's School of Engineering to develop surveys and implement focus groups to investigate the unique challenges that Rice women engineering students face.

In her senior year, Bhatnagar launched the Girls for Leadership in Engineering program, a problem-

centered, experiential, after-school program for middle-school girls. Participants worked on problem-centered activities in electrical and mechanical engineering and computer science. The program was a collaboration of SWE Houston, the Center for Civic Leadership at Rice University, and the Young Women's College Preparatory Academy.

Bhatnagar has an exceptional track record of community service — on campus, locally, and internationally. She volunteered at a palliative care unit for dementia patients and in the oncology ward at the Houston Methodist hospital. She was a member of the Biomedical Engineering Society (BMES) for all of her four years at Rice, participating in the mentorship program, attending networking and social events, and presenting her engineering research at the BMES 2015 conference. Active in the Rice Student Volunteer Program (RSVP), Bhatnagar served as secretary and treasurer. As chair of RSVP's hunger and homelessness committee, she organized biweekly trips to a local homeless center and led implementation of the Oxfam Hunger Banquet to educate Rice students about global hunger and poverty. She traveled to Nicaragua with Global Medical Brigades and helped run village medical clinics, taking medical histories, teaching dental hygiene to children, working in the pharmacy, and helping build hygiene stations.

She was valedictorian of her class of 700 at Desert Vista High School in Phoenix and a recipient of the National Merit Scholarship and the Intel Andy Grove Scholarship for Academic Achievement.

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## OUTSTANDING COLLEGIATE MEMBER

# Carlisle DeJulius

THE UNIVERSITY OF AKRON




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For demonstrated SWE leadership throughout her undergraduate career; and for sharing her engineering experiences with many young women and girls, inspiring them to join the profession.

Carlisle DeJulius graduated in May 2018 from The University of Akron (UA) with a B.S. in biomedical engineering — biomaterials and tissue engineering track — with a minor in chemistry. She has written one journal article and seven conference proceedings on her research work. DeJulius received the 2017 NXP Foundation Women’s STEM Student Achievement Award in recognition of her talent, accomplishments, and vision. As of this fall, she is pursuing her Ph.D. in biomedical engineering from Vanderbilt University, studying polymeric drug delivery strategies for osteoarthritis therapies.

An active SWE member, DeJulius has held many leadership positions in the UA SWE section, including outreach chair, vice president, and, in her senior year, president. As outreach chair, she initiated high school shadow day, at which local high school students attended classes with UA engineering students and toured the engineering building. This event has continued and was recognized with a 2017 SWE Mission Award. As president, DeJulius applied her leadership training to oversee the mission of the section while also helping her executive team learn leadership skills.

During her tenure as president, DeJulius was an expert at managing both officer and member meetings, and her Monday morning “What’s going on this week?” emails kept everyone organized and on target to meet their responsibilities. When she was a sophomore, DeJulius was accepted into the SWE Future Leader (SWEFL) program, giving her the opportunity to attend the Collegiate Leadership Institute at the 2015 SWE conference. Since then, she has attended six other SWE conferences at the regional and Society levels.

DeJulius shouldered leadership roles in other campus organizations as well. She served as class representative, secretary, and co-president of the Biomedical Engineering Society. She was chapter treasurer of Tau Beta Pi, the engineering honor society, in the UA College of Engineering. A strong supporter of the College of Engineering’s Women in Engineering Program (WIEP), DeJulius volunteered regularly at WIEP outreach events for K-12 girls and mentored participants through engineering activities such as building circuits and creating model cars. One of her favorite events was Kids Career Day, which included many hands-on activities for first- through sixth-grade girls. She also volunteered as a resident assistant during the weeklong residential summer camps held on the UA campus for high school women interested in engineering.

The UA College of Engineering selects three to four seniors from each major to represent the college and university during a variety of high school visitation events. DeJulius was selected to represent the biomedical engineering program and worked closely with the dean’s office to promote engineering at the university. When she was a junior, DeJulius was elected to Omicron Delta Kappa (ODK), a national leadership honor society. The following year, understanding, through her SWE involvement, the importance of recognizing women engineers, DeJulius nominated her research advisor for the inaugural Passion Award, sponsored by ODK.

A native of Kent, Ohio, Carlisle is the daughter of two physicians. She is a triplet, with one brother and one sister. Her favorite leisure-time activities are running, reading, and baking.



## OUTSTANDING COLLEGIATE MEMBER

# Cheryl Fichter

UNIVERSITY OF CALIFORNIA, DAVIS

For academic excellence in chemical engineering; for mentoring many women engineering students to success; and for a positive impact on SWE and the overall campus community.

Cheryl Fichter graduated with a B.S. in chemical engineering from the University of California, Davis (UC Davis) in spring 2018. She tutored other students in general chemistry and performed undergraduate research in a physical chemistry laboratory. She also volunteered with local high schools and elementary schools to tell young people about opportunities in STEM. She received the 2017 Won Family Scholar Award for academic excellence through the UC Davis College of Engineering, and she was invited to the 2017 College of Engineering Awards as a special guest.

Fichter is a recipient of several other awards and scholarships, including the American Council of Engineering Companies Scholarship. She interned with Pacific Gas and Electric Company and Chevron, and started a full-time position with Microsoft in July 2018.

Heavily involved in mentoring women in STEM fields, Fichter dedicated countless hours to the success of the SWE section at UC Davis, joining as soon as she arrived on campus. Over the course of four years, she served as publicist, vice president, and finally, president of the section. As publicist, she connected members with opportunities that SWE provided, taking pride in clearly and frequently conveying SWE's mission, to section members, the UC Davis community, and to Bay Area engineering companies. As vice president of external affairs, she linked students with companies to help students find jobs and internships. Fichter took great satisfaction in knowing that a member received a job offer after attending an event she had hosted. She also

enjoyed helping her peers land their first internships; Fichter found her first job through SWE and enjoyed doing the same for other members.

As section president her senior year, Fichter held frequent one-on-one meetings with each of the other officers to learn about their goals, strengths, and concerns. She took the time to learn each officer's personal work style in order to help them be more productive and always made time during general meetings to celebrate members' successes. Fichter attended WE16, WE17, WE Local San Jose, and WE Local Portland.

Involved in other engineering societies and campus technical activities, Fichter coordinated SWE's participation in HackDavis, UC Davis' student-run hackathon, and spoke at the opening ceremony to more than 700 attendees about the importance of diversity at hackathons. She initiated the partnership between SWE and HackDavis in 2016 and continued SWE's participation to increase diversity in the event. Fichter was also a member of the American Institute of Chemical Engineers (AIChE) for three years, and led planning for A Night With Industry 2017, a joint AIChE/SWE event that connected students and companies for networking and dinner. She was also a member of the Biomedical Engineering Society.

A passionate animal welfare advocate, Fichter volunteers at an animal shelter in the Bay Area. She is a native of Maine and enjoys oil painting, spending time with her family, and trying new foods.

## OUTSTANDING COLLEGIATE MEMBER

## Bridget Hegarty

YALE UNIVERSITY



For extraordinary efforts on behalf of SWE and female engineering students at Yale, chartering a collegiate section and simultaneously founding a SWE graduate student committee.

Bridget Hegarty is a sixth-year environmental engineering Ph.D. candidate at Yale University. She graduated magna cum laude from Cornell University and was initiated into Tau Beta Pi, the engineering honor society. She has continued to serve as a graduate advisor to Yale's Tau Beta Pi chapter. For her cutting-edge research developing gene-network models in cyanobacteria, Hegarty was awarded the National Science Foundation's highly competitive Graduate Research Fellowship. She was accepted to Yale Engineering's Advanced Graduate Leadership Program, a selective program that provides engineering Ph.D. students with training beyond the lab.

When she arrived at Yale in 2013, Hegarty found only a small SWE interest group and learned that previous attempts to charter a section had fizzled. She immediately began to work on applying to become an official SWE section, establishing one in February 2016. Hegarty also founded Yale GradSWE and served as a graduate student advisor to the undergraduate SWE group. She was president of Yale SWE for one year and chair of GradSWE for three years, during which time she recruited graduate students to SWE, established annual programming and events for GradSWE, and promoted SWE's presence on campus.

Thanks to Hegarty's hard work and commitment, Yale is now home to a thriving SWE community. After stepping down from her section and committee leadership positions, Hegarty took on the job of diversity and inclusion liaison for the Society-level Graduate SWE Leadership Team, working to connect graduate students with other SWE affinity groups and to provide resources for promoting diversity in STEM.

Hegarty's dedication to SWE's mission has resulted in numerous awards, among them: SWE's Region F Collegiate Emerging Leader Award, the Outreach MOU Partnership Award for her work at Cornell, and the Community Service Award from the Yale Graduate School of Arts and Sciences.

Deeply involved in the larger community, in 2017 Hegarty established Yale's first-ever Equity in the Job Search Symposium. The now-yearly symposium provides research on implicit bias in the STEM job search and arms participants with skills and tools to overcome bias. She spearheaded organization of the symposium in 2017 and 2018 and is working with the Yale administration to ensure its continuation after she graduates.

She has an impressive track record of participation in STEM outreach dating from her early days in SWE at Cornell, where she served first as a Girl Scout Day chair and then as assistant outreach director for Cornell SWE's outreach program. She is a founding member of Yale's GradSWE outreach team, which hosts a variety of "engineering days" for middle school and high school students, locally and statewide. Apart from SWE, Hegarty participates in Yale Girls' Science Investigations, Pathways to Science summer SCHOLAR program, and the New Haven Science Fair. She also mentors undergraduates as part of the graduate affiliate program for one of Yale's residential colleges.

A photography enthusiast, Hegarty can be frequently seen with her camera around New Haven (or wherever she is traveling at the moment). She is also a black belt in taekwondo and an avid skier.



## OUTSTANDING COLLEGIATE MEMBER

# Caitlyn Hines

UNIVERSITY OF MICHIGAN – ANN ARBOR

For strong scholarship in chemical engineering; for dedication to SWE's mission; and for active commitment to expanding the definition of social justice, diversity, and inclusion.

Caitlyn Hines graduated in April 2018 from the University of Michigan – Ann Arbor with a degree in chemical engineering. Her academic honors and awards include a SWE Region H Collegiate Emerging Leader Award for demonstrated academic excellence, outstanding leadership, and consistent engagement with SWE; the Arlen R. Hellwarth Award for an outstanding undergraduate student leader who has made valuable contributions to the University of Michigan community; and (twice) the Distinguished Leadership Award for outstanding leadership and service to the College of Engineering.

Hines performed undergraduate research in the Taubman College of Architecture and Urban Planning on residential water self-sufficiency. She worked on the Zero Energy Buildings project, evaluating the potential for residences and office buildings in 10 global locations to rely solely on rainfall for their water supply. Additionally, she completed research at the Battle Creek Area Math and Science Center on water purity.

A strong supporter of SWE's mission, Hines' involvement in her collegiate section included participating in subcommittees and volunteering for events such as Girl Research Engineering and Technology Day; Scout Out Engineering Day; and Engineering Games. She served as secretary for the corporate information session committee, after which she stepped up to be CIS director. Skilled at time management and prioritizing important action items, Hines co-directed a weeklong Summer Engineering Exploration Camp, bringing 40 high school students to campus, giving them engineering challenges, and educating them about STEM and college

life. As president, she tackled the job of restructuring SWE's approach to inclusivity and corporate relations and encouraged conversations within the College of Engineering about nonbinary and male gender inclusion. These efforts led to planning an intersectional identities workshop with identity-based organizations and piloting an interdisciplinary summit in memory of Martin Luther King, Jr.

Hines was also involved in a number of campus and community organizations, including Out in Science, Technology, Engineering, and Mathematics (oSTEM) and several diversity, equity, and inclusion efforts in the College of Engineering. As a member of oSTEM's board, she worked tirelessly with other board members to help build a safe, supportive space for the LGBTQ+ community. In addition, Hines was a dialogue facilitator in the Program on Intergroup Relations (IGR) and worked as the logistics coordinator for IGR's CommonGround workshop program, facilitating workshops for students on social group identity, social inequality, and intergroup relations. Hines also served as a retreat facilitator for the community action and social change minor, preparing students to be informed and active participants of the community. Through the Center for Educational Outreach, she delivered weekly after-school programming on diversity, community, leadership, goal-setting, and post-secondary education options to middle-school students.

Originally from southwest Michigan, Hines enjoys running, exploring various film and photography techniques, and making bad puns.

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 OUTSTANDING COLLEGIATE MEMBER
 

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# Sarah Lobsenz

THE UNIVERSITY OF TEXAS AT AUSTIN




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For creative and wide-ranging SWE leadership; for balancing educational and life goals; and for exceptional service to others on campus, in the community, and abroad.

Sarah Lobsenz will graduate with a B.S. in civil engineering from The University of Texas at Austin (UT) in December 2018. She is a member of Chi Epsilon, the civil engineering honor society. She performed undergraduate research in asphalt binders, conducting a new asphalt binder experiment and presenting her findings in UT's undergraduate research competition. During an internship at Jones|Carter in the community development department in Austin, Lobsenz calculated and designed aspects of the water, wastewater, and drainage systems. She did a second internship at Robins Air Force Base with the Air Force Civilian Services, where she designed, conducted, and authored a traffic study for building a new commercial gate on base.

Lobsenz attended a UT SWE meeting as a first-year student and was inspired by the leadership to become a section leader herself. Elected vice president of corporate affairs in her senior year, Lobsenz took charge of all communication with corporate supporters, broadening participation options to include general meetings, lunch and learns, coffee chats, a leadership retreat, Graduate SWE Lunch & Learn, and outreach camps. She partnered UT SWE with 39 corporate supporters; raised more than \$46,000; and added 12 new corporate supporters. Lobsenz also organized the section's annual Networking Night, which drew 21 corporate partners and 140 engineering students.

True to her initial ambition following her first SWE meeting, Lobsenz served the section in other leadership roles, including treasurer and co-outreach chair. As treasurer, seeing a need for students to understand finance, she organized seminars on negotiating job offers, investing, maintaining good credit, and taxes. As

outreach chair, she planned community cleanup events at parks and Habitat for Humanity, and organized joint corporate events at LifeWorks. Lobsenz led the outreach committee to produce events such as Explore UT, Girl Day, and a one-day science camp in partnership with the Girl Scouts of Central Texas.

In addition to her activities with SWE, Lobsenz has been involved in the UT Student Engineering Council. She spent two years on the community service committee before joining the senior advisory board. Her committee organized three design competitions for middle school and high school students and two informational sessions on the various engineering disciplines. She also planned the first Cockrell School Day of Service, recruiting more than 120 engineering students to volunteer at seven local nonprofits.

In September 2016, Lobsenz joined a group of UT students involved in Projects with Underserved Communities who planned, designed, and implemented a water filtration system and distribution stations in Thailand that served 100 homes. Lobsenz was risk, safety, and sustainability manager on the project. She facilitated the completion of the maintenance plan for the system and designed the internal piping system of the distribution station. Closer to home, Lobsenz volunteered with Keep Austin Beautiful, LifeWorks, Habitat for Humanity, Boys and Girls Clubs, and the Women in Engineering Program at UT.

In the summer of 2015, she studied in Vienna, taking classes in SolidWorks and basic German. A member of the UT water ski team, Lobsenz competed in the 2015 regionals.




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## OUTSTANDING COLLEGIATE MEMBER

# Abby Pakeltis

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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For dedication to SWE's mission through volunteering, outreach, and mentoring; and for significant contributions to the engineering profession through campus and community leadership.

Abby Pakeltis is a senior mechanical engineering student at the University of Illinois at Urbana-Champaign. She will graduate in May 2019. Her interest in engineering was ignited when she was in high school and participated on the Science Olympiad team and attended the Girls' Adventures in Mathematics, Engineering, and Science (GAMES) camp at the University of Illinois. She worked as an undergraduate research assistant in the Human Dynamics and Controls Lab on campus, where she has researched and proposed a system to measure and monitor the pain and injury caused to animals in cattle chutes. She has also helped collect and analyze data from geared wheelchairs and instrumented treadmills. Pakeltis refined her technical skills as a summer intern for John Deere for two years, where she designed and implemented a windrower research tool and components for a cab mount as well as worked on initial modeling concepts for a new commercial mowing product line.

Pakeltis has dedicated the majority of her free time as a college student to SWE and to the student section at the University of Illinois at Urbana-Champaign (SWE Illinois). She began on the outreach and Team Tech committees and then served as a Team Tech committee co-director. In 2016, she was a subteam leader for the WE16 Team Tech Competition project. She led a group of students from various engineering disciplines in researching radio-frequency identification technology. Her outstanding work on both of these committees earned her the Engineering Council Committed Student award and the SWE Illinois Member of the Year award. Pakeltis was also chosen to participate in the Collegiate Leadership Institute at WE16 as well as

the SWE Future Leaders program during the 2017-2018 school year. In 2017, the team worked with John Deere on an automated hitching system for its next Team Tech project. Pakeltis managed the design process and submitted patent documentation for the team's innovative solution. Her technical skills and hard work were key to the team's first place win in the Team Tech Competition at WE17. Pakeltis has served as external vice president of SWE Illinois and is president of the section for 2018-2019.

An active member of Women in MechSE, Pakeltis served as treasurer, handling funding applications, budgets, and reimbursements. Aware that mechanical engineering is still a male-dominated major, she takes every opportunity to encourage women to join technical organizations within MechSE for career development and to seek out leadership roles in those organizations. As a Worldwide Youth in Science and Engineering/Girls' Adventures in Mathematics, Engineering, and Science (WYSE/GAMES) camp counselor, she led a group of high school campers in STEM activities and served as a mentor and role model for them throughout the week. Her deep involvement in engineering activities earned Pakeltis the Knights of St. Patrick Award, presented to College of Engineering students who exhibit leadership, excellence in character, and exceptional contribution to the college and its students.

In her spare time, Pakeltis seeks volunteering opportunities such as outreach events within SWE as well as at the Newman Center on campus. She also volunteered for the Chicago Pre-College Science and Engineering Program, introducing children in the Chicago public schools to science and engineering.

## OUTSTANDING COLLEGIATE MEMBER

## Francine Reyes-Vega

UNIVERSITY OF PUERTO RICO MAYAGÜEZ CAMPUS



For demonstrating strong and resilient leadership; for dedication to her community; and for successfully engaging many young women and girls in engineering concepts through SWE outreach events.

Francine Reyes-Vega is a mechanical engineering student at the University of Puerto Rico Mayagüez (UPRM) Campus. She lives with her family in Caguas, Puerto Rico, and will graduate in July 2019. She received the NXP Foundation Women's STEM Achievement Award, presented at WE17 in Austin, Texas, by NXP Semiconductors to outstanding SWE collegiate members. In 2017, she was awarded a scholarship to attend the Out for Undergrad (O4U) Engineering Conference, held at Stanford University in Palo Alto, California. O4U is an organization that grants scholarships to outstanding LGBTQ+ students, enabling them to attend conferences dedicated to promoting professional and personal development. This year she was awarded a second scholarship to attend the 2018 O4U Engineering Conference, held at Cargill in Minneapolis, Minnesota.

Reyes-Vega's work experience includes two co-op rotations with Stryker Puerto Rico, where she designed and validated fixtures for the manufacturing and metrology areas. Currently, she is accomplishing a third co-op rotation at McNeil Healthcare, Johnson and Johnson Puerto Rico, in the Process Excellence Division, where she is involved with operations improvement projects. She has also worked in the engineering dean's office and on campus outreach activities, such as summer camps, tours, and workshops, to promote early college degree programs for high school students. She credits her SWE participation with preparing her for these roles. Reyes-Vega is also part of a team of mechanical engineering students, known as the INME Squad, that welcomes and guides first-year students during orientation week.

She has been involved with her SWE collegiate section for five years. She served as the section's media

leader for three years, overseeing the social media accounts, preparing advertising materials, documenting activities with photos and videos, and preparing visual aids. Reyes-Vega was section vice president in 2016, and president in 2017. She was part of the section's Team Tech, working on a research project sponsored by Honeywell Puerto Rico to minimize energy costs at the company's Aguadilla site. For four consecutive years, Reyes-Vega has been involved with the organization's "Wow! That's Engineering!" event. During the last two editions of the event, she developed and presented the "Transition from High School to College" seminar. During career fair season, she helps other SWE members by conducting resume reviews, mock interviews, and sharing her internship and co-op experiences.

Also active on the SAE International RUM Racing BAJA team, Reyes-Vega participated in the 2016 BAJA SAE competition, in Gorman, California. Since 2014, she has volunteered at the UPRM Gamers Guild's video game tournament fundraisers in support of San Jorge Children's Hospital. From 2015 to 2016, Reyes-Vega helped Come Colegial, a student-initiated nonprofit that provides food to other students with limited resources. After Puerto Rico was devastated by hurricanes Irma and Maria, Reyes-Vega, with the help of the Colorado State University SWE section, distributed donations to students impacted by the storms. In addition, she helped with cleanup in her own community, which was severely affected.

In her free time, Reyes-Vega enjoys exploring new places, doing crafts, reading and visiting the beaches of Puerto Rico.




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## OUTSTANDING COLLEGIATE MEMBER

# Kelsey Riffle

THE OHIO STATE UNIVERSITY

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For exemplifying the SWE goal of professional excellence; for engaging young students in STEM; and for promoting diversity and inclusion on campus, in technical societies, and in the workplace.

**K**elsey Riffle graduated in May 2018 from The Ohio State University (OSU) with a B.S. in materials science and engineering, with a focus in metallurgy. She received the Alan J. Markworth Memorial Award in March 2018 for being the materials science and engineering student who best reflected the personal and professional talents of Professor Markworth. She attended the Ohio State Leadership Collaborative in August 2014 and the WomEng Unilever Leadership Fellowship in October 2017, which motivated her to pursue leadership and mentor others pursuing leadership positions.

Riffle joined the OSU SWE section in 2014 as a first-year student and soon became involved in leadership as the 2015 publicity chair for the SWE 5K and volleyball tournament, an annual event that raises funds for a local middle school STEM program. In her second year, Riffle was the set-up/tear-down committee chair for the 2016 SWE career fair, which brings employers to OSU to recruit engineering students for internships and full-time positions. Attended by 2,000 students, the career fair is the section's largest event.

In 2016, Riffle was the registration chair for the 2016 SWE 5K and volleyball tournament, responsible for keeping track of registration, organizing information for 97 runners and eight volleyball teams, and staffing the registration table with the assistance of volunteers on the day of the event. In 2017, Riffle was elected Big-Little coordinator, in charge of a mentorship program that pairs upperclass students with first-year students to help them adjust to college life. She grew the pro-

gram by 50 percent in one year by creating conversation guides about such topics as academics and social life outside of classes and by hosting several events. To complete her collegiate SWE journey, Riffle was elected section president for the 2017-2018 academic year. She advocates the inclusion and success of women through many interviews for newspapers, blogs, and websites, representing OSU SWE as a positive, inclusive, and encouraging place on campus.

Riffle's campus involvement extends beyond SWE. She was involved in the Foundry Educational Foundation and the American Foundry Society Buckeye Student Chapter, where she served as vice chair and secretary. Both organizations serve to inform students about and encourage them to join the foundry industry. Riffle participated in BuckeyeThon, an annual 24-hour dance marathon that raises funds for the Nationwide Children's Hospital Hematology/Oncology/Bone Marrow Transplant unit in Columbus, Ohio. Her community involvement began when she was just 12, volunteering at The Works: Ohio Center for History, Art and Technology. As a university student and SWE member, Riffle brought the OSU section to The Works for the annual STEMfest, a hands-on experience that engages middle school and high school students in design-based problem-solving challenges.

During the summers of 2016 and 2017, Riffle interned at ArcelorMittal in Burns Harbor, Indiana. In August 2018, she joined the company as a full-time metallurgical associate engineer. She enjoys traveling, trying new foods, and spending time with her family.

## OUTSTANDING COLLEGIATE MEMBER

## Catharine Rose Scoboria

VILLANOVA UNIVERSITY



For academic excellence in mechanical engineering; and for extending her SWE leadership from the college campus to Costa Rica, inspiring young girls there about STEM careers.

Catharine Rose Scoboria graduated in May 2018 from Villanova University with a B.S. in mechanical engineering, a concentration in thermal fluids, and a minor in creative writing. She was a four-year recipient of the Brenda H. and Robert G. Catalanello '86 Endowed Scholarship for Engineering, and a two-year recipient of the National Association of Women in Construction Scholarship. Deeply involved in research, Scoboria took a volunteer position and evolved it into performing research for credit as part of her thermal fluids concentration. She held four internships and recently accepted a position with Harris Corporation in the Space and Intelligence Systems Division.

As a first-year student, Scoboria joined the SWE section at Villanova, her dedication to the organization growing with the increasing responsibility she took on. She was service chair, networking chair, vice president, and service break trip leader. She capped her Villanova SWE career by serving as president of the section. Scoboria's commitment to holding weekly meetings and events boosted regular participation significantly; Villanova SWE now has 40 dues-paying members and more than 80 members. Scoboria attended WE15 as part of the Collegiate Leadership Institute and volunteered at WE16. She was awarded a SWE scholarship in May 2016.

Scoboria organized Villanova SWE's inaugural STEM outreach service trip to Costa Rica, or "Todas Juntas en STEM." This international project took two years to plan and two days to execute. It was a collabora-

tion among Villanova SWE, the SWE international ambassador in Costa Rica, faculty and students at the University of Costa Rica, and the Latin American University of Science and Technology (ULACIT), and ULACIT SWE, the first SWE affiliate group in Costa Rica. During the first week of March 2018, Scoboria, along with six other Villanova SWE members and the Villanova SWE faculty advisor, traveled to Costa Rica and helped run two days of STEM workshops for 120 female high school students. The event was made possible by a SWE program development grant.

Outside of SWE, Scoboria is active both on and off campus and has been recognized for her involvement through the Dean's Award for Meritorious Service and *Who's Who Among Students at Villanova University*. She was an engineering orientation leader and tutor in "CEER Peers," a member of Faith and Learning Scholars, and a percussionist in the Villanova pep band. Because of her visibility and her commitment to girls in engineering, Scoboria became the College of Engineering's go-to person for STEM-related events and activities. Responding to every opportunity to encourage others to pursue STEM fields, she volunteered for Girls in Mechanical Engineering Day; served on panels and at open houses for the College of Engineering; and, for Women's History Month, interviewed the high-profile female chair of mechanical engineering.

Scoboria was born and raised in Reading, Pennsylvania, and attended Berks Catholic High School.