2013 UNDERGRADUATE
HONORS AND AWARDS
CEREMONY

April 9, 2013
6:00 P.M.
Colony Ballroom
Adele H. Stamp Student Union
University of Maryland
College Park
Program

Welcome and Opening Remarks
William Fourney, Associate Dean and Keystone Professor

Presentation of Awards

AEROSPACE ENGINEERING
Robert Sanner, Professor and Director of Undergraduate Studies

BIOENGINEERING
Adam Hsieh, Professor, Assoc. Chair, and Director of Undergraduate Studies

CHEMICAL AND BIOMOLECULAR ENGINEERING
Sheryl Ehrman, Chair

CIVIL AND ENVIRONMENTAL ENGINEERING
Ali Haghani, Chair

ELECTRICAL AND COMPUTER ENGINEERING
Rama Chellappa, Chair

FIRE PROTECTION ENGINEERING
James Milke, Chair

MATERIALS SCIENCE AND ENGINEERING
Robert Briber, Chair

MECHANICAL ENGINEERING
Bala Balachandran, Chair

ENGINEERING CO-OP AND CAREER SERVICES
Heidi Sauber, Director

WOMEN IN ENGINEERING
Paige Smith, Director

CENTER FOR MINORITIES IN SCIENCE AND ENGINEERING
Rosemary Parker, Director

MARYLAND TECHNOLOGY ENTERPRISE INSTITUTE
Peter Sandborn, Director and Professor

A. JAMES CLARK SCHOOL OF ENGINEERING
William Fourney, Associate Dean and Keystone Professor

Closing Remarks
William Fourney, Associate Dean and Keystone Professor

Cover photo by Prakash Patel
The Department of Aerospace Engineering Gessow Academic Achievement Awards are presented to those graduating seniors in the department who have attained the highest overall academic average.

Awarded to Laura Miles (Elaine Gessow Award) and Johnathan Pino (Alfred Gessow Award)

The Robert M. Rivello Scholarship Awards and the Joseph Guthrie Memorial Scholarships are presented to those juniors in the department who have attained the highest overall academic average.

Awarded to Daniel Sullivan (Rivello Award) and to Edward Levine and Sarvesh Sethi (Guthrie Scholarships)

The American Institute of Aeronautics and Astronautics Outstanding Achievement Award is presented to the student who has made the most outstanding contribution through scholarship and service to the student branch and the department.

Awarded to Michael Hamilton

The Sigma Gamma Tau Outstanding Achievement Award is presented to those students who have made the most outstanding contribution through scholarship and service to the student chapter and the department.

Awarded to Kenneth Hart and Matthew Marcus
ABOUT THE Awardees

Laura “Liz” Miles is a senior aerospace engineering student and the recipient of the prestigious L-3 Communications Scholarship. She is also an active member of the Maryland Quidditch team, on the executive board for Tau Beta Pi Engineering Honors Society, and is currently working as an undergraduate research assistant with Dr. Chopra in the Rotorcraft Center. Her proudest accomplishment, however, was the work she did with the University of Maryland chapter of Engineers Without Borders to help lead a team in constructing a bridge that could withstand the rainy season in Addis Alem, Ethiopia.

Johnathan Pino is a senior Aerospace Engineering Honors and University Honors student. He works for Dr. Inderjit Chopra in the Alfred Gessow Rotorcraft Center and completed an internship with Applied Defense Solutions.

Daniel Sullivan is a junior Aerospace Engineering Honors student and University Honors student minororing in Engineering Leadership Development. He is a member of Team Gamera and the Theta Tau professional engineering fraternity. He is a recipient of an Undergraduate Summer Research Grant from Texas A&M University and will be presenting research on SMA-based rotor blade de-icing this spring.

Edward “Teddy” Levine is a junior Aerospace Engineering Honors student minororing in Physics. He is also the recipient of the prestigious L-3 Communications Scholarship and an active member of the Clark School Ambassadors and Tau Beta Pi engineering society. He is currently completing a research project with Dr. Christopher Cadou on autonomously extracting shear layer growth rates from Schlieren images taken using a focused Schlieren imaging system in supersonic flow.

Sarvesh Sethi is a junior Aerospace Engineering Honors student minororing in Nuclear Engineering and Technology Entrepreneurship. He is currently working for Dr. Christopher Cadou on research related to gas turbines in the Propulsion Laboratory. Sarvesh is also Vice President of the Experimental Flying Club where students design, build, and fly hang gliders. His passion for flying inspired him to earn an instrument rated private pilot certificate, he also enjoys skydiving, parasailing, fly-by-wire, and hang gliding.

Michael Hamilton, a senior Aerospace Engineering Honors and University Honors student, has served as chair of the UMD AIAA student branch since May 2012. Michael is a Clark School Ambassador and teaching fellow for ENES 100, and he is also part of the QUEST program. Michael completed internships with Space Exploration Technologies and the Commercial Spaceflight Federation. He worked for Dr. Inderjit Chopra in the Micro Air Vehicles Research Laboratory on flapping wing research, and he is currently completing research with Dr. David Akin on space economics. Michael has accepted a full-time position with Deloitte Consulting and looks forward to joining their team after graduation.

Kenneth “Kip” Hart has served as President of the UMD SGT student branch since May 2012. A senior Aerospace Engineering Honors student, alumnus of the College Park Scholars Program, and member of Tau Beta Pi, Kip has completed internships at the Space Telescope Science Institute, and he currently works with Department Chair Dr. Norman Wereley in the UMD Smart Structures Laboratory researching the application of pneumatic artificial muscles to the active control of airfoil camber. Kip is also a co-founder of a nonprofit organization called The South African Lacrosse Project, which provides teachers, books, study space, and lacrosse equipment to children in Leseding, a town in South Africa that faces 40% HIV infection and 70% unemployment.

Matthew Marcus is a senior Aerospace Engineering major and a member of the Aerospace Engineering Honors Program. As the 2011-2012 President of the Sigma Gamma Tau UMD chapter, Matt was instrumental in working to reintroduce the chapter to the UMD engineering community. Matt also worked to develop a strong relationship with Tau Beta Pi through joint service activities. He was awarded the 2012 AIAA Foundation Space Transportation Technical Committee Scholarship and the 2011 AIAA Junior Foundation Scholarship. Matt is also the 2012 recipient of the H. Russell Knust Memorial Scholarship, the 2011 recipient of the Shirley C. Sorenson Academic Excellence Award from the UMD Phi Kappa Phi Foundation, and a recipient of the College Park Scholars Environment, Technology and Economy Outstanding Achievement Award. Matt is currently conducting research related to wireless power transfer using superconducting resonantly coupled coils and plans to continue this research for his master’s thesis. In addition, Matt works part-time at the NASA Goddard Space Flight Center with the Satellite Servicing Capabilities Office.
The **Fischell Department of Bioengineering Outstanding Senior Award** is presented to a senior on the basis of academic achievement and contributions to the profession and the department.

*Awarded to Christine O’Keefe*

The **Fischell Department of Bioengineering Outstanding Junior Award** is presented to a junior on the basis of outstanding academic achievement and contributions to the department.

*Awarded to Jeff Rappaport and Katherine Chen*

The **Fischell Department of Bioengineering Outstanding Research Award** is presented on the basis of significant contributions to research, the department, and the field of bioengineering.

*Awarded to Janina Vaitkus and Sara Johnson*

The **Fischell Department of Bioengineering Outstanding Citizen Award** is presented to an excellent student who has contributed significantly to the community, department, university, and profession.

*Awarded to David Peeler and Mandy Hagen*

The **Fischell Department of Bioengineering Outstanding Volunteer Award** is presented to an excellent student who has contributed many hours of service to others.

*Awarded to Addison Goodley and Mandy Dols*
ABOUT THE Awardees

Christine O’Keefe, a Banneker/Key scholar, member of Theta Tau and the Primannum Honor Society, has just returned from an undergraduate design competition at Rice University. She is currently working for a medical device company, and will continue her education in the fall as a Ph.D. student in Biomedical Engineering. Some of her best memories include studying abroad in Australia and teaching middle school students with the Women in Engineering program.

Jeff Rappaport, a junior, is a Banneker/Key scholar in the Honors Program. Jeff conducts research in Dr. Silvia Muro’s Drug Delivery Lab with the support of a Howard Hughes Medical Institute Undergraduate Fellowship. Jeff has worked extensively with Engineers Without Borders on solar electrification and water sanitation projects in Burkina Faso. He was also a lead engineer on WaterShed, UMD’s winning entry in the Solar Decathlon in 2011.

Katherine Chen, a junior, is a recipient of the Banneker/Key Scholarship and the University System of Maryland Regents Scholarship. She has been recognized on the Dean’s List in every semester since her enrollment, and as an Honors College student, she actively engages in volunteer tutoring through the Honors tutoring program. Katherine has worked as an undergraduate research assistant in Dr. Benjamin Shapiro’s Control of Miniaturized Systems Lab, studying the quantification of nanoparticles for drug delivery purposes. She also conducts research in the Biochemistry and Biophysics Center at the National Institutes of Health, developing computational models of cellular processes.

Janina Vaitkus, a senior, has conducted individual research in Dr. Helin Aranda-Espinoza’s Cell Biophysics Laboratory, as well as team research through the University Honors Gemstone Program. For her individual research, she traveled to three society conferences (American Physical Society, Biomedical Engineering Society, and American Society for Cell Biology), where she gave two oral presentations and presented one poster. She was one of 25 seniors at the University to be named a Philip Merrill Presidential Scholar, and has been recognized on the Dean’s List every semester since her matriculation. Outside of research and academics, Janina has played on the University’s women’s Club Lacrosse Team, where she was co-captain for two years, and has also worked in the Emergency Room at Anne Arundel Medical Center. Her interest in pursuing medical research and treating patients has led to her desire to become a physician-scientist. She will begin her journey at Virginia Commonwealth University School of Medicine this fall in the M.D./Ph.D. program, where she will earn both degrees.

Sara Johnson began her work in Dr. Joonil Seog’s lab in the fall of her sophomore year, working closely with a postdoctoral researcher to explore protein self-assembly aided with atomic force microscopy. After a year and a half, they published their findings in Chemical Communications for an optimized self-assembly condition. She has presented more recent work on the molecular mechanism of self-assembly at the 2012 Mid-Atlantic Soft Matter workshop before 50-60 other scholars in the material science field. In the Clark School of Engineering, she has been a member of the Dean’s List for five semesters. She is currently exploring another field of interest, interning as a researcher at a start-up medical device company that is developing a long-term implantable glucose sensor. This fall, she will begin her Ph.D. candidacy in Bioengineering in an effort to help develop or improve minimally invasive optical imaging techniques for diagnostic applications.

David Peeler has been actively involved in the Society of Biological Engineers (SoBE, the campus chapter of BMES) since his freshman year, including a term as Vice President and currently as President. In his leadership terms, David has initiated several novel programs, including: the first annual Biomedical Engineering Undergraduate Research Day in conjunction with Johns Hopkins University; funding for 17 BioE undergraduates to travel to Atlanta for the Annual Meeting of the Biomedical Engineering Society; a mentorship program that matched over 20 BioE underclassmen with knowledgeable BioE upperclassmen; as well as a host of other service-, social-, and fundraising-oriented activities that range from paintballing to participation in STEM outreach efforts to K-12 students. In the past year, all while SOBE’s membership tripled, David has been working as an undergraduate research assistant in Dr. Silvina Matsyiak’s Biomolecular Modeling Lab. He will graduate this December and looks forward to pursuing a graduate degree related to nanomedicine.

Mandy Hagen, a senior, is a Banneker/Key Scholar, the Corporate Relations Chair for the University of Maryland Society of Biological Engineers, a Clark School Ambassador, a member of Alpha Omega Epsilon engineering sorority and an NSF Successful Engineering Education and Development Support (SEEDS) program mentor. She is also involved in the University Honors Program and has been recognized on the Dean’s List every semester since her enrollment. Mandy has conducted research for two divisions at the FDA as well as for past department faculty, and has delivered numerous poster and research presentations on her research, including at the BMES and IBE annual conferences. She was an undergraduate teaching fellow for the Fischell Department of Bioengineering and has held a part-time job on campus since her sophomore year.

Addison Goodley, a senior, has served on the Society of Biological Engineers (SoBE) executive board and mentors two freshman Bioengineering students in SoBE’s mentoring program. His January 2013 trip to Compone, Peru, to assess the community’s need for a potable water system came after seven semesters of work on both the local (bioretention facility) and Peru (potable water) projects for Engineers Without Borders. He helped incoming Gemstone freshman as a Gems Camp counselor and continues to be an active member of Tau Beta Pi and a lector at the Catholic Student Center. Addison will remain at UMD in the fall to pursue his M.S. in Bioengineering.

Mandy Dols, a senior, has been involved with the SEEDS peer mentoring program, the Clark School Ambassadors program and the Society of Biological Engineers. Mandy has also served as president and vice president of the UMD Chapter of Alpha Omega Epsilon International Engineering Sorority since joining during her freshman year. Mandy is an undergraduate research assistant in Dr. Ian White’s Photonic Biosensors Lab. She is a part of the Gemstone Program within the Honors College and is currently working with her team to finish writing and preparing to defend their research thesis. She was also inducted into the Sigma Circle of Omicron Delta Kappa National Leadership Honor Society at the University of Maryland in the fall of 2011.
The **David Arthur Berman Memorial Award** is presented to the student majoring in Chemical and Biomolecular Engineering with the highest cumulative scholastic average at the end of the first semester of his or her junior year, and who has been elected to (or has been contacted by and is pursuing election to) Tau Beta Pi.

*Awarded to Lauren Dorsey*

The **Department of Chemical and Biomolecular Engineering Chair’s Award** is presented for excellence in academics, outstanding service to the department, or leadership in the department.

*Awarded to Lisa Liu*

The **Department of Chemical and Biomolecular Engineering Outstanding Senior Award** is presented to a graduating senior for scholarship, leadership, and service to the department.

*Awarded to Michael Harris*

The **Department of Chemical and Biomolecular Engineering Outstanding Junior Award** is presented to a department junior for academic excellence.

*Awarded to Hubert Huang*

The **Department of Chemical and Biomolecular Engineering Student Service Award** is presented to a graduating senior in the department for outstanding service to the department.

*Awarded to Eitan Lefkowitz*
ABOUT THE Awardees

Lauren Dorsey is a junior Chemical and Biomolecular Engineering major. She is currently doing undergraduate research in Dr. Ganesh Sriram’s lab. She is in the Gemstone Honors Research Program. Lauren has been as teaching assistant since 2012. She is a Howard Hughes Medical Institute Undergraduate Research Fellow. Lauren is also a member of Tau Beta Pi, the American Institute for Chemical Engineers, and the Primannum Honors Society.

Lisa Liu is a senior minoring in Nanoscale Science and Technology. She has earned semester academic honors since she began her studies at Maryland. Lisa is currently a Howard Hughes Medical Institute Research Fellow studying the effect of mutated dynamin on B cell activation and signaling. She is a member of the Gemstone Honors Program, the Primannum Honor Society, the American Institute of Chemical Engineers and the Women’s Table Tennis Team. Off campus, Lisa is an emergency room volunteer at Washington Hospital Center, a mentor for Prince George’s County’s Girls Excelling Math and Science program, and a volunteer with the Mid-Atlantic German Shepherd Rescue Center.

Michael Harris, a senior who is also majoring in Biochemistry, has earned semester academic honors since he began his studies at the Clark School. Michael has worked in Dr. Srinivas Raghavan’s lab doing research on enzymatic gelation of polymers, and in Dr. Jeffery Klauda’s lab developing computer simulations of membrane proteins of various bacteria in implicit and explicit environments. Michael has been in the Gemstone Honors Program since 2009 and is a member of the American Institute of Chemical Engineers, the Mighty Sound of Maryland Marching Band, and the Maryland Basketball Pep Band.

Hubert Huang is a junior majoring in Chemical and Biomolecular Engineering. He is a member of the Gemstone Honors Program, has been on the Dean’s List since 2010, and is on a University of Maryland Presidential Scholarship. Hubert was inducted into the National Society of Collegiate Scholars in March of 2011. He is the Physical and Applied Sciences Managing Editor for the Scientific Terrapin undergraduate research journal. Hubert also works in Dr. Srinivasa Raghavan’s lab doing work with complex fluids and nanomaterials. He was the Logistics Secretary for the Sierra Leone group of Engineers Without Borders and was on a Design sub-team that successfully implemented a bioretention facility on campus.

Eitan Lefkowitz is a senior Chemical and Biomolecular Engineering major. He is a QUEST Honors Fellow. Eitan is currently an undergraduate teaching fellow for the department as well as for the Smith School of Business. He is the VP for Corporate Affairs for the student chapter of the American Institute of Chemical Engineers and a board member on the Jewish Leadership Council. Eitan studied abroad in China during the winter of 2012 and participated in an alternative winter break program in India, gaining cultural, social, and economic insights.
The **Department of Civil and Environmental Engineering Outstanding Senior Award** is presented to a department senior for outstanding scholastic achievement.

*Awarded to Kevin Fries*

The **Woodward-Clyde Consultants Award** is presented to a department junior who has demonstrated outstanding academic achievement.

*Awarded to Laura Netteshiem*

The **Chi Epsilon Outstanding Senior Award** is presented to a department senior for scholarship, character, and congeniality with practical engineering adaptability.

*Awarded to Katie O’Brien*

The **Bechtel Award for Outstanding Leadership** is presented to a department student for demonstrated leadership and service to the student engineering community.

*Awarded to Sarah Saxon and Tanya Wang*

The **Robert L. Morris Award for Environmental Leadership** is given to a department junior, senior, or graduate student who has demonstrated through extracurricular activities a commitment to environmental stewardship, ethical engineering practice, or sustainable technology.

*Awarded to Catherine Birney*

The **Department of Civil and Environmental Engineering Chair’s Award** is presented to a department student for the most significant contribution to the department.

*Awarded to Erin Hylton*

The **American Society of Civil Engineers Outstanding Senior Award** is presented to a senior member for outstanding scholastic achievement and for significant service to the chapter.

*Awarded to Erin Strittmatter*
ABOUT THE Awardees

Kevin Fries is a senior Civil and Environmental Engineering student with a 4.0 GPA. During his time at the University of Maryland, Kevin worked extensively with Engineers Without Borders, currently serving as President of the chapter. Kevin served the Clark School and the University by working as a Clark School Ambassador, an Images Tour Guide, and a teaching fellow for Mechanics I and II. Kevin participated in research through both the Gemstone Program and Engineering Honors Program, and plans to attend graduate school this coming fall.

Laura Nettesheim is a junior civil engineering student in the infrastructure track. She is in the Engineering Honors Program and is currently beginning research with Dr. Yunfeng Zhang. She is also actively involved in the Chi Epsilon Civil Engineering Honors Society and the American Society of Civil Engineers. Currently, as part of the University of Maryland’s concrete canoe team, she is learning how to use Inventor and learning the basics of canoe design so she can assist in creating next year’s concrete canoe for the American Society of Civil Engineers competition. In addition, she has been an active member of Alpha Phi Omega, the national service fraternity, since her sophomore year. She is part of Alpha Phi Omega’s fundraising committee, which creates and organizes the fraternity’s fundraisers. Next year she will be participating in the B.S./M.S. program and will take two graduate level courses as an undergraduate. After graduation, Laura plans to attend graduate school to obtain her master’s degree in Structural Engineering.

Kathleen (“Katie”) O’Brien is a senior Civil Engineering major in the water and environmental track. Katie was the Treasurer of the engineering sorority, Alpha Omega Epsilon, her junior year. She has participated in the Engineering Alternative Spring Break program, which helps impoverished communities through Habitat for Humanity and was promoted to trip leader in her junior year. This year, she was elected as the President of Chi Epsilon. Katie is also an active member of the American Society of Civil Engineers and recently joined the Steel Bridge team. She participated in the SEEDS mentoring program, a program that offers guidance to new Clark School students. Katie will be moving to Silver Spring after graduation to work for Charles P. Johnson & Associates as a Water Resources Engineer.

Sarah Saxon is a senior in the Infrastructure and Geotechnical track of Civil Engineering. She is involved in numerous departmental programs outside of her studies. She is in the process of completing her undergraduate research on “The Combined Effects of Freeze Thaw and Fatigue on Fiber Reinforced Concrete.” She is a member of the UMD student chapter of the American Society of Civil Engineers, where she serves as Procurement Officer for the Concrete Canoe Team. Her previous positions include Principle Design Architect, race team member, aesthetics team member, and construction team member. She is a Clark School Ambassador, a role in which she aids in recruitment efforts and speaks to prospective students and families on behalf of the Clark School. Sarah also has a part-time job in the Undergraduate Engineering Student Affairs Suite, and she is a sister of Alpha Omega Epsilon, the engineering sorority. She has been a part of several local and global service trips, including Engineering Alternative Spring Break in Ft. Lauderdale, Florida; Hillel Alternative Spring Break in Rio de Janeiro, Brazil; and the Maryland Adventure Program in Panama and Costa Rica. She has also studied abroad in Rome, Italy. Sarah enjoys engaging in extracurricular activities and giving back to the community.

Tonia Wang is a Civil and Environmental Engineering undergraduate student. She is currently enrolled in the Himman CEOs program and maintains a 3.82 GPA. She is a member of Chi Epsilon, Alpha Omega Epsilon Engineering Sorority, and the American Society of Civil Engineers. Wang has interned at the Maryland State Highway Administration and worked as a research assistant at the Intelligent Transportation Systems Lab at the University of Maryland. She has participated in the College Park Scholars Program in Science, Technology and Society and served on its Student Advisory Board as the service coordinator. She was also an event coordinator and site leader for Terp Service Weekend.

Catherine Birney is a junior Civil Engineering major on the water and environmental track. She is in the Honors Engineering Program and a member of Chi Epsilon, the Civil Engineering honors society. Catherine began working in the Membrane Innovation Lab her sophomore year, under Professor Baoxia Mi. She says it has been an eye-opening and educational experience to work on the advancement of membrane processes to address issues in water sustainability. Catherine has been an active member of Habitat for Humanity since her sophomore year. She was elected to fundraising chair her sophomore year and then to Co-President this year. She has enjoyed helping to reconstruct Sandtown, a Baltimore row house community, and watching what were once only plans come to fruition as real homes that help deserving families.

Erin Hylton is a senior in the CEE department, following the Environmental and Water Resources track and will be graduating in Spring 2015. Erin was the past president of the Engineers Without Borders UMCP Chapter and also leads the newly created Maryland Sustainability Engineering student organization. She is an Honors student, a Banneker-Key Scholar and an alumna of the Federal Semester Energy and Environmental Policy Program.

Erin Strittmatter is a senior Civil Engineering student in the infrastructure track and has a 3.97 overall GPA. She is a University Honors student and is an invited member of the Primannum Honor Society–Alpha Lambda Delta and Phi Eta Sigma and Phi Kappa Phi Honor Society. She is also a member of Chi Epsilon, the Civil Engineering honors society. Erin was selected as a recipient of the highly competitive Department of Defense SMART Scholarship for Service program in 2011, and has been awarded a four-year annual scholarship from the S.D. Bechtel Jr. Foundation. Erin has also received scholarship support from the University of Maryland President’s Scholarship fund, Whiting-Turner, the Clark School Women in Engineering Program, the Society of Women Engineers, and the Society of American Military Engineers. As a freshman and sophomore, she participated in FLEXUS, the Women in Engineering Living and Learning Program and served as Vice President of the organization during 2010. Erin was the Vice President of the American Society of Civil Engineers for her junior year and was elected to serve as President for her senior year. She serves as an Ambassador for the Clark School, is a member of the Society of Women Engineers and a member of the Society of American Military Engineers. Erin is a native of Indiana, Pennsylvania. She will work for the Department of Defense upon graduation.
The **Department of Electrical and Computer Engineering Outstanding Academic Performance Award** is presented to a junior for academic excellence.

*Awarded to Kevin Merchant*

The **Department of Electrical and Computer Engineering Service Award** is presented to graduating seniors who have demonstrated exceptional leadership and service to both their fellow students and the department.

*Awarded to Daniel Silversmith*

The **Department of Electrical and Computer Engineering Chair’s Award** is presented to a senior for outstanding academic performance.

*Awarded to Garrett Wenger and Sean Segreti* for electrical engineering

*Awarded to Joseph Yan* for computer engineering
About the Awardees

Kevin Merchant is a junior Electrical Engineering major with a 4.0 GPA. He has received his citation from the University Honors Program, and is currently part of the ECE Honors Program. He has also been the recipient of a number of scholarships, including the Dean’s Scholarship, the Corcoran Scholarship, and the LGS Innovations Corporate Partner Scholarship. Kevin has completed internships with the Naval Research Laboratory and the National Institute of Health. Within ECE, Kevin has been an active member of IEEE, served as an Undergraduate Teaching Fellow and student ambassador in the ECE Leaders program.

Daniel Silversmith is a graduating senior Electrical Engineering major and Neuroscience minor with a 3.9 GPA. He is a member of the University Honors Program, the Primannum Honor Society, IEEE, Eta Kappa Nu, and the ECE Department Honors Program. Daniel has been the recipient of a number of scholarships, including the Dean’s Scholarships, the Corcoran Scholarship, and most recently the Farvadin Scholarship. Daniel has worked as an intern in the Army Research Lab’s Soar Program and participated in the ECE MERIT research internship program. Daniel currently serves as the president of Eta Kappa Nu; he has also served as a student representative in the ECE Department Council and has participated in Engineers Without Borders. He plans to go to graduate school to pursue a Ph.D. in either Bioengineering or Electrical Engineering and hopes to conduct research investigating how the brain interprets and represents sensory feedback.

Garrett Wenger is a graduating senior Electrical Engineering major with a 4.0 GPA. He is a member of the University Honors Program, the QUEST Honors Program, the ECE Department Honors Program, and the Mighty Sound of Maryland Marching Band. Garrett has worked as an engineering intern for the U.S. Naval Research Lab in Washington, DC, and is currently serving as an undergraduate researcher in the University’s Institute for System Research. Garrett has been the recipient of the University’s Presidential Scholarship, and last semester received the ECE Department’s Undergraduate Research Fellowship award. In addition to his academic activities, Garrett has served as an Undergraduate Teaching Fellow for ECE, a mentor for the QUEST Honors Program, and a Squad Leader for the Maryland Marching Band.

Sean Segreti is a graduating senior Electrical Engineering major with a 3.9 GPA. He is a member of the University Honors Program, the Hinman CEOs Entrepreneurship Program, the Primannum Honor Society, IEEE, and the ECE Department Honors Program. Sean has been the recipient of a number of awards, including the ECE Outstanding Academic Performance Award, the University of Maryland Outstanding Intern/Co-op Award, and the David Andrew Tretter Memorial Scholarship. Sean has worked for three years as a robotics intern at Johns Hopkins University’s Applied Physics Laboratory, and recently completed an internship with SAIC. Sean has served as an Undergraduate Teaching Fellow for the department and received the ECE Department’s Undergraduate Research Fellowship award last semester.

Joseph Yan is a graduating senior Computer Engineering major with a 3.8 GPA. He is a member of the Gemstone Program, Eta Kappa Nu, and the UMIACS Research Program, and is a Banneker/Key Scholar. Joseph has worked as an intern for NASA Goddard Space Flight Center, the National Institute of Standards and Technology, and UMD’s Laboratory for Telecommunication Sciences. After graduation, Joseph has accepted an offer to work as a Software Development Engineer at Amazon as part of Amazon Fulfillment Technologies (AFT), a division of Amazon Web Services. AFT develops software in the areas of automation, machine vision, robotics, and machine learning, all in the interest of creating an efficient infrastructure to drive Amazon’s catalog, inventory, and labor management systems.
The **Society of Fire Protection Engineers Outstanding Senior Award**, sponsored by the society’s Chesapeake Chapter, is presented to the department senior with the highest GPA.

*Awarded to Chad Lannon*

The Salamander Honor Society presents the **Robert J. Taylor Academic Achievement Award** to the department junior with the highest GPA.

*Awarded to Conor McCoy*

The **Department of Fire Protection Engineering Chair’s Award** is presented to the department students who has made the most significant contribution during the year.

*Awarded to Adam Boussouf, Christine Pongratz, and Rosalie Wills*
Chad Lannon is a senior in the B.S./M.S. program. He is a member of the Salamander Honor Society and the SFPE Fire Service Training Committee. He has conducted research with Professors Andre Marshall and James Milke. He is a volunteer firefighter and EMT at the College Park Volunteer Fire Department. He had a summer internship at NIST and plans to pursue a graduate degree in Fire Protection Engineering.

Connor McCoy is a junior in the B.S. program. He is a member of University Honors, Primannum Honor Society, and the Clark School chapter of the Society of Fire Protection Engineers. He has earned academic honors every semester at the Clark School. He is active with the Badminton Club, St. Mary’s Garden Club, University Band and Engineers Without Borders. He was awarded the Richard G. Gewain Scholarship in 2012.

Adam Boussouf is a senior in the B.S./M.S. program. He is a member of the Salamander Honor Society. He is President of the Clark School chapter of the Society of Fire Protection Engineers and plays an active role in planning its meetings and functions. He was awarded the Hankins and Anderson Scholarship in 2011 and 2012.

Christine Pongratz is a senior in the B.S./M.S. program. She is President of the Salamander Honorary Society and this spring will be joining Tau Beta Pi, the University Engineering Honor Society. She is an active Clark School Ambassador and is a member of the Clark School chapter of the Society of Fire Protection Engineers. She has served as a teaching fellow for ENFP250 and ENFP320. Her minor is in International Engineering and she hopes to practice engineering design abroad during her career. She was awarded the Sarah B. Bryan Scholarship and the NFPA Frank J. Fee Scholarship in 2012.

Rosalie Wills is a senior in the B.S. program. She will continue her studies in the fall to pursue a graduate degree. She is a member of the Clark School chapter of the Society of Fire Protection Engineers, Alpha Omega Epsilon, and the Clark School Ambassadors. As Vice President of the Salamander Honorary Society, she implemented a new induction process that encouraged alumni, students, and professors to network and promoted camaraderie within the organization. She was awarded the Philip L. DeCamara Scholarship and the Sarah Bryan Scholarship in 2012.
The Department of Materials Science and Engineering Chairman’s Outstanding Senior Award is presented to a graduating senior for scholarship, leadership and service to the department.

Awarded to Mark Reese

The Department of Materials Science and Engineering Outstanding Materials Student Service Award is presented to graduating seniors for outstanding service to the department and to the student chapter of the Materials Engineering Society.

Awarded to Elizabeth Ashley and Nick Faenza

The Department of Materials Science and Engineering Student Research Award is presented to an undergraduate who has demonstrated creativity and scholarship in research.

Awarded to Nick Weadock
ABOUT THE Awardees

Mark Reese is a senior who has been very active in scholarly, leadership, and service activities in the Materials Science and Engineering Department. He currently serves as President of the Materials Science and Engineering Society (MatES). Mark has been very active in service to the department, primarily in outreach activities to recruit new students. He has done research in thin films as well as an internship at Adell Plastics. He is also the President of the University chapter of Tau Beta Pi, the National Engineering Honor Society. Mark will join Microsoft this summer as a hardware engineer.

Elizabeth Ashley is a senior who has been a very active participant in service to both the Materials Science and Engineering Department and to the student chapter. She is always willing to attend open houses to share her experiences at the University. She is also active with MatES, the Materials Science and Engineering Society student chapter, currently serving as Vice President. Elizabeth has also been active in research in the Department as well as at the National Institute of Standards and Technology through a SURF Fellowship during 2012. She is a member of Tau Beta Pi, the National Engineering Society, Alpha Sigma Mu, the Materials Science and Engineering Honor Society, and Engineers Without Borders.

Nick Faenza is a senior who has been active in service to the Materials Science and Engineering Department. He often assisted in outreach activities at open houses and also served as a Clark School Ambassador. Nick has participated in research at both the University of Maryland and at the National Institute of Standards and Technology. His research in Li-ion batteries has been submitted for publication. Nick is interested in attending graduate school.

Nick Weadock has been actively involved in research activities in the Materials Science and Engineering Department. He has worked primarily in the area of materials for energy, particularly in the area of sodium ion batteries. Nick’s research activities have resulted in two presentations and four papers, which have been submitted for publication. Nick was a core member of the 2011 Watershed team that won the Department of Energy’s Solar Decathlon. He collaborated with Facilities Management on green design for the Edward St. John Learning and Teaching Center at the University of Maryland. Nick was also involved with Engineers Without Borders. He is a member of Tau Beta Pi and Alpha Sigma Mu, the Materials Science and Engineering Honors Society. Nick will attend graduate school in the fall.
The **Department of Mechanical Engineering Academic Achievement Award** is presented to juniors in mechanical engineering who have attained the highest overall academic average.

*Awarded to Sarah Andrews, Corey Bloom, Luke Catherine, Nick Du, Scott Hemley, Gregory Holland, Eric Kazyak, Alan Parvis, Daniel Power, and Alek Williams*

The **Department of Mechanical Engineering Chairman’s Award** is presented for excellence in academics, outstanding service to the department, or leadership in the department.

*Awarded to Christopher Bilger, John Calderone, Michael JaJa, Christina Boehmer, Gregory Barr, and Pooja Rao*
Sarah Q. Andrews is a junior with a 4.0 GPA. She is a mechanical engineering major, was a teaching fellow for Dynamics, and has interned the past two summers at NIH in the Sidransky Lab doing research on Gaucher Disease. She is currently studying abroad in Istanbul at Bogaziçi University.

Corey A. Bloom is a junior with a 4.0 GPA. He is a member of the Tau Beta Pi, Pi Tau Sigma, and Primannum Honor Societies. In addition, he participates in the QUEST Honors Program and is currently working with Dr. Haslach to create a humidity chamber in order to study stresses relating to cardiovascular biomechanics.

Luke A. Catherine is a junior with a 4.0 GPA pursuing a minor in Technology Entrepreneurship. As a member of both the Hinman CEOs Program and the Entrepreneurship and Innovation Honors Program, Luke is working to combine a business mindset with his engineering education to found his own company before graduation.

Nick C. Du is also pursuing a Physics double degree and is part of Science, Discovery and the Universe, a University of Maryland Scholars Program. He is currently doing undergraduate research with Professor Carter Hall in the Experimental Nuclear Physics Department.

Scott D. Hemley is a junior with a 4.0 GPA. He is currently a teaching fellow for Electronics and Instrumentation II, which involves running labs and assisting students with course material. He also worked on research in computational fluid dynamics at the National Institute of Standards and Technology throughout last summer and fall.

Greg A. Holland is a junior with a 4.0 GPA. He serves as the Events Chair for the UMD chapter of the American Society of Mechanical Engineers. He also works on campus as an Operations Assistant in the ERC. Greg is planning on studying abroad in Australia during the upcoming winter and spring semesters.

Eric F. Kazyak is a junior with a 4.0 GPA who is passionate about sustainability. He is involved in researching ways to improve the efficiency of Stirling engines and methods of reducing costs of sustainable food production using aquaponics. He loves photography and backpacking, and is currently studying abroad in Australia.

Alan Parvis is a junior with a 4.0 GPA pursuing two B.S. degrees in Physics and Mechanical Engineering. He is actively involved in charity by competing in endurance events, including ultra-distance triathlons and marathons. Alan is currently researching counterfeit electronics mitigation at the Center for Advanced Life Cycle Engineering (CALCE) with Dr. Diganta Das.

Daniel R. Power is a junior with a 4.0 GPA in the Honors College’s University Honors Program. He is currently a member of the University of Maryland chapter of the American Society of Mechanical Engineers and of the Primannum Honor Society. In addition, he is an active member of the University’s club swimming team.

Alek S. Williams is a junior with a 4.0 GPA. He is a co-leader of the Terps Racing Baja team and part of a research team on concussion mitigation devices led by Dr. Kiger. He is also a brother of Theta Tau, professional engineering fraternity.

Gregory Barr is a senior who will be working full time at the Johns Hopkins Applied Physics Lab this August. He is a teaching fellow for the very first and last class every undergraduate Mechanical Engineering student takes. He is involved with Club Baseball and is the President of the Mechanical Engineering Honor Society, Pi Tau Sigma.

Christopher J. Bilger is a senior with a 4.0 GPA who is a member of the Honors College and QUEST Honors Fellows Program. He will return to UMD to pursue his master’s degree in Mechanical Engineering. Christopher is an active member of the Catholic Student Center and the Knights of Columbus. He is also a member of two honor societies, Phi Kappa Phi and Pi Tau Sigma, and is an alumnus of the professional engineering fraternity, Theta Tau.

Christina Boehmer is a senior on UMD’s Terps Racing Formula SAE team. She has her private pilot license and flies whenever she gets the chance. In her nonexistent free time, she enjoys performing with jazz trios, swimming, and driving.

John D. Calderone is a senior with a passion for sustainable design and renewable energy. When he isn’t studying, he and his wife Juli enjoy remodeling their townhouse in Gaithersburg, Md. He also participates in community service trips to Central America and is actively involved at his church.

Michael F. Jaja is a senior Mechanical Engineering student currently working part-time for ATK’s Space Systems Division, where he will be working full-time after graduation. He is the Risk Reduction Chair of Sigma Phi Delta, an all-male Engineering Fraternity. He also enjoys automotive racing with SCCA at local autocrosses.

Pooja S. Rao is a senior and will be graduating with a B.S. in Mechanical Engineering. At Maryland she was a part of the College Park Scholars Program. Also during her time here, she worked as an Undergraduate Research Assistant in the Thermal Management Lab under Dr. Avram Bar-Cohen. She is currently the President of the American Society of Mechanical Engineers and enjoys working with the ME Department.
The **Outstanding Engineering Co-op/Intern Award** is presented to selected students who have demonstrated exceptional work performance, strong academic achievement, and remarkable potential for a successful career while participating in a cooperative education or internship opportunity.

* Awarded to Parakh Jain, Michael Jaja, Casey Smith, and Michael Young *
ABOUT THE Awardees

Parakh Jain, a Computer Engineering major, was among the first group of students hired last summer as part of SAIC’s new team internship program. While at SAIC, he contributed to several artificial intelligence programs and was instrumental in developing an end-to-end natural language processing system. Parakh is intellectually curious, disciplined, hard-working, and meticulous. He excelled as both a team member and a team leader, taking on responsibility for the end-of-year presentation given to the SAIC leadership and Clark School faculty. His determination was so great that this extraordinary young man even wanted to work from home after breaking a vertebra in his back. Parakh was also an intern at the National Institute of Standards and Technology from 2010-2012.

Michael Jaja, a Mechanical Engineering major, has been an intern at ATK since last summer. His supervisor nominated him for this award because of his strong academic achievement, his inquisitiveness, and his self-initiative. “All we had to do was point Michael in the right direction and he took it from there.” The Beltsville office hired 20 interns and Michael stood out among his peers. It is no surprise that ATK offered Michael a full-time job based on his outstanding performance. In Michael’s own words, this internship was one of the most valuable experiences he had during his college career. In addition to achieving a perfect GPA, Michael also found time to work on the Formula SAE team as one of their lead mechanical designers.

Casey Smith, a chemical engineering major, has been an intern for Bechtel since the summer of 2011. According to her supervisor, Casey not only served as an excellent example to other interns but also to the full-time junior engineers. Her inquisitive approach ensured that she knew the purpose and function for every component in the system to which she was assigned. She is extremely detail-oriented and motivated to learn. Casey is an exemplary representative of the University and the Clark School. Her internship has taught Casey the importance of collaboration, networking, quality assurance, and drive. Casey is also a part of the Gemstone Program and one of the Vice Presidents of Alpha Omicron Pi sorority.

Michael Young, a mechanical engineering major, was a co-op student at Sikorsky Aircraft during the summer and fall of 2012 and an intern at NAVSEA from 2008-2011. Michael was nominated for this award by two different supervisors in Risk Management Engineering because he consistently went above and beyond the expectations of his position. He assumed personal responsibility for every task he was assigned and was scrupulous in his work ethic, producing high quality results equal to that of senior engineers. When asked, he sacrificed his personal plans without question and even dealt with an emergency housing relocation due to Hurricane Sandy without any impact on his work commitments. He is thorough in his analysis, calm under pressure, and able to work with people at any level of the organization.
The **Women in Engineering Service Award** is presented to the engineering student who has contributed most to furthering the advancement of women in engineering.

*Awarded to Chelsea Gratz*
A B O U T  T H E  A W A R D E E

Chelsea Gratz, a senior Civil and Environmental Engineering major, has consistently proven to be an asset to the Women in Engineering (WIE) Program. She has served as a role model for future women engineers on numerous occasions as a WIE volunteer and through other Clark School outreach initiatives. Chelsea is a member of the WIE Student Advisory Board, a group that suggests and implements changes to improve the experience for all Clark School students. She is the current president of the Upsilon Chapter of Alpha Omega Epsilon, the professional and social engineering sorority for women, and is a member of both the Society of Women Engineers and the American Society of Civil Engineers. Chelsea is enthusiastic and proactive, making her a valuable asset to WIE and the larger engineering community.
The Center for Minorities in Science and Engineering Service Award is presented for dedicated service to the Center for Minorities in Science and Engineering, the University community and commitment to promoting diversity in engineering.

Awarded to MaBinty Bangura, Norena M. Beaty, and Stephanie N. Ihejirika
ABOUT THE Awardees

MaBinty Bangura is a sophomore Fire Protection Engineering major from Upper Marlboro, Md. As a pre-freshman in the Bridge Program, she developed a strong conviction to play an active role in CMSE. She began by serving as an intern and is presently a student employee in the office. Devoted to service, she has applied her efforts to many student-groups. Along with being the current programming director for the African Student Progressive Action Committee (ASPAC), she is an active member of the Black Engineers Society, the Bethel Campus Fellowship, the Society of Fire Protection Engineers and the African Students Association. She is a serious student committed to ensuring the success of the community as well as herself and hopes to use her degree to make contributions on a larger scale.

Norena Beaty is currently a senior in Materials Science and Engineering and will be graduating this May. She is also President of the Society of Hispanic Professional Engineers, a student organization that she has been a part of since her sophomore year. As a summer intern, she played a key role in developing a program to introduce engineering to underrepresented minority students. She considers her work with SHPE and with the Center for Minorities in Science and Engineering to be some of the most rewarding during her time at the University of Maryland. She is deeply appreciative to be receiving this service award and for all the opportunities the Center has afforded her.

Stephanie Ihejirika is a junior Bioengineering major. She has been involved with the Center for Minorities in Science and Engineering since being in the Bridge Program for Scientists and Engineers the summer before her freshman year. One of her goals is to encourage younger students interested in engineering. She has been a mentor for the Bridge Program, a co-instructor for the S.P.I.C.E. (Students with Potential and Interest Considering Engineering) Program, as well as a co-instructor for the ESTEEM (Engineering Science and Technology to Energize and Expand Young Minds) and she looks forward to continuing to help CMSE fulfill its mission of recruiting, retaining, and graduating underrepresented minorities in engineering.
A Scholars Program for Industry-Oriented Research in Engineering (ASPIRE) is an Mtech program that seeks to broaden the educational experience of undergraduate engineering students through direct involvement in real-world engineering projects.

The Outstanding ASPIRE Award is presented to the ASPIRE student who has carried out the most successful research project.

Awarded to Ben Bulka
ABOUT THE Awardee

**Ben Bulka** is a senior Bioengineering major. In his ASPIRE project, Ben designed and fabricated a novel bioreactor for compressing mesenchymal stem cells, which can differentiate into spinal cartilage tissue. Ben used the bioreactor to examine the cells’ signaling pathways in search of improved treatments for back pain. Ben’s work resulted in two conference abstracts and two papers.
2013 HONORS AND AWARDS

The Dinah Berman Memorial Award is presented to a third-year engineering student with a 4.0 grade point average who has combined academic excellence with demonstrated leadership or service to the Clark School.

Awarded to Chris Berkey

The A. James Clark School of Engineering Leadership Award is presented to a student who has demonstrated outstanding leadership to the Clark School in activities that impact all engineering majors.

Awarded to Gregory Barr

The Kim Borsavage and Pamela J. Stone Student Award for Outstanding Service is presented to a student who has demonstrated outstanding dedication and service to the Clark School and is a truly unique individual whose contributions to the School exemplify a high level of dedication and service.

Awarded to Santiago Miret

The A. James Clark School of Engineering International Student Award is presented to a student who through their leadership or service has promoted the international engineering experience on behalf of the Clark School and has demonstrated significant involvement in international engineering activities.

Awarded to Sylvie DeLaHunt

The A. James Clark School of Engineering Dean’s Award is presented to a senior for scholastic excellence and demonstrated outstanding service and leadership to the Clark School of Engineering.

Awarded to Kevin Fries
ABOUT THE AWARDEES

Chris Berkey is a junior in the Materials Science and Engineering Department. He is a member of the University Honors Program and has maintained a 4.0 GPA while also remaining active in his honors society, Tau Beta Pi. Outside of the classroom, Chris volunteers in the MindSET program, where he works with other Clark School students to teach engineering concepts to kids at local middle schools and encourage them to pursue careers in STEM fields. Currently, he is working in a faculty lab, researching the possible role of unique nanostructures in new high energy density batteries.

Gregory Barr is a senior Mechanical Engineering student who will be working full time at the Johns Hopkins Applied Physics Lab following graduation. He is an Undergraduate Teaching Fellow for the Keystone Program, assisting first and second year engineering students in their fundamental coursework. Greg is involved with the University’s Club Baseball and Sprint Football teams and is President of the Mechanical Engineering Honor Society, Pi Tau Sigma. He is also a Clark School Ambassador and a member of the University Honors Program and the QUEST program.

Santiago Miret is a senior in Materials Science and Engineering. He is a member of two multidisciplinary programs, the Quality Enhancements Systems and Teams (QUEST) program, which focuses on systems innovation, and the Hinman CEOs program, which focuses on entrepreneurship. Santiago did a semester abroad at Fudan University in Shanghai, China, and he has used his experiences in China to help assist in international Clark School efforts. Santiago has also been an active member of the Society of Hispanic Professional Engineers (SHPE) for four years, where he has held multiple leadership positions, and has served as a Clark School Ambassador since his second semester.

Sylvie DeLaHunt is a junior Aerospace Engineering student pursuing a minor in International Engineering. She is a member of the University Honors Program and Aerospace Engineering Departmental Honors Program. On campus, she is a part of Human-Powered Helicopter Team, a member of Tau Beta Pi and AIAA, and actively involved within the Honors College. Sylvie is completing her undergraduate research in the Composites Research Lab and has studied abroad twice with the GEA Summer Aerospace Program in Toulouse, France. Sylvie is a Banneker Key Scholar and recently won the Delta Airlines Engineering Scholarship from Women in Aviation International.

Kevin Fries is a senior Civil and Environmental Engineering student with a 4.0 GPA. During his time at the University, Kevin worked extensively with Engineers Without Borders as a Brazil team subgroup leader and he currently serves as President of the chapter. Kevin also served the Clark School and the University by working as a Clark School Ambassador, an Images Tour Guide, and a teaching fellow for Mechanics I and II. He has participated in research through both the Gemstone Program and Engineering Honors Program and plans to attend graduate school in the fall.
Congratulations to all of the students being recognized this evening for their contributions to the Clark School, the University of Maryland, and the campus community.

The Honors and Awards Ceremony Planning Committee wants to thank the staff and faculty of the A. James Clark School of Engineering, the Office of the Bursar, the Office of the Dean, Dining Services, and the Stamp Student Union, as well as Dean Darryll Pines and Associate Dean William Fourney, for their assistance and support with this event. We also thank the family and friends of the awardees for joining us in recognizing these outstanding students.

2013 Honors and Awards Ceremony Planning Committee

Bruk Berhane, Registration
Chelsea Brown, Program Publication
Kathleen Hart, Dean’s Awards
Ted Knight, Program Publication
Nicole P. Roop, Coordinator
Al Santos, Photographer
Sheron Williams, Logistics