

## Yildiz Bayazitoglu, Ph.D.

Rice University



## CITATION

For charting new territory for women in mechanical engineering and for creating novel solutions to both theoretical and practical problems in thermal science.

The accomplishments of Yildiz Bayazitoglu, Ph.D., in the field of thermal science are of exceptional depth and breadth. She is a leading researcher in radiation, convective heat and phase-change heat transfer, electromagnetic levitation and melting, nanophotonics, bioheat transfer and thermal design, and analytical and numerical modeling in thermal management. Her current research interests include containerless processing of nanocomposite materials, micro/nano-channel fluid flow and heat transfer.

Dr. Bayazitoglu has shifted her fundamental thermal science and manufacturing research to engineering applications such as the photothermal cancer therapy process and liquid oxygen tank thermal stratification problems on the space shuttle. She holds five patents, and is widely published, with nearly 200 peer-reviewed articles, three books, several book chapters, and many conference proceedings to her credit. She served as associate editor of the American Society of Mechanical Engineers (ASME) *Journal of Heat Transfer* and associate editor of two other journals. Currently, she is editor-in-chief of the *International Journal of Thermal Sciences*, published by Elsevier.

She joined Rice University in 1977, holding the position of H.S. Cameron Endowed Chair Professor in the department of mechanical engineering and materials science since 1996. Dr. Bayazitoglu received her bachelor's degree in mechanical engineering from the Middle East Technical University in Turkey and both her master's and Ph.D. from the University of Michigan, Ann Arbor. She is married and has three grown sons and five grandchildren.

Her professional leadership is also wide-ranging and international in scope. Active in SWE, ASME, AIAA, and the International Centre for Heat and Mass Transfer (ICHMT), Dr. Bayazitoglu participates in many national and international conferences and NATO teaching institutes. She has served as chair of the ASME Heat Transfer Division (HTD), chair and technical program chair of several conferences, and was HTD's liaison to the Energy Sources Technology Conference and Exhibition from 1993 to 1996. She was named SWE's national chair of Women in Academia in 1999. She is a member of the scientific committee representing the United States

for ICHMT and incoming chair of the executive committee of ICHMT. She is in demand as a keynote and invited speaker at scientific gatherings all over the world. Dr. Bayazitoglu has received countless honors and awards; notably, the 2004 Heat Transfer Memorial Award and, in 1997, SWE's Distinguished Engineering Educator Award.

With her firm commitment to teaching and direct mentoring of students and junior faculty, Dr. Bayazitoglu's personal history and extraordinary professional achievements make her a compelling role model. When she earned her Ph.D. in 1974, Dr. Bayazitoglu was the first woman in mechanical engineering at the University of Michigan to do so, and one of only 34 women in the United States to earn the degree that year. She focuses a tremendous amount of energy on the advancement of women and underrepresented minorities, and fittingly, in 1980, one of Dr. Bayazitoglu's advisees became the first African-American woman in the United States to receive a Ph.D. in mechanical engineering.

Dr. Bayazitoglu has advised the SWE section at Rice University for nearly 30 years. Among her teaching, mentoring, and research awards are Rice's 1999 George R. Brown Award for Superior Teaching, the 2002 Hershel M. Rich Outstanding Invention Award, the 2003 Julia Mile Chance Prize for Excellence in Teaching, the 2002 Faculty Teaching and Mentoring Award from the Graduate Student Association, the 2005 Impact Award, and the 2005 Presidential Mentoring Award.

This year, in addition to receiving the SWE Achievement Award, Dr. Bayazitoglu has been elected to be an honorary member of the ASME, which is the highest honor bestowed by the ASME board of governors.

# Natalie Givans

Booz Allen Hamilton



CITATION

For unparalleled technical acumen in strategic security technologies and for insightful solutions to the nation's most pressing cybersecurity needs.

Natalie Givans is senior vice president with Booz Allen Hamilton and a senior leader in the company's Cyber Technologies Center of Excellence. She also leads the cybersecurity and privacy offerings and solutions for Booz Allen's health market. Leading the geographically dispersed Military Health delivery team of more than 500 staff, Givans focuses on trusted services, trusted architectures, workforce assurance, supply chain assurance, assured data aggregation and processing, and data privacy.

Givans joined Booz Allen 28 years ago under a program that hired recent engineering graduates and trained them for positions in consulting and management. Since then, she has met some of the company's most complex engineering and business challenges, and over the course of her career, has provided the full range of system security engineering services, including operation concepts, policy, architecture and design, and analysis of security design tradeoffs. Promoted within a year of her hire, Givans continued her rise to higher levels of responsibility, assuming new positions at an average of once every four to five years. In 2007, she was promoted to her current position as senior vice president. Her successes encompass government and commercial clients and international markets.

Early in her career, Givans was responsible for developing security test plans and procedures, as well as the signaling plan for the National Security Agency's secure telephone (STU-III) and its infrastructure. In the late 1980s and early 1990s, she helped develop the U.S. Navy's communications infrastructure. She spearheaded many Information Assurance projects for the intelligence community, Department of Defense, civilian agencies, and commercial clients.

Technical knowledge, self-discipline, and tenacity have been key to Givans' success. Not long after she was hired, she was given the assignment to design a signaling plan between vendors so their devices would have a common interface. She had no previous experience with encryption algorithms, but she studied the subject, and within a year became an expert in cryptography. Over the course of her career, Givans has evolved from conducting technical discussions with clients to being a thought leader for the company's most senior government

clients. She has met regularly with the deputy assistant secretary of defense for cyber, identity and information assurance, helping him develop a strategic plan. Givans also advised the director of the Department of Defense/Veterans Affairs Interagency Program Office, as well as three-star generals in charge of the Defense Information Systems Agency.

A SWE life member, Givans has been active in the Baltimore-Washington Section for nine years. She lobbied Booz Allen to join SWE's Corporate Partnership Council, and built an internal SWE group at the company. Thanks to her efforts, the SWE Core Team has grown to 37 members in eight states. Givans is also active in the Girls Scouts of the USA, leading Booz Allen's signature Make the Connection and Environmental Leadership Institute programs. When she facilitated the SWE Baltimore-Washington Section's "Making it Matter" engineering badge outreach program, more than 500 girls earned the badge in a two-year period. Givans was recently elected to the Girl Scout Council of the Nation's Capital board of directors. She was the keynote speaker at the SWE annual conference in November 2011 in Chicago.

Beyond the technical community, Givans' involvement in the local and academic communities extends to include serving for two years as vice chair and two years as the chair of the Armed Forces Communications Electronics Association, as a pack committee chair for Cub Scout Pack 673 in Virginia for four years, as assistant scout master for Boy Scout Troop 673, and as a current member of the American Heart Association's Washington Heart Walk board of directors.

Givans earned a B.S. in electrical engineering from M.I.T. and an M.S. in electrical engineering from The Johns Hopkins University.

# Bryan Haynes, Ph.D.

Kimberly-Clark Corporation



CITATION

For direct and resourceful mentoring of women engineers and for energetic support of programs that make STEM careers welcoming to women and girls.

**B**ryan Haynes, Ph.D., is director of the Global Nonwovens Center of Excellence at Kimberly-Clark Corporation in Roswell, Ga. He manages the front end innovation (FEI) team and rapid advanced materials prototyping (RAMP) facilities. His team is responsible for advanced research and development for nonwoven technologies used in the company’s personal care, health care, and professional products. Dr. Haynes joined Kimberly-Clark as a research scientist in the nonwovens division and specialized in developing new nonwoven process technologies. He also consulted extensively in fluid mechanics and heat-transfer-related problems. To date, Dr. Haynes has received 40 patents and 13 trade secrets and received the Kimberly-Clark Technical Excellence Award. He has held various technical roles within the research organization and has also worked in manufacturing, serving as a technical team leader at the Lexington Mill nonwovens facility in Lexington, N.C.

As a young man, Dr. Haynes was inspired by the space program, earning his pilot’s license and deciding to pursue aerospace engineering. He received a B.S. and an M.S., both in aerospace engineering, and a Ph.D. in mechanical engineering, all from the University of Tennessee. His research was funded by Exxon Chemical and focused on nonwoven process technology. He was an instructor in the department of mechanical and aerospace engineering prior to joining Kimberly-Clark Corporation.

Dr. Haynes and his wife, Connie, have two children: Makenzey, who is studying mass communication at Brenau University, and Madison, a senior in high school. On a personal level, as the father of two daughters, Dr. Haynes understands the importance of making STEM education and STEM careers more welcoming to

women. On a professional level, he knows that if companies intend to recruit and retain top female technical talent, corporate leadership — especially middle management — must champion women at each stage of their careers.

He serves on the advisory board for the department of mechanical, aerospace and biomedical engineering at the University of Tennessee, where he is an adjunct faculty member. Also serving as Kimberly-Clark’s lead liaison for STEM recruiting at the university, during Dr. Haynes’ tenure more women have joined the company and grown to become RAMP facilities team leaders. He provides mentoring and coaching through constructive feedback, exposure to senior leaders at Kimberly-Clark, and by providing opportunities for new experiences and additional responsibility. Recently, he mentored a female student who was interning with the FEI team. When she expressed an interest in learning more about patents, Dr. Haynes created a position for her as a legal intern with Global Nonwovens patent attorneys. She has now received her B.S. in environmental economics and management and won a generous scholarship to attend law school, where she received positive feedback on her legal intern experience.

Involved with *FIRST*® Robotics since 1998, Dr. Haynes has served as a referee, judge, and regional planning committee member. He introduced the program to Kimberly-Clark and was instrumental in bringing it to Georgia and Tennessee. He currently serves on the board of directors for Georgia *FIRST* Robotics.

In his spare time, Dr. Haynes enjoys golf, flying radio control airplanes, supporting the VOLS (especially football), spending time with family, reading about science and engineering, and inventing in his shop.

# John Tracy, Ph.D.

The Boeing Company



CITATION

For strong, consistent support of women in positions of technical leadership and for advocating comprehensive workplace diversity that encompasses both a broad range of employees and ideas.

John Tracy, Ph.D., joined McDonnell Douglas as a stress analyst in 1981 after teaching high school math and science in Los Angeles. He held several executive positions in the company, which merged with The Boeing Company in 1997. Currently, he is chief technology officer for Boeing and senior vice president of engineering, operations, and technology. Dr. Tracy provides strategic direction to 100,000 employees working in engineering, operations, and supplier management; information, enterprise, and research and technology; test and evaluation; intellectual property management; and environment, health, and safety.

Previously, Dr. Tracy was vice president of engineering and mission assurance for the Integrated Defense Systems business unit of Boeing, where he was responsible for a 32,000-person engineering team. Prior to this assignment, Dr. Tracy was vice president of structural technologies, prototyping, and quality for the Boeing Phantom Works advanced research and development unit.

He received his Ph.D. in engineering from the University of California, Irvine; an M.S. from California State University, Los Angeles; and a B.S. in physics from California State University, Dominguez Hills.

Diversity and inclusion are hallmarks of Dr. Tracy's career. He has supported the advancement of several women to executive technical positions at Boeing, including vice president and chief information officer; vice president of environment, health and safety; vice president of IT product systems for Boeing Engineering, Operations and Technology; vice president

of IT business partners; vice president of materials and process engineering; and vice president of flight test operations.

He is fully committed to empowering those with potential to lead and to developing talent by mentoring, coaching, and listening. For example, when he discovered that the chief engineer of advanced electronic and mission systems in the Space and Security division was Boeing's only female senior technical fellow, Dr. Tracy enlisted her to work with key personnel in several projects to understand this gender gap.

One of Dr. Tracy's most significant initiatives at Boeing, the Leadership Excellence Acceleration Program (LEAP), provides participants with opportunities outside their normal job responsibilities to prepare them for leadership positions. LEAP participants observe different leadership styles, take leadership development training, do assignments to hone leadership skills, and develop strong personal networks.

Dr. Tracy is a fellow of the American Society of Mechanical Engineers (ASME) and the past chair of the ASME 6,000-member Aerospace Division. He is also a fellow of the American Institute of Aeronautics and Astronautics (AIAA) and the Royal Aeronautical Society, and has served as an editorial board member for the *AIAA Journal*, the *Journal of Thin-Walled Structures*, and the *Journal of Computer Modeling and Simulation in Engineering*. He currently serves on the board of trustees for the Illinois Institute of Technology and on the engineering advisory board for several leading universities.

Dr. Tracy and his wife, Katherine Katsumata Tracy, have two grown children, Scott Tracy and Wendy MacGinnis.

# Lorraine A. Huchler, P.E.

MarTech Systems Inc.



CITATION

For creating a highly respected engineering consulting firm known for its outstanding business acumen, thought leadership, technical excellence, and integrity.

Lorraine Huchler, P.E., CMC<sup>®</sup>, is founder, president, and majority shareholder of MarTech Systems Inc., an engineering consulting firm that advises management on risk in industrial water systems. As a consultant to management, Huchler counsels clients on decisions that directly affect profit and loss. Huchler also serves as an expert witness in patent infringement and equipment failure litigation.

Most of MarTech's clients are Fortune 100 companies in industries such as refining, petrochemical, paper, power generation, ammonia, inorganic chemicals, nonferrous metal, pharmaceutical, telecommunication, steel, and ethanol.

In 1997, Huchler launched MarTech, leaving the security and predictability of a position as an internal consultant at a Fortune 500 firm. Her first major challenge was to toss out the business plan and start over, because her primary market, the paper industry, was experiencing a rapid decline. She found two other industries that had either strong financial performance or had healthy prospects for growth: refining and pharmaceuticals.

Since starting the business, Huchler has consistently added value by closely linking her recommendations to client strategic objectives. Her continuing success with clients served as the basis for her earning the most rigorous credential for management consultants, certified management consultant (CMC<sup>®</sup>).

Huchler was honored as a SWE Distinguished New Engineer in 1994, and named one of the "Top 40 Business People Under 40" by *Business News New Jersey* in 2000. She has presented and published

numerous papers and articles on a wide variety of technical and risk management subjects. Since 1999, she has written a quarterly column for *Hydrocarbon Processing*, an international trade journal. Under Huchler's leadership, MarTech is now acknowledged as a leading authority in risk management for industrial water systems.

She serves on the editorial advisory board for the trade journal, *Chemical Engineering Progress*, published by the American Institute of Chemical Engineers, and has published her first of a four-book series, *Operating Practices for Industrial Water Management: Influent Water Systems*.

A SWE life member, Huchler has worked tirelessly to build awareness of outstanding women engineers, beginning with her term as president of the SWE University of Rochester Collegiate Section. She served as the president of the New Jersey Section for three terms and organized and chaired the 1989 Mid-Atlantic (Region E) conference. She represented the New Jersey Section on SWE's council of section representatives for two terms and has chaired the tellers committee. Currently, Huchler serves as the counselor for the SWE Rutgers University Collegiate Section.

Huchler holds a B.S. in chemical engineering from the University of Rochester and is a licensed professional engineer in New Jersey and Maryland. Huchler serves as the chair of the adult education committee at her church, enjoys tending her gardens, and, with her husband, renovates historic commercial buildings near her summer home on the Eastern Shore of Virginia.

## Dawn Tilbury, Ph.D.

University of Michigan



## CITATION

For a distinguished career as a dedicated and inspiring professor, a respected scholar, and a talented engineer.

Dawn Tilbury, Ph.D., is a professor in the mechanical engineering department at the University of Michigan, Ann Arbor. She has a joint appointment as professor of electrical engineering and computer science and as deputy director of the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC)-sponsored Automotive Research Center (ARC). Dr. Tilbury earned a B.S. degree in electrical engineering from the University of Minnesota and M.S. and Ph.D. degrees in electrical engineering and computer science from the University of California, Berkeley.

She has received many teaching awards that reflect the esteem of both her students and her peers. She won the EDUCOM Medal (jointly with William Messner, Ph.D., of Carnegie Mellon University) in 1997 for her work on the Web-based Control Tutorials for Matlab. She has received the University of Michigan's Teaching Incentive Award several times, and the department of mechanical engineering's Excellence in Teaching Award. Dr. Tilbury also has been honored with the Undergraduate Computational Engineering and Science Education Award from the U.S. Department of Energy, as well as the ASME Dynamic Systems and Control Division's Education Award.

Dr. Tilbury has advised 16 doctoral students and 19 master's students, guiding their research and helping them plan their careers and achieve their career goals. She has taught many undergraduate courses, but one of her favorites is a junior-level lab class that deals with experimental issues. Students learn the role of experimental uncertainty, teamwork, and how to write technical reports. She enjoys witnessing students having "lightbulb moments" when they make connections to the real world and learn how to solve problems despite the persistence of unknowns.

Her scholarly work is extensive and highly regarded, with research interests that include distributed control of mechanical systems with network communication, logic control of manufacturing systems, reliability of ground robotics, and dynamic systems modeling of physiological systems. She has published dozens of refereed journal articles in noted journals, five book chapters, and more than 70 conference papers. Much of her work springs from problems in manufacturing arising from increased automation, which cuts product costs, but demands more complex controllers. Dr. Tilbury has conducted logic control research at the Center for Reconfigurable Manufacturing Systems, a National Science Foundation (NSF) engineering research center established at the University of Michigan in 1996.

In 1999, Dr. Tilbury received an NSF CAREER award, and was the 2001 recipient of the Donald P. Eckman Award of the American Automatic Control Council. She was a member of the 2004-2005 class of the Defense Science Study Group and was a member of the Defense Advanced Research Projects Agency's Information Science and Technology Study Group from 2005 to 2008. She belongs to ASME, IEEE, and SWE, and is the past chair of the ASME Dynamic Systems and Control Division executive committee. Dr. Tilbury was elected fellow of IEEE in 2008 and fellow of the ASME in 2012.

Dr. Tilbury enjoys traveling and spent one sabbatical year in Milan, Italy, and another in Lund, Sweden. She also taught a summer course at the University of Michigan-Shanghai Jiao Tong Joint Institute. Dr. Tilbury enjoys reading non-technical works in her spare time, and in 1996 became a founding member of the SWE-Detroit Book Club.

# Molly Laegeler

Chevron Corporation



CITATION

For vision, generosity, and extraordinary persistence in making on-site child care for Chevron employees in Houston a reality.

Molly Laegeler is the Jack team lead for the deepwater Jack/St. Malo project in the Gulf of Mexico. She manages a subsurface team of petroleum engineers and earth scientists and is responsible for planning and executing the predrill wells and reservoir surveillance of the largest deep-draft floating production unit in the world. She began her oil and gas career at ExxonMobil, working offshore oil fields in Nigeria and Equatorial Guinea. In 2005, Laegeler joined Chevron as a new field development engineer in the Southern Africa Business Unit, subsequently working fields in Angola and Congo.

Laegeler is also the mother of two small children. In the fall of 2006, a lunchtime conversation with colleagues about child care was the catalyst for a major workplace project that, in February 2012, culminated in Chevron's first on-site child care center. For five years, Laegeler, who has an undergraduate degree in petroleum engineering and an MBA, led the day care center project team, volunteering her time on all aspects of the undertaking from the proposal through implementation. The multidisciplinary day care center team was required to make a strong business case to upper management for the center. They oversaw two studies of Chevron's Houston population, which revealed a need and confirmed that a child care center would have a positive impact on Chevron, helping to attract and retain employees.

In the summer of 2008, management endorsed the project, and a year later, Laegeler and her team had secured a site, conducted the vendor RFP process, and addressed liability concerns. In spring 2009, however, citing falling oil prices and worldwide economic volatility, management put the day care center project on hold. Over the next year and a half, Laegeler continued to keep the issue at the forefront, citing Chevron-specific data and articulating the long-term strategic benefit to the company.

In January 2011, Chevron agreed to go forward with the project. After a multi-million-dollar renovation on the site was completed, an 11,000-square-foot facility that accommodates 161 children opened. The center is open to all 7,000 Chevron employees in the Houston area and has sparked child care studies at Chevron in San Ramon, Calif., and Covington, La.

As the global director for special interest groups in the Chevron Women's Network, leading the Petro Tech interest group, Laegeler continues to address work/life issues. She also mentors the Chevron on-site child care study teams in San Ramon and Covington, and volunteers for charitable causes, such as Dress for Success and the YMCA Jingle Bell Run.

## Deborah Caine

Intel Corporation



## CITATION

For strong leadership and forward thinking in the global application of supply chain improvement and lean principles, and commitment to women's economic development.

Deborah Caine leads direct materials supply chain solutions for Intel Corporation's Technology Manufacturing Group in Chandler, Ariz. She oversees a team of project managers who are responsible for improving Intel's supply chain in the United States, South America, Asia, and Europe. Caine has championed supply chain improvements since 1997 and has streamlined Intel's internal computing, capital equipment, construction, direct and indirect procurement, and outsourced manufacturing supply chain systems. She uses enterprise systems, intranet and Internet tools, e-business capabilities, business process management tools, and lean waste-cutting techniques to boost effectiveness.

Caine holds an M.B.A. in international business and a B.S. in business management from Western International University. She holds certifications in project management from PMI, supply chain management from APICS, and business process management.

She began her career with Intel by redesigning the company's internal computing supply chain. Caine's redesign cut cycle time from 30 days to two days and saved the company \$36 million by refurbishing and reusing computers. Having demonstrated the benefits of merging business process improvement with information technology, Caine became technology manufacturing engineering e-business program manager in 2000. In this position, she streamlined the company's procurement of capital equipment used in its high-tech fabrication and assembly test manufacturing plants. She led a team of project managers and business analysts to enable forecast, order, delivery, receipt, acceptance, and payment processes of the company's capital equipment supply chain to shift to e-business. This effort involved

the use of collaborative technologies and the development of supplier data sharing, which increased efficiency and saved both Intel and its suppliers millions of dollars.

In 2004, Caine turned her attention to the large construction and indirect procurement supply chains and sponsored a shift to enterprise resource planning. Twenty-four construction projects representing \$950 million in spending in the United States, Asia, and Europe converted to electronic collaboration for project communication and control. Caine developed a global sphere of influence with core customer groups and worked with Fiatch, a consortium focused on standards for the construction industry, to adopt e-business standards.

In 2006, Caine was assigned full responsibility for Intel's procurement supply chain improvements. She became a lean leader and trains managers in Asia and South America in lean culture. In addition, Caine coaches her own team, enabling them to move beyond standard project management skills into supply chain management and lean thinking.

Working with the Salvation Army's Girl Scout program for homeless girls motivated Caine to become involved with programs that address women's economic issues. She co-chairs Intel's Women at Intel board, which enables women's career growth and leadership skills in the high-tech industry, and volunteers both as an APICS-certified supply chain instructor and Junior Achievement K-12 program instructor. Caine is also involved in Kiva's microloans for women program. She supports women in Latin America, Central Asia, and Africa who have launched agricultural and clothing businesses. In her spare time, Caine works with Wild at Heart, a raptor rescue program in Arizona.

## Regan Campbell, Ph.D.

U.S. Navy



## CITATION

For outstanding technical and fiscal direction of important military research efforts, using the depth and breadth of her varied technical background to its greatest advantage.

Regan Campbell, Ph.D., is the deputy executive director for undersea technology and deputy undersea warfare chief technology officer for the U.S. Navy. In this capacity, she manages the strategy for identifying, prioritizing, aligning, and synchronizing science and technology investment efforts in the area of undersea warfare.

Dr. Campbell's education covers science, technology, and business management. This foundation, coupled with her varied technical background in government, academic research centers, and the military, prepared her well for the demands of her current position. She earned her B.S. from Embry-Riddle Aeronautical University and her M.S. and Ph.D. from the Georgia Institute of Technology. She also holds an MBA from Arizona State University.

Her career began at the National Transportation Safety Board, where she investigated accidents and wrote safety recommendations for board approval. She joined the Georgia Tech Research Institute as a research psychologist, where she helped design an advanced traffic management system and the cockpit of the SH-2G (A) helicopter.

Dr. Campbell moved on to a position with a government contractor as a human factors/knowledge engineer. Her duties included design and evaluation of displays, experimentation planning and execution, and knowledge design for the intelligent systems. Her designs were selected by The Boeing Company for use in the unmanned combat air vehicle – Navy program. Based on the experience she gained from this assignment, Dr. Campbell was recruited by the Naval Air Warfare Center Aircraft Division, where she worked primarily on unmanned vehicle command and control and mission planning.

In 2003, Dr. Campbell transferred to the Naval Surface Warfare Center in Panama

City, Fla. She led numerous human systems integration (HSI) efforts in the areas of unmanned vehicle command and control, helicopter cockpit and common console design, mine warfare sensor systems, global missile defense, and deployable command and control systems. For her helicopter work, Dr. Campbell was selected to attend a U.S. Navy Test Pilot School course and earned a flight clearance to support design and testing.

In 2005, Dr. Campbell was selected for the NAVSEA Commander's Development Program, where she completed rotations at the Pearl Harbor Naval Shipyard, several Navy program offices, and on Deputy Assistant Secretary of the Navy Ships staff. With the experience gained in this program, Dr. Campbell joined NAVSEA 05H in 2007, as the HSI requirements division director, rising not long after to the position of HSI technical director.

Most recently, Dr. Campbell served as the Office of Naval Research science advisor to Third Fleet, where she was responsible for providing a link between the U.S. Navy Research Enterprise and Third Fleet.

Dr. Campbell has more than 20 professional publications to her credit, and has taught at the University of Maryland. She has a commercial pilot's license, with instrument, single-engine land, and multiengine land ratings. She is an active mentor within NAVSEA with employees at various levels, from interns to career professionals. She is a participant in the Department of Defense Starbase program, which provides an interactive curriculum of science, technology, engineering, and mathematics to underserved fifth grade students in the District of Columbia. Recently, she also acted as the DoD senior mentor to a United States Naval Academy team that participated in an unmanned air vehicle design challenge.

## Danielle Curcio

Raytheon Company



## CITATION

For excellence in systems engineering and management of critical defense projects, encouraging women and girls to pursue engineering, and an active commitment to SWE.

In her 14 years at Raytheon, Danielle Curcio has held a variety of systems engineering and functional engineering management roles. She is currently chief software engineer, corporate engineering; and program manager, Raytheon Cyber Range, positions she has held since 2010. Curcio has extensive knowledge of capability maturity model integration, the integrated product development system, and system/software engineering development processes. She has led teams of more than 200 working on domestic and foreign defense-related projects. Curcio's talents and leadership abilities extend to customer interaction and program proposals; she is respected by team members, customers, and company executives alike.

As chief software engineer, Curcio provides oversight and guidance for multiple software efforts across Raytheon's six businesses. She applies her broad range of architecture and technology experience to business software challenges and user needs, generating enterprise-wide synergy for software design, development, test, and support. Curcio directs Raytheon's software engineering council and is the main interface with government information operations and information assurance personnel. In her role as cyber range program manager, Curcio leverages engineering capabilities across the company to design, build, and operate Raytheon's cyber range capability. She leads all engineering aspects of the center, including system requirements, design, verification, validation, test, and system support.

Prior to joining corporate engineering, Curcio was naval defense systems department manager under the Systems Architecture Design and Integration Di-

rectorate at Raytheon's integrated defense systems (IDS) business. She was responsible for program execution, cost proposal approval, and personnel management. While at IDS, Curcio was also requirements manager for Zumwalt software, a significant component of the construct of the U.S. Navy's surface combatant war-fighting capabilities.

Selected for a rotation in the Japan Program Management Office mentorship program in 2004, Curcio established risk management for Japan programs and worked on foreign contracts. She participated in the development of the Japan Air Defense Ground Environment program start-up and wrote the system level requirements.

Deeply committed to encouraging women and girls to pursue technical careers, Curcio speaks regularly to student groups, sharing her technical expertise and her enthusiasm for engineering. She co-led a team that developed a mentoring program at Tewksbury (Mass.) Memorial High School, using Raytheon employees as mentors, and organized a donation of 32 computers to John F. Ryan Elementary School, also in Tewksbury. Curcio is a recipient of the 2006 IDS President's Award and the 2007 IDS Our People Award. She is a graduate of the 2008 IDS Strategic Development Program and the 2009 Raytheon Leadership Excellence Program.

An active member of SWE, Curcio was a key planner of the collegiate luncheon at the 2010 and 2011 annual conferences and received the Raytheon Star Award during the 2011 conference. She earned a bachelor's degree and a master's degree in mathematics, both from the University at Buffalo.

## Lt. Cmdr. Susan Faulkner

U.S. Navy



## CITATION

For applying engineering expertise and capabilities to her responsibilities on a daily basis and for resourceful leadership and adaptability.

An engineering duty officer (EDO) in the U.S. Navy, Lt. Cmdr. Susan Faulkner is currently stationed on the USS George H.W. Bush (CVN-77) in Norfolk, Va., as the reactor electrical assistant. Naval engineering duty officers are placed in a new job every two to three years, a challenge Faulkner has met with integrity and agility, earning the respect of commanders, peers, and those reporting to her.

With her training, Faulkner is part of an elite group of officers who focus on nuclear-powered aircraft carriers. EDOs are involved with the design, acquisition, construction, repair, maintenance, conversion, overhaul, and disposal of ships, submarines, aircraft carriers, and the systems on those platforms, which include weapons, command and control, communications, and computers. Faulkner leads five officers, seven chief petty officers, and 125 sailors. She is responsible for all electrical equipment and electronic control systems for two A4W nuclear reactor plants, as well as the propulsion plant local area network and all technical publications to support the operations and maintenance for the reactor plants.

Faulkner earned a B.S. in economics and received her commission from the U.S. Naval Academy in 2000. Upon commissioning in 2000, she reported to the USS Fletcher (DD-992) in Pearl Harbor, Hawaii, where she served as the anti-submarine warfare officer and fulfilled her surface warfare officer requirements.

During her next tour, Faulkner completed the Navy's yearlong nuclear power

training pipeline and then served as Reactor Controls Division officer, Reactor Auxiliaries Division officer, and Reactor Damage Control Division officer with the USS George Washington (CVN-73) in Norfolk, Va. She then transferred to the Surface Nuclear Propulsion Mobile Training Team as the prospective nuclear engineer officer coordinator.

Pursuing her goal of becoming an EDO, Faulkner began a program at the Naval Postgraduate School in 2006. While enrolled in this program, she entered an ASME student research competition and won first place. Faulkner graduated with distinction, earning an M.S. in mechanical engineering and the Naval Postgraduate School Department of Mechanical and Aerospace Engineering Outstanding Thesis Award. Her thesis, "Fracture Toughness of Composite Joints with Carbon Nanotube Reinforcement," was published in the April 2011 issue of *Journal of Pressure Vessel Technology*.

Following graduation in 2008, Faulkner reported to the Norfolk Naval Shipyard, where she served as deputy project superintendent for the USS Ronald Reagan (CVN-76), overseeing planned incremental availability for fiscal year 2010. She then became the planning manager for nuclear waterfront production, and upon transfer, assumed her current position.

Faulkner has received both Navy Commendation and Navy Achievement medals. She is married to Brian Faulkner of Beavercreek, Ohio. They have one daughter.

# Divya Gopalan

Intel Corporation



## CITATION

For being both a strong leader and an excellent team player, and for dedication to the professional development of employees at Intel Corporation.

Divya Gopalan is a technical marketing manager in the Intel Corporation's Sales and Marketing Group, where she manages a team that provides design-in engineering support to geostrategic customers and Intel's field sales teams.

She began her career as a software engineer at Motorola in Chicago working in the General Packet Radio Service team. She moved to Intel Corporation in Sacramento to work in the communications infrastructure organization, where she developed software tools for validation of networking products. Gopalan's next role was in the Business Clients Group, where she managed a team of technical marketing engineers who provided worldwide technical support of Intel's storage and audio drivers. She moved on to become an operations manager of a 400-person Platform Validation Engineering organization. She led all aspects of managing the global operations of the client organization and drove decision-making of budgets in millions of dollars.

In her next role as a strategic intellectual property planner within Intel's Architecture and Design Group, Gopalan managed the intellectual property and "system-on-a-chip" roadmap across all business units and market segments within Intel Architecture Group.

Passionate about career development of employees at Intel, Gopalan was part of the Intel Architecture Group career development leadership team that delivers programs centered on career development to tens of thousands of employees.

Active in both professional and community organizations, Gopalan is a member of the Sierra Foothills Section of SWE and co-chair of the Women at Intel Network (WIN) chapter in Folsom, Calif., an employee group that encourages women to fulfill their career potential. Under her leadership, WIN has delivered technical discussion panels and networking opportunities with senior leaders, mentoring for women, professional development conferences, computer skills training, and life skills classes to support Women's Empowerment and St. John's Shelter for Women and Children.

In her spare time, Gopalan is cultural activities coordinator for the California Tamil Academy.

She has an undergraduate degree in civil engineering, a master's degree in computer science, and an MBA from the University of California, Davis. Gopalan lives in Folsom with her husband and two children.

## Elizabeth Green

Northrop Grumman Corporation



## CITATION

For superior accomplishments in systems engineering, risk management, and supply chain management, and for dedicated service to SWE.

Elizabeth Green joined Northrop Grumman in 2000 and is corporate manager, supply chain operations, risk and opportunity management. She has 12 years of professional technical, industry experience: eight in the supply chain (procurement) area. She has led many corporate and cross-sector initiatives and worked on several development and production programs, some of which required international business and technical collaboration.

Green holds an undergraduate degree in international management from California Polytechnic State University, San Louis Obispo (Cal Poly, SLO); an M.S. in systems engineering; and a dual MBA in finance and management/organizational behavior from Loyola Marymount University (LMU). She earned both her master's and her MBA while working full time at Northrop Grumman, and was able to integrate her coursework, her growing interest in risk management, and her responsibilities on high-visibility projects, in the United States and abroad.

Her first position with the company was in the Advanced Programs Subcontracts group, where she was responsible for managing the competitive bid process, source selection, negotiation and close-out of contracts for complex technology development items. Green worked on the Pegasus program, learning both technical and supply chain requirements for an unmanned naval aircraft. While assigned to the Watchkeeper program, an integrated system of unmanned vehicles and ground stations, she began working part time with the systems engineering team.

She then moved to the systems engineering integration team, where she was responsible for corrective and preventive action plans, gap analysis, root

cause analysis, risk management, and metrics reporting. She was soon promoted to the program integration office of the multi-platform radar technology insertion program as program risk manager. Subsequently, she was approached to be senior project manager to set up a new sector subcontracts organization. She developed and implemented process, procedures, systems, and tools, one of which focused on competitive excellence. Through competency survey analysis, Green showed that regardless of industry, competencies across sectors were similar, a finding that resulted in better training across the corporation.

An active SWE life member, Green was a section representative for the Baltimore-Washington Section, editor of the weekly e-communications newsletter for the section, and facility lead for the SWE/ASCE professional development seminar. She was the chair of the Aerospace Women's Luncheon for two years for the Los Angeles Section and has led or supported many STEM outreach activities. She chairs the Institute for Supply Management's risk management group board and the Cal Poly Women's Engineering Program industry advisory board. She is a past board member of the LMU MBA Alumni Association. She is chair emeritus of the Northrop Grumman Corporate Women Engineers Group, and co-founded diversity organizations at Northrop Grumman for women and new hires.

Green received the DC Council of Engineering and Architectural Societies 2012 Young Engineer of the Year award; the 2008 Northrop Grumman Integrated Systems President's Award; and the 2008 Corporate Contracts, Pricing and Supply Chain Competitive Excellence award.

# Kimberly Stauffer Harr

Intel Corporation



## CITATION

For unwavering technical leadership in continuous improvement and for effectively linking better workplace culture with better performance, including establishing a support system for newly hired women engineers.

A senior quality engineer in supplier quality integration, Kimberly Stauffer Harr has been with Intel Corporation for 14 years, having joined the company following two internships. She plays a key role in driving Intel's equipment supply chain's quality culture transformation. Harr is a Kaizen facilitator at Intel and focuses on improving the company's most complex business processes. As a Lean Six Sigma Master Black Belt, Harr has advised more than 40 projects that saved the company \$400 million. In addition, she delivered over 480 training hours annually and co-developed Intel's Lean Six Sigma Green Belt material.

Harr spent her first eight years with Intel in research and development, focusing on manufacturing process development. She joined as an industrial engineer and was immediately called upon to lead a team of "virtual factory" engineers — peers who are responsible for the same toolsets across Intel's global factory network. In this role, Harr moved five process technologies in six years from research and development to Intel's high-volume factories. While leading this highly successful technology transfer effort, she bridged a culture gap between development and manufacturing. In addition, by treating her team members as partners, listening to their concerns, and engaging them in continuous improvement, Harr significantly improved performance of each successive technology transfer. Her approach stands as a "best-known method" within the company.

In 2005, Harr was promoted to a manufacturing shift manager position in Intel's

first high-volume, 45-nanometer silicon technology factory, which operates 24 hours a day, seven days a week. She led a team of 21 engineering group leaders and 250 engineers and technicians. To achieve production and quality goals, Harr called on both her technical and "soft" skills, encouraging group leaders to "attack" issues, not people, modeling acceptable behavior, and solving problems as a team. The result was increased efficiency, a changed culture on all shifts, and the fastest 300-mm wafer qualification on record.

Wanting to create opportunities for women engineers working nights and weekends to connect, in 2006 Harr co-led the creation of a new employee group, Technical Females of Arizona. She set up a "sister" system that connected newly hired women engineers with senior women engineers and initiated "coffee talks" on each shift, so women could meet in a relaxed setting. This forum remains active and is described by many women engineers as a "lifesaver."

Harr received both her bachelor's and master's degrees in industrial and operations engineering from the University of Michigan.

Since 2000, she has managed fundraising for the Oregon Cancer Ski Out, a two-day ski race that raises funds for several local cancer charities. More recently, she has joined the board of another nonprofit organization, Solar for All. Married to Greg, Harr enjoys home brewing and outdoor sports, including downhill skiing, biking, and running.

# Tameika Hollis

Northrop Grumman Corporation



## CITATION

For being a catalyst for excellence on complex and demanding projects, for promoting the importance of diversity and inclusion in the profession, and for mentoring women and girls.

Tameika Hollis is the radar systems engineering director for Northrop Grumman Electronic Systems, specializing in technologies for the next generation of defense systems. She leads 140 systems engineers to design, analyze, and test 50 different air-to-ground and space radar systems.

Hollis earned a bachelor's degree in mechanical engineering from Florida A&M University, where she concentrated on controls and robotics. She was the only African-American woman in the graduate mechanical engineering program at the University of Michigan.

After working for Ford Motor Company as a noise and vibration engineer and as a systems engineer on the alternative-fuel vehicle program, Hollis moved to The Boeing Company, where she led the ACS systems team for Anik F2, a Canadian communications satellite. Her assignment was to find out why this product line was losing power and dying 30 percent earlier than predicted and fix the problem. Hollis' team redesigned the system architecture, enabling the satellites to survive longer in space.

In 2005, as Systems Engineering, Integration, and Test (SEIT) lead, Hollis delivered a space flight sensor in less than three years. She was responsible for design, integration, vibration, and temperature testing. Her success led to her promotion as program manager of Space Systems, and her product delivery started a product line that has had three subsequent deliveries. In 2010, Hollis was chosen to lead Northrop Grumman's SEIT organization to deliver the Cobra Judy Replacement (CJR), the replacement for the U.S. Navy's Observation Island system.

SEIT had one year to complete CJR, a ship-based radar suite for worldwide technical data collection against ballistic missiles in flight, and the first system of its kind ever developed by Northrop Grumman. Hollis led the SEIT team to complete assembly, integration, and verification and executed the program ahead of schedule. In 2011, she received the President's Leadership Award for Customer Satisfaction for the Naval and Marine Systems Division for her role in the project.

As a part of Northrop Grumman's DiscoverE program, Hollis visits schools to spark students' interest in engineering, in keeping with her personal commitment to serve as a role model and help women and minorities. Hollis also co-leads the WORTHY program, which provides high school students exposure to the working world and to engineering. She founded the Baltimore chapter of Northrop Grumman Women Engineers (NGWE), growing the organization from an interest group of three women to more than 150 women in two years.

Active in SWE since she was a section leader at Florida A&M University, Hollis has led workshops, sharing her experiences with employee resource groups focused on diversity and inclusion at annual conferences. She was one of 16 women featured in the nationally distributed DVD, "Women in Engineering: The Best Kept Secret to Changing the World!" A portion of all sales of this DVD is applied to a scholarship fund for future women engineers and technologists.

Hollis and her husband, Michael, also strive to lead by example for their children, Mikayla and Trenton.

# Qiong Jackson, Ph.D.

Northrop Grumman Corporation



## CITATION

For exceptional innovation, leadership, and team building in systems engineering, and for a strong commitment to mentoring women engineers and students.

Qiong Jackson, Ph.D., was born in a remote town in Sichuan, a province in western China. In 1995, she received a fellowship from Purdue University to pursue a graduate degree in the United States. Dr. Jackson holds three advanced degrees: an M.S. in physics, an M.S. in mechanical engineering, and a Ph.D. in electrical and computer engineering. She has published 10 articles in refereed journals and made 27 conference presentations in a variety of areas in engineering and science fields.

Dr. Jackson completed her Ph.D. in three years. She specialized in remote sensing hyperspectral sensor technology, which enables detection and differentiation of materials in high resolution. She proposed three innovative algorithms that improved material identification accuracy by 25 percent and accelerated processing speed for hyperspectral data by 20 percent. With the publication of her dissertation, Dr. Jackson became a noted expert in her field.

She has been with Northrop Grumman for eight years, working on the Space-based Infrared Sensor System (SBIRS), a critical, integrated U.S. defense system that provides missile warning, missile defense, and battle space characterization. Currently, Dr. Jackson is the team lead for the combined highly elliptic orbit (HEO) and geosynchronous orbit (GEO) payload system performance team, which defines analysis algorithms, develops analysis tools, designs tests, and processes and documents data. For work on three recent satellite tests, Dr. Jackson and her team

received the company's most prestigious honor, the President's Leadership Award.

Progressing rapidly in the organization, Dr. Jackson advanced from lead data analyst to fellow engineer in just seven years. In her first position in the advanced projects department, she developed the end-to-end hyperspectral data processing capability that produces the sophisticated intelligent map for gas emissions from raw image data. The capability, which has wide applications in civilian and military fields, was recognized by the company's Timely Award Program (TAP) for innovation.

Upon moving into her current position, Dr. Jackson was charged with developing a team of junior engineers to perform at levels normally expected of more experienced employees. She prepared her team to accomplish the technical work and to present test results to senior U.S. Air Force personnel and other aerospace experts. Under her leadership, the project was completed in record time with significant cost savings. Dr. Jackson has also led her team in a massive test streamlining effort, trimming the test schedule with a predicated financial benefit of \$9.7 million, which has been realized in two sensor tests executed recently.

Committed to mentoring women engineers, Dr. Jackson maintains an active mentoring relationship with two of her team members. She also mentors local high school students, encouraging them to pursue careers in STEM fields. She has been the chair for the Northrop Grumman Women Engineering Organization since 2011.

# Suzanne Jewett

Intel Corporation



## CITATION

For balancing strong engineering and management skills, for boldly taking on a new venture, and for community involvement that supports women.

Suzanne Jewett graduated from the University of Colorado Boulder with a B.S. and an M.S. in mechanical engineering and a focus on electronics packaging/manufacturing and engineering management. As a National Science Foundation fellow, she taught engineering and technology in local high schools. She also worked for the university's Women in Engineering Program. Jewett received the University of Colorado Boulder Outstanding Student Award for Academic Excellence, as well as the College of Engineering Design Expo Award.

She began her professional career with Intel Corporation in Rio Rancho, N.M., in the rotation engineer program, which hires top college graduates and, over the course of one year, allows them to experience three different areas in the company. Rotation engineers are selected for their technical leadership and for their potential to be top contributors at Intel. In her first rotation as an industrial engineer, Jewett made an immediate, positive impact, accurately modeling tool usage, which resulted in \$20 million in savings.

A year later, she moved to another industrial engineering position in new process development in Oregon, remaining there for three years to work as a thin films process engineer. She rapidly implemented programs that saved \$5 million a year and led a team that fixed a defect that had been preventing release of the next-generation chipset.

To learn more about other Intel businesses, Jewett joined the Intel Desktop Boards group as a manufacturing engineer.

She was the lead manufacturing engineer on Intel's effort to create an all-in-one system with Gateway, The Gateway One™, and was then selected to support the Intel Digital Health Group (DHeG) to bring the Intel Reader™ and Intel Portable Capture Station™ through design to manufacture. For her program success, she received the company's most prestigious individual recognition, the Intel Achievement Award.

In January 2011, Jewett left Intel to be manufacturing manager at an Intel-GE start-up, Care Innovations LLC, a medical device manufacturer. She was responsible for manufacturing, distribution, and reverse logistics for seven distinct product lines, as well as for compliance with ISO 13495 and FDA requirements. Under Jewett's leadership, Care Innovations moved from Intel offices to a new location, which houses the manufacturing and distribution facility she and her team designed.

In October of this year, Jewett returned to Intel as a new product introduction planning manager. She is responsible for the group managing build requirements between engineering, design, quality, and the outsource factories for Intel's new Phone and Tablet organization.

Despite a demanding work schedule, Jewett maintains community involvement, having run a group for 70 moms with young children and helping with her church's Sunday school. A SWE life member, she has held a number of positions in the Society, both as a collegiate and as a professional member. In her leisure, she enjoys being with her husband and their three children.

# Laura Juette

Naval Facilities Engineering Command Southwest



## CITATION

For accomplishments as a talented supervisor, an excellent civil engineer, a decorated U.S. naval officer, and an active community member.

A registered civil engineer in California, Laura Juette works as deputy project management and engineering branch head at Naval Facilities Engineering Command Southwest (NAVFAC SW) in San Diego. She is a first-line supervisor, managing 20 civilian and military personnel, and is responsible for more than \$140 million worth of construction annually.

She oversees administration, safety, and quality assurance of military construction, maintenance, and repair on eight installations in California, spanning from San Clemente Island to Warner Springs. These installations support critical training facilities for the U.S. Naval Special Warfare Command, as well as 142 other tenant commands, with a total of 36,000 military and civilian employees spanning more than 57,000 acres. Although the youngest supervisory general engineer at NAVFAC SW, Juette is assigned one of the biggest responsibilities. In 2012, she was selected for the highly competitive NAVFAC Leadership Development Program to receive specialized training for senior positions in NAVFAC.

Skilled in interpersonal conflict resolution, Juette has coached team members who were at odds with one another, restoring cohesion. She promotes team camaraderie to develop strong working relationships with other NAVFAC SW offices and has improved workflow processes both in her office and outside it. Juette practices situational leadership to develop new employees, motivating and coaching those at mid-level, and fully empowering her most experienced staff members. She advises her personnel daily in problem-solving design issues, environmental hazardous

waste, anti-terrorism force protection, construction techniques, federal acquisition regulations, fiscal and contract law, and customer relations.

Prior to her current position, Juette served as project manager for the U.S. Navy, leading a water and wastewater infrastructure improvement program valued at more than \$650 million at Camp Pendleton, Calif. She was responsible for acquisition, design, and construction of two new tertiary wastewater treatment plants, two new advanced water treatment plants, and more than 80 miles of conveyance systems. The coordination was extraordinarily complex and challenging due to the magnitude of the construction and the size of the site, but Juette excelled at balancing opinions among stakeholders, maintaining high standards, and keeping the program on schedule.

While serving as a lieutenant in the U.S. Navy's Civil Engineering Corps, Juette was assistant public works officer for Naval Air Station North Island, Coronado, Calif. She was responsible for developing and planning large military construction projects. While serving at the North Island Public Works Office, Juette also managed the Self-Help Division.

Juette enjoys the outdoors and leads groups on backpacking trips in the Sierra Nevada Mountains. She is a member of the Sierra Club and volunteers for Outdoor Outreach, a nonprofit that gives at-risk and underprivileged youth the chance to go mountain biking, hiking, and backpacking.

She earned a B.S. in civil engineering from the University of Washington and an MBA from the University of Redlands. Juette is working on a Ph.D. in organizational leadership from Argosy University.

## Ellen Lee, Ph.D.

Ford Motor Company



## CITATION

For applying her technical depth in chemical engineering and her exceptional team leadership to visionary research in sustainable materials.

Ellen Lee, Ph.D., is a technical specialist in plastics research at Ford Motor Company in Dearborn, Mich. She conducts research to develop environmentally friendly, bio-based polymeric materials, such as biodegradable and durable resins and composites. Dr. Lee has increasingly become a thought leader in the area of sustainable materials at Ford and in the plastics and automotive industries. She joined Ford immediately after completing her Ph.D. in chemical engineering at the University of California, Berkeley. She earned her B.S. in chemical engineering from Northwestern University.

Her current research portfolio includes renewably sourced composites, nanocomposite material technologies, and microcellular foam processing. Dr. Lee has had considerable success in bringing her groundbreaking research from concept to Ford's assembly line. She has been granted eight U.S. patents and has written more than 20 technical publications. She has been a National Science Foundation Small Business Innovation Research (NSF SBIR) panel reviewer, a reviewer for industry journals, and an adjunct chemical engineering professor at Wayne State University.

Dr. Lee took the lead on researching and implementing the world's first application of wheat-straw-reinforced polypropylene for an injection-molded storage bin for the 2010 Ford Flex. Using this material enabled Ford to reduce petroleum consumption by 10 tons a year and cut carbon dioxide emissions by 15 tons a year. In 2007, Dr. Lee launched pioneering research on the use of supercritical fluids in processing thermoplastic materials for plastic car parts. Using an injection

molding process, she developed parts that weighed less and used fewer materials than the conventional process.

Among Dr. Lee's numerous awards are the 2002 ACS 34th Central Regional Industrial Innovation Award; the 2007 Ford Recognition Award; and the 2010 Society of Manufacturing Engineers' Innovations That Could Change the Way You Manufacture (for Biomaterials). In addition to her research responsibilities, Dr. Lee took Six Sigma training and received Black Belt certification in 2009.

Through her position at Ford and in her personal life, Dr. Lee serves the community in a number of ways. For three years, she was chair of the United Way Committee for Ford Research and Advanced Engineering, organizing events to raise funds and encourage community service. She has mentored countless junior engineers, interns, and summer students, providing exceptional guidance, coaching, and technical training, enabling and inspiring them to excel in their chosen areas of expertise. Along with several of her colleagues, Dr. Lee started the Ford Research New Employee Council, which provides new employees with ways to network and transition into the company. Dr. Lee set up networking lunches, volunteer opportunities, and a mentoring program. On her own time, she has organized workshops for the Sally Ride Science Fair at the University of Michigan and helped develop a sustainable science curriculum for Creative Change Educational Solutions.

Dr. Lee enjoys long-distance running, classical piano, and in-line skating. A dedicated locavore, she also likes to work in her vegetable garden.

# Reena Singhal Lee

Google



## CITATION

For contributions to computing through companies at the forefront of the industry, and for leadership in SWE, promoting science, math, and engineering to young people.

Reena Singhal Lee is a staff technical account manager for Google in the Android Partner Engineering team. She works with handset manufacturers in the Open Handset Alliance to build and deploy mobile devices using the Android™ software stack. She reviews device implementations to meet the requirements of the Android Compatibility Program, and also leads the effort to enable Google application distribution throughout the Android ecosystem.

Lee received her B.S. and M.S. degrees in electrical and computer engineering, with a minor in biomedical engineering, from Carnegie Mellon University. She holds an MBA from the McCombs School of Business at the University of Texas at Austin.

Before joining Google, Lee worked for seven years at Intel Corporation as a staff engineer, focusing on the performance analysis of microprocessors for ultra-mobile devices. She developed software models of the Intel® Atom™ processor to analyze and improve its performance before committing features to silicon. She is recognized as a technical expert for the on-chip counters used by software developers to optimize software performance on Intel's hardware. As the technical lead for design and implementation of the counters, Lee navigated between the needs of the software development community and the constraints of the microprocessor design team when adding new features. She also worked with senior engineers throughout the company to improve the validation methodology used for the counters.

A leader in the Society of Women Engineers, Lee received a SWE scholarship twice during her undergraduate years, and pledged to herself to give back to the organization that helped fund her education. She served as the FY10 scholarship committee chair and significantly improved the application and judging process. She also served as the FY09 program development grant (PDG) committee chair, increasing the visibility of PDG funds through quarterly webinars and frequent committee review cycles. She has been counselor for the University of Texas at Austin Collegiate Section and both treasurer and Girl Scouts workshop chair for the Southwest Texas Section. Lee was a SWE Distinguished New Engineer recipient in 2009.

Lee focuses her local SWE leadership on guiding the careers of young women in science and engineering. She has been the Southwest Texas Section's Girl Scouts Workshop chair for four years and has designed daylong, interactive, engineering workshops for local Girl Scouts with activities led by SWE members. Lee is a founding member of the Techbridge Board of Directors, promoting STEM careers to girls. She also volunteers as a Tau Beta Pi Engineering Futures facilitator, leading sessions with university engineering students nationwide to teach "soft skills," such as problem solving and effective teamwork.

For relaxation, Lee enjoys hiking, tennis, and running with her husband, Jeff, and their son.

# Harmony Myers

NASA Kennedy Space Center



## CITATION

For meeting increasingly difficult technical challenges in space program-related safety, for dedicated SWE leadership, and outreach to youth.

Over the course of her 11-year career at the Kennedy Space Center, Harmony Myers has made significant contributions to the National Aeronautics and Space Administration (NASA) Space Shuttle Program and the United Space Alliance (USA).

Since January 2012, she has been on a developmental assignment to NASA headquarters in Washington, D.C., as executive director of the Aerospace Safety Advisory Panel (ASAP), a congressionally mandated panel. In the first month, Myers organized the first ASAP quarterly meeting, oversaw the successful release of the ASAP 2011 annual report, and accompanied panel members during their briefings to congressional subcommittees. She has assumed responsibility for tracking open ASAP recommendations and coordinates NASA's responses to the recommendations. She works closely with top NASA officials to ensure timely and appropriate responses. This position requires leading through influence, political savvy, technical sophistication, and an understanding of ASAP safety concerns.

Myers joined the United Space Alliance in 2003 in safety and mission assurance (S&MA) after the space shuttle Columbia disaster. Her main responsibility was writing failure analyses on ground support systems for the Space Shuttle Return to Flight program. In 2005, she was hired as a safety engineer for the Space Shuttle Safety and Mission Assurance (S&MA) Office at NASA to oversee contractors' reliability and safety analyses. In 2006, after working in the branch for a year, Myers was promoted to lead safety engineer.

In 2007, she became supervisor for the safety engineering group, responsible for reviewing safety, reliability, quality, and mission assurance programs in all phases of testing, flight readiness, and ground systems for the Space Shuttle Program. In 2009, she became branch chief of safety engineering and assurance branch chief for launch vehicle processing. This dual responsibility put Myers in charge of ensuring safe processing for launch vehicles, such as space shuttle and Ares I-X; compliance with federal and NASA safety requirements; and safety and control of ground support equipment. She also served as the branch chief of International Space Station (ISS) and Spacecraft Payload Processing S&MA. In contrast to the more typical employee experience, Myers has risen quickly through the agency's ranks.

A SWE member since 1997, Myers has held several key positions, including section president, Region D governor, WE10 local host committee chair, and Society membership award coordinator. She is a *FIRST*<sup>®</sup> Robotics Competition judge and has been involved with K-12 STEM outreach since she was a student at the University of Central Florida. She helped implement the Sally Ride Science Festival and Expanding Your Horizons programs at the university, and has visited many schools to share her engineering experience and her enthusiasm about math and science.

Myers holds a B.S. in electrical engineering from the University of Central Florida and an M.S. in industrial engineering from the University of Miami. She and her husband reside in Washington, D.C., and have two daughters.

# Linda Freeman Romer

Rockwell Automation



### CITATION

For integrity and innovation in technical sales, and for involvement at all levels of SWE that will have a lasting, positive impact.

Linda Freeman Romer is a solution sales engineer with Rockwell Automation in Orlando, Fla. She focuses primarily on the entertainment industry, handling industrial automation and information products and their associated services, such as design engineering, life-cycle management, and application troubleshooting. Responsible for acquiring new business and for supporting existing business worth more than \$8 million, Romer holds 68 accounts and has cultivated her territory in central Florida for 12 years, with a “customer-centric sales” approach. She acts as a business partner, listening to her customers and creating appropriate technical solutions for them. Despite less than favorable economic conditions, Romer consistently meets or exceeds sales targets.

In 2011, she was asked by senior management to create and implement a strategic sales and marketing development plan for the \$21 million global entertainment industry business. This role calls for her to coordinate sales efforts among 36 sales offices in North and South America, Europe, and the Asia Pacific region. As a liaison to product development divisions, Romer provides customer input about future products and features. In 2011, Romer led sales efforts that resulted in Rockwell Automation’s winning the safety controller contract for a new \$10 million project in China, displacing a competitor for the company’s most globally influential customer.

Romer joined Rockwell Automation’s Global Sales and Marketing organization in 1996 as a trainee in the sales-engineer training program. After spending six

months at headquarters in Milwaukee, she moved to the Seattle sales office, where she annually exceeded her sales goals and was assigned a larger territory.

For the last four years, she petitioned the Rockwell Collins Charitable Corporation to direct more than \$1 million to Georgia Tech in scholarships, charitable financial support, and in-kind donations to create new courses in automation technology for engineering students. Six graduate students have been funded, and more than 40 scholarships awarded to female engineering students.

A life member of SWE, Romer has been active since her first year in college. She joined the Rockwell Automation SWE recruiting team in 1997 and actively advocated strengthening the partnership between Rockwell and SWE. In 2010, when Rockwell’s international trade show and the SWE conference took place in Orlando the same week, thanks largely to Romer’s efforts Rockwell Automation sponsored sessions and tours, helped fund a hospitality suite, and underwrote conference attendance for 68 women employees. Of these, 70 percent either were not SWE members or had never attended a SWE conference. Romer’s initiative boosted Rockwell SWE membership significantly and sparked the company’s continuing participation in the annual conference.

Romer has a B.S. in electrical engineering with certificates in business communications and psychology from the Georgia Institute of Technology. She lives in Orlando with her husband, Chris, and enjoys competing in triathlons.

# Annmarie Connor

Universal Creative



## CITATION

For rapid professional progress, for outstanding professional and SWE leadership, and for dedicating many talents to the SWE mission.

Annmarie Connor earned her undergraduate degree in 2002 and her master's in 2006, both in mechanical engineering, from the University of Central Florida. She holds Lean Six Sigma Green Belt certifications from both United Space Alliance and the Harrington Institute. In eight years as an engineer, Connor has worked in safety and reliability, structures and mechanisms design, and most recently, project engineering. Her key accomplishments include project and vendor management, risk identification and mitigation, 3-D modeling and drafting, and lean processes. She is currently an animations/FX engineer for Universal Creative, a division of Universal Parks and Resorts in Florida. She is responsible for monitoring and expediting design and development of show and ride systems for theme park attractions.

Before joining Universal Creative, Connor spent seven years with United Space Alliance (USA), the main contractor to NASA for the space shuttle program. She excelled as both a mechanical design engineer in the Launch and Recovery division and as a safety and reliability engineer in the Safety, Quality, and Mission Assurance division. She was asked to take a leadership role as systems design engineer, managing new designs and modifications for orbiter access and for ground handling equipment. She coordinated a multidisciplinary team, researching and selecting equipment and producing and releasing design documents, plans, and specifications.

Because she discovered deficiencies and inconsistencies in the certification process that the systems design engineers followed, Connor was selected to participate in USA's Lean Six Sigma program. With input from

key stakeholders and team members, she created a new process to be implemented by the systems design engineering organization and developed templates that drastically reduced rework time. Connor also worked on the Orion tooling program, developing concepts for lead engineers to review, doing engineering calculations, and providing 2-D fabrication drawings.

Since joining SWE in 1999, Connor has been involved on all levels of the Society. One aspect of the SWE mission — to recognize the accomplishments of women engineers — resonated so strongly that she chaired the awards and recognition committee for four years. Committed to region and section development, Connor served on the Society leadership coaching committee as deputy chair for content development and management, and as Region D leadership coach. She completed her second year as Region D governor at the close of FY12. Her additional leadership roles include vice president of her local section, task force chair for region conference, and Region D secretary. Connor also served a three-year term as volunteer coordinator on the WE10 local host planning committee. She received the Central Florida Section Above and Beyond Award and the Central Florida Section Outstanding Committee Chair Award.

Also active in ASME, Connor most recently served on the organization's affinity communities executive board and membership initiatives advisory council. The mother of twins, Connor volunteers for Greater Orlando Mothers of Twins and Triplets and at Winnie Palmer Hospital for Women and Babies, in the neonatal intensive care unit, where her son and daughter were cared for.

## Jennifer Harris Nichols

TriMedx



## CITATION

For consistent high-level, high-energy technical achievement; exceptional SWE leadership; commitment to the development of youth; and dedicated community service.

Jennifer Harris Nichols earned a B.S. in industrial engineering and an M.S. in engineering with an emphasis in integrated technology management from California Polytechnic State University, San Luis Obispo. She completed the Technical Management Program at the University of California, Los Angeles in 2007 and will complete the Biomedical Equipment Technology Program through the University of Vermont in 2012.

Harris Nichols joined UPS in 2003 as an industrial engineer, specializing in logistics and supply chain. She was promoted three times in five years, making her the company's youngest woman engineering manager. During her first assignment, she demonstrated her management capabilities by creating operating plans to maximize resources and cut costs through continuous process improvement. As a result, Harris Nichols was promoted to industrial engineering hub and package supervisor, where her plan for small packages saved the company \$1.3 million annually. She advanced to package operations supervisor, managing daily dispatch for 35 drivers; and later, as industrial engineering transportation manager, where one of her major projects was developing and managing an annual rail transportation budget of \$25 million. From 2007 to 2011, Harris Nichols served as chair of the UPS women's leadership development business connections committee, organizing guest speakers and encouraging career development for women at UPS.

In 2011, Harris Nichols entered a training program with TriMedx, a healthcare technology management company. Upon completion, she was offered the position of clinical engineering manager with Glendale Memorial Hospital, organizing and

directing the biomedical engineering department. Harris Nichols has set in motion new processes for technician accountability, established weekly department meetings, launched cost control measures, created a recognition program, and instituted daily status reports. Recently, she was selected to participate in the first comprehensive leadership development program at TriMedx.

Active in SWE since she was a college student, Harris Nichols has held many key positions in the Society. She served on the conference programming board and as the conference volunteer coordinator for the annual conference in Anaheim in 2005. She has chaired four region conference planning committees and held all officer positions on the region council. As Sonora Region governor, one of the youngest ever elected, Harris Nichols initiated an array of projects, including officer training, updating of region governor procedures, tracking and rewarding section engagement and participation, and co-founding the SWEeter Futures Outreach Program. Currently, Harris Nichols is a member of the outreach and scholarship committees and is the FY13 senate secretary. She just completed her term as the FY12 Western Regions Joint Conference chair and society procedures committee chair.

An advocate of higher education for all, Harris Nichols is a member of the board of directors for the Los Angeles Boys and Girls Club. She coordinates fundraising events and advises the Sun Valley High School engineering program in Los Angeles on a plan to increase the number of women and minorities in science, technology, engineering, and mathematics fields.

Harris Nichols lives in Sylmar, Calif., with her husband, George.



## CITATION

For significant, early-career contributions to the medical device industry, for inspiring girls to pursue engineering, and for leadership at all levels of the Society.

In 2002, at the age of 19, Holli Pheil earned her B.S. in electrical engineering with honors from the University of Washington in Seattle. While a student, she interned at Guidant Corporation, where she created a digital memory tester and performed electrical design verification and integration testing. At the end of her internship, she accepted a full-time position as a design engineer in the company's cardiac rhythm management division.

At Guidant, Pheil was assigned to the hardware design team for the Model 3120 Zoom® Latitude®, a programmer for implantable pacemakers and defibrillators and the first device of its kind to extend telemetry range of implantable devices beyond 10 feet. Pheil helped design power supplies for a radio-frequency analog board and made significant changes to the device housing, software, and firmware. Her work led to FDA, FCC, and CE marking certifications for a product global launch. More than 35,000 of the devices are now in use worldwide.

In 2005, Guidant was acquired by Boston Scientific and Pheil began working with a hybrid team of research and product development engineers involved in designing an implantable pressure sensor that could measure pressure in the pulmonary artery for early detection of heart failure decomposition. She tested and proved an innovative concept of acoustic beam steering for the implantable device, and was lead electrical designer for a handheld barometric pressure reader that communicated with an implantable defibrillator. Pheil also contributed to the Latitude G2 communicator, a home communication system that enables patients to check implantable devices over the Internet. The system now serves 100,000 patients worldwide.

Since 2010, Pheil has been a principal electrical design engineer for Medtronic, Neuromodulation Division in Fridley, Minn. She works in product development on instruments for patients to program and recharge their implantable neurostimulators. She is the lead design and product engineer for a recharging system that cuts recharge time by more than two-thirds. She is part of a cross-functional core team working on the next generation of neurostimulators and deep brain stimulation devices. This team has leveraged one electrical hardware design for four product variations. In 2011, Pheil received the Young Engineer of the Year Award, which honors an engineer younger than 35, from the Minnesota Federation of Engineering, Science, and Technology Societies.

Deeply involved in SWE at all levels, Pheil is currently international expansion task force chair. In 2008, as president of the Minnesota Section, she led an executive council of 22 women who provided professional development to 250 women engineers and organized science, technology, engineering, and mathematics (STEM) outreach events that inspired 3,800 girls and boys. Pheil also has served as Region H nominating committee chair; "Celebrate SWE!" co-chair; and international participation committee chair.

Pheil volunteers for the Minnesota Independent School Forum, where she guides STEM programs, and Meals on Wheels. She recently became involved in the Korean adopted community and mentors young adopted children. Pheil enjoys travel, scrapbooking, and spending time with her husband, Nate, and dogs Coconut and Oliver.

## Pamela Snyder, P.E.

Procter &amp; Gamble



## CITATION

For advances in consumer products, exemplary SWE leadership, and for supporting the next generation of engineers.

Pamela Snyder, P.E., is a senior engineer in research and development with Procter & Gamble, working in the Global Material Development & Supply Organization (GMDSO), supporting Pampers® Baby Wipes. In her current role, Snyder works with suppliers to develop and qualify new materials that improve product performance, reduce cost, and deliver sustainability benefits. She has led a multi-functional cross business unit team exploring future wipes technologies. Today Snyder is focusing on the technology development and material development strategies for some of these technologies.

Previously, Snyder worked on outer cover film and printing for diapers and pants in North America, Europe, the Middle East, and Africa. She partnered with suppliers to develop and qualify a new breathable outer cover film that rolled out in five products between 2008 and 2009. Her efforts enabled suppliers to move to new printing technologies that improved quality and cut costs. Snyder's work in GMDSO has resulted in several million dollars in materials savings for the company and a better product for the consumer.

In her first assignment with Procter & Gamble, Snyder worked in Global Diaper Chassis Process & Equipment Engineering, where she was responsible for developing die cutting and trim removal processes for a new diaper design. She worked with materials engineers and product researchers to optimize the manufacturing process, improve product strength, and reduce defects.

Snyder has been an active member and leader in SWE since she entered Rochester Institute of Technology. In her first year, she helped organize the first annual Shadow Day program. Snyder later served as section treasurer and president. As section president, she set up several committees and boosted membership from about eight to more than 40 active members. In the seven years since she graduated, Snyder has held numerous leadership positions at every level of the Society. She currently serves as Society nominating committee chair, Region G nominating committee chair, and member of the SWEFL task force.

Snyder holds bachelor's and master's degrees in mechanical engineering, both from Rochester Institute of Technology. Her master's research has been published in *Inhalation Toxicology Journal*. She is a licensed professional engineer in Ohio, and her first patent was granted in January 2011.

Volunteering for *FIRST*® Robotics, *FIRST* Lego League, and the Winton Woods High School Project Lead the Way program gives Snyder the opportunity to share her love of engineering and encourage young women to consider careers in science, technology, engineering, and mathematics. Snyder is an active member of the Cincinnati community, volunteering with Give Back Cincinnati. She enjoys racing in the Thistle class of sailboats on Cowan Lake, traveling, sewing, and making improvements to her 100-year-old house in Cincinnati.

# Tracy Van Houten

Jet Propulsion Laboratory



## CITATION

For commitment to excellence in aerospace engineering and engineering outreach, and for efforts in developing SWE's future leaders.

As a systems engineer for NASA's Jet Propulsion Laboratory (JPL), Tracy Van Houten explores the universe every day. She works on the Mars Science Laboratory (MSL) team that landed the Curiosity rover on Mars in August 2012. As MSL's surface operations verification and validation systems engineer, she facilitated nearly 40 reviews, covering all facets of the operational system to capture the hundreds of items requiring verification prior to landing. Now that Curiosity has landed, Van Houten is transitioning to a new project, an orbiter launching in 2014 to map Earth's soil moisture and freeze/thaw state.

Systems engineering blends Van Houten's technical aerospace background and leadership skills. She discovered the field as an undergraduate when she was elected project manager of her senior spacecraft design class. She holds a B.S. in aerospace engineering from California Polytechnic State University, San Luis Obispo (Cal Poly) and an M.S. in astronautical engineering from the University of Southern California, which she earned while working full time at JPL.

In her first position with JPL, Van Houten quickly became the lead systems engineer on Team X, a conceptual design team, where she was technical lead and managed 15 systems engineers. Her systems engineering leadership was recognized again when she was selected for JPL's highly competitive systems engineering on-the-job training program. One of 11 chosen from a nomination pool of hundreds, she was the youngest person ever to participate in the 5-year-old program.

Van Houten's SWE involvement began as soon as she stepped onto the Cal Poly

campus. She advanced quickly up the leadership ladder, serving as president of the 500-plus member section her junior year. After graduation, her SWE focus remained on collegiate members, and she became the first region collegiate representative coordinator. She also coordinated the collegiate leadership forum for several years, which has become the primary mechanism for training SWE's collegiate leaders. In 2006, Van Houten helped create the SWE Future Leaders (SWEFL) program, aimed at attracting outstanding first-year and sophomore members. More than 100 members have come through this program, many now leading local sections or serving at the region and Society levels. Van Houten currently serves as a SWE-Los Angeles Section representative, a Region B alternate senator, and the future leaders task force chair, responsible for refining the collegiate SWEFL program and developing a new professional member program. She was collegiate interest committee chair, a Region B conference co-chair, and, in 2007, a SWE New Faces of Engineering award recipient.

Van Houten continues to support Cal Poly and the larger community as well. She serves on the Cal Poly Women's Engineering Program advisory board, is the engineering advisory board vice-chair for a local public high school, and volunteers on several committees at her church. She lives in Pasadena, Calif., with her husband, Kevin, and their children, Aiden and Siena. Van Houten pursues a hobby as a wedding florist and likes to travel, camp, and hike with her family.

# Wendy Bromenshenkel

Shell Information Technology Inc.



## CITATION

For applying in-depth manufacturing knowledge and IT expertise to industrial safety and security; and for imaginative SWE leadership.

Wendy Bromenshenkel is currently IT service continuity manager for Shell Information Technology Inc. in Houston. She is responsible for global disaster recovery planning for all businesses in Shell and for assuring the continuity of IT service. Previously, Bromenshenkel was the Americas South region manufacturing IT business services manager based in Deer Park, Texas, where she delivered end-to-end IT services for all of Shell's Gulf Coast manufacturing locations, as well as those in Buenos Aires, Argentina. Prior to that, Bromenshenkel was the IT manager for the Louisiana Refining Complex.

While Bromenshenkel has spent her entire professional career with Shell, moving steadily upward, the course of her career has been somewhat nontraditional. She began at Shell Chemical in Geismar, La., as a control systems engineer. For the first eight years, she became increasingly accomplished in instrumentation and computer control, and, at the same time, polished her leadership skills. Then she moved into her first technical management position at the Norco Refinery in New Orleans. Seven years and a number of management assignments later, Bromenshenkel took on the challenge of applying her computer and networking skills and her manufacturing knowledge to an IT position.

Among her many technical achievements is the development of a computerized environmental management system using software-programming tools new to Shell. The system calculated emission rates from permitted and nonpermitted vents and provided warning messages via computer when operations approached a permit limit. She also designed an enhancement

to a protective safety shutdown system that resulted in a savings of more than \$4 million.

As a member in the Shell Hispanic Employee Network and of Women Adding Value Everywhere, Bromenshenkel shares her experiences with junior members at lunches, meetings, and workshops. She has tutored high school students in math and science and volunteered for Junior Achievement and Habitat for Humanity.

A senior life member of SWE, Bromenshenkel has held many responsible and influential positions at the sectional, regional, and Society levels. While serving as vice president of special services, she used her stakeholder management skills to build support for the "Statement of SWE's Diversity Principles," which were drafted by the multicultural committee. As nominating committee chair, Bromenshenkel spearheaded an effort to identify the qualities SWE leaders needed to succeed at the Society level and helped develop standards that minimized subjectivity in selecting the slate of candidates.

She has also served as Region C director, establishing the first electronic mailing list to improve communications and unite the region. As president of the Baton Rouge Section, Bromenshenkel expanded the number of scholarships for high school girls and secured funding from Shell for the Day with Industry event and facilitated conversations about diversity.

Bromenshenkel earned her B.S. in chemical engineering from Christian Brothers University in Memphis, Tenn. She and her husband, Michael Chauvin, have three children. She plays co-ed soccer and enjoys her early morning "boot camp" exercise program.

# Stacey Culver

Babcock & Wilcox



## CITATION

For exceptional success in science, engineering, and program management; and for a history of service, advancing the mission of SWE.

Stacey Culver is manager of group insurance for The Babcock & Wilcox Company in Charlotte, N.C. She manages vendor relations, billing, and system and program design for the company's health, life, personal accident, and disability benefit programs. Her primary responsibilities include the management of group insurance programs, including vendor management, benefit analyses and reporting, plan design, and plan implementation. In addition, she oversees financial, compliance, and government reporting of group insurance programs. Culver is recognized as the subject matter expert for the SAP Human Resources Information System. She was the benefits lead for the launch and implementation of the system and handled creating the specifications for 28 benefits interfaces, working with the programmers and personally testing each interface.

Before joining Babcock & Wilcox, Culver was manager of group insurance for McDermott Incorporated. She began working for McDermott as a structural engineer in the offshore platform group and was the first woman engineer hired by the company's New Orleans facility. She quickly demonstrated her ability to analyze complex structural problems and design realistic solutions. She then moved into finance, where she was a business analyst in corporate planning and development; into IT, as a total quality management advisor; and into human resources, where she was a training and organization development specialist and human resources information system project team coordinator.

A life member of SWE, Culver has been active in the Society for 35 years, beginning as a junior in college. She is a charter member of the Greater New Orleans Section, where she held positions of increasing responsibility, from telephone committee chair to section president. At the regional level, she was Region C director, teller, and representative to the Society nominating committee. She has held a range of positions at the Society level, including chair of the awards and recognition, nominating, procedures, and scholarship committees. She was awarded the Distinguished New Engineer Award in 1987. As a member of two critical task forces — contingency reserve and career mapping — Culver brought her sound judgment to the process of making difficult decisions. She served on the SWE board of directors from 2001 to 2005, applying her business and process improvement skills to board business and to many committees. She is currently a Region C senator, a member of the audit committee, and leads the succession planning task force.

Culver earned her B.S. in civil engineering from Texas A&M University, her B.A. in mathematics and physics from Baylor University, and her MBA in finance from Southern Methodist University.

For nearly 20 years, Culver served her church community in Covington, La., in many volunteer positions, including wedding coordinator, Sunday school teacher, and youth group coordinator. Her balanced perspective, easy manner, and ability to guide and encourage young people made her an effective and popular role model.

# Barbara Donoghue Darnell

The Boeing Company



## CITATION

For demonstrated excellence in engineering, enterprise in management, and dedication in community service; and for a long and substantive history of contributions to SWE.

Barbara Donoghue Darnell is an engineering manager for The Boeing Company, responsible for leading the fluid system standards and, concurrently, the multi-model mechanical hydraulics landing gear actuation design organizations in Boeing Commercial Airplanes. Darnell oversees the groups' design of standard fluid system fittings that support hydraulics, fuels, water, and waste systems and design of landing gear actuation components for Boeing's commercial airplanes. Until January 2012, Darnell was simultaneously the Boeing 737 airplane mechanical hydraulics and fluid system standards manager, overseeing both groups of engineers and technical designers. She successfully led the fluid system standards team through development of more than 120 new part family standards and more than 20 new processes documents for the 787 airplane, using her strong collaborative abilities with design groups, partners, and suppliers.

Darnell earned a B.S. in mechanical engineering from the University of Washington, an MBA from City University of Seattle, and a master's certificate in project management from the Stevens Institute of Technology in Hoboken, N.J.

An employee of Boeing for 32 years, Darnell has moved up steadily, filling a variety of roles from designing new equipment to troubleshooting airplane performance issues. She began in 1980, working with the 767 airplane program flight deck displays group. She then moved to Fort Irwin, a U.S. Army base in California, where she worked in Boeing Services International as a facilities engineer. Demonstrating grace under pressure, Darnell was once called to travel to Hong Kong to repair an airplane with sensor alignment problems. Supervising a team of mechanics who spoke no English, she communicated the requirements of the repair and demonstrated the tooling to measure and reinstall the sensor at the proper orientation — all in less than 14 hours.

Currently one of SWE's Northwest Star Region J senators, Darnell provides representation that draws on her experiences managing extensive budgets, schedules, and communications to represent her region. She is in her fourth year as a senator.

Like her work history, Darnell's SWE history is long, varied, and substantive. She joined at the 1989 Oakland conference, and within a few years became a life member. Shortly thereafter, she became chair of the membership guidebook committee, leading the effort to gather data, write, print, publish, and distribute 20,000 copies of the first SWE member handbook. The handbook included information about membership levels, awards, scholarships, and corporate members, and was an invaluable resource for members and sections. Content is now incorporated online. Darnell also led the new section development committee for several years, resulting in the successful chartering of new professional sections.

Darnell chaired the local Certificate of Merit program, planned annual spring banquets, and recently prepared and obtained a SWE program development grant. She was a section representative for several years and has led planning and implementation of Boeing's presence at SWE's annual conference for the past 20 years. At first informal, participation was formalized in 1999, thanks in large part to Darnell's efforts. Boeing participation in SWE has increased from 10 employees in 1989 to 150 in 2010.

Outside of work and SWE activities, Darnell volunteers for emergency search and rescue operations in King County, Wash., as an on-call emergency vehicle driver and field searcher. She is proud of her three sons, with whom she shares a love of the outdoors. Darnell enjoys cake decorating and has made hundreds of cakes, many for charitable groups. She married Gary Darnell in August 2012 and made their wedding cake.

# Laura Gimpelson, P.E.

LG Environmental Engineering



## CITATION

For a career in environmental engineering that included many firsts and for professional society leadership that gave women engineers a voice and a role model.

Laura Gimpelson, P.E., is president of LG Environmental Engineering, a woman-owned environmental consulting and engineering firm with facilities in Texas and Florida. Her experience in the field spans 33 years and includes creating and implementing cost-effective compliance and corrective action programs for government agencies and retail firms and for the chemical processing, manufacturing, and power industries. Current projects include managing sustainable remedial action plans at petroleum-impacted sites and writing continuing education courses for engineers.

Gimpelson graduated from Georgia Institute of Technology with a bachelor's degree in chemical engineering. SWE participation helped her develop the management, presentation, and writing skills that enabled her to move up professionally. She was the first woman chair of the South Texas Section (the largest in the organization) of the American Institute of Chemical Engineers (AIChE) and the annual guest lecturer at the University of Houston. She writes a column about sustainable remediation for *Florida Specifier* magazine, contributes to three websites, and served on several local governmental advisory boards.

A Resource Conservation and Recovery Act enforcement officer with the U.S. Environmental Protection Agency, Region 6, in Dallas, Gimpelson established herself as an expert in solid waste and emergency response programs. The compliance programs and emergency response plans she developed for small businesses later guided Texas regulators in small businesses compliance program setup. Gimpelson led implementation of

one of the first risk-based closure plans in Texas that cleaned up hazardous waste to a health-based standard. The Texas Association of Realtors used the case to illustrate how a properly implemented risk-based closure protects human health and the environment without lowering property values.

In Florida, Gimpelson continues to advocate for sustainable remediation and green technologies for groundwater remediation. Her expert, common-sense approach has encouraged other engineers to propose innovative technologies when submitting remediation plans to state and county agencies. Gimpelson prepared and implemented one of the first chemical oxidation remediation plans funded by the Florida Department of Environmental Protection Petroleum Remediation Trust Fund.

Active since joining the Society in 1975, Gimpelson is a senior life member of SWE. She edited the Houston Area Section newsletter and was nominated for the Upward Mobility Award in 1991. After moving to Florida, she became a leader in the Central Florida Section. She was elected section representative in 2002 and president in 2010. For the last few years, Gimpelson has been SWE's nominee for various Central Florida Engineers Week awards, and in 2010, she became the first woman to receive Central Florida's Lifetime Achievement Award.

Gimpelson is a Fellow and life member of AIChE. She has donated countless hours to the Seminole County Public Library and the Seminole County Soil and Water Conservation District. A high school distance swimming champion, Gimpelson volunteers as a head lane timer at local U.S. Masters swim meets.

# Debra Kimberling

Solar Turbines Incorporated



## CITATION

For tireless promotion of engineering as a rewarding career for women, advocacy for women engineers in the workplace, and contributions to the Society of Women Engineers.

Debra Kimberling is principal engineer and Six Sigma Black Belt for gas turbine engines at Solar Turbines Incorporated, a subsidiary of Caterpillar. She has more than 30 years of experience in industry, academia, and government.

Prior to joining Solar Turbines, Kimberling worked for General Dynamics Space Systems Division (now part of Lockheed Martin) in San Diego, specializing in design and analysis of payloads on the Atlas Centaur rocket. In 1991, while Kimberling was SWE section president, her engineering director requested that she quietly survey the company's women engineers. As a result, the "design bull pit," a large open area of design engineers at drafting boards, was redone, improving the working environment for all.

Previously, Kimberling was an assistant professor in the department of mechanical engineering technology at Purdue University. She also was a civilian engineer for the Naval Ocean Systems Center (now SPAWAR), where she worked on submarines and became one of the first female U.S. Navy-certified civilian divers.

A senior member of SWE for more than 20 years, Kimberling has been active at all levels of the Society. In addition to serving as president of the San Diego County Section, she was Region B director and Society strategic planning chair. Currently the corporate connections director for the San Diego County Section, Kimberling mentors younger members and provides leadership on fundraising and section initiatives. On the Society level, she is a member of the *SWE Magazine* editorial board.

Promoting engineering to young women and their parents is a priority for Kimberling. She shares her experiences, along with the latest research on female engineers, at educator conferences, youth programs, and employee-management groups. By addressing the subconscious cultural dialogue on how career choices are influenced, Kimberling raises awareness of, and discusses ways of overcoming, the hurdles women face in entering and sustaining a career in engineering.

In her 18 years with Solar Turbines, Kimberling has worked with all levels of the corporation to create a culture of active Society participation. These efforts led to the formation of a female engineer employees' affinity group and dedicated annual funding for SWE programs and initiatives. The company has become a reliable source of volunteers, officers, and financial support for SWE and other outreach activities. Solar Turbines won the 2012 Region B Sustaining Benefactor award for its contributions to SWE. Kimberling is working to replicate these successes obtained at Solar Turbines to other companies. Recently, she facilitated an executive round table to explore collaborative opportunities between local companies and SWE.

In her leisure time, Kimberling enjoys running, hiking, reading, and camping. She has a B.S. in engineering science from Arizona State University and an M.S. in aeronautics and aeronautics engineering from the University of Washington.

## Marie P. Laplante

KBR



## CITATION

For versatile and dedicated leadership at all levels of SWE and for serving as a role model and champion of diversity.

Marie Laplante is chief technology engineer, utilities, in KBR's project definition group. Responsible for managing utility design guidelines for major petrochemical projects, she has worked on the design of an Angolan refinery and trained personnel at a new American Chlor-Alkali plant.

Laplante is a versatile, well-rounded chemical engineer with more than 25 years of experience. She earned a B.S. in chemical engineering from the University of Massachusetts and has worked in plant operations, technical sales, and project management. Early in her career, Laplante was identified as the "go to" person for project management, known for completing quality projects, on time, and within budget. She earned a reputation for being able to rescue any project.

As technical sales manager, Laplante developed expertise in emissions reduction and became a recognized industry expert for the North American market. She wrote numerous articles for trade magazines and was a frequent speaker at industry conferences. Along the way, she earned her Houston Stationary Engineer License, Six Sigma Green Belt, and GE project management certifications.

Laplante has positively influenced countless young women pursuing engineering. Dedicated to opening doors so girls can see the career possibilities resulting from a technical education, she has worked with Girl Scouts, judged science fairs, and judged *FIRST*<sup>®</sup> Robotics competitions across the United States. Laplante has also spoken at universities and student conferences, worked with the Global Institute for Technology and Engineering, and mentored college engineering students.

A senior life member of SWE, Laplante joined as a student in 1982 and has been

actively engaged. On the Society level, she has served on the board of directors; as past chair of the audit committee; as a member of the finance committee; and as Houston Area section representative. She was Region C governor from 1998-1999; served as the 1998 annual convention treasurer, which was hosted by the Houston Area Section and broke attendance records; and served on the conference programming board. She is in a unique position of having served in every financial position at the section, region, and Society levels. Most recently, Laplante has served as the annual conference host committee co-chair.

A firm believer in preserving the history and traditions of the Society, Laplante worked to establish the Houston Area Section archives and install them at the University of Houston Women's Archives and Research Center. She brought the Society's traveling exhibit, "Petticoats and Slide Rules: SWE, A History of Women Engineers," to Houston.

Beyond SWE, Laplante is active in the Education Foundation of Harris County, Women's Energy Network, AIChE, Federation of Houston Professional Women, and MentorNet.

In 1997, Laplante was honored as a SWE Distinguished New Engineer. That same year in Houston, she was recognized as Young Engineer of the Year; and again in 2002 as a Woman of Excellence. The University of Massachusetts recognized her with outstanding alumni awards in 1998 and 2001. In 2012, Laplante received the Gulf Coast Region Distinguished Service Award.

Laplante enjoys spending time with her husband of 25 years, flamenco dancing, traveling, reading, competitive cycling and skating, skiing, and surfing.

# Mary Studlick, P.E.

Exxon Mobil Corporation



## CITATION

For significant contributions to petroleum engineering and to public awareness of engineering as a profession in which women excel.

A senior life member of SWE, Mary Studlick, P.E., has worked in the oil and gas industry for 31 years, all of that time for Exxon Mobil Corporation. She earned a B.S. in civil engineering from Washington University in St. Louis in 1981 and an M.S. in petroleum engineering from Tulane University in 1991. Studlick is a licensed professional engineer in the state of Texas.

She has held a variety of positions with ExxonMobil since joining the corporation in 1981 as a drilling engineer in New Orleans. Responsible for planning, surveillance, and completion of oil and gas wells in the Gulf of Mexico, Studlick spent about 25 percent of her time on rigs. For a time she was assigned to a wildcat well in the Navarin Basin, 400 miles off the Alaskan coast, the most remote well ever drilled by Exxon at that time. As an environmental and regulatory engineer, Studlick worked on underground injection control and on state and federal regulations. She co-lead development of the Texas Title V general air permit for oil and gas sources and worked on the air team and eventually served as the air team lead for the Baytown refinery from 1997 to 2000. For the next 10 years, she facilitated safety, health, and environment audits at ExxonMobil facilities worldwide. Since 2010, Studlick has been the global environmental and regulatory manager for ExxonMobil's drilling operations worldwide.

As an undergraduate at Washington University, Studlick participated in the chartering of the SWE student section there and served as secretary, newsletter

editor, and president. In 1979, the new section earned the Best New Student Section award at the annual convention in San Francisco. In 1981, Studlick moved to Louisiana and became a member of the Greater New Orleans Section. She immediately became the career guidance chair, developing a slide show and setting up the high school speakers bureau. In 1983, Studlick and a colleague developed the Day in the Life of an Engineer program, which gave high school girls real-life problems to solve. The program was quite popular, and in 1984 won the SWE Scribe Award.

In 1989, Studlick was elected to serve as Region C director. Soon after, she moved to Houston, and although she had a demanding work and travel schedule, she devoted herself to expanding Exxon's presence at the SWE annual conference career fair. Beginning in 1992 with a team of two, staffing a small booth, by 2006 Studlick had attracted a team of 10 recruiters and 10 volunteers.

From 1998 to 2008, Studlick rejuvenated and volunteered with ExxonMobil's Science Ambassador Program at her daughter's school. She and three volunteers she recruited judged science fairs, spoke to math and science classes, and coached the Future City Competition.<sup>TM</sup> Studlick is also active in the Society of Petroleum Engineers and in several women's networks at ExxonMobil.

For relaxation, Studlick enjoys cross-stitch, reading, and travel with her husband, Joe. She is proud of her daughter Liz, who entered Brown University this fall as an engineering major.

## Diana Joch

Northrop Grumman



## CITATION

For a history of reliable service; hard work; and wise guidance on the local, regional, and Society levels of SWE, and for dedicated outreach to youth.

Diana Joch is a senior systems engineer with Northrop Grumman Information Systems in Chantilly, Va., following a 20-year career with the U.S. Department of Defense. She earned a B.S. in computer engineering from Boston University and an M.S. in information systems from American University.

Joch joined the Society of Women Engineers in college. Following graduation, she moved to the D.C. area and became part of the Baltimore-Washington Section. A tireless recruiter, she works diligently on membership and retention. Joch mentors others about the importance of these two aspects of section leadership and monitors local employers for potential SWE members.

She has been a section officer, representative, and president for the Baltimore-Washington Section. She served on SWE's board of directors from 2008 to 2009, was Region E treasurer from 2010 to 2011, and is in her third year on the Society's finance committee. One of Joch's most notable contributions was as a member of the council of representatives transition team and her role in the formation of the SWE senate.

Joch is a recognized expert in many areas crucial to the smooth functioning of SWE, including bylaws, procedures, membership, and finance. She has mentored many section presidents, and every year, for many years, she has given a presentation, "SWE 101," to section leaders at their planning retreat to provide them with a clear understanding of SWE's mission and how the Society operates.

Joch became section president shortly after the 2000 annual conference in Washington, D.C. — a time when SWE volunteers shouldered much more of the conference

responsibilities than now — and the core of active volunteers who had organized the conference was suffering from burnout. She focused on rejuvenating the section by boosting membership and enhancing its visibility in creative ways. For example, she championed section participation in Celebrate Fairfax, a three-day, family-friendly festival held in northern Virginia. Joch helped create a festival technology village and recruited companies and other organizations to participate.

Involved in outreach activities for many years, Joch began serving as co-chair of her section's Science and Engineering Education Development (SEED) program in 1997. SEED targets minority, junior high school girls and offers participation in a four-year program that provides a weeklong, hands-on science and engineering experience each summer with women engineering mentors.

Joch also champions corporate liaisons at the section level. She has worked with Northrop Grumman, SAIC, ExxonMobil, and Raytheon, among others, to establish mutually beneficial relationships. The Baltimore-Washington Section has a long-standing practice of corporate partners hosting one member meeting every year. The section also connects with affinity groups inside corporations to identify volunteers and sources of funding for outreach and professional development. By cultivating corporate relations, Joch has blazed a trail from the section to the businesses where many SWE members work.

Joch lives in Centreville, Va., with her husband, Charles, and her three children. In her leisure time, she volunteers at her church, for the PTA, the local youth sports organization, and for her children's Girl and Boy Scout troops.

# Beth Holloway

Purdue University



CITATION

For bringing fresh ideas, organizational wisdom, an open mind, and supportive spirit to her position as collegiate section advisor.

With nearly 400 members, the Purdue University section is one of the Society's largest collegiate sections. Beth Holloway, director of the university's Women in Engineering program, has been the SWE faculty advisor for the section since 2001. Her guidance has been invaluable to the effectiveness and growth of the section. In 2010 she received the Purdue Dean of Students Outstanding Student Organization Advisor Award.

With her support, the Purdue SWE section has received many awards: Outstanding Collegiate Section, Gold Level and Silver Level; the Boeing Multicultural Program Award; and the Professional Development Program Award, among others.

As director of the Purdue University Women in Engineering program, Holloway initiates, manages, evaluates, and promotes programs and activities that recruit and retain women in engineering from kindergarten through graduate school. The program, which has been recognized as a national model, provides students with resources and opportunities to interact with successful alumnae and build friendships and networks that will enhance their student life experiences and knowledge about the engineering profession. Under her leadership, there was a 31 percent increase in enrollment of first-year engineering women for the 2011-2012 academic year.

Holloway's advisory style encourages Purdue members to learn, grow, and achieve, because she strikes a balance between allowing students to make decisions and test ideas and her responsibility for safeguarding the section. A recent example is the restructuring of the executive board. After much thought, the student officers

put a new structure in place. Within a year, after assessing how well it was working, they recommended some changes. This demonstrated that the student officers understood that flexibility is an important component of good leadership.

Holloway brings her experience in other engineering and advocacy organizations to her SWE advisor position. She is the 2012-2014 program chair for the Women in Engineering Division of the American Society for Engineering Education (ASEE) and a past member of the ASEE diversity committee. She is a past president of the Women in Engineering ProActive Network (WEPAN), serving on the board of directors from 2005-2008. She is also a member of the Committee on Institutional Cooperation (CIC), Women in Science and Engineering Panel, and served on the board of directors for the Purdue University Engineering Alumni Association from 2006-2009.

Currently pursuing a Ph.D. in engineering education at Purdue, Holloway's research areas include women and leadership, particularly in male-dominated careers; differential retention issues for women across engineering disciplines; and engineering admissions practices. She holds both a B.S. and M.S. in mechanical engineering from Purdue and worked as a research and development engineer for Cummins Inc. for nine years. At Cummins, she was a recognized lubrication system expert, with specialties in piston cooling nozzle and lubrication pump performance.

Holloway and her husband, Eric, are the parents of 12-year-old twins: a son, Reese, and a daughter, Riley. The family enjoys bike rides, hikes, and watching and playing sports together.

## OUTSTANDING COUNSELOR AWARD

# Angela (Angel) McMullen-Gunn

Schneider Electric



### CITATION

For outstanding contributions as a SWE counselor, leading her section to many awards, and for inspiring countless young women to pursue engineering.

Angela (Angel) McMullen-Gunn has been the SWE counselor for the University of Nebraska-Lincoln (UNL) since 2007. An alumna of the university and SWE member since her undergraduate days there, McMullen-Gunn was gratified to be elected counselor and continue the SWE involvement she enjoyed so much as a student. For example, as an undergraduate, McMullen-Gunn played a key role in establishing the SWE UNL “Women Interested in Engineering Day” for high school girls to learn about STEM careers. She continues to support the event and has expanded it to include parents, teachers, and counselors. Active on SWE’s membership committee for four years, McMullen-Gunn also serves as Eastern Nebraska SWE president and past Region *i* lieutenant governor.

In 2009, UNL SWE was honored with the university’s Chancellor’s Award, which recognizes contributions to women on campus and creating a climate that encourages them to succeed. With McMullen-Gunn’s guidance, the collegiate and professional sections work together to offer an abundance of leadership opportunities, membership information sessions, and social events. At the UNL section’s annual Career Fair Preparation Forum, professional members help prepare collegiate members for job fairs and interviews. Recently, the UNL and University of Nebraska-Omaha SWE collegiate sections partnered with the Eastern Nebraska Section to win the 2013 Region *i* conference bid.

As the link between the locally based collegiate section and the larger Society, McMullen-Gunn provides context, perspective, and support. The section membership statistics speak quite highly

of the relationship and the dynamism of the section — showing a 55 percent retention and a 182 percent growth, garnering the Region *i* 2012 SWE-Crease Award for collegiate sections.

McMullen-Gunn recently joined Schneider Electric in Lincoln, Neb., as manufacturing operations manager. She oversees day-to-day miniature circuit-breaker manufacturing operations, including supervisors and employees. She also manages daily supply chain and develops continuous process improvement initiatives and manufacturing growth strategies. Her previous position was with Hamilton Sundstrand, in York, Neb., where she was a ram air turbine manufacturing business manager, responsible for leading more than 20 people in aerospace manufacturing. Prior to that, McMullen-Gunn was senior mechanical engineer at Hamilton Sundstrand, responsible for precision machining facility process and engineering support to hydraulic/jet-fuel valve manufacturing.

In addition to the UNL alumni association, McMullen-Gunn is an active member of ASME, the American Society for Quality, and the American Legion Auxiliary. She is a founding member of the Seward County Young Professionals and is a mentor for TeamMates, an organization that works to help youth graduate from high school and pursue post-secondary education.

McMullen-Gunn earned a B.S. in mechanical engineering and an M.Eng. in engineering management, both from UNL. She also holds an M.S. in quality systems management with Six Sigma Black Belt certification from the National Graduate School of Quality Management. She lives in Seward, Neb., with her husband, Darrin, and their son, Lucian.

# Megan Adams

California Polytechnic State University, San Luis Obispo



### CITATION

For steady, focused dedication to SWE on campus, and for encouraging many potential engineers through community outreach.

In March 2012, Megan Adams completed a B.S. in mechanical engineering, focusing in energy conversions, from California Polytechnic State University, San Luis Obispo (Cal Poly). She completed two undergraduate internships with Pacific Gas and Electric at Diablo Canyon Nuclear Power Plant in Avila Beach, Calif., and at Applied Technology Services in San Ramon. For her senior project, she created an exhibit for the San Luis Obispo Children's Museum.

Adams' first SWE involvement was serving on a committee for the Evening with Industry program, providing gifts for the almost 100 industry representatives and a gift basket for the past dean of engineering at Cal Poly. She then served as aerospace and mechanical engineering chair, visiting first-year classes and promoting SWE membership. She devoted her energies to organizing industry tours to give Cal Poly students an opportunity to observe real-world engineering. As vice president of public relations, one of Adams' challenges was making sure the publications director got the newsletter out on time. She supported the process by establishing firm deadlines for all contributors and monitoring progress toward the due dates. Her efforts paid off when the section received second place in the Strategic Communications Newsletter Award competition at the 2012 annual conference in Chicago. Adams also received the Sonora Region Programming Award for an Emerging Collegiate Leader at the Western Regions conference in Hawaii in March 2012.

Adams served as the FY12 region collegiate representative for Region B.

Currently she holds the collegiate leadership forum coordinator position for FY14, and is in charge of the FY13 SWE Future Leaders training. Adams has attended the past three annual conferences, volunteering at the major outreach events, in particular, the Engineering Your Future program with the Girl Scouts of the USA and "Invent It. Build It."

She has participated in many Cal Poly SWE outreach activities, including Build an Engineer Day workshops, demonstrating activities that highlight engineering for middle school students. Wary at first, young teens were always won over by Adams, becoming so excited about engineering that they asked for her email address so they could continue talking about the exhibits.

As a dormitory building manager at Cal Poly, Adams found another outlet for her mentoring abilities. The job involved responsibility for the safety and well-being of 40 first-year residents, enforcing rules and regulations, and building upkeep. She was head tutor at the dorm, head night receptionist, and activities director.

Adams has organized numerous blood drives and is a gold-level donor with United Blood Services. She has also volunteered for creek cleanups in Sacramento, beach cleanups in San Luis Obispo, and park cleanups in San Francisco.

She enjoys traveling, and visits her sister in Australia as often as possible. Adams is a project engineer at Eaton's Energy Solutions Inc. in Denver.

# Emily Anderson

Tufts University



CITATION

For persistence, hard work, and creativity as a member and an officer of the SWE Tufts collegiate section and for contributing to the development of future leaders.

Emily Anderson graduated from Tufts University in May 2012 with a B.S. in environmental engineering and a second major in community health. She received scholarships from MathWorks and from the American Council of Engineering Companies of Massachusetts. She completed internships with EMD Millipore, the Massachusetts Department of Public Health, and GE Aviation.

Anderson became OSHA 30 Hour certified in August 2011 and passed the Fundamentals of Engineering exam in October 2011. In July 2012, she joined GE Aviation in the operations management leadership program, where she focuses on environmental health and safety.

She joined SWE in her first year at Tufts, and the next year was elected event coordinator. She planned campus events such as student/faculty dinners, a “Date an Engineer” competition, and an alumni panel called “Walks of Life.” In 2010, Anderson was selected as a SWE Future Leader (SWEFL). Attending the collegiate leadership forum in San Francisco inspired Anderson to bring as many Tufts students as possible to WE10. As section treasurer, she secured enough funding to send nine members to the conference that year. The following year, thanks to her efforts, 13 fully funded members were able to attend. As a SWEFL, Anderson hosted the first satellite collegiate leadership forum in February 2011, which was attended by 60 members from six sections in Region F.

Elected section president her senior year, Anderson’s goals were to increase

membership and promote collaboration with other student groups. She offered membership discounts to first-year students who registered as collegiate to career (C2C) members and promoted SWE using social media. Under Anderson’s leadership, membership grew from 30 to 63. To boost participation by members, she launched new activities, including a “One Busy Girl” cooking class and “Robots are SWEet,” a 3-D printer cupcake workshop with the Tufts Robotics Club. She also taught an original workshop, “Let’s Get LinkedIn,” to help students improve their online profiles. She formed partnerships with other collegiate societies that support SWE’s mission, initiating events with the Tufts chapters of the American Institute of Chemical Engineers and the National Society of Black Engineers; the Tufts Robotics Club; and the Engineering Student Council.

On the Society level, Anderson is part of the membership committee and the SWEFL task force. She participates in several conference calls for the task force every month and has generated ideas for the SWEFL program selection process, expansion, and training.

An active member of the Tufts engineering community, Anderson held many leadership roles in the Tufts chapter of the American Society of Civil Engineers and volunteered as an orientation leader, a panelist for career services, and a high school science fair judge.

In her spare time, Anderson enjoys knitting, cake decorating, writing letters, and playing board games.

## Elizabeth Junkin

University of Alabama



### CITATION

For stellar academic performance in the classroom and the lab, and for an outstanding legacy of collegiate section leadership and service.

Elizabeth Junkin graduated from the University of Alabama in Tuscaloosa in May 2012 with a major in chemical engineering and a minor in the Computer Based Honors Program. As an undergraduate, she worked on four research projects related to pharmaceutical and material chemistry. Her excellent performance on a co-op assignment at SurModics Pharmaceuticals (a local start-up now part of Evonics) resulted in a strong relationship between SWE, the company, and the university.

An active member of the SWE University of Alabama Collegiate Section for five years, Junkin attended her first annual conference as a first-year student. She has served as chair of the educational outreach committee, vice president of outreach, and chapter president. She has attended four Region D conferences and two Region D leadership retreats. She received the Distinguished Member Award every semester in recognition of her extensive SWE participation; the Outstanding Junior Award in 2009; and the Outstanding Senior Award in 2012.

In addition to her SWE activities, Junkin found time for a wide variety of other campus and community service projects. She tutored high school students in algebra and calculus to prepare them for the Alabama High School Graduation exam and the AP Calculus exam; was a Tuscaloosa Disaster Relief volunteer; and volunteered for Habitat for Humanity and at East McFarland Baptist Church. She went on two mission trips: one to El Salvador and one to Nicaragua. Junkin participated in “College of Engineering

Does Amateur Radical Theater,” a group of engineering students who stage a musical comedy every year. She served, in succeeding years, as technical director, musical director, vice president, and treasurer.

Committed to introducing high school and middle-school students to engineering, Junkin communicates her enthusiasm for the profession through SWE activities and in other ways as well. As a student recruitment assistant, she helped with recruiting for the College of Engineering, conducting personalized tours for prospective students and their families. She was also a counselor with the Student Introduction to Engineering Program and worked with rising junior and senior high school students who were attending Engineering Camp. As ambassador for the College of Engineering, Junkin spoke often with prospective students and worked with alumni at recruiting events.

A member of the American Institute of Chemical Engineers, Junkin worked with a group of undergraduates to found the Society of Engineers in Medicine, to educate students majoring in a variety of subjects, about the connections between technology and health care. She used her SWE experience to help write the constitution and served as the organization’s first publicity chair. She is also an active member of Tau Beta Pi and Omega Chi Epsilon, the national chemical engineering honor society.

Originally from Tuscaloosa County, Ala., Junkin began medical school at the University of Alabama at Birmingham this fall.

## Morgan Miller

California Polytechnic State University, San Luis Obispo



### CITATION

For dedication to SWE's outreach mission that translated into invigorated collegiate activities to encourage youth, and for community service.

Morgan Miller graduated from California Polytechnic State University, San Luis Obispo (Cal Poly) in June 2012 with a B.S. in civil engineering and a minor in ethnic studies. In her senior year, Miller served both as president of the SWE Cal Poly section and vice president of Chi Epsilon, the civil and environmental engineering honor society.

Miller was chosen by College of Engineering Dean Deborah Larson, Ph.D., P.E., to be the sole student representative on the Innovate by Doing task force, which seeks to create a new vision for how the college is structured and run. Miller has worked for the U.S. Army Corps of Engineers every summer and winter break since December 2007.

Involved in the Society of Women Engineers since her first year at Cal Poly, Miller has held four different leadership positions in the section. With outreach as her greatest interest, she began her involvement in SWE by finding hosts for the High School Shadow event and serving as a group leader for Build an Engineer Day, talking to middle school students about engineering and making sure they had fun. She also took part in Girl Scout Engineering Day, calling on her own 13 years of scouting to enhance the participants' experience. The next year, she became an officer and redefined the outreach assistant position, making it responsible for organizing students to volunteer at all SWE events. This involved coordinating more than 100 volunteers for four different events each quarter and organizing Fourth Grade Days.

As education outreach director, Miller was in charge of Build an Engineer Day, which draws more than 200 student visitors to university engineering and science labs. One of Miller's initiatives as president of the section was to restructure meeting rotations, giving members more time to get to know one another and form important bonds.

Miller was also actively involved in Chi Epsilon. As vice president, she organized the Engineer in Training/Fundamentals of Engineering (EIT/FE) review sessions, a two-week event at which 200 Cal Poly engineering students signed up to review with nine different professors, and received packets of information to help them prepare for the test. Miller created a survey to determine how well the exam-takers did, and how much they felt they benefited from the review sessions.

Over the course of her collegiate career, Miller devoted time and energy to community service through SWE and other organizations. She volunteered for Homeless Overflow Shelter, helping children with their homework and socializing with them. She participated in the National Society of Collegiate Scholars, the American Society for Engineering Education, Students for Justice and Peace in the Middle East, and the Cal Poly Country Line Dancing Club.

A person who thrives on physical activity, Miller runs, backpacks, and enjoys swing, salsa, and line dancing.

# Rebecca Summ

University of Wisconsin-Platteville



CITATION

For modeling success in engineering to many women and girls and for extending the concerns and activities of the section beyond the campus.

A senior at the University of Wisconsin-Platteville, Rebecca Summ will receive her B.S. in mechanical engineering in May 2013. She is currently president of the SWE University of Wisconsin-Platteville Collegiate Section.

Summ has been involved in SWE for the past four years. In her first year at UW-Platteville, she chaired the engineering expo for her SWE section and was recognized as a distinguished member. The next year she was treasurer, and in her junior year, she was vice-president. During Summ's sophomore and junior years on the executive board, the UW-Platteville section was recognized as outstanding student organization of the year.

Summ's term as president began with a challenge many would have found daunting. After being elected in the spring of 2011, she landed a fall internship with Caterpillar, where she developed, designed, and implemented hydraulic cylinder service repair kits. She did not step down, but planned how she would perform her official duties from three hours away. She held two phone conferences with the executive board over the summer to make sure everything was on schedule for the fall. Many events were planned far ahead, and although she was quite busy with other engagements, Summ took part in weekly executive board meetings via Skype. She made sure all deadlines were met, and implemented some new ideas. One of these was a miniseries on conducting business in different countries. Each miniseries meeting was focused on a different country. In upcoming semesters, Summ plans to

continue the miniseries on a variety of topics. She also initiated the compilation of section ideas and projects in written form to help future executive boards and to share at upcoming Society and regional conferences.

Summ is involved in a variety of other campus and community activities and organizations. A member of the Society of Automotive Engineers, she worked on building the Mini Baja vehicle and on modeling some of the parts. In her sophomore year, she was a resident assistant. She mentored many of the students she was responsible for, mediated conflicts, and established a supportive community that eased the anxieties of first-year students. Summ also volunteers on many outreach activities for younger students pursuing engineering and participates in outreach and mentoring events sponsored by SWE as well as events sponsored by the Women in Engineering, Mathematics and Science Program at UW-Platteville.

Combining engineering ingenuity and a social conscience, Summ initiated Expanding Our Borders, in conjunction with Engineers Without Borders, to design solar ovens to be taken to Ghana, Africa. In concert with this project, Summ launched an initiative called "Sponsoring a Woman." The UW-Platteville section sponsored a woman living in war-torn Sudan, sent her letters and photos, and raised money to be used for leadership education and on-the-job training to help her and her family.

Outside of school, Summ enjoys staying active through Zumba and playing with her dog.