INCOSE Chesapeake Chapter

INCOSE Chesapeake Chapter International Council on Systems Engineering

P.O. Box 535
Laurel, MD 20725-0535

E-Newsletter

July 2017 <u>Back Issues</u>



Mike Pafford President

President's Point of View

I hope everyone had a Happy 241st Birthday Celebration! This month I'd like to pass along some information about three important womens initiatives INCOSE is supporting in 2017. INCOSE Empowering Women as Leaders in Systems Engineering (EWLSE), Women in Engineering Division (WIED) of the American Society for Engineering Education (ASEE), and Society of Women Engineers (SWE). All INCOSE members are being

encouraged to consider joining any of these three organizations for which they are eligible.

The Mission of the INCOSE EWLSE initiative (https://tinyurl.com/ya437gg7) is to create a systems engineering environment welcoming to all; promote the demonstrated value of women as systems engineers and leaders; engage women in engineering and systems engineering at all levels of education around the world; and enable increased participation and retention of women in systems engineering leadership. Refer to the hyperlinks beneath each of the Leadership Team names to get PDFs of EWLSE details.

The objective of the ASEE WIED (http://wied.asee.org) is to study, promote, and improve the role of women in the professions of engineering and engineering technology through collection of data, publications, presentations at appropriate meetings, sponsorship of conferences, and similar activities.

The ASEE WIED welcomes male and female members with interest in these objectives. The INCOSE Director for Academic Matters, Dr. Art Pyster, was one of the Speakers at the 2017 ASEE Annual Conference & Exposition held last month in Columbus, Ohio. Within the broader SWE organization (http://societyofwomenengineers.swe.org/) there is a Baltimore-Washington Section (http://www.baltwashswe.org).

The SWE Mission is to stimulate women to achieve full potential in careers as engineers and leaders and expand the image of the engineering profession as a positive force. One of the INCOSE Corporate Advisory Board (CAB) member organizations, JHU/APL, has a very active SWE Affinity Group.

In Vol. 8 Issue 6

- President's POV
 - INCOSE Americas Sector
- **Programs Update**
- Announcements and Events
- Communications Corner
- Special Interests
 - Nominations for 2018
 - <u>INCOSE Webinar</u>
 - Book Report
- Membership Arena

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.



INCOSE Americas Sector – Monthly Tag-Up

On June 30, the INCOSE Americas Sector Director, Tony Williams, ESEP, (anthony.williams@jacobs.com), held his monthly online tag-up meeting with Americas Sector Officers and Leadership to discuss initiative status, upcoming events, issues, and Chapter events. More than 20 INCOSE Central, Sector, and Chapter leaders attended the online meeting. The Associate Director (AD) for the USA Northeast division of the Americas Sector (that includes the Chesapeake Chapter) is Dr. Gina Guillaume-Joseph. Agenda items included, Initiative Updates, Assistant Director Reports, and Success Stories. Tony told the group he was looking for volunteers to help with INCOSE initiatives on 1) Stakeholder Support, 2) Leveraging Technology as a Force Multiplier, and 3) Needs and Options for a U.S. National Systems Engineering Voice.

The meeting also included brief updates from many of the Americas Sector ADs, as well as some of the INCOSE Functional Directors. Success Stories/Highlights included, University of South Alabama Student Chapter, Texas Gulf Coast Inaugural SE Conference, LA Chapter Game Special Interest Group (SIG), Great Lakes Region-Wide SE Professional Development Day, and 2017 INCOSE Chicagoland SEP Certification Study Group. Information on these monthly tag-up meetings can be found at the new INCOSE CONNECT Americas Sector site. Log into INCOSE CONNECT, choose the "Chapters" tab, then click on the "Americas Sector" link.

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.



Gundars Osvalds ESEP Programs Director

Programs Update

This month Mr. Sanford (Sandy) Friedenthal, MBSE Consultant, will present the "Future Directions for SysML V2". SysML V1 was adopted in 2006 and has been a key enabler of Model-Based Systems Engineering (MBSE). Since that time, much has been learned about applying MBSE with SysML. This presentation describes the direction and approach for the next generation of SysML (V2) to provide

capabilities that address the limitations of SysML V1, and enable the evolving practice of MBSE.

The No Magic UPDM 2 modeling tool for creating architecture models of systems and enterprises training was sponsored by the Chesapeake Chapter with 14 students in attendance at the JHU/APL. Attendee feedback was positive and overall satisfaction was expressed with the course and the senior level trainer teaching the course. The trainer was knowledgeable and adept at answering questions from the attendees. Our next UPDM 2 training will be held in Chantilly, Virginia on



Terri Wolfram presenting a Chapter Challenge Coin & Certificate to Barry Papke the No Magic Trainer

September 18-22, registration is open on our web site. Due to popular demand, planning is underway for an additional course in the Baltimore area early next year. Contact programs@incose-cc.org with any questions.

This year we are planning our 8th Annual Systems Engineering professional (SEP) Gala to congratulate and recognize newly certified SEPs on Friday August 18 at The Engineers







Club in Baltimore. Registration is open. We are alo inviting new SEP recipients from the Washington Metro Area (WMA) Chapter.

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.

- 17 20 July, INCOSE International Symposium (IS 2017): Each year, INCOSE hosts the International Symposium as its flagship event for Systems Engineers world-wide. Keynote Speakers on topics reflecting not just Systems Engineering relevancy, but also issues with global relevance are presented during this annual gathering. Panels, papers and presentations fill four days of opportunities. INCOSE's most prestigious awards are bestowed during IS. Industry, government, and academic exhibitors fill the Exhibit Hall to share information about new developments. Students display award-winning engineering projects. Mentors and mentees are introduced to each other. Social activities formal and informal bring people together in a highly energized and productive atmosphere. Visit the IS 2017 Website for more details: http://www.incose.org/symp2017/home/when-where.
- 19 July, Monthly Dinner Meeting, "Future Directions For SysML v2", Mr. Sanford (Sandy) Friedenthal. SysML v1 was adopted in 2006, and has been a key enabler of model-based systems engineering (MBSE). Since that time, much has been learned about applying MBSE with SysML. This presentation describes the directions and approach for the next generation of SysML (v2) to provide capabilities that address the limitations of SysML v1, and enable the evolving practice of MBSE.
- 18 August, INCOSE Chesapeake Chapter 8th Annual SEP Gala celebrates those individuals who have obtained the prestigious INCOSE Systems Engineering Professional Certification during the past year. Please join us to celebrate local INCOSE members who have earned the prestigious Systems Engineering Professional Certification (ASEP, CSEP & ESEP) at the 8th annual SEP Gala, The Engineers Club, Baltimore. Our speakers are Courtney Wright, CSEP Acquisition, the INCOSE Certification Program Manager, and Dr. Ronald Luman, INCOSE Fellow,

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.











Programs Chair for the Johns Hopkins University Engineering for Professionals (EP), Whiting School of Engineering. See poster at end of this newsletter for more information. Registration is open.

- 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.
- 25-29 September, (Monday through Friday), CSEP Certification Training Course, JHU/APL, Building MP3, Room E183, 8am to 5pm. register at http://www.certificationtraining-int.com/. Chesapeake Chapter Members receive a 10% discount.
- 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, "Maryland Traffic Engineering, use of Agile by the Maryland State Highway Administration (SHA)".
- **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, TBD
- 6 December, INCOSE Chesapeake Chapter Holiday Party and Awards Ceremony.
 More Details to follow.

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.









Myra Parsons Gross, ESEP Communications Director

Communications Corner

In the Spotlight – Gundars Osvalds, ESEP, Programs Director

Gundars' love for electronics started with a crystal radio given to him as a gift at age six; soon he was repairing radios and TVs (in the tube era testing tubes at the drug store) for family and friends. His interest in photography began as the yearbook and newspaper photographer in high school, but he found out from practicing photographers that it's very difficult to earn a living in

this career field. Therefore, he went to college to obtain a degree in Electrical Engineering, and started to work for Babcock and Wilcox in Lynchburg, Virginia, where he supported analog and digital computers. He took courses offered by his company, and developed an interest in computer programming using FORTRAN and Assembly language coding.

He later moved to Maryland where he worked at Comsat Labs in the Communications department developing hardware and software systems in support of satellite communications. He supported demonstrations of the use of satellite terminals for transmission of data for remote printing of newspapers. He also developed communications equipment to support Intelsat worldwide systems that controlled their satellite network. Gundars excelled in his career, which led to a Member of Technical Staff position.

He was offered employment supporting the intelligence community, which furthered his career with a number of companies, including: MetaTech, Northrop Grumman, Boeing, Praxis, BCT, Bearing Point, Red Arch Solutions, Wells landers, GTE, QuesTech, Mesa Tech, and AMF. His commutes took him to many locations in the area: Germantown, Annapolis Junction, McLean, Alexandria, Rockville, Columbia, Chantilly, Springfield, Vint Hill, Towson Corners, thus a daily commute was a normal activity that allowed his family to stay in Walkersville Maryland until the present. Gundars supported the intelligence community, developing computer-based communications equipment that involved requirements gathering, systems hardware and software design, procurement of hardware, coding of software, integration, and acceptance testing for customers.

He was a trusted agent which offered him the opportunity to present his work in Systems Engineering, Enterprise Architecture, and processes in developing such at conferences worldwide, where he took time to further his love of photography including: Toulouse, France; Bangalore, India; Cape Town, South Africa; and Sidney, Melbourne, and Cairns, Australia.

Gundars is also well-traveled for personal vacations as well, and has visited: France, Germany, Switzerland, United Kingdom, Italy, Netherlands, Austria, and Spain. He returned from his travels with many photographs which are being used to support his new business, *OsvaldsPhotography.com*.

What people are saying about Chesapeake Chapter:

"... 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

SAIC.











Currently retired, Gundars stays very busy serving an active role as the Programs Director for the Chapter, and he regularly submits his photography work at art exhibits and shows. Although his photography sales do not cover his equipment, he finds the responses he receives from interested parties makes his efforts worthwhile. Gundars' recent focus is on large panoramic images which are up to 8 feet wide.



While Gundars' career interest was electronics, he has been married to his lovely wife Linda for 50 years. They are the proud parents of a daughter Kerri, with a great soccer player Shayna, and a son Scott, along with a future ball player Joseph. Kerri started her career working with Gundars at QuesTech, and graduated with a Business degree from Shepard College, and uses her skills learned in her work. Scott studied Marketing at Towson University and is working in sales for a major supplier of heating and cooling systems.



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.









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 follow (from the **2017 Chesapeake Chapter Operating Plan**).

Elections will take place in the Fall of 2017. If interested in any of these positions, please contact any INCOSE Chesapeake Chapter Board of Directors (BOD) 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.



Interested in Jobs & Networking
Contact Mark

Kaczmarek membership@incose-cc.org













- 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.

Membership Director:

- Serve as the CC Corporate Outreach Director.
- 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 SErelated organizations.

INCOSE System of Systems Webinar: Lean Startup for Agile Project Planning

On 26 May, Mike Pafford was invited by the INCOSE System of Systems (SoS) Working Group (WG), to give a one-hour webinar, "Lean Startup Methods to Collaboratively Develop Initial Work Items for SoS Component System Agile Development". The webinar was recorded on INCOSE GlobalMeet as part of the INCOSE SoS Working Group Webinar Series on Systems of Systems. The purpose of the webinar was to briefly introduce the concepts behind Lean Startup Methods for Agile project planning, and to relate some of the Lessons Learned during the 2015-2016 application of these methods during the development of component systems in a specific software-intensive system of systems environment. The upcoming schedule of SoS WG Webinars includes 25Aug17, "Systems of Systems Engineering for Particle Accelerator based Research Facilities" and 29Sep17, "What does it mean to be Lean in SoSE environments". Future topics of interest to the INCOSE SoS WG may be proposed by contacting the 2017 Webinar Coordinator, Oliver Hoehne (oliver.hoehne@wsp.com). More information, including archived SoS Webinar recordings, can be found at the INCOSE CONNECT SoS WG site.











Book Report

Michael Pafford

Model-Based Systems Engineering with OPM and SysML

By Dov Dori, 2016, 411 pages



Model-Based Systems Engineering (MBSE) is quickly becoming an accepted practice, especially for modeling complex socio-technical system solutions. The textbookstyle book being reviewed here, is a recent practitioners reference on using together for MBSE the Object-Process Methodology (OPM) that is compatible with ISO 19450 Publicly Available Specification (PAS) (Dec 2015), and the Object-Oriented Systems Engineering Method (OOSEM) based on the Systems Modeling Language (SysML) Object Management Group (OMG) specification (Version 1.4, Sep 2015). The OPM specification is meant to provide guidance on modeling a holistic view of system functions, structure, and behavior, in narrative and diagrams understandable to technical and non-technical system

stakeholders. The SysML-based OOSEM supports the specification, analysis, design, verification and validation of complex systems, including hardware, software, data, information, processes, people, and physical attributes.

A paper in the Volume 4 Issue 8 August 2013 issue of the International Journal of Engineering Trends and Technology (IJETT), "A Brief View of Model Based Systems Engineering Methodologies", listed both OPM and SysML-based OOSEM (Object-Oriented Systems Engineering Method) as two (of nine listed) MBSE methodologies used by Systems Engineers to model complex socio-technical systems and systems of systems. The 2013 paper cited heavily the 2008 INCOSE, "MBSE Methodology Survey" (INCOSE INSIGHT; volume 12, April 2009).

In his Foreword to the text, Professor Edward Crawley of MIT discussed what he sees as a distinction between system 'complexity' (containing many parts interacting in multiple ways) and 'complicatedness' (the way a system model is presented through a modeling language and perceived by a user). He suggests OPM responds well to the challenge of striving to reduce the complicatedness of complex system model representations to the bare necessities-without sacrificing accuracy and details.

In his Preface, the author says the book is designed as both a self-learning MBSE reference book, and as a text for an undergraduate or graduate level MBSE course. He says the book should give users a deep understanding of MBSE ideas, principles, and applications through modeling complex and complicated systems using both OPM and OOSEM/SysML.

A product of six years of work, this book should serve as a good, current, and reliable reference to MBSE in general, and to complementary abstract and specified OPM and OOSEM/SysML MBSE specifically.













Mark Kaczmarek Membership Director

Membership Arena

Chesapeake Chapter's membership Includes:

Current membership = 327

Certification = 140 ASEPs = 24CSEPs = 85ESEPs = 31

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.





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

NORTHROP GRUMMAN

The Chesapeake Chapter proudly welcomes our new members:

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

December 2016

- Bjorling Terra, ASRC Federal
- Cates, Noble, CSEP Vencore (Associate Director)
- Raub Francesca, Capella University

November 2016

- Lancaster, Jay
- Michealson, Kirk, Tackle Solutions, LLC
- Baker, Robert, Colorado State University Systems Engineering Programs

Congratulations to Newly Certified SEPs since August 2016:

- Butziger, Peter, ESEP Vencore
- Corey, Kyle, CSEP Northrop Grumman
- Daoud, Abdallah, ESEP Vencore
- Dougherty, Joseph, ASEP
- Flanigan, David, CSEP JHU/APL
- Gianni, Benjamin, ASEP Loyola University Maryland
- Gigioli, Tony, CSEP Booz Allen Hamilton (Chesapeake Chapter Treasurer)
- Handy, Kristen, CSEP Booz Allen Hamilton
- Harvey, Lance, ESEP Jacobs
- Hershey, Robin, ESEP BCT, LLC
- Hubbell, James, ESEP Talon
- Jackson, Dustin, CSEP Leidos
- Kolarik, Tammy, ASEP
- Lantz, Gary, CSEP The Boeing Company
- Martin, Robin, ASEP
- Millan Figueroa, Anthony, ASEP JHU/APL
- Morgan, Asia, CSEP
- Polacek, George, ESEP
- Sathi, Ram, CSEP Northrop Grumman
- Scott, Vantresa, ESEP Booz Allen Hamilton
- Sharkey, Janice, ASEP Booz Allen Hamilton
- Starkey, James, CSEP
- Wright, Linnea, CSEP Booz Allen Hamilton

















Friends of INCOSE, Members, and Guests,

Please join us to celebrate local INCOSE members who have earned the prestigious Systems Engineering Professional Certification (ASEP, CSEP & ESEP) at the

8th Annual SEP Gala

THE ENGINEER'S CLUB AT THE GARRETT-JACOBS MANSION

II WEST MOUNT VERNON PLACE BALTIMORE, MD 2I 20I -5I 90

The <u>Garrett-Jacobs Mansion</u> is a jewel in the crown of Baltimore's most distinctive historic homes. This unique Mansion epitomizes nineteenth-century Golden Age elegance and grandeur. Check out video from past <u>SEP Gala</u>.

Friday, August 18, 2017

Reception starts at 5:30 P.M. Dinner starts at 7:00 P.M.
To register please go to: incose-cc.org/registration/
Tickets \$50

Speakers



Dr. Ronald Luman INCOSE Fellow Program Chair Systems Engineering Johns Hopkins University Whiting School of Engineering



Courtney Wright INCOSE CSEP, Acq Program Manager INCOSE Certification Program

All Systems Engineers, friends, family, co-workers and corporate/government employer partners are invited to attend this celebration. Sponsorship is available for this event. Please contact Programs@incose-cc.org.

Best wishes,

Gundars Osvalds, ESEP Programs Director

















Learn Skills. Get Prepared. Gain Confidence. Become Recognised.







INFOTEK

The Engineers Club

CSEP EXAM PREPARATION





CTI's CSEP Exam Preparation Course provides the perfect grounding to take the INCOSE Knowledge Examination with confidence.

On-Site Training also available.

To find out more and register today, visit: www.certificationtraining-int.com











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

> 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
- Past President: EleanoraAnn "Ellie" Gianni, ESEP
- President-Elect: Dr. Grace Crowder
- Treasurer: Tony Gigioli, CSEP

- Secretary: Craig Tyler, ESEP
- Programs: Gundars Osvalds, ESEP
- Communications: Myra Parsons Gross, ESEP
- Membership Committee: Mark Kaczmarek

INCOSE Chesapeake Chapter © 2017