



INCOSE Chesapeake Chapter

International Council on Systems Engineering

INCOSE Chesapeake Chapter
P.O. Box 535
Laurel, MD 20725-0535

E-Newsletter

October 5, 2016

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Ellie Gianni,
President,
ESEP

President's Point of View INCOSE Chesapeake Chapter Scholarship Fund and Volunteerism

Happy Fall everyone. The temperatures are finally cooling down a bit, school is back in session, and Back-to-School nights are just about over. We can all catch our breath and get ready for Halloween and Thanksgiving! I wanted to take the time to discuss two topics with you this month: our scholarship program and volunteerism.

Some of you may know that we have an existing Chesapeake Chapter Scholarship program. Currently, we award scholarships to students at the University of Maryland College Park (UMCP) and the University of Maryland Baltimore County (UMBC). The Chesapeake Chapter contributes funds annually for scholarships through the Chesapeake Foundation, part of The INCOSE Foundation, which is a 501-c3 organization. All donations contributed to the INCOSE Foundation by individuals are tax deductible. Here is how the process works. The schools nominate two students each for consideration based on their criteria. The Chesapeake Chapter convenes a BOD committee of Past Presidents, led by our Associate Director for Scholarships, Bob Levin, to review the submissions based primarily on academic achievement criteria. We present scholarships totaling \$4000 annually to four students. We have signed commitments in place with the UMCP Foundation, which expires in April 2018 and the UMBC Foundation, which expired in April 2016. The BOD is considering changes to the future distribution of scholarship funds.



I am proposing we not renew multi-year agreements. Instead, I am asking that we consider broadening our outreach within the academic community. I also intend to propose that we consider a permanent eligibility category for dependents of our members using the existing selection criteria.

My thoughts are that we continue to provide the \$4000 annual scholarship awards as

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This is the monthly newsletter for INCOSE Chesapeake, a local chapter of INCOSE International. We are a not-for-profit organization dedicated to providing a forum for professionals practicing the art and science of Systems Engineering in the Northern & Central Maryland & Southern Pennsylvania area.



long as there is funding within the Chesapeake Foundation available to do so, and augment that base with additional funds as they become available. I am also recommending that we no longer sign multi-year agreements with schools. Instead, as part of our annual Operating Plan and Budget, the BOD revisit the amount allocated each year as part of our Budget Process. The same committee led by our Associate Director can review scholarship submissions and select award recipients.

We will be discussing these changes at our next Board of Directors meeting on October 12, 2016. If you have any concerns or suggestions about our scholarship program going forward, please contact me and I will do my best to answer them and offer your input at the BOD meeting.

This year, for the first time, we are hosting a silent auction at our Holiday Party on December 7, 2016 to raise additional funds for our Chesapeake Foundation with the hopes of increasing the value and broadening the range of our scholarship awards. As you know the price of an education is increasing every year. A \$1,000 award barely buys books for a semester. We are very blessed and fortunate to have received our education, obtain good jobs and experience opportunities to advance our careers. During the upcoming holiday giving season, I ask that you please consider paying it forward and giving a little back in support of our young men and women who are working so very hard to achieve their degrees as engineering majors. If we all work together and all 325 of our Chesapeake Chapter members gave just \$50 each we could offer an additional \$16,250 in scholarship funds to our members and their families! If we each just contributed \$25, we could add \$8,125 to our scholarship fund!

We accept monetary donations directly for the INCOSE Foundation and also for the upcoming silent auction in the form of cash, check and credit card. If you would like to donate a themed basket or any item at all to be auctioned off on December 7th, please contact me at president@incose-cc.org or call me at (410) 997-3015 to arrange drop-off or pick-up.

volunteerism

noun vol-un-teer-ism \,vā-lən-'tir-,i-zəm\

Definition of *volunteerism*

- 1 : [voluntarism](#) 1
- 2 : the act or practice of doing [volunteer](#) work in community service

volunteer

: a person who does work without getting paid to do it

Source: Merriam-Webster's Learner's Dictionary

value to our profession every day with their work. I ask that all of you consider spending time in a volunteer role for our chapter. You will grow personally and professionally and increase your network and understanding of the value and impact INCOSE can have on

Join
INCOSE
Today

<http://www.incose.org/about/Membership/Join>

The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our Programs Director at programs@incose-cc.org if you would like the opportunity to speak or can recommend someone.



The Chesapeake Chapter of INCOSE is proud to recognize the following organizations for sponsoring our endeavors to expanding the understanding and appreciation of Systems Engineering in the local area.

Finally, we are in the process of opening up our election for new 2017 Board of Directors. Needless to say, without our volunteers, our chapter could not offer mentoring, low cost or free lectures, tutorials, workshops, scholarships and social events. Our volunteers are the core backbone of the organization. They add

your career and our profession. Volunteers are needed across the communications, programs, finance and membership areas. Please contact any of our board members if interested in volunteering in their areas: communications@incose-cc.org, treasurer@incose-cc.org, programs@incose-cc.org, membership@incose-cc.org.

Have a great fall everyone! I am looking forward to seeing everyone at our Holiday Party and Awards Ceremony at the Engineers Club in Baltimore on December 7th where we will recognize our volunteers, sponsors, and scholarship award recipients. Remember, sponsorships for corporate tables are available at \$500 per table of 10. Program Advertisers (\$250, \$500, \$750) and a Program Sponsor (\$1,000) are needed (contact president@incose-cc.org if interested)! Tickets will go on sale this month!

Nomination Announcement for the 2017 Board of Directors



George Anderson
Past President,
ESEP

The Nominating Committee has surveyed our membership and reached out to a subset of potential leadership candidates who would consider serving as a President-Elect and Director. No chapter has more potential leaders than Chesapeake but when we deduct those who have already served and consider our estimated active member pool of around 75, we are left with perhaps 30 members who might see a leadership role as a career enhancing opportunity. Our membership survey this year ominously indicated that none of the responders was interested in serving on our board.

These challenges notwithstanding, the Chapter has had a long line of board members who have served with dedication, intensity of vision and commendable enthusiasm. One Director later became INCOSE International President and numerous others have served, and some continue to serve, in other key International leadership roles. I am honored to be a part of this group and believe that our new candidates will see their service from the same perspective as they begin their terms in January 2017.



BOD of 2007

In the context of the great hopes we all have for the Chapter and more specifically that we will continue our outstanding record, I am pleased to present to the Chesapeake Chapter membership our three new candidates for election.

- Dr. Grace Crowder, President-Elect
- Anthony Gigioli, Treasurer
- Myra Gross, ESEP, Communications Director



Their position statements and biographies are presented below and will also be included in the electronic ballots that will be sent out to all chapter members later this month (Oct).

The Nominating Committee's business is now completed and I want to thank all of our members who

cooperated with us on this important task.



BOD 2008

Dr. Grace Crowder - President Elect Candidate

Dr. Grace Crowder joined the National Security Agency (NSA) as a civilian in January 1998. She joined the Research Directorate and worked on several projects to support the NSA mission. Dr. Crowder has collaborated with others across the Intelligence Community, industry, and academia on projects that include: text document genre identification, flexible database representations, distributed knowledgebase systems, and an analytics worksheet framework for streaming data analytics. In addition, she has launched several initiatives, partnering with the Computer Science Teacher's Association, the DOE National Labs, and U.S. Colleges and Universities to further grow the computer science community at NSA and nationwide.

Dr. Crowder holds a Bachelor's Degree in Mathematics from Goucher College, a Master's degree in Computer Science from the Johns Hopkins University and has defended her dissertation in Computer Science from the University of Maryland Baltimore County to receive the Ph.D. in December of 2016. Prior to joining NSA, Dr. Crowder spent 10 years in private industry and 6 years on the computer science faculty of Towson State University.



Tony Giglioli - Treasurer Candidate

Tony is a professional Systems Engineer and Project Manager focused on engendering Systems Thinking and encouraging the use of a Systems Approach to all of the problems and situations that arise in life. His objective is to grow in his knowledge and expertise in Systems Engineering philosophy and the application of Systems Engineering to real world issues. He is an expert in process engineering and can help customer's develop optimal work processes. He has superior technical writing skills and significant experience developing request for proposal responses. He has excellent presentation skills and can explain technical issues in readily understandable terms. Tony spent two years instructing Calculus at the United States Naval Academy and has a wealth of leadership and management experience from his 15 years in the United States Navy and subsequent years in industry. He maintains a positive outlook and an aggressive attitude towards life and work. Tony is a past President of the Chesapeake Chapter (2008) and has been a member since 1998.



This Newsletter is to serve our members and is open to all for contributions. Do you have an interesting idea for an article? A review of a new book related to engineering? Let us know. We'd love to hear about it. It may wind up in a future issue of our Newsletter.





Myra Gross, ESEP, PMP – Communications Director Candidate

Myra Gross has more than 30 years of systems engineering experience. She has a B.S. in Electrical Engineering from California State University - Long Beach. Myra is currently the INCOSE Chesapeake Chapter Women in Systems Engineering (WISE) President. Myra began her Systems Engineering career as a Radar Software Design Engineer and Data Analyst for Raytheon (former Hughes Aircraft). After 5 years, she joined Westinghouse (Northrop Grumman) and advanced her skills in systems engineering working a number of succession programs radar software development for F16 USAF and Foreign Military Sales customers. Myra served as a Program Manager for a number of large software development programs for F-22 advanced processor, JSF, B-1B upgrade programs and the C-130 modernization program. As a PM she also supported a number of underwater systems including DARPA programs, unmanned vehicles, and sonar systems. She managed programs in excess of \$185M over 3 years under multiple Firm Fixed Price Contracts and was responsible for two year strategic plans which resulted in over \$450M in sales, and a total potential for over \$1B in sales over five years. Myra retired from Northrop Grumman in 2012 and then returned to the workforce in 2013 as part-time back office support for a small company. She went on to the position of Chief Operating Officer for that company. During this time, Myra was introduced to INCOSE and the Women in Systems Engineering (WISE) initiative. She has remained active with WISE since its inception. Myra pursued her ESEP certification and was given an opportunity to get back to “basics” pure engineering. She accepted an assignment as a Systems Engineer within the IC as a contractor. Myra is currently working DoDAF Enterprise Architecture and has worked as a SETA contractor managing mission analytics, development and collaboration for the integration effort of multiple organizational tools and services. She leads multiple organizations in the development of agile systems, sprint cycles, integration activities, CONOPs, data flows, mission thread requirements, risk assessments, risk mitigation plans, milestone and schedule tasks, threshold schedules, testing strategies, executive strategic plans and presentations effecting mission decisions for government leadership. For the last two years, Myra has been enjoying her new ‘old’ career and looks forward to continuing her participation with INCOSE and supporting the Chesapeake Chapter where she feels she can best offer her support and continue to mentor young engineering professionals.



What people are saying about Chesapeake Chapter in 2015:

“... What a wonderful, innovative, and impactful year for the Chesapeake Chapter. I hope you, your board, and the entire chapter is proud of what you have accomplished...”

Past President,
INCOSE

Booz | Allen | Hamilton

INCOSE Chesapeake Chapter Programs Update



Gundars Osvalds
Programs
Director, ESEP

On September 24, 2016, the INCOSE Chesapeake Chapter hosted a half-day Tutorial on “Beyond Thinking Outside the Box” at the JHU/APL Kossiakoff Center. This second-in-a-series Tutorial was facilitated by Dr. Howard Eisner, retired Professor Emeritus at the George Washington University.

Dr. Eisner led nine attendees in interactive discussions on



thought-provoking subjects such as “What’s In the Box”, and “Nine Ways to Think Outside the Box”. He emphasized The Systems Approach including Systems Thinking, Reductionism, Lateral Thinking, Six Thinking Hats, Design Thinking,



Disruptive Thinking, Groupthink, Functional Decomposition, The Morphological Box, and Advocacy versus Inquiry. Tutorial materials can be downloaded by INCOSE members from the “24Sep16 Beyond Outside the Box Tutorial” folder at the Chesapeake Chapter INCOSE Connect site.

Recording of Dinner Presentation Video

On July 27th, our chapter hosted our monthly dinner meeting where Dr. David Rico presented the topic of “Business Value of Agile Organizations; Strategies, Models, & Principles for Enterprise-level Agility”. More than 30 attendees were present at this event hosted by our sponsor at Johns Hopkins University Applied Physics Lab. The lecture was recorded using multiple video cameras supplied by the JHU/APL and staffed by their team. [Click here to view the recording.](#) The presentation has a few features we are testing to enhance the video recording of presentation and speaker. We are constantly seeking to find better ways to deliver presentations to chapter members who cannot travel to the meeting. The ability to see the presenter’s expressions, body movement, additional props, and pointer emphasis provides for an experience that closely duplicates the attendance of the presentation.



Cameraman tracks Dr. Rico as he provides a visual component to the presentation



Bill Kaplan, JHU/APL, direct the camera operator and switches the remote cameras for the best angle in Control Room

Noteworthy Features

- Video recording of presenter is provided on one corner of screen while slide is shown.
- The slide is recorded using a camera which then provides the showing of the LED pointer as the presenter annotates elements on his slide



The Professional's Book Review Series

Mike Pafford, President-Elect

"Agile Systems Engineering"; Bruce Powel Douglass, Ph.D. (Morgan Kaufman; 2016)

This is the latest in a series of technical books on Agile Systems Engineering, Real-Time Agility, and Design Patterns for Embedded Systems written by Douglass, the Chief Evangelist for IBM Internet of Things (IoT). Actionable reference subjects covered include Model-Based Systems Engineering (MBSE); Agile Methods; Introduction to SysML; Agile Stakeholder Requirements Engineering; and Agile Systems Requirement Definition & Analysis, Architectural Analysis & Trade Studies, and Architectural Design. Figures are frequent in the narrative and adequately cover the spectrum of use from simple context and flow diagrams to detailed UML and SysML models that can easily be compared with project artifacts created using current modeling tools.

Summary and Recommendations: An excellent desk reference for Systems Engineers serving in senior or lead positions as part of a project team employing Agile methodologies. The main reason for recommending this book comes from the Author in his Preface. "There are (good) books on systems engineering. There are (also good) books on SysML and Model-Based Systems Engineering (MBSE). There are books on agile methods for software (and some of those are good too). However, there is currently no book that attempts to integrate these concepts together into a cohesive, usable approach for systems engineering. This book is meant to address that need".

Download the Author's INCOSE SEDC 2016 Presentation here:

http://www.sedcconference.org/wp-content/uploads/2014/04/A-2_Agile_Systems_Engineering.pptx

View the Author's LinkedIn Profile here:

<https://www.linkedin.com/in/bruce-douglass-01833217>

My Time with Owls

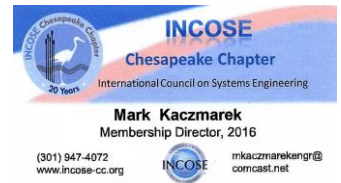
George Anderson, ESEP



Years ago I spent an intensely interesting two years studying the nature of live owls and their aerodynamic performance. What I learned was published in my masters' degree thesis in Aeronautical Engineering. At the time and over the years, academia working in other disciplines such as biology, naturalist studies, control systems, information

processing and acoustics has shown continuing interest in the thesis findings. On the other hand the aerodynamic community, while interested, was for the most part dismissive of the experimental data showing how the owl wing was different from other birds. The public interest, however, was immediate and persistent. After being interviewed and featured in several news stories and questioned by many parties, I was made aware of other possibly related scientific interests in the owl:

- The owl is very quiet in flight - did aerodynamics play a part?



Chapter Business Cards

Please contact Mark Kaczmarek at membership@incose-cc.org to obtain your own Chesapeake Chapter business cards. Free to Chesapeake Chapter members.



Interested in Jobs & Networking

Contact Mark Kaczmarek at mkaczmarekengr@comcast.net

Or attend one of the Tech Expo Events in our area:

<https://www.techexpousa.com/>

- The owl wing is unique among birds in the structure of the primary feathers - what is the function?
- The owl appears to locate and track its prey primarily by sound.
- The attack sequence used by the owl utilizes extreme wing attitudes suggesting that it was capable of exerting aerodynamic control at very low air speeds.

Some had other questions that, while somewhat off focus, were directed at my experience working with the owls. They wanted to know if owls had personalities; while others asked if they relate to other animals, or if owls were able to be trained in a research setting. One person, a professor, asked how we got an owl in a wind tunnel. This last feat of course was not done.



While many naturalists and nature lovers, including my past colleagues at the Audubon Society, can address the various aspects of owl behavior, I have been disappointed with the progress over the years in answering the scientific questions. Repeated studies appear to ignore the systems aspect of the owl and attempt to confine the effort to specific disciplines or what we as systems engineers characterize as stovepipes.

INCOSE International has a Natural Systems Working Group (NSWG) that is chartered to apply the systems engineering approach to adapting natural systems to manmade use. There is growing support for its activities and I believe that they can be successful in identifying stovepipes and opening them to cross discipline research.

Despite the stovepipe effect on owl research, there has been progress in adapting certain aspects of the owl's structure to man-made systems. Although still obscure, and in my opinion largely misunderstood, the quieting mechanism of the owl has been established beyond reasonable doubt.

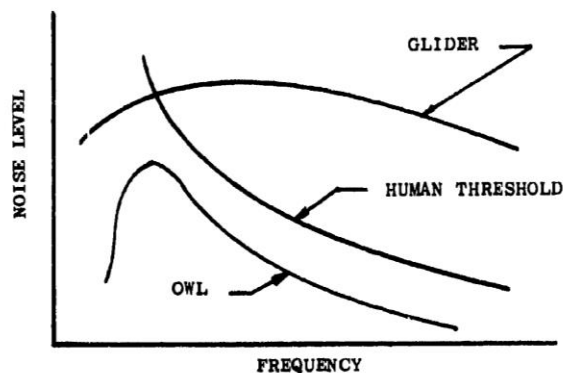


Figure 2. Qualitative Noise Levels

Figure 2. shows a chart of the in-flight noise spectrum of an owl vs. a glider and the threshold of human hearing. Clearly, the owl is not quiet but has noise that is confined to below the human threshold. This was measured data gathered in the 1970's by the University of Tennessee using live owls.

Acoustic engineers use this technique in designing automobiles to dampen audible sound from aerodynamic noise caused by external accessories such as roof racks.

A second success is the development and deployment of winglets on large transport

Membership Arena

Mark Kaczmarek,
Membership

The Chesapeake Chapter proudly welcomes our new members:

September 2016

- Michael Williams, University of Maryland
- Ray Longoria
- Edward Wagner, E.T. Wagner Engineering
- James Iversen, Engineering Sol, Inc.
- Peter Butziger, Vencore

August 2016

- Jordan Matthews, Johns Hopkins University Applied Physics Lab
- Dr Edwin Shuman, The MITRE Corporation
- Stephen Hollock
- Diahann Butler, Raytheon Corporation
- Arturo Davila-Andino, University of Maryland
- Edward Rodriguez, Booz Allen Hamilton Inc.

July 2016

- Charles Manto, Instant Access Networks, LLC
- Alexander Wachsmann, Northrop Grumman Corporation
- Dr George Palacek,

aircraft. Boeing and Airbus have proprietary versions of these winglets which are included to increase fuel efficiency. This concept was first established by years of testing tip feathers on bird wings including my smoke visualizations of the air flow.

Throughout this journey with the owls, I have always remained interested in the original objective that I proposed in my thesis topic. I wanted to discover the function of the hooked comb on the leading edge of the owl's primary flight feathers as shown in Figure

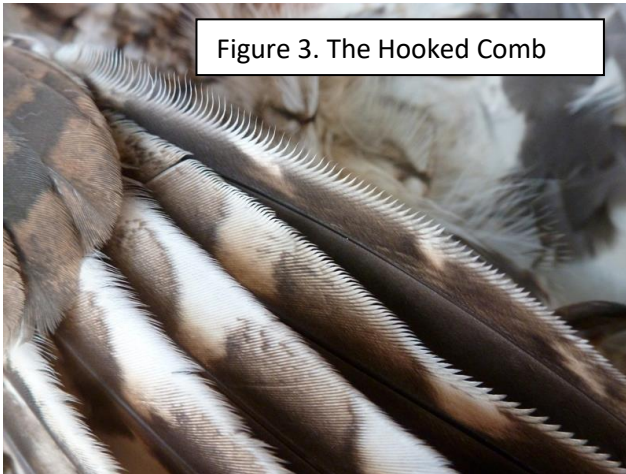


Figure 3. The Hooked Comb

3. Any search of the literature today will discover much discussion of this but little experimental work. Like the winglets that took over 50 years of research and a fuel crisis to mature, the leading edge comb may find its own adaptation to man-made systems in unexpected ways.

For those who want to explore the owl's technical or behavioural

attributes further, I have included links to the primary sources. There are also many YouTube videos showing the owl in flight.

AN EXPERIMENTAL INVESTIGATION OF A HIGH LIFT DEVICE ON THE OWL WING, GAM/EE/73-6. George W. Anderson, Captain, USAF

<https://www.dropbox.com/s/wg9bgygc2yutz6k/54324558-AFIT-Thesis-on-a-high-lift-device-on-the-owl-wing.pdf?dl=0>

2 Low Speed Aerodynamics For Ultra-Quiet Flight, R.A. Kroeger et al, The University of Tennessee Space Institute, Tullahoma, Tennessee, Technical Report AFFDL-TR-71-75, March 1972.

- <https://www.dropbox.com/s/twmf4pm5klzidyf/893426.pdf?dl=0>
- <https://www.youtube.com/watch?v=a68flQzaDBY> (hooked comb shown but explanation is from the biology stovepipe)
- <https://www.dropbox.com/s/twmf4pm5klzidyf/893426.pdf?dl=0>
- https://www.youtube.com/watch?v=d_FEaFgJyfA (inconsistent with other tests)
- <https://www.youtube.com/watch?v=Q9HVhqXI8PY>

TECHEXPO
For Experienced Technology, Cyber, Engineering & Intelligence Professionals

Please join the INCOSE Chesapeake Chapter BOD at these career fairs where the focus is on your career development. We are happy to answer any questions you may have relating to the merit of membership in our society as well as the opportunity we offer for continuous career expansion and growth. Please contact Mark Kaczmarek at

DOD

- Hussein Karachiwalla, DOD
- James Johnson
- Edwin Marston
- Robert Kambic, Johns Hopkins University
- Mark Potter, Strategic Health Solutions, LLC
- Keith Willett, Stevens Institute of Technology

Announcement:

The PMI Baltimore Chapter is scheduling its "PMI Lunch Event Talks" for 2017, and the INCOSE Chesapeake Chapter has been invited back to speak on a Systems Engineering (SE) subject relevant to PMI Program and Project Managers. The PMI Chapter holds these one-hour lunch-time events on the 4th Monday of each month.

The only months already scheduled in 2017 are February and October. If any Chapter member has a PMI-relevant SE subject they'd like to present, please contact the Chapter Programs Director Gundars Osvalds, programs@incose-cc.org, or any other Chapter Board member to discuss your proposed topic.

mkaczmarekengr@comcast.net if you are interested in staffing the booth at one of the upcoming events. *CSEP's can receive PDUs for assisting the chapter.*

Maryland BWI Marriott 2016 Events:

- October 12, November 16, December 8

Virginia Tysons Corner Ritz Carlton 2016 Events:

- October 13, November 3, November 15, December 7

Events and Announcements

Scheduled Chapter Meetings and Monthly Dinner Lectures take place at the Johns Hopkins University Applied Physics Lab (JHU/APL) in the Building 1 Cafeteria and Parsons Auditorium and are held on the third Wednesday of each month unless otherwise noted. 6 pm for Dinner Meeting (\$20 in advance / \$25 at door). 7 pm for Lecture (Free).

- **October 19** – 6 pm Dinner Meeting & 7 pm Lecture, James Martin, “**New ISO 42020 Standard for Architecture Processes**”. [*The next draft of this Standard will be out in September for comments that are due at the end of October. Please contact Ellie Gianni at egianni@verizon.net.*]
- **November 16** – 6 pm Dinner Meeting & 7 pm Lecture. “**SE Standards Update**”, Ken Zemrowski.

Other Events (Workshops, Tutorials, Symposiums, Galas)

- **October 18 – 19, Tuesday and Wednesday**, James Martin, “**Systems Thinking Workshop**” 8 am – 4:30 pm, JHU/APL at MP6, 7651 Montpelier Road, Room N111, Laurel, MD 20723. Cost: \$550 (16 PDUs)
- **October 29, Saturday**, FREE paper based Systems Engineering Professional examination session proctored directly by the INCOSE Certification Administration. When: Saturday, October 29th, Exam Time: 10:00 am - 12:00 pm (Arrive by 9:30 am); Where: George Mason University - Main Campus, Fairfax, Virginia (Building and Room Number will be announced before exam); ID Requirements: Bring a government issued unexpired ID matching your name in the application. Registration is closed for this event.
- **December 7th – Chesapeake Chapter Holiday Party, Awards Ceremony & Silent Auction** to benefit the INCOSE Foundation and the Chapter Scholarship Fund. Cost: \$50

WISE Student Outreach



Women in Systems Engineering (WISE) held a youth Science Technology Engineering and Mathematics (STEM) Event on Saturday, 1 October at the Howard County Savage Branch Public Library.

It was a Community Outreach event that targeted students ages 5 through 10. The event was well attended with 22 children participating, and included boys and girls ranging from ages 4 to 13. The students were grouped based on age range and each group was led through one of three hands-on, age-appropriate science experiments. The science experiments included the concept of refraction by creating a water-based magnifying glass, creating chemical reactions using a balloon, and exploration of liquid density by creating a modified version of a lava lamp.

UMBC Certification Training

INCOSE SEP Certification Exam Prep Bootcamp will be held at the UMBC-TC facilities on October 19-21

For more information go to:
<http://info.umbctraining.com/webinar-incose>.

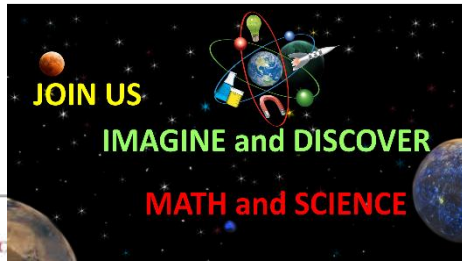
Please register now to reserve your spot and to receive an e-mail reminder. Remember, if you are interested in taking the October INCOSE SEP Certification Exam Prep Bootcamp - use the code: INCOSE15 in order to get a 15% discount.



Los Angeles Cyber Security Summit
Thursday,
October 20, 2016 from
8:00 AM to 6:00 PM,
Loews Santa Monica Beach
Hotel, 1700 Ocean Ave.,
Santa Monica, CA

Register
at <http://cybersummitusa.com/los-angeles-2016/> with Promo Code
INCOSE2016 to receive
50% off on a Full Summit
Pass.

Congratulations to the WISE Outreach Committee led by Michelle Douglass-Butler, and to all those who volunteered their time and provided support for the event.



Save the Date to

INCOSE Chesapeake Chapter Holiday Party, Awards Dinner & Silent Auction

Auction Proceeds Benefit the INCOSE Foundation Scholarship Fund

Wednesday, December 7, 2016
From 6 PM til 10 PM

The Engineers Club, Garrett Jacobs Mansion
11 W Mt Vernon Place, Baltimore, MD 21201
Registration Opens in October at www.incose-cc.org



New This Year ... A Silent Auction to Benefit The INCOSE Foundation & Chesapeake Chapter Scholarship Fund.

Donations and Sponsors for Silent Auction are Needed!

Contact: Ellie Gianni, president@incose-cc.org or
Gundars Osvalds, programs@incose-cc.org

Here's how you can help! Donate items for the Silent Auction. These can include: Artwork, Tickets to Sporting Events and Concerts or Plays, Sports Memorabilia, Collectables, & Themed Baskets (As Seen on TV, Spa Day, Edinburgh Scotland, Torrance California, Outdoorsman, Everything Italian, Games and Puzzles, Date Night, The Entertainer, Grillin and Chillin, and more!)



Keep up with the latest news and events. Find out about our new Board of Directors. Explore our extensive library of previous lectures from our Monthly Dinner Meetings. Learn of the Benefits of Joining INCOSE. Check out Systems Engineering education in the local area. All this and more awaits you at our [INCOSE Chesapeake Chapter Website](http://www.incose-cc.org).

For any comments or suggestions about this newsletter please e-mail our Editor, B. Azan or our Communications Director, Pat Williams. We value your feedback.

Board of Director Officers, 2016

- President: Mrs. EleanoraAnn "Ellie" Gianni, ESEP
- Secretary: Mr. Craig Tyler, ESEP
- Past President: Mr. George Anderson, ESEP
- Communications: Mr. Pat Williams, CSEP
- President Elect: Mr. Michael Pafford
- Programs: Mr. Gundars Osvalds, ESEP
- Treasurer: Mr. Tony Giglioli
- Membership Committee: Mr. Mark Kaczmarek

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