Greetings!

Happy New Year! School is back in session and winter is here! Bundle up and register for these cool, upcoming STEM events.

Enjoy,
The Center for Educational Outreach

Upcoming Opportunities for Students

**JHU RoboChallenge Training Session Registration Deadline!**
Registration Deadline: January 14, 2015
Date: Saturday, January 24, 2015

**Time:** 9:00 AM - 12:30 PM (BoE-Bot), 1:30 PM - 5:00 PM (Arduino robot)
**Location:** Hackerman Hall room B17, Johns Hopkins Homewood Campus
**What:** The JHU Robotics Challenge is an event for students in grades 6-12 where teams build a robot that can autonomously navigate a maze, create a robot dance, or be used for and innovative application. The Laboratory for Computational Sensing and Robotics offer a training session for teachers, parents, and students to get started with the most common robot kits.

Register on their website

**Middle School Teachers: Tower of Power Deadline Approaching!**
Location: Johns Hopkins University - Homewood Campus
Who: Middle School Students
Participation Deadline: January 30, 2015
Entry Deadline: February 6, 2015
What: Join Johns Hopkins University's Whiting School of Engineering in celebrating National Engineers Week (February 22-28, 2015) by building a tower from spaghetti and marshmallows. The middle school team that builds the tallest freestanding tower wins and will be invited to recreate their winning tower at the JHU Tower of Power event on Monday, February 23!

Email the registration form to stemoutreachjhu@gmail.com to register!
For more information, visit the Tower of Power page on the CEO website.

**Girls Who Code Summer Immersion Program Application Available this week!**

Application Opens: January 15, 2015
What: Girls Who Code is excited to bring their free 7-week Summer Immersion Program to Washington, DC this summer! In the program, rising high school juniors and seniors are embedded inside a technology

How To Join

**Quick Links**
Check out more local organizations for other possible STEM opportunities!

- Baltimore Museum of Industry
- National Aquarium
- JHU Center for Talented Youth
- CEO Website
- Newsletter Archive
- More On Us
company each day. Here, young women get hands-on experience in computing concepts, mobile app development, robotics, web development and design.

Know you're interested in the program? Fill out this interest form to be reminded when the application becomes available.

For more information, view the Girls Who Code video or visit their website.

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**Engineering Innovation Summer 2015**

**Application Available: February 1, 2015**

The application for the Summer 2015 Engineering Innovation (EI) program will be available beginning February 1, 2015. EI is an exciting, hands-on summer course for high school students interested in engineering. Over four or five weeks (depending upon the site) students complete lab activities in computer engineering, chemical engineering, electrical engineering, material science, civil engineering, robotics, and mechanical engineering. They also prepare a presentation in response to a Request for Proposal, learn about engineering economics, write a research paper, take weekly quizzes, and complete a comprehensive take-home final exam.

**Students who earn an A or B grade in the course are awarded 3 credits from Johns Hopkins University.**

This program is offered at the JHU Homewood campus in Baltimore, MD, JHU Montgomery County in Rockville, MD, JHU Elkridge in Elkridge, MD, Tuscarora High School in Frederick, MD, University of DC in Washington, D.C, and other locations across the country, including California, Washington, and Pennsylvania.

For more information, visit the Engineering Innovation website.

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We hope you'll apply or register for these fantastic events and programs. Stay warm!

**Sincerely,**

Margaret Hart
Center for Educational Outreach
Greetings!

Spring is finally on the way! We hope you are enjoying the warmer weather and sunshine. Check out the great spring and summer opportunities for you and your students.

Enjoy,
The Center for Educational Outreach

Upcoming Opportunities for Students

**2015 National High School Weather Camps**

*Application Deadline: March 13, 2015*

NOAA Center for Atmospheric Sciences (NCAS) is hosting a FREE two-week weather camp at Howard University. Housing and meals are included. High School students with a minimum GPA of 3.0 and demonstrate a high interest in weather, meteorology, atmospheric sciences, environmental sciences, or applied physical sciences are encouraged to apply. The deadline for applying is March 13, 2015. Check out their [flyer](#) for more information and [apply here](#).

**Basic Science Day**

*Date:* March 25, 2015  
*Time:* 9:00 a.m.  
*Location:* Pre-Clinical Teaching Building - 725 N. Wolfe Street  
*What:* 126 students from Henderson-Hopkins will be visiting Hopkins to participate in STEM related activities sponsored by the Biophysics Department. Students rotate through 12 labs and are introduced to various STEM related careers.

For more information, email Carolyn Chance.

**Ready, Set, Design**

*Event Date: March 28th, 2015*  
*Registration deadline: March 25th, 2015*  
*Location:* Glass Pavilion, JHU Homewood Campus  
*What:* Ready, Set, Design! is an organization at Johns Hopkins University that introduces engineering to elementary school girls (3rd-5th grade) in a fun way by giving them different problems and having them design and then build their solutions. Our theme for our upcoming event is Food Production, so the girls will have a chance to work in groups to design and build related models.

For more information, email readysetdesign@gmail.com or visit the [website](#).
STEM in Spring
Date: April 4 - April 12, 2015
Time: When the museum is open
Where: Port Discovery Children's Museum
What: During Maryland Public Schools' spring break, Port Discovery hosts STEM in Spring, a week long period of special programs dedicated to Science, Technology, Engineering, and Math (STEM). The Museum partners with organizations that specialize in STEM learning, including NISE Network (Nanoscale Informal Science Educators), Howard University Nano Express, MD Bio-lab, NASA, UM B I, and the Society of Toxicology, to engage and spark interest in STEM through interactive, hands-on activities.

JHU Robo Challenge
Dates: Help Session: April 4th
Competition: May 2nd
Time: Help Session: 10am-2pm;
Competition: 10am-5pm
Location: Help Session- B17 Hackerman Hall (JHU Homewood campus);
Competition- Glass Pavilion (JHU Homewood Campus)
What: The JHU Robo Challenge is a low-pressure, low-cost competition for middle and high school students. Teams of 2-3 students must each build a small robot that can compete in up to five events. On April 4th there will be an open session where teams can come in and get help from graduate students in robotics. There will be practice courses for competitors to get a feel for each event. The competition takes place May 2nd.
For more information, email JHU.Robo.Comp@gmail.com or visit the website.

Engineering Innovation Summer 2015
Dates: June 29 - July 24
Times: Monday - Friday 9am - 3pm
What: Engineering Innovation is an exciting college-level summer program for high school students with an aptitude in math and science and an interest in engineering. Students complete activities in computer/electrical, chemical, materials, civil and mechanical engineering. They also prepare an oral presentation, write a research paper, take weekly quizzes, and complete a comprehensive final exam.
Students who earn an A or B grade in the course are awarded 3 credits from Johns Hopkins University.
This program is offered at the JHU Homewood campus and Loyola University in Baltimore, MD, JHU Montgomery County in Rockville, MD, JHU Elkridge in Elkridge, MD, Tuscarora High School in Frederick, MD, University of DC in Washington, D.C., and other locations across the country, including California, Washington, and Pennsylvania.
Click here to apply now or for more information, visit the Engineering Innovation website or email engineering-innovation@jhu.edu

Volunteer Opportunities
Maryland Science Olympiad
State Tournament
Date: April 11, 2015
Time: 6am - 8pm
Where: JHU Homewood Campus
Who: Everyone! Middle and high school students can earn service hours.

What: The mission of Maryland Science Olympiad is dedicated to teamwork provided by fun science and technology competitions that build team skills and highlight the value that diversity brings to a team. 88 middle and high school teams have been competing at invitational and regional tournaments in preparation for the State Competition to see who will represent Maryland at the National Science Olympiad Tournament in Nebraska.

Register to be a volunteer here.

Professional Development Opportunities

Maryland Maker Education Community Meetup
Event Date: April 21, 2015
Time: 6:30pm-9pm
Location: Baltimore Robotics Center, 1001 W Pratt St. Baltimore, MD 21230
What: Join Maryland's growing community of teachers who make and makers who teach - coaches for a new generation of youth and adults who learn by doing. Our open community includes makers and education professionals from schools, libraries, museums, community organizations and independent spaces. Once a quarter, we meet, eat, make and share - and grow our maker, facilitator and manager muscles. Join us to develop cutting-edge maker skills, enhance your facilitation chops, and grow your program or classes.
For more information, email Matt Barinholtz or visit the website.

SET Sail - STEM Educator Training
Dates: July 6-9 or July 13-16
(Monday 5pm - Thursday 5pm).
What: The United States Naval Academy (USNA) STEM Center will host a one-week residential summer STEM workshop for middle and high school teachers. The focus will be on project-based learning across a broad range of science and engineering topic areas.
Where: Room and board provided at St. Johns College, a short walk to USNA. Travel stipends available.

Video with more information about the workshop can be found here. Apply online here.

Enjoy the warmer weather and we'll see you again in May for our last Newsletter of the year.

Sincerely,

Margaret Hart
Center for Educational Outreach
Greetings!

Things are heating up and summer is on its way! Check out some awesome STEM events and programs to participate in this summer!

Enjoy,
The Center for Educational Outreach

Upcoming Events

**Hubble STEMfest**
*Where:* Space Telescope Science Institute 3700 San Martin Drive Baltimore, MD 21218  
*When:* Saturday, June 6 10AM-4PM  
*What:* Join the Youth for Astronomy and Engineering (YAE) Program for a full day of science and engineering exhibits, hands-on activities, and interactive presentations for the whole family to celebrate the 25th anniversary of the Hubble Space Telescope! (Children under the age of 16 MUST be accompanied by an adult.) This ALL AGES event is FREE to attend.

For more information please visit the [YAE website](http://yae@stsci.edu). You can register online [here](http://online).  
Direct any questions to yae@stsci.edu or call 410-338-4571.

**Howard County STEM Festival**
*Date:* Sunday, June 7  
*Time:* 1PM-5PM  
*Location:* Howard Community College  
*What:* Join Howard County for its 3rd annual STEM festival. It is free and open to the public, featuring more than 70 exhibits and presenters, including FIRST teams, FTC and FRC programs.

For more information, [visit the Festival's website](http://visit).

**Repticon**
*Event Date:* Saturday, May 23, 2015, 10:00 AM - 5:00 PM  
*Sunday, May 24, 2015, 10:00AM - 4:00PM*  
*Location:* Maryland State Fairgrounds, 2200 York Road Timonium, MD 21093  
*What:* In Spring of 2010, Repticon brought it's show series north to the fourth largest metro area in the nation, the Baltimore/Washington D.C. Area with Repticon Baltimore! Hosted at the Maryland StateFairgrounds just north of Baltimore, the Repticon Baltimore show is the largest reptile show in the state of Maryland.
Baltimore, this exciting new show featured a great mix of vendors and exhibitors including local vendors as well Repticon regulars who were new to the Baltimore show scene. Having returned twice in the years from 2011-3 for great shows, the show saw a spike in attendance as more locals came out to enjoy Herpetology.

For more information, email RepticonEvents@repticon.com or visit the website.

**Y of Central Maryland Camps**

**Date:** All Summer  
**Where:** Various Y Locations  
**What:** Experience STEM with the Y of Central Maryland with their Y Science Camp or their "add-on" STEM Camp Programs. From robotics to "kitchen chemistry" these camps offer a lot of variety in their programs. For more details about registering and times and locations for each camp, visit the Y's website.

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**Professional Development Opportunities**

**Earth Science Professional Development**

**Event Date:** July 6 - 15, 2015  
**Time:** 9:30-4:30 weekdays  
**Location:** Olin Hall, Johns Hopkins University  
**What:** Open Earth Systems: An Earth Science Course For Maryland Teacher Professional Development. This course is open to all K-12 teachers (no science/math pre-requisite) and offers expert instruction in Earth Science and supervised lesson planning over four topics -- Plate Tectonics, Natural Disasters, Earth History, and The Global Climate System.

For more information, view the flyer or visit the website. Contact Teresa Healy with any questions.

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**Maryland Educators Workshop**

**Dates:** Wednesday, July 15, 2015  
**Time:** 8:15 AM - 1 PM  
**Location:** Towson University Center for STEM Excellence  
**What:** Spend a day in the Inner Harbor of Baltimore this summer, networking with colleagues and sharing the latest in science education. This half-day summer professional development workshop is offered in conjunction with the Accelerating Science Education conference and is open to elementary, middle and high school science teachers.  
**Price:** Cost  
$40 MAST members  
$50 Non-members (includes 1-year MAST membership)

Click here to register  
Contact Mary Stapleton with any questions.

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**Technology Workshops for Educators**
Dates: See below
Location: Digital Harbor Foundation Tech Center, 1045 Light Street
Baltimore
What: Interested in bringing the maker movement to your organization, but not sure where to get started? Join Digital Harbor Foundation this summer for educator workshops on innovative maker topics.

- Making for Educators - June 19-20; July 30-31
- 3D Printing for Educators - July 6-9; August 3-6
- Electronics for Educators - July 27-28

Each workshop includes a kit of equipment and materials relative to the topic to help participants grow their makerspace!

Contact Melissa Huch with question or visit the Digital Harbor Foundation's website.

Have a great summer! And, we'll see you again in August to bring in the new school year!

Sincerely,
Margaret Hart
Center for Educational Outreach
Greetings!

Grab your backpack because it's back to school time. Check out these upcoming events and programs to kick start the school year.

Teachers, make sure to forward this mailing list to any of your new or returning colleagues that may be interested in signing up for the newsletter!

Enjoy,
The Center for Educational Outreach

Upcoming Events

**Battle O'Baltimore Robotics Competition**

**Date:** Saturday, September 26th  
**Time:** 8am - 4pm  
**Location:** McDonogh School, Owings Mills, MD  
**What:** This off-season FIRST Robotics Competition allows teams to experience a friendly competition before the new season.

A 30-minute "FIRST Stop" behind-the-scenes tour will be available. The atmosphere is part rock concert - part sporting competition with 120-lb robots, totes, recycling containers, a flurry of pool noodles, and human players.

Also see the other FIRST programs: Jr. FIRST LEGO League- ages 6-9; FIRST LEGO League - ages 9-14; & FIRST Tech Challenge - grades 7-12.

For more information, [view the event flyer.](#)  
[Click here to register.](#)

**Ready, Set, Design!**

**Event Dates:** Saturday, Oct 3rd (6th - 8th grade), Saturday, Nov 8th (3rd - 5th grade)  
**Registration deadlines:** Wednesday, Sept 30th, Wednesday, Nov 4th  
**Time:** 10 am - 1 pm  
**Where:** Glass Pavilion, Johns Hopkins University  
**What:** We introduce engineering to elementary and middle school girls in a fun way by giving them different problems and having them design and then build their solutions.

For more details, [visit the website](#) or email at [readysetdesign@gmail.com](mailto:readysetdesign@gmail.com)

Professional Opportunities
SABES Instructional Facilitator (Coach) Position Available

The STEM Achievement in Baltimore Elementary Schools (SABES program) is seeking a part-time instructional facilitator (coach). Additional information about the responsibilities and qualifications are listed below. Applicants should apply through our JHU website.

Job Description

The SABES Instructional Coach position is a part-time position that supports the implementation of the SABES program by providing instructional modeling and coaching to afterschool facilitators and their supervisors. The goal of SABES is to achieve STEM literacy within three specific Baltimore communities (lower Park Heights, Greater Homewood and Greektown/HIGHLANDTOWN) by comprehensively engaging the community in STEM learning practices situated within these same communities. SABES is deeply committed to locating STEM within the world of the children we serve, rather than asking them to journey to the world of the scientist. The SABES Instructional Coach will work with afterschool facilitators to increase their confidence and capacity to teach STEM afterschool. They will also work with afterschool providers to increase student participation in the SABES component of the afterschool program.

BioEYES Teacher Training Dates

Event Date: Various dates
Time: 9:30-4:30 weekdays
Location: Carnegie Institution for Science, 3520 San Martin Drive, Baltimore, MD 21218
What: Project BioEYES is a weeklong, science outreach program that uses zebrafish to teach development, genetics, and the scientific method to k-12 students. Teachers new to BioEYES must attend a training to participate. The training sessions are free to Baltimore City Public teachers, but space is limited. All sessions run from 9 am-2 pm except 9/3, which runs from 4:30-7:30 pm.

For specific dates, details, and registration, visit the BioEYES website or call at 410-246-3041

3D Printing for Educators Workshop (Professional Development)

Event Date: October 2-3 and 9-10 (2 Consecutive Weekends)
Time: 5-9pm on Fridays, 10-5pm on Saturdays
Location: Digital Harbor Foundation
What: Interested in bringing 3D Printing to your learning space? This 4-day educator workshop at DHF will teach you everything you need to know, from software to hardware and troubleshooting. The workshop also includes hands-on project prompts that can be used with K-12 youth in STEM programs.
Learn from our years of experience working with thousands of youth in 3D Printing! Workshop INCLUDES a 3D Printer to take home, and is eligible for 2 AU credits.

For more information and to register, click [here](#).

Have an awesome start to the school year and we'll see in in October for our next newsletter.

**Sincerely,**

Margaret Hart  
Center for Educational Outreach
Greetings!

The leaves are finally changing! Celebrate fall with these colorful STEM events!

Enjoy,
The Center for Educational Outreach

Upcoming Events

**White House Astronomy Night at JHU**
- **Date:** Friday, October 16, 2015
- **Time:** 6:00 pm - 11:00 pm
- **Location:** JHU Department of Physics and Astronomy, Bloomberg, 3701 San Martin Dr, Baltimore, MD, 21218
- **What:** In conjunction with White House Astronomy Night the Physics and Astronomy Department at JHU invites you to an evening of astronomy exploration at the Bloomberg Physics Building Friday October 16 from 6-11pm. We will have a variety of fun and educational astronomy activities including our portable planetarium and star gazing with the Offit Telescope (weather permitting). Students and parents of all ages are welcome.

For more information visit [the website](#) or email rmalexan@jhu.edu

**Math is Cool, Applied Statistics is Way Cool**
- **Date:** Wednesday October 21, 2015
- **Time:** 7:00 pm (Refreshments at 6:30)
- **Location:** Johns Hopkins University, Shriver Hall

HUSAM (Hopkins Undergraduate Society for Applied Mathematics) is bring Dr. Talithia Williams from Harvey Mudd College to talk about math and applied statistics. She recently gave a Ted Talk entitled *Own your body’s data* and is excited to share her love of math and statistics with the Hopkins community and general public. High School and middle school students are invited to attend and learn more about how data can be used in our daily lives.

To discover more on Dr. Williams, [click here](#). To RSVP for the event, [click here](#).

**Parent/Child Night Under the Stars**
- **Date:** Parent & Son Evening Under the Stars
  - **Time:** Friday, October 30, 2015
  - **Time:** 6:00 p.m. - 9:00 p.m.

**Parent & Son Evening Under the Stars**
- **Time:** Friday, October 30, 2015
- **Time:** 6:00 p.m. - 9:00 p.m.

**Parent & Daughter Evening Under the Stars**
- **Time:** Friday, October 30, 2015
- **Time:** 6:00 p.m. - 9:00 p.m.
**Maryland STEM Festival**
Maryland will host its first STEM festival from November 6 to November 15. Participate in STEM events in this area and all over the state. For more information and details about events, visiting the [Maryland STEM Festival website](http://www.marylandstemfestival.org).

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### Professional & Grant Opportunities

#### Teacher Innovation Grant
**Proposal Deadline:** November 2, 2015
The Character lab is looking to award up to 7 teachers with grant money up to $10,000 for educator projects to cultivate character strength and skills in the classroom.

For more information or to apply, visit the [Teacher Innovation Grant website](http://www.characterlab.org).

#### No Kid Hungry Grant
No Kid Hungry is seeking grant applications for $2500 or more in funding for at-risk afterschool programs.

**Deadline to apply is October 30.**

Submit your application by visiting [http://grants.nokidhungry.org](http://grants.nokidhungry.org), logging in or registering as a new applicant, and using the code MDCACFP2016 to begin a new request.

For more information about this funding opportunity for afterschool meals, call 443-423-0915 or email kpanowitz@strength.org.

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### Programs, Competitions, & Contests

#### Join MERIT Baltimore
**Priority Deadline** 10/30/15  
**Final Deadline** 11/13/15
MERIT supports Baltimore City high school students who aspire to become health care professionals. The program starts after winter break sophomore year and includes paid summer internships in hospitals and labs, mentoring, SAT prep, college admissions counseling, and much more. Over the last several years 100% of the Scholars have been accepted into 4-year colleges and SAT scores have increased an average of 336 points. We encourage all **sophomores** who are interested in a career in health care to apply!

Contact Jake Weinfeld or visit the [MERIT website](http://www.meritbaltimore.org) for more information.
Upcoming Classroom Competitions

**Future City** -- Application Deadline December 1st
Teams of 3-30 middle school students led by a mentor use the engineering design method and the SimCity program to build a sustainable city and solve a problem.

**E-Cybermission** -- Application Deadline December 16th
Teams comprised of 3-4 middle school (Grades 6-9) students compete by proposing to solve a real problem in their community.

Featured STEM Websites

Starting with this month’s newsletter, each month we will feature a few websites with STEM-centric games, activities, videos, and other content for students of all ages.
Here are this month’s featured sites:

- **Museum of Science + Industry Chicago** -- Explore interactive games and activities on topics ranging from the physiology of surviving a night in the woods to an interactive periodic table. (All Levels)

- **Kinetic City** -- A collection of science experiments & games to play to defeat a "knowledge eating virus". (Elementary & Middle School)

- **CyberChase** -- Explore the world of the hit PBS series CyberChase with interactive math games and activities (Elementary School)

Check the green side panel next month for more fun websites!

We hope you had awesome start to the school year and we hope to see you around town at some of these awesome STEM events. We'll see you next time in December!

Sincerely,
Margaret Hart
Center for Educational Outreach
Greetings!

Winter is coming. Stay warm this winter with these hot STEM events! Be sure to check out the side panel of this issue and every issue after for our featured STEM websites.

Enjoy,
The Center for Educational Outreach

Upcoming Events

**Family Coding**
**Date:** Thursday, January 14, 2016  
**Time:** 6:30PM  
**Location:** Enoch Pratt Library, Southeast Anchor Branch  
3601 Eastern Avenue Baltimore, MD 21224  
**What:** Come learn basic coding skills as a family! The family that codes together has fun learning about computational thinking and working as a team!

For information about more STEM events occurring at the Enoch Pratt Libraries, visit their website.

**A Tale of Two Planets**
**Date:** January 21, 2016  
**Registration Opens:** December 21, 2015  
**Time:** 6:45PM (Doors open at 6:00PM)  
**Location:** Carnegie Institution for Science 1530 P St., NW Washington,20005  
**What:** "Dr. Pamela Conrad - A Tale of Two (Cities) Planets: What Earth and Mars are teaching us about the evolution of habitable worlds" Curiosity rover has been exploring Mars for more than three years, measuring the past and present habitability potential of our nearest planetary neighbor. We’ve also been busy on Earth, exploring the harshest environments we could find on this planet, not only to help us understand what makes them habitable, but also how to measure it. Dr. Conrad will tell us about what we've...

Who We Are
The Center for Educational Outreach is part of the Whiting School of Engineering at Johns Hopkins University. Our mission is to inspire and prepare youth, particularly those underrepresented in STEM, to pursue STEM education and careers.

In This Issue
- Family Coding
- A Tale of Two Planets
- Hopkins Robotics Cup
- Women in Engineering DREAM Conference
- THINK Scholars Program
- Exploravision
- EngineerGirl - 2016 Essay Contest

Featured Websites
- SciJinks (K-8)
- Lifeboat to Mars (6-8)
- STEM Works (All)
- Science Buddies (All)

Quick Links
Check out more local organizations for other possible STEM
learned on and from both planets about the evolution and decline of habitable environments.

For more information and to register, visit the event website.

Hopkins Robotics Cup
Date: January 30, 2016
Location: Johns Hopkins University, Newton-White Athletic Center
What: Come watch as Baltimore City Public Schools VEX Robotics teams participate in this tournament. Middle School and High School teams go head to head to win the Hopkins Robotics Cup! The winner of this competition will be the VEX Robotics City Champion!

Women in Engineering (WIE) DREAM Conference
Date: Saturday, February 27, 2016
Time: 9:00 am - 2:30 pm
Location: Adele H. Stamp Student Union
University of Maryland, College Park
What: Diversity inspires creativity, which in turn drives innovation. At the University of Maryland, efforts like the WIE DREAM Conference targeted to high school girls are having a real impact. Twenty-seven percent of the Clark School's fall 2015 first-year students are women. Our conference encourages participants to be inquisitive, to hone problem-solving skills, and to invent solutions for real-world problems. It is a tremendous opportunity and powerful impetus for young women considering engineering studies and careers.

Register here for students, here for adults, and here for volunteers. For more information, visit the DREAM conference website.

Programs
THINK Scholars Program
Deadline: January 1, 2016
Grade: 9-12
THINK stands for Technology for Humanity guided by Innovation, Networking, and Knowledge. The vision of THINK
is to make science and technology research and development accessible to all motivated high school students. The THINK Scholars Program is an educational outreach initiative that promotes science, technology, engineering, and mathematics by supporting and funding projects developed by high school students. The program is run by a team of undergraduate students at the Massachusetts Institute of Technology (MIT) and sponsored by technology companies and educational organizations. The THINK team will provide funding and extensive support to selected student projects. Some of the key benefits include: Funding, Mentorship, Networking, & Experience

For the 2016 program, we will be selecting six Finalists and invite them to MIT. After the trip, three of the Finalists will be notified to be Winners, where they will receive funding and mentorship to build their project. When projects are completed, one individual/team will be designated the "Grand Prize Winner".

For more information about the competition, visit the THINK program website.

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**Engineering Innovation**

*A Summer Program for High School Students*

**Engineering Innovation Summer 2016**

**Application Available: February 1, 2016**

The application for the Summer 2016 Engineering Innovation (EI) program will be available beginning February 1, 2016. EI is an exciting, hands-on summer course for high school students interested in engineering. Over four or five weeks (depending upon the site) students complete lab activities in computer engineering, chemical engineering, electrical engineering, material science, civil engineering, robotics, and mechanical engineering. They also prepare a presentation in response to a Request for Proposal, learn about engineering economics, write a research paper, take weekly quizzes, and complete a comprehensive take-home final exam.

**Students who earn an A or B grade in the course are awarded 3 credits from Johns Hopkins University.**

This program is offered at the JHU Homewood campus in Baltimore, MD, JHU Montgomery County in Rockville, MD, JHU Elkridge in Elkridge, MD, Tuscaraoma High School in Frederick, MD, Hood College in Frederick, MD, University of DC in Washington, D.C, and other locations across the country, including California, Ohio and Pennsylvania.

For more information, visit the Engineering Innovation website.

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**Competitions**

**Puzzles, Pizza, and Prizes**

The North American Computational Linguistics Olympiad (NACLO) is a competition for students in grades 6-12, focused on solving linguistic puzzles.

Come learn about computational linguistics (and how it's used in cool research at major tech companies) at Puzzles, Pizza, and Prizes

**When:** Saturday, January 9, 2016,
Time: 10 am - 12:30 pm  
Where: Center of Excellence, 810 Wyman Park Dr (Stieff Building), Baltimore, MD 21211  
Students will learn new ways to solve problems and puzzles, work together with other students, and earn prizes. Anyone is welcome to come to the practice session even if they can't make it to the competition!

Interested in competing? The first round competition is scheduled for Thursday, January 28, 2016, 10 am - 1 pm.  
Registration Deadline: Jan. 14, 2016  
Send an email to RSVP for the January 9th event. For more details, visit the NACLO website.

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**Tower of Power**  
**Location:** Johns Hopkins University - Homewood Campus  
**Grade:** 6-8  
**Participation Deadline:** January 22, 2016  
**Entry Deadline:** February 8, 2016  
**What:** Join Johns Hopkins University's Whiting School of Engineering in celebrating National Engineers Week (February 21-27, 2016) by building a tower from spaghetti and marshmallows. The middle school team that builds the tallest freestanding tower wins and will be invited to recreate their winning tower at the JHU Tower of Power event!

Notify Diamond Pollard if you intend to participate by January 22, 2016. For more information, visit the Tower of Power page on the CEO Website.

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**Exploravision**  
**Deadline:** February 1, 2016  
**Grade:** K-12  
The Exploravision competition for K-12 students engages the next generation in real world problem solving with a strong emphasis on STEM. Exploravision is a science competition that goes beyond the typical student science competition and into what it takes to bring ideas to reality. A teacher will sponsor and lead his/her students as they work in groups of 2 - 4 to simulate real research and development. A teacher will guide his or her students as they pick a current technology, research it, envision what it might look like in 20 years, and describe the development steps, pros & cons, and obstacles.

For more information or to registration, visit the Exploravision website.

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**EngineerGirl - 2016 Essay Contest**  
**Deadline:** February 1, 2016  
**Grade:** 3-12  
Every year, EngineerGirl sponsors a contest dealing with engineering and its impact on our world. Girls and boys of all grade levels are eligible to enter. First place winners in each grade category receive $500. For more information concerning the essay topic, word length, and other details, visit the EngineerGirl website.
Have a happy holiday season and we hope to see you at some of these events!

Sincerely,

Margaret Hart
Center for Educational Outreach