Chesapeake Chapter INCOSE

Champions and Practitioners of Systems Engineering

Monthly Newsletter

Next Dinner Meeting: Wednesday, 15 May 2019

Thinking: A Guide Book for Systems Engineering Problem-Solving

Speaker: Dr. Howard Eisner

Dr. Howard Eisner will be presenting an overview on his new book "Thinking: a Guide Book for Systems Engineering Problem-Solving". He'll be discussing some 15 new ways of thinking and applications to systems engineering, including: Inductive Thinking, Deducti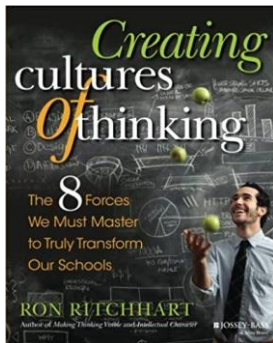ve Thinking, Reductionist Thinking, Out-of-the-Box Thinking, Systems Thinking, Design Thinking, Disruptive Thinking, Lateral Thinking, Critical Thinking, Fast and Slow Thinking, and Breakthrough Thinking. With these thinking skills, the systems engineer will be better able to tackle and solve new and varied types of problems.

Networking and Dinner at 6pm and FREE Lecture at 7pm (Earn 1 PDU)

DOWNLOAD OUR MONTHLY FLYER PDF

Location: Applied Physics Laboratory, Johns Hopkins University, 11100 Johns Hopkins Rd Laurel MD 20723 (Main Entrance – Lobby 1)

Meal: Pan Seared Tilapia Filet; Mango avocado Salsa and Cilantro rice with garden salad dressing, rolls and butter, Desserts.

This month's door prize is: **Creating Cultures of Thinking: The 8 Forces We Must Master to Truly Transform Our Schools** *By Ron Ritchhart*

Eventbrite GET TICKETS NOW

In This Issue

INCOSE Chesapeake Chapter Events are now on Eventbrite - check us out at incose-cc.eventbrite.com

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

President's POV
Working Outside of Your Comfort Zone

Mr. Taras Mykytyn

System Engineers are very disciplined individuals that are focused on addressing challenging technical problems on any given program. We have specific skills, knowledge, expertise, tools, processes, and procedures that we follow based on past success and experience. How does the System Engineer adapt to the future challenges on programs while maintaining their expertise and overall skills? Key here is to be flexible and adapt to changes in one's environment, poised to address any new technologies and new ways to collaborate and communication with your stakeholders, partners, and program leadership.

This article is an introduction to the various topics noted below, which will be covered in future articles. It's important for our discipline to take an aggressive and more bold approach to making a major impact on any program. Technology and our environment are changing at a more dramatic pace than ever before. Some examples of these changes are:
1. Cloud technology and integrated services (IaaS, Paas, SaaS);
2. Dev-Sec-Ops for quick software development and deployment of capabilities into production/operations;
3. Time-to-market pressures where market penetration and being 1st into a market may mean survival of your company;
4. Short-windows of opportunity for assessing and addressing technical environments for mission critical capabilities;
5. Constant demand for advanced analytics for Big Data problems and the associated better visualization and reporting capabilities;

SEs must learn to embrace these changes and bring innovative ideas and approaches to multi-disciplinary teams as technical leaders and as knowledge managers. Understanding the drivers and priorities of our customers is very important. But more important is providing the customers, users, and stakeholders a quick assessment of what the scope, impacts, and challenges lay ahead on a specific program, product development, or service deployment. Completing upfront, very focused engineering, to bring emphasis to a desired end-state for a product, service, or capability, sets the stage for the level of complexity and engineering that needs to be addressed. Coordination between the engineering, software development, integration, testing, deployment, support, and program management teams has to become more streamlined and adept at working more efficiently and effectively. This is where SEs can provide "the big picture" and "focused-engineering" discipline to a program taking on more of a role as a product, services, or capability technical lead and manager. This is not typically how SEs are viewed, but in the future, the ability to perform this role becomes more and more important for a program's success.

Read the whole article at our Website

Paper INCOSE Systems Engineering Professional (SEP) Certification Exam

Date: May 18, 2019 8:30 to 11:00 am

This free exam will be held at **Johns Hopkins University Applied Physics Lab, in Laurel, Maryland**

Certified Systems Engineering Professional
INCOSE CSEP Certified

Associate Systems Engineering Professional
INCOSE ASEP Certified

The INCOSE Chesapeake Chapter is facilitating a Systems Engineering Professional (SEP) certification exam (paper-based) on May 18th. This is a special testing offering for current and potential INCOSE members in the Baltimore Washington Meto area. You do not have to an INCOSE member to take the exam, but you must join the organization to receive the certificate.

The paper exam has the same format as the standard knowledge exam, with 100 multiple-choice questions in 100 minutes for the paper exam, contrasted with 120 items in 120 minutes for the computer exam. Candidates with special needs may be given additional time. In both cases, candidates will need to arrive thirty minutes prior to the exam's start to show ID and receive instructions. All candidates will use an answer sheet to record their answers for the paper exam. Exam results will be emailed a month later. There is no cost to participate in this activity but you do need to register.

Registration required with INCOSE International

Congratulations to the Newly Certified SEPs since July 2018:

- *Adiar, Chad, ASEP,* University of Maryland
- *Bantell, Frank*, CSEP, JHU/APL
- *Bapat, Akshay*, ASEP, University of Maryland
- *Berlet, Jeffrey, ESEP,* Perspecta
- *Dejute, Gregory*, ASEP, Naval Postgraduate School
- *Epson, Kevin,* ASEP
- *Hiteshew, Brian,* CSEP - Northrop Grumman
- *Jadav, Vijay*, CSEP, Booz Allen Hamilton
- *Jaya Prakash, Prateek*, ASEP, University of Maryland
- *Kothari, Nukunj*, ASEP, University of Maryland
- *Kulkami, Pranav*, ASEP, University of Maryland
- *Lawrence, Christopher,* ASEP, Boeing
- *McElroy, Kenneth, CSEP,* Northrop Grumman
- *Mehta, Hanish, ASEP,* University of Maryland
- *Naphade, Swapneel*, ASEP, University of Maryland
- Ninawe, Omkar, ASEP, University of Maryland
- Pacak, John, CSEP
- *Poissant, Andrew*, ASEP, University of Maryland
- *Ryan, Jessica,* CSEP, Northrop Grumman
- *Velez Rivera, Megan,* CSEP, Northrop Grumman

Our Members' Moment for 2019

by George Anderson, ESEP (Past President, 2010, 2015)

The BOD has completed its annual planning session and identified potential training, tutorials, and expert speakers to provide professional opportunities for our members. As systems engineers you are aware that a plan is only a beginning and must be supported with resources to execute the many tasks. Fortunately, we are well supported by our members' employers both in financial as well as in-kind support. What varies from year to year is the hands-on support needed to carry out the many tasks in the plan. We depend on our members who earn PDU's to support their certifications and others who are interested in taking on a task that offers personal satisfaction. Regardless of the work, chapter members are publicly recognized for their roles at our annual Holiday Reception.   For this reason I hope all Chapter members will recognize this event's importance and continue to contribute to its success.

The best way to describe the Chapter's support requirements is to list the services that we plan make available to the membership. This will also be influenced by the feedback that you supply by taking our annual survey available (linked to) in this newsletter
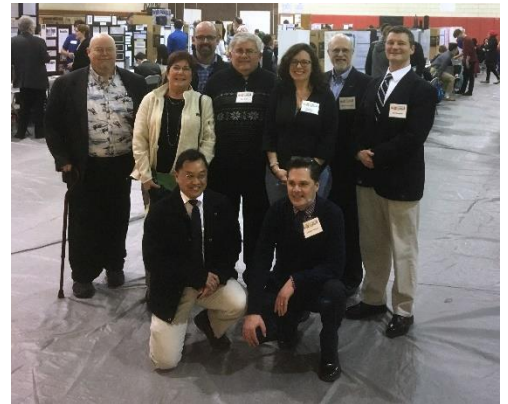
TAKE OUR ANNUAL SURVEY - NOW!

So just what are some of the possible experiences available to you this year?

- 10 monthly meetings that feature either an invited speaker, a discussion panel or student presentations.   These are video taped streamed and later placed on our YouTube channel for later viewing.
- Tutorials usually held on Saturdays to provide opportunities to enjoy in depth treatment of topics of general interest to Systems Engineers. Some subject examples are: Innovation workshops, Leadership, Model Based Systems Engineering topics including tool demonstrations.
- Certification Training followed proximately by the Exam given locally by INCOSE INTERNATIONAL and proctored by our local ESEP members. The exam is open to the public and is free of charge.
- MBSE tool training. Currently two or more scheduled sessions of No Magic's CAMEO SysML tool.
- Assistance to those applying for the ESEP certification by selected members of the ESEP round table.
- As an ESEP meet with other ESEPs quarterly to advise and advance the state of SE education
- Participate in organized STEM activities, some in cooperation with other Engineering Societies.
- Participation in local job fairs as an INCOSE member to represent INCOSE to visitors to the event

- Get your ideas published free by writing professional articles for the monthly chapter newsletter.
- Find a job either through the chapter newsletter or by networking at the monthly meetings.
- Prepare a Systems Engineering paper and present it at the annual International INCOSE Symposium held in July. Get your ideas in front of the world and meet others in your area of interest.
- Join an International working group and collaborate virtually and in person at the two annual International events: The International Workshop (IW) and the International Symposium (IS)
- Run for election for office at either the Chapter or International level.
- Create and foster new initiatives in the Chapter that furthers the advancement of Systems Engineering ideas or practices.
- Participate in panel discussions held on important issues in the SE community
- Participate in SE events with our student chapters
- Work with other engineering societies in achieving common goals.
- [Join the Chesapeake Chapter Linkedin group](#) to collaborate on line with other Systems Engineers

Youth Outreach Committee to meet before the May 15th Dinner and you're invited!

Here's more opportunity to earn some PDU's.
Spring has sprung and so I'm thinking now is a good time to take pause and establish a foundation for our upcoming years' youth outreach efforts. I would like to bring together anyone and everyone interested in helping to shape our chapter's youth outreach. Historically our chapter has been very involved with some of the larger youth science fair events in our state and smaller events as well. I'd like to discuss where we can build upon these successes in our first meeting, in order to launch an enduring committee and discover improvements that can shape a strategy going forward. New opportunities, guidelines, standards, teaming, what works and what doesn't, ideas... all open for discussion. The hope is that this committee can springboard great recommendations to the BOD for improving and extending our chapter's involvement with youth in STEM.

Our first committee meeting will be just prior to the next regular INCOSE Chapter monthly dinner meeting this **May 15th at 5pm in the JHU APL Main Building 1 cafeteria.** For a head count, please respond using the invite button and I'll be sure to send out a tentative agenda for us all. My expectation is to not resolve every topic at this first meeting, but to launch an enduring committee.

Clinton Hilliard; Youth STEM Outreach Coordinator

RSVP at our Eventbrite Page

If you can't make the May 15th meeting, you can still volunteer for our STEM initiatives. Send your contact info to stem@incose-cc.org

Did you miss last month?

Dr. Chandru Mirchandani discusses how new generation of processing modules and systems using a cloud-based architecture will afford up to an order of magnitude in cost reduction and improved reliability and flexibility over present generation systems of ground telemetry system designs.

Read the After Action Report for at our Website for the presentation slides and video links

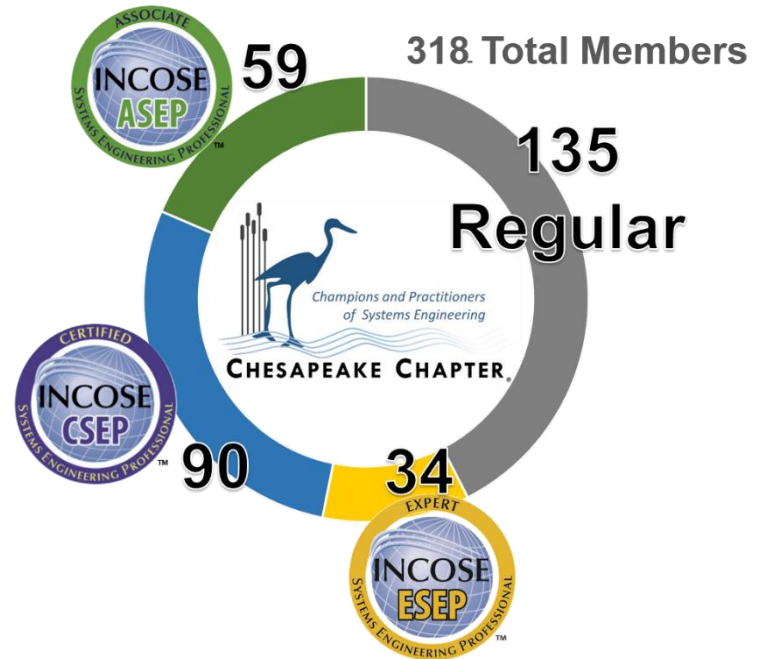**Our YouTube Channel has all our previous lectures. Check it out!**

Membership Arena

Mark Kaczmarek, ASEP, Membership Director

INCOSE membership is over 17,000 world-wide. Over 100 corporate members, 70+ Global chapters in over 35 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.

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

May 2019 INCOSE-CC Membership Breakdown

318 Total Members

59 — INCOSE ASEP Associate

135 Regular

90 — INCOSE CSEP Certified

34 — INCOSE ESEP Expert

Champions and Practitioners of Systems Engineering

CHESAPEAKE CHAPTER

The Chesapeake Chapter proudly welcomes our new members:

April 2019
- *Bowers, Ariel*
- *Graff, Steve*, University of Maryland
- *Krause, Dave*, KEYW Corporation
- *Mucia, Joseph*, Booz Allen Hamilton
- *Onwuke, George*, The Boeing Company
- *Pantano, Madeline*, Northrop Grumman

March 2019
- *Miller, Michael*, Terumo Medical Corporation

February 2019
- *Rodriguez, Noel*, Newport News Shipbuilding
- *Sating, Joseph*
- *Simons, Mark*, Vitech

Jobs! Jobs! Jobs!

There are current openings being advertised on the web site here. Take a look and pass along to colleagues that are interested. Consider advertising your openings by being part of an email campaign as well as a web site announcement. We have over 1200 contacts on our mailing list. Contact me at membership@incose-cc.org

Plus, there is and upcoming job fair that the chapter will have a booth at near Baltimore with reStart on May 6, 2019. Please consider staffing the booth as well – you'll be able to earn some Professional Development Units (PDUs) towards your CSEP or ASEP renewal. Read more at our website.

Consider becoming a member of

THE ENGINEERS CLUB
AT THE GARRETT-JACOBS MANSION

The Engineers Club, established in 1905, is one of Baltimore's oldest private city club. Located in the historic Garrett-Jacobs Mansion in the heart of Mt Vernon, our Club is ideal for entertaining, conducting business, socializing and networking with other members. Cost of Membership is reduced because INCOSE Chesapeake Chapter is one of the Club's associated societies. Check out the application for more information about becoming a member.

Upcoming Events: Mark your Calendars

Date: 15-May-19
Presentation: Systems Engineering Problem-Solving
Speaker: Prof. Howard Eisner

Date: 19-June-19
Presentation: The History of GPS Spoofing
Speaker: Dana A. Goward

Date: 17-July-19
Presentation: Earned Value Management for Agile
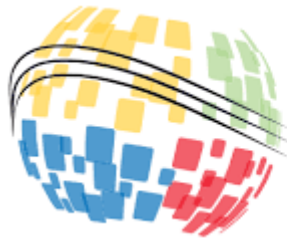**Speaker:** Caitlin Kenney, P.E.

Register NOW

Register Early

Register Early

July 20-25 2019: INCOSE IS 2019 - Orlando, FL

Join us for the 29th Annual INCOSE International Symposium

29th Annual **INCOSE** international symposium

Orlando, FL, USA
July 20 - 25, 2019

This years Theme: System Applications for Global Challenges

Save the Dates
- **Fri, Aug 9:** SEP Gala at Engineer's Club in Baltimore
- **Wed, Dec 18:** Holiday Gala at Engineer's Club in Baltimore

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.**

For any comments or suggestions about this newsletter please e-mail our Communications Officer. We value your feedback.