INCOSE Chesapeake Chapter
International Council on Systems Engineering

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

E-Newsletter

September 2017

President's Point of View

Mike Pafford
President

First things first. Another successful SEP Gala at The Engineers Club in Baltimore, Maryland on Friday, August 18, 2017! Congratulations again to everyone recognized for achieving their ASEP, CSEP, and ESEP professional certifications. Thanks once more to our Speakers Dr. Ron Luman and Ms. Courtney Wright, CSEP Acq. Special thanks to our Chapter Programs Director, Gundars Osvalds, ESEP and Past President, Ellie Gianni, ESEP, and everyone who supported them in making this event a success.

Immediate Action Required: Four Chapter positions are up for re-election next month. Please review the details in this Newsletter, and if you are interested, or would like additional information, please contact Ellie Gianni, ESEP, past-pressident@incose-cc.org or any other Chapter Board Member.

INCOSE is supporting Chapters with the option to use the INCOSE eBallot tool that is used by INCOSE for the international elections process. This tool has been expanded to provide Chapters with the ability to set up Chapter Elections, with a local Administrator Account to facilitate separate elections. If everything goes per plan and coordination, we'll be using this new system for all our upcoming Chapter Elections.

The Chesapeake Chapter has already started coordinating with our 'neighbor' WMA and Southern Maryland Chapters to help INCOSE Central plan for the INCOSE 2018 International Symposium (IS 2018) which will be held July 7-12, 2018 at the Grand Hyatt Washington, DC. The IS 2018 "Call for Submissions" is already open for Papers, Panels, and Tutorials. See the INCOSE IS 2018 website for more information.

The new INCOSE Americas Sector Director, Tony Williams, has started having monthly Americas Chapter Leaders GlobalMeet online meetings. The latest was held on Thursday, August 17th. Subjects discussed included New INCOSE Logo Guidance, SEP Paper Exams, Americas Sector IT Brainstorming Session Results, and Chicagoland Chapter Briefing on New Advertising Resources. Information about this meeting, as well as other Americas Sector Future Meetings and Past Meetings can be found at the Americas Sector website by logging into INCOSE CONNECT, then choosing the Chapters menu tab and Americas Sector link.

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.

Communications Corner

Myra Parsons Gross, ESEP
Communications Director

ESEP Certification and its Value

The ESEP certification is reserved for senior systems engineers with significant systems engineering experience and proven professional leadership qualities. Acquiring an ESEP certification puts you in an elite group of systems engineering professionals who have demonstrated considerable experience and advanced knowledge. The necessary work experience, knowledge, application process, and other requirements involved to earn this accreditation speaks volumes about a systems engineer's level of expertise. Most ESEPs are technical degreed professionals with over 25 years of experience. There are less than 300 ESEPs of nearly 12,000 INCOSE members worldwide.

The Chesapeake Chapter has 31 ESEP members which make up 10 percent of our membership. We are proud to welcome our newest Certified Expert Systems Engineering Professionals (ESEPs). Four newly certified ESEPs from our chapter attended the Gala and were recognized for their accomplishment. In speaking with each of them, each had a profound message to share regarding their journey.

James Hubbell, ESEP

Being recognized by the INCOSE organization as an ESEP is truly an honor. Joining this very selective and elite group of professional engineers has given me pause to reflect on a career in engineering that has spanned over 30 years now. In pursuing the ESEP certification and the accompanying documentation process I was taken back through the years. Through my accumulated experience and leadership roles I grew and expanded my knowledge of engineering which culminated in being recognized as an ESEP. The arch of my career from beginning to end was laid out in the process, resulting in an amazing reflection of one's career.

Robin Hershey, ESEP

I received my bachelor's and master's degrees in electrical engineering more than thirty years ago and although most of my career has been in systems engineering, I was never formally recognized as a systems engineer. I applied to become an ESEP to gain recognition and to validate my experience. The application process was both challenging and rewarding: It required a complete description of my career, including the functions I performed, and especially the leadership and support I provided in advancing the practice of systems engineering. The description was by far the most comprehensive summary of my career I have ever written. As an INCOSE ESEP, my career has been validated and I have achieved recognition within my company and amongst my colleagues. I highly recommend pursuing an ESEP certification.

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.

Peter Butziger, ESEP

The INCOSE ESEP certification represents a mastery of a broad range of SE disciplines and is a humbling opportunity to join the ranks of SE experts across all industries. The ESEP certification process provided a valuable retrospective on my career and I appreciate the many existing ESEPs that served as references and mentored me through the process. I have been blessed to work for Vencore which enabled me to provide systems integration to the Intelligence Community maximizing cloud based intelligence sharing.

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.

Vantresa Scott, ESEP

The most significant aspect of the ESEP process for me is that it gave me the opportunity to "play the tape". The exercise in deep reflection of my career. I fully realized the magnitude of my career achievements and the extraordinary educational, global, and leadership opportunities that my work afforded me in 25 years. I could have never imagined that a small-town country girl from the bayous of Louisiana could have accomplished so much, and made such an impact through systems engineering. My ESEP certification will forever be a constant reminder of my contribution to the world. I believe the ESEP process will be a valuable time of introspection for anyone.

Please visit *Incose.org* for more information on applying for an ESEP certification.

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Programs Update

**Gundars Osvalds, ESEP
Programs Director**

For our September 20th dinner meeting "Digital Engineering: MBSE Approach for DoD". Ms. Philomena Zimmerman, Deputy Director, Engineering Tools and Environments, Research and Engineering, Office of the Secretary of Defense, informs us that DoD is establishing model-based methods, processes and tools for use in acquisition and acquisition related activities. The use of models as a technical means of communication within the systems engineering discipline is understood; but the full potential of the models to support activities in other disciplines is not yet realized.

NORTHROP GRUMMAN

The 8th Annual Systems Engineering Professionals (SEPs) Recognition Gala

Mike Pafford, President with ESEPs: Peter Butziger, David Long, Robin Hershey, James Hubbell, Laurie Nasta, Vantresa Scott, and Courtney Wright, CSEP Acq. INCOSE Certification Manager

The 8th Annual SEPs Recognition Gala was held on 18 August. We recognized SEPs, that have been certified in the last year. We are proud of our newly certified SEPs and were able to congratulate many of them at this event.

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 end up in a future issue of our Newsletter.

Courtney Wright, CSEP Acq. INCOSE Certification Program Manager with CSEPs: Linnea Wright, Anthony Gigioli, and Mike Pafford, President

Courtney Wright, CSEP Acq. INCOSE Certification Program Manager with ASEPS: Dr. Grace Crowder, Joseph Dougherty, Anthony Millan Figueroa, Mark Kaczmarek

PHOTOS of Recognition Gala are available for viewing and free download on the web site:
https://amandamations.smugmug.com/Events/Business/SEP-Gala-2017/

Announcements and Events

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 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.

- **20 September, Monthly Dinner Meeting, "*Digital Engineering: MBSE Approach for DoD*", Ms. Philomena Zimmerman,** Deputy Director, Engineering Tools and Environments, Research and Engineering, Office of the Secretary of Defense, United States DoD. Through the ODASD (SE), the DoD is establishing model-based methods, processes, and tools for use in acquisition and acquisition-related activities. The use of models as a technical means of communication within the systems engineering discipline is understood; but the full potential of the models to support activities in other disciplines is not yet realized. Part of encouraging this realization lies in understanding the basic language and artifact representations as they are; and another part lies in projecting/executing a path forward to maintain a loosely-coupled community which can take advantage of others' successes and failures.

- **18-22 September, (Monday through Friday), No Magic Training, "Applying UPDM 2 with MagicDraw",** The Aerospace Corporation 14745 Lee Road, Chantilly, VA 20151; U0025F computer lab classroom. Applying UPDM 2/DODAF/MODAF with MagicDraw is a 5 day course for Unified Profile for DoDAF and MODAF (UPDM 2). The course focuses on implementation of UPDM 2 using core MagicDraw functionality and the MagicDraw UPDM 2 plug-in.

- **11-14 October (Wednesday through Saturday), 11th Annual INCOSE Great Lakes Regional Conference (GLRC 11),** Twin Cities, Minnesota. Information at: *http://www.incose.org/glrc11*.

- **18 October, Monthly Dinner Meeting, "Integrating Program Management and Systems Engineering",** Randall Lliff (INCOSE), Stephen Towsend (PMI), will be held as a joint meeting with the PMI Baltimore Chapter. One major effort of the INCOSE alliance with MIT and PMI has been to develop a book incorporating

research our organizations have supported over the past three years focused on the integration of systems engineering and project/program management practices. In addition to research, alliance members contributed knowledge of the field, existing tools and standards, and a wealth of practical experience.

- **30 October-02 November (Monday through Thursday), EnergyTech 2017,** Cleveland IX Center, Cleveland, Ohio. Information at: *https://www.energytech.org*.

- **15 November, Monthly Dinner Meeting, "Maryland Traffic Engineering, use of Agile by the Maryland State Highway Administration (SHA)".**

- **6 December**, **INCOSE Chesapeake Chapter Holiday Party and Awards Ceremony.** *More Details to follow.*

- **29 January-2 February, (Monday through Friday), CSEP Certification Training Course,** JHU/APL, Building 200, Room 100, 8am to 5pm. Chesapeake Chapter Members receive a 20% discount. Certification Training International (CTI) offers a CSEP (Certified Systems Engineering Professional) and ASEP (Applied Systems Engineering Professional) 5-Day Course focused on preparing you to successfully take the CSEP/ASEP Certification Examination conducted by INCOSE. The INCOSE Systems Engineering Handbook and course materials are included.

- **5-9 February 2018 (Monday through Friday), No Magic Training, "Applying UPDM 2 with MagicDraw",** JHU/APL, contact programs@incose-cc.org for additional information.
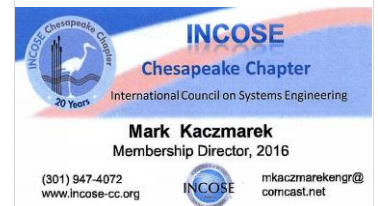
Special Interest

Nominations for 2018 Elections

The INCOSE Chesapeake Chapter (CC) Board of Directors (BOD) needs your assistance and is seeking candidates to fill the following positions in 2018:

▪ **President-Elect**: Term is 3 years (President-Elect, President, and then Past President)
▪ **Secretary**: Term is 2 years.
▪ **Programs Director**: Term is 2 years
▪ **Membership Director**: Term is 2 years

Please consider nominating a peer or volunteering yourself for one of these open positions. The future success of the Chapter depends on the support of its BOD and willingness of its members to step forward and support Chapter operations. The responsibilities associated with each open position please review the *2017 Chesapeake Chapter Operating Plan*.

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.

Elections will take place in the Fall of 2017. If interested in any of these positions, please contact Ellie Gianni, ESEP, past-pressident@incose-cc.org or any other Chapter Board Member.

President-Elect:
- Coordinate with the CC BOD to remain informed, and help with Chapter business when necessary.
- Lead CC BOD and Chapter Meetings when the President is not present.
- Assist the Membership Director on membership drives and corporate and organizational outreach.
- With the CC Communications Director, support the success of the CC Newsletter.
- Work with the President and Past President throughout the year to compile and prepare evidence for the CC submission for the INCOSE Circle Awards.
- Chair the CC Constitution and Bylaws Update Committee, and with BOD approval select its members.

Secretary:
- Prepare minutes of all CC BOD meetings.
- Prepare Final Summary Report (Annual Report) of 2017 Chapter activities.
- Maintain Chapter records (e.g., meeting minutes, records of attendance, etc.).
- Maintain an account of the names of meeting, tutorial, and workshop attendees.
- Maintain the disposition of CC Mailbox Keys. Retrieve all incoming Chapter Mail.
- Organize and display CC records in a suitable format.
- Maintain and ensure access to Chapter historical documents and records.
- Manage Chapter physical assets in the Chapter Storage Locker.
- Inventory all Chapter assets, and maintain an inventory of these items.
- Manage all administrative actions and reports.
- Support the success of the CC newsletter.
- Support the CC annual membership survey.

Programs Director:
- Plan CC dinner meetings and lectures including coordinating meeting locations and scheduling speakers in coordination with the BOD.
- Negotiate food contracts, and execute the required reservations, food service, and menu selections.
- Plan and execute all other CC special, technical, and social events and activities, unless otherwise assigned by the BOD.
- Manage the reservations and receipts of all monies for all CC events.
- Maintain meeting formats and coordinate speakers, topics, moderators, and locations.
- Coordinate joint tutorials, workshops, or dinner lectures with other technical organizations in the region.
- Plan special events (e.g., the CC Annual Holiday Party, awards and recognition programs, SEP Gala, etc.).
- Coordinate special programs with other INCOSE Chapters.
- Manage Intellectual Property Releases for speakers.
- Support the success of the CC newsletter.
- Lead the development, analysis, and reporting of the CC annual membership survey.

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

Membership Director:
- Serve as the CC Corporate Outreach Representative.
- Direct and control the CC Membership and Outreach Committees.
- Manage all formal efforts to maintain and increase the Chapter membership.
- Maintain Chapter Membership Database.
- Provide membership records data access to the CC BOD and collaborating committees.
- Manage member special recognition programs.
- Maintain and regularly update the Chapter Welcome Automated Welcome and Member Renewal Email System.
- Work with BOD to solicit support from corporate, government, and academic sponsors for CC activities and projects.
- Oversee the INCOSE Chesapeake Chapter Ambassadors Program.
- Support increased CC membership and engagement.
- Create and maintain all electronic records of CC Membership Committee processes and activities for Chapter documentation and continuity of operations.
- For Corporate Outreach, lead any CC-supported employment efforts, and lead the organization of job search and placement summits in cooperation with other SE-related organizations.

Conference on Systems Engineering Research (CSER)
Dave M. Biddinger, CSEP Acq, PMP, CISSP, ISSEP

I attended the 15th annual Conference on Systems Engineering Research (CSER), as well as an adjacent workshop in late March 2017 in Southern California. The primary focus of this article is the conference itself and of course, the organizers were wise enough to program/schedule in enough time for spontaneous interaction between participants.

There was a diverse group of participants, to include many first-timers like me. We enjoyed the flexibility of mixing and matching various talks to meet our own interests while they also offered Tracks for those who crave continuity. Of interest to this attendee was the participation of the Service Academies. I met the Air Force cadets and I had a chance to chat with the West Point cadets.

One of the early CSER sessions was a Data Analytics tutorial delivered by a University of Maryland PhD. She mentioned a few linear regression tools that were new to me. Perhaps most importantly, she expressed a willingness (confirmed in JULY 2017) to interact with our local Chesapeake INCOSE Chapter!

Tracks included:
- Agile SE
- System Architecture and Complexity
- Model-Based SE
- Infusion of Science into SE
- Advancing SE Education
- SE and Decision Science
- Trade Space and Visualization
- SERC Research

Regarding the pre-Conference Workshop ("Workshop II at USC"), a continuation of Workshop I from a recent INCOSE International Workshop event in Torrance, CA. The kickoff presentation to Workshop II provided an overview of the project, and the results of Workshop I. The three workshops of this Project are:

I) Define Societal Grand Challenges,
II) Identify Systems Engineering Capabilities and Gaps, and
III) Determine Systems Engineering Research Grand Challenges.

The four Breakout Groups in Workshop II were Education (led by Jon Wade), Safety and Security (led by Tom McDermott), Clean Water (led by Larry Strawser), and Healthcare (led by Tom Herald and Paulo Costa). I (and my new SE friend Larry) also encourage everyone to read INCOSE Systems Engineering Vision 2025 if you have not already done so -- this document serves as the basic framework for the Project that was discussed during the pre-Conference Workshops.
http://www.incose.org/docs/default-source/aboutse/se-vision-2025.pdf.

I'd recommend participation in these types of events by Systems Engineering practitioners. The hospitality and logistics provided by the local INCOSE chapters was impressive!

Membership Arena

**Mark Kaczmarek
Membership
Director**

INCOSE membership is over 12,000 world-wide. 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 = 316
- Certification = 143
- ASEPs = 29
- CSEPs = 83
- 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:

August 2017
- *Phan, Nam,* Booz Allen Hamilton

- *Luke, Robert,* WGS Systems
- *Rowe, Roger,* Northrop Grumman
- *Dorsman, Theo,* Northrop Grumman
- *Abernathy, Mark,* Space Telescope Science Institute
- *Parsons, Christopher*, Northrop Grumman

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

June 2017
- *Adams, Mark*, SAIC
- *James, Corrie*, JHU/APL
- *Martin, Robin*
- *Stephenson, Tenee*, 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, Inc
- *Pierce, Cliff*, Johns Hopkins University
- *Shields, Rebecca*, Student at University of Maryland, Baltimore County

March 2017
- *Brooks, Dr. Nykia*, Johns Hopkins University
- *Cohoon, Tanya*, Student at University of Maryland, University College
- *Green-Brown, Malaika*, Cyberoo, Inc
- *Hudgins, Emily*, ASRC Federal
- *Mastalerz, Anthony*, Raytheon IIS/CSM

February 2017
- *Bjorkgren, William*, Sotera Defense Solutions, Inc
- *Knizhnik, Jessica* - Student
- *Thomas, Kyle* - MetaTech Consulting, Inc
- *Walsh, Alexander* - Student, Penn State University

January 2017
- *Azan B, CSEP* (Associate Director)

- *Morgenstern Robert*, National Aeronautics and Space Administration (NASA)
- *Topping Gary*, Smiths Detection

These Recent SEPs were honored at our
8th Annual Systems Engineering Professionals Recognition Gala

Congratulations to Newly Certified SEPs since August 2016:

- *Butziger, Peter*, ESEP - Vencore
- *Corey, Kyle, CSEP* - Northrop Grumman
- *Crowder, Dr. Grace , ASEP* – NSA Enterprise Systems (President Elect)
- *Gigioli, Tony*, CSEP - Booz Allen Hamilton (Treasurer)
- *Handy, Kristen, CSEP* - Booz Allen Hamilton
- *Harvey, Lance, ESEP* - Jacobs
- *Hershey, Robin*, ESEP - BCT, LLC
- *Hubbell, James, ESEP* - Talon
- *Jackson, Dustin, CSEP* – Leidos
- *Kaczmarek, Mark, ASEP* – Lockheed Martin (Membership Director)
- *Kolarik, Tammy, ASEP*
- *Lantz, Gary, CSEP* - The Boeing Company
- *Martin, Robin, ASEP*
- *Millan Figueroa, Anthony, ASEP* - JHU/APL
- *Morgan, Asia*, CSEP
- *Polacek, George*, ESEP – NSA Enterprise Systems
- *Sathi, Ram, CSEP* - Northrop Grumman
- *Scott, Vantresa, ESEP* – Decisions Oriented
- *Sharkey, Janice, ASEP* – Booz Allen Hamilton
- *Starkey, James, CSEP*

Training

INCOSE Chesapeake Chapter
International Council on Systems Engineering

Applying UPDM 2 with MagicDraw
Taught by No Magic
September 18-22, 2017
8:00am - 5:00pm

Description: Applying UPDM 2/DODAF/MODAF with MagicDraw is a 5 day course for Unified Profile for DoDAF and MODAF (UPDM 2). The course focuses on implementation of UPDM 2 using core MagicDraw functionality and the MagicDraw UPDM 2 plug-in.

Course: This comprehensive course will help students to quickly improve planning and implementation of complex systems using UPDM 2 standards and the MagicDraw UPDM 2 plug-in. The training approach used assumes that many students have a basic understanding of DoDAF or MODAF and an understanding of how to describe an architecture. This course covers UPDM 2 in terms of the following architectural frameworks: DoDAF 1.0, DoDAF 1.5, DoDAF 2.0 (DM2) and MODAF 1.2 (M3).

- Contains lectures and hands-on practice on using UPDM2 for architecture development
- Includes information on how to build complete and integrated architectures; Presents UPDM 2 and related standards
- UML 2, SoaML, and SysML where they apply to UPDM 2
- Shows how to implement and customize the DoD Architecture Framework; Covers complete UPDM 2 Models and Views.
- Presents a concise case study.

Course Materials: Students will receive printed course materials and a Magic Draw 30 day license key. Students must bring a laptop computer to use during the course.

Continental Breakfast, lunch, and snacks are included.

Cost: $1800. Register by September 1st. Maximum number of participants is 15, so be sure to register early! To pay by credit card or PayPal, visit our registration webpage for details: incose-cc.org/registration/.

Location:
The Aerospace Corporation
14745 Lee Road, Chantilly, VA
20151; U0025F computer lab
classroom

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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 end up in a future issue of our Newsletter.

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 Chapter Website
www.incose-cc.org
For any comments or suggestions about this newsletter please e-mail our communications team
communications@incose-cc.org. We value your feedback.

Board of Director Officers, 2017

- President: Michael Pafford	- Secretary: Craig Tyler, ESEP
- Past President: EleanoraAnn "Ellie" Gianni, ESEP	- Programs: Gundars Osvalds, ESEP
- President-Elect: Dr. Grace Crowder, ASEP	- Communications: Myra Parsons Gross, ESEP
- Treasurer: Tony Gigioli, CSEP	- Membership: Mark Kaczmarek, ASEP

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