INCOSE Chesapeake Chapter
International Council on Systems Engineering

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

E-Newsletter

February 2018

President's Point of View
Grace Crowder, PhD, ASEP, President

Ice. Ice. Partial Government Shutdown. And that is just for the first week of February 2018. As systems engineers, we appreciate that resilience pertains to the anticipation, survival, and recovery from a variety of disruptions caused by both human-made and natural-made threats.

At the beginning of January, I was looking forward to the INCOSE International Workshop (IW) 2018 in Jacksonville. IW 2018 was well attended. The Chesapeake Chapter had several Officers and Chapter members present

Chesapeake Chapter IW2018 Attendees

I attended the Friday Strategy Session which covered such themes as: Membership Retention, Professional Development, Strategic Alliances, and Keys to Effective Chapters. Membership retention statistics presented told a story of steady membership numbers which are growing, though ever so slowly and not at a pace to meet the 5-year goal of doubling membership as stated in the INCOSE Strategic Initiatives.

This fact, along with other metrics about renewal timelines, kicked off a chance for round-table discussions on approaches to membership retention that can be undertaken at the International and local Chapter levels. One example of solution to the membership renewal gap would be an auto-renew feature on our individual INCOSE memberships.

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.

The two primary complementary components to Chapter Excellence are the Keys to Effective Chapters program and the Chapter Awards Program. The Keys to Effective Chapters wiki is available to all; and, as it is a wiki, we are encouraged to reference and share material in this common location http://keys-to-effective-ch.wikispaces.com. The Chapter Awards Program recognizes chapters' efforts to align and support INCOSE strategic initiatives.

Next month, the newsletter will include a larger discussion of the components of 2018 Chapter Awards program and more on the particular initiatives Chesapeake Chapter is undertaking. More is available on these and other topics and meetings from IW in the Connect portal of www.incose.org to which all INCOSE members have access.

On January 19, as the possibility of [the first 2018] partial U.S. Government shutdown loomed, the INCOSE Certification Program Manager, Courtney Wright, CSEP Acq, proposed offering a Professional Development opportunity to those impacted by the shutdown: paper-based SEP exam with fee waived and, for those who passed, waiving of the ASEP application fee for 3 months.

At midnight Friday, the U.S. Government ran out of funding – I was required to return to Maryland, and left attending the rest of the Workshop sessions to others. From Maryland, we continued engagement with the INCOSE SEP PM and arranged for an offering of the exam on Saturday, Feb 3, which coincidentally immediately followed our CTI prep class for the exam.

As a testament to the resilience of our Chapter, the exam was rapidly set up: hosted by Johns Hopkins University Applied Physics Laboratory, proctored by two ESEPs (Myra Parsons Gross and Vantresa Scott) and supported by four additional Chapter members supporting registration, refreshments, and test supplies.

There were seventeen individuals who sat for the exam on that cold morning. I wish each of the February exam takers, and all of us, safe travels in our journey to Systems Engineering Professionalization.

May 2018 be a year in which we remain resilient: plan alternate routes, seize opportunities, and support one another!

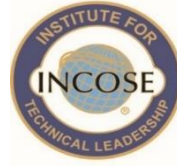Do mark your calendar for the INCOSE International Symposium in Washington, D.C., July 7-12.

Join INCOSE Today

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 4th INCOSE Institute
for Technical Leadership Cohort

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.

- **Purpose**
  - Accelerate the development of systems engineering leaders who will exemplify the best of our organization and our profession
- **Benefits**
  - Individual members become more capable leaders
  - INCOSE has a growing pool of leaders to draw on
  - INCOSE's international reputation will be enhanced
- **Program Overview**
  - Two-year program; new cohort formed annually
  - Four events in Year 1: two face-to-face, two webcast
  - Second year primarily a virtual experience
  - Individual and group project work between events
  - Each cohort mentors the one following
  - Candidates must be nominated by an INCOSE Leader

"A development program for active INCOSE members seeking to improve their leadership skills in an open, collaborative environment."

Request for Details and Instructions should be directed to info@incose-cc.org as soon as possible to complete the application requirements in advance of the March 15 deadline

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Networking, Dinner, and Lectures
Chapter Meetings are held at the Johns Hopkins University Applied Physics Lab, Building 1, on the third Wednesday of each month unless otherwise noted. The meeting starts at 6pm (Dinner $20 for Members, $25 Non-Members, $5 extra at the door, no charge for students) and the no-fee Lecture starts at 7pm.

Board of Directors Meetings
Monthly Board of Directors (BOD) Meetings are held at the Johns Hopkins University Applied Physics Lab in Building 1, Barton Conference Room on the second Wednesday of every month beginning at 6pm and ending at 8pm.

Upcoming Events
Please register for the below events at *http://www.incose-cc.org/registration* unless otherwise noted.

- **21 February, Monthly Dinner Meeting, Lean Startup Method (LSM) and Agile Scrum for Collaborative Initial Project Planning**, Mike Pafford (Past President).

- **03 March, Anne Arundel County Public Schools, 2018 Regional Science & Engineering Expo,** North County High School Gymnasium, Glen Burnie, MD. Volunteers are needed, please contact chilliard001@yahoo.com for more details.

- **17 March, SUCCESS! Conference,** Marsteller Middle School, Bristow, VA

- **24 March, Baltimore Science Fair 2018,** Towson University. Volunteers are needed, please contact chilliard001@yahoo.com for more details.

- **27 March, Lean Startup Method (LSM) for Collaborative Initial Project Planning,** Mike Pafford (Past President), Goddard Space Flight Center (GSFC) Systems Engineering Seminar Series, Greenbelt, MD

- **19-20 April, 2018 INCOSE Systems Engineering in Healthcare Conference,** Minneapolis/St Paul, MN

- **03 May, SE in Aerospace and Oil & Gas Conference,** INCOSE Texas Gulf Coast Chapter, Houston, TX

- **08-09 May, Annual Conference on Systems Engineering (CSER 2018),** UVa, Charlottesville, VA

- **07-12 July, INCOSE IS 2018,** Washington, DC

Special Interest

Systems Thinking Roundtables at INCOSE IW 2018
By Mike Pafford

Just as they had done during INCOSE International Workshop 2017 (IW 2017) and International Symposium 2017 (IS 2017), the INCOSE Systems Science Working Group again facilitated a series of four Systems Thinking Roundtable sessions at the start of each day during INCOSE International Workshop 2018 (IW 2018).

Chesapeake Chapter Past President, Mike Pafford, has attended 11 of the 12 total Roundtable sessions held daily before IW 2017 in Torrance, CA; IS 2017 in Adelaide, AU; and IW 2018 in Jacksonville, FL.

The purpose of the Systems Thinking Roundtable sessions was to apply the principle of Systems Thinking to different questions about technologies, tools, and techniques associated with the systems engineering of modern complex cyber-physical and socio-technical system solutions.

Each 'structured brainstorming' session was led by a different volunteer facilitator using a scripted "Systems Thinking Roundtable Guide" developed by Dr. Sue Gabriele and the INCOSE Systems Science Working Group.

During every session each participant was allotted the same specific amount of time (50-60 minutes divided among the number of attendees) to offer unrehearsed thoughts about the question chosen by each daily session volunteer facilitator.

Dr. Cecilia Haskins (left) leads an IW18 Systems Thinking Roundtable session

After IW 2017, Mike Pafford worked with Dr. Sue Gabriele and fellow Chesapeake Chapter member Michelle Douglass-Butler, CSEP, to update the scripted guides, then successfully offer a series of five Systems Thinking Roundtable sessions to Parents, Teachers, and Students at an 18Mar17 STE(A)M (Arts applied to STEM) event at Marsteller Middle School in Barstow, VA.

Mike also volunteered to lead the final IW 2018 Systems Thinking Roundtable session, and also conducted another session at the beginning of the three-hour Object-Oriented Systems Engineering Method (OOSEM) Working Group Orientation Session he led on the final day of IW 2018.

Based on the success of the Roundtable sessions, several INCOSE members have said they plan to continue to offer them at future STEM and STEAM events.
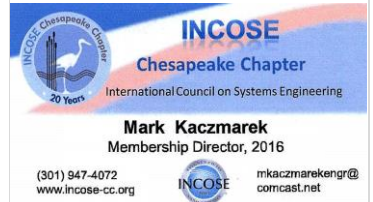
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reStart Job Fair
By Mike Pafford

INCOSE Chesapeake Chapter attended the recent www.restartevents.com job fair held at the BWI Westin in Linthicum Heights. MD on January 29, 2018. The event included a panel discussion which provided tips as well as current methods that employers look for in their hiring process.

Now I tell all those I meet to "Amp-up their career with INCOSE" – membership along with the pursuit of a SEP (Systems Engineering Professional) certification helps to distinguish them in their job search.

Also included in the job fair package is a booth that has a quick review of your resume with tips and guidance on what works in today's market. Additionally, there is a job recruiter onsite to help those beyond the job fair with multi-state assistance.

I encourage any job seeker to attend reStart Job Fairs since there is much to gain. Personal presence is much more robust than just sending in a resume to a company web site.

Participants of the January 29, 2018 reStart job fair event: L-R: George Anderson, ESEP and Mike Pafford, both Chesapeake Chapter Past-Presidents, Mark Kaczmarek, ASEP, Membership Director, James Hubbell, ESEP - Photo by Sarah Lawrence
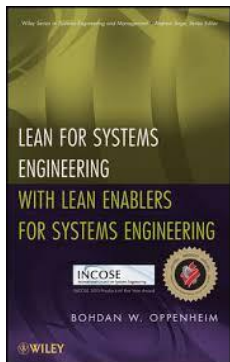
The next reStart job fair event in the Maryland area will be on March 26th in Columbia MD.

Book Report
By Mark Kaczmarek, ASEP

Lean for Systems Engineering: With Lean Enablers for Systems Engineering
By Bohdan W. Oppenheim; October; Hardback; 300 pages

This desk reference text was written by Bo Oppenheim, a member of the INCOSE Lean Systems Engineering (SE) Working Group (WG). The book was given the INCOSE 2010 Product of the Year Award.

One of the main objectives of the book was to capture Lean Thinking (in the context of Systems Engineering) as a set of Lean Principles including Customer-Defined Value, Value Stream Mapping, Continuous Value Flow, and Customer Pull of Value.

The INCOSE Lean SE WG defines Lean Systems Engineering as, "The application of Lean Six Sigma principles, practices, and tools to systems engineering in order to enhance the delivery of value to the system's stakeholders".

In short, Lean Systems Engineering is the area of synergy of Lean and Systems Engineering. The Lean SE WG considers Lean Enablers to be, "A checklist of Do's and Don'ts of SE for industry".

The author does not mean for information in the text to become a mandatory practice. Rather, it should be read and used as a checklist of good practices in enterprises, programs, and at every level of systems engineering work.

Different versions of the book can be purchased from Wiley or Amazon:
https://tinyurl.com/y75tumwq
https://tinyurl.com/yazebrpe

Membership Arena

By Mark Kaczmarek, ASEP, Membership Director

INCOSE membership is over 13,000 world-wide. Over 100 corporate members, 70+ Global chapters in over 30 countries. The Chesapeake Chapter of INCOSE serves the systems engineering community in Baltimore and its surrounding areas. Our Chapter is very active and prides itself in the many endeavors it has undertaken. An organization such as ours relies on the willingness of its membership to put as much effort into it as they receive in return.

Chesapeake Chapter's membership Includes:

- Current membership = 320
- Certification = 167 > 52%
    - ASEPs = 48
    - CSEPs = 88
    - ESEPs = 31

Learn more about the *benefits of joining INCOSE* and consider being part of this thriving organization and fill out an *INCOSE Membership Application* today!

The Chesapeake Chapter proudly welcomes our new members:

January 2018
- *Bendig, Shawn*
- *LeBoeuf, Richard*
- *McGowan, Ray*, Johns Hopkins University
- *Mohtashamian, Aydin*, L3 Technologies
- *Rivera, Rodel*, SPAWAR
- *Zavala, Yashira*

November 2017
- *Good, Michael*, Vencore
- *Greco, Christopher*, Edwards Performance Solutions
- *MacLean, John*, Legato LLC

October 2017
- *Barclay, Melanie*, WGS Systems
- *Beach, Ryan*, WGS Systems
- *Dillon, Martin*, WGS Systems
- *Dodson, Carl*, WGS Systems
- *Forster, Daniel*, NAVAIR
- *Kane, Ronald*
- *Oliver, Everett*, JHU/APL
- *Thomas, Jeremy*, WGS Systems
- *Underwood, Kelli*, Space Telescope Science Institute

September 2017
- *Ellis, John*, Leidos
- *Ha, Bao*, Northrop Grumman
- *Gentry, Bradley*, Odyssey Consulting, Inc.

Interested in Jobs & Networking
Contact Mark Kaczmarek
membership@incose-cc.org

August 2017
- *Abernathy, Mark*, Space Telescope Science Institute
- *Dorsman, Theo*, Northrop Grumman
- *Luke, Robert*, WGS Systems
- *Parsons, Christopher*, Northrop Grumman
- *Phan, Nam*, Booz Allen Hamilton
- *Rowe, Roger*, Northrop Grumman

July 2017
- *Alston, Felix, Dynane*
- *Hiteshew, Brian, Northrop Grumman*

June 2017
- *Adams, Mark*, SAIC
- *James, Corrie*, JHU/APL
- *Martin, Robin*
- *Stephenson, Tenee*, *ASEP*, JHU/APL

May 2017
- *Hanni, Robert*, University of Maryland
- *Kight, Steven*
- *Land, Peter*, DOD, Systems Security Concepts

April 2017
- *Abbott, Steve*, DOD
- *Dougan, Thomas*, Northrop Grumman
- *Evans, Paul*, Student
- *Glennan, Andrew*, Northrop Grumman
- *Marshall, James*, Northrop Grumman
- *Paulov, Michael,* AASKI Technology
- *Pierce, Cliff*, Johns Hopkins University
- *Shields, Rebecca*, Student at University of Maryland, Baltimore County

Congratulations to Newly Certified SEPs since August 2017:

- *Barclay, Melanie, ASEP* – WGS Systems LLC
- *Beach, Ryan, ASEP* - WGS Systems LLC
- *Biemer, Steven, CSEP* – JHU/APL
- *Cheresnowsky, Harry, CSEP* – Cyber Pack Ventures
- *Davilia-Andino, Arturo, ASEP* – University of Maryland
- *Dillon, Martin, ASEP* - WGS Systems
- *Dodson, Carl, ASEP* - WGS Systems
- *Dorsman, Theo, ASEP* - Northrop Grumman
- *Fox, Joel, ASEP* – DE ISO
- *Glennan, Andrew, ASEP* - Northrop Grumman
- *Ha, Bao, ASEP* - Northrop Grumman
- *Handy, Kristen, CSEP* - Booz Allen Hamilton

- *Hanni, Robert, ASEP* - University of Maryland
- *Luke, Robert, ASEP* - WGS Systems
- *Marshall, James, ASEP* - Northrop Grumman
- *Miller, Kim, ASEP* - Northrop Grumman
- *Parsons, Christopher, ASEP* - Northrop Grumman
- *Partenheimer, Janice, ESEP* – Engility
- *Randall, Rick, CSEP* – The Mitre Corp
- *Scott, Zane, ASEP* – Vitech Corporation
- *Thomas, Jeremy, ASEP* - WGS Systems
- *Williams, Michael, ASEP* - University of Maryland
- *Stephenson, Tenee, ASEP* - JHU/APL

Science Fairs Volunteers Needed

March 3
Anne Arundel County Public Schools,
2018 Regional Science & Engineering Expo
North County High School Gymnasium,
Glen Burnie, MD

March 24
Baltimore Science Fair 2018
Towson University

Contact chilliard001@yahoo.com for more details