INCOSE Chesapeake Chapter International Council on Systems Engineering

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

E-Newsletter

August 2016 **Back Issues**



President, ESEP

President's POV - August 2016

Please remember to register for the August 24th Systems Engineering Professional Gala! Registration closes on August 20. www.incose-cc.org.

Even though we are in the midst of Summer, our chapter continues to offer plenty of free lectures, panel discussions and tutorials. 23 Chapter Members attended the International Symposium July 18 – 22 in Edinburgh Scotland. On July 28th, our chapter hosted the Women in Systems Engineering (WISE) Special Interest Group Panel Discussion: "From the Classroom to the Boardroom" (more on that later in this newsletter) at our sponsor Boeing's location. We also provided a dinner meeting and



Left to right of the 23 Chapter Members attending IS2016: George Anderson (MetaTech) Past President, Kim Gill (FAA)*, Keith Willett (DOD), Larry Strawser (JHU), Ed Marston (DOD), Sam Karachiwalla (DOD), Will Kelly (DOD), Angela Satchell (DOD), Rusty Eckman (Northrop Grumman), Don York (Engility), Mike Pafford President-Elect, Steve Sutton (CMAXA Engineering), Zane Scott* (Vitech Corporation), Grace Crowder* (DOD), and Ellie Gianni (JHU) President. Not pictured: Jim Armstrong (Stevens Institute of Technology), Dave Flannigan (JHU), Ken Zemrowski (Engility), L. Mark Walker, Perri Nejib (Northrop Grumman), James Johnson (DOD), Jason Sohlke* (JHU), and John Thomas (John Thomas Associates). * Denotes Cohort 1 and 2 participation in Institute for Technical Leadership (ITL).

In Vol. 7 Issue 8

President's POV Women in Systems **Engineering Annual** Internship Event **Programs Update** Jobs & Networking **Upcoming Events** Membership Arena The Professional's Book **Review Series**

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.

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lecture on July 27 where Dr. David Rico discussed the topic of "The 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.

On July 15th, Mike Pafford, our President-Elect, also provided an all-day Tutorial for the INCOSE Southern Maryland Chapter. Finally,

Congratulations to our members recognized with awards at the IS2016. Our chapter was awarded the Platinum Circle Award. One of only 5 chapters in the world recognized for Excellence in Chapter Operations for 2015. George Anderson, ESEP, Past-President, accepted the award on behalf of the chapter. Other award recipients included Zane Scott (Co-Author Dave Walden) for Best Paper; George Anderson for Outstanding Service; and Erik DeVito for Outstanding



Zane Scott and Dave Walden receive the Award for Best Paper at IS2016



George Anderson Accepts the Platinum Award on Behalf of the Chesapeake Chapter

Service. Congratulations to all of our members, the chapter's Board of Directors and our Best Paper and Outstanding Service Award Winners!

The symposium was busy and full of tutorials, lectures, panel discussions and workshops. More than 850 INCOSE members attended. Business and Leadership meetings were also held at this event to report on financials and strategy for INCOSE's future.

The Americas Sector continues to remain strong with about 4500 Regular

Members, 500 Student Members, 250 Senior Members, and 5340 Corporate Advisory Board (CAB) Members. Here's a summary of where INCOSE stands today.

- Individual Members: 10130 (9 July)
 - By Sector
 - Americas: 5340, EMEA: 3959, Asia-Oceania: 831
 - 70 Chapters
 - Americas: 45, EMEA: 16, Asia-Oceania: 9
- Corporate Members: 70 (as of 9 July)
 - New 2016
 - ISID Engineering LTD

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:



- MBDA (UK) Ltd.
- No Magic
- Shell
- AWE (Pending)
- Academic Members: 25 (as of 9 July)
 - New 2016: Colorado State University & University of Connecticut

For INCOSE Publications:

• Wiley Systems Engineering Handbook Sales

- 4426 hardcopy, ePub and ePDF (Jul 2015

 Apr 2016)
 - Hardcopy sales account for majority of sales in first six months
 - Current sales of approximately 500 copies in the May and June

Translations

- Chinese, Korean and German translations in place with publishers
- Work is beginning on French and Italian agreements.
- o INCOSE / Wiley Partnership
- Profit Share arrangement from subscriptions/sales of INSIGHT, the SE Journal and the IS Proceedings.
- Profit Share Proceeds as of 8 July: \$47,873

The trip to Edinburgh was long but worth it. Edinburgh is a town populated by about 500,000 people. It is located on the coast of Scotland. Its major industry is services. We toured the city after our last session on the Hop-on-Hop-Off double decker bus. We were able to see the old town Edinburgh, the Edinburgh Castle and the Royal Mile --

home of Whisky and Kilt Making shops.



The view from Arthur's Seat

We saw Arthur's Seat, and at least 3 of our members climbed this ridge to see both the sun set and the moon rise in one visit. Along with Calton Hill and Castle Rock, Arthur's Seat forms part of the ridge of cold volcanoes that provide the view of the Edinburgh skyline. The mountain sits in Holyrood Park, 650 acres of wild parkland near the Royal Mile.

Next year for IS2017, the event will be held in Adelaide, Australia. We look forward to seeing you there!

Women in Systems Engineering (WISE) 2nd Annual Intern Event

Myra Parsons Gross, ESEP, PMP, WISE President

On 28 July, WISE held its 2nd Annual Intern Event that included a luncheon and panel discussion, "From the Classroom to the Boardroom", at the Boeing Intelligence and Analysis office located on National Business Parkway in Annapolis Junction. This event is designed to ease the transition from college to the workplace, serve as a mentoring program, and is an opportunity for interns to network with colleagues and other professionals in the Science, Technology, Engineering and Math (STEM) fields. The event was open not only to college interns, but to students and early career



Don York and Rusty Eckman trying to phone home











professionals, both males and females, and was offered at no cost thanks to the generosity of our sponsors: The International Council on Systems Engineering (INCOSE) Chesapeake Chapter and The Boeing Company, Intelligence and Analysis Division.

The WISE Intern Event was packed with 30 participants, including 14 interns, and a number of college and high school students. I initiated the session with a presentation that included some basic skills necessary for recent graduates to successfully transition from college to the workforce, including the importance of selecting unbiased mentors, and developing a roadmap to career success.





2016 Panelists Representing Government and Industry (L to R): Monica Mathern, CSEP (DOD),
Asia Morgan (Exceptional Software Strategies), Lauren Conrad (Proteus),
and Ashley Cowall (Booz Allen Hamilton).



Panelists were selected based on their diverse backgrounds and varying experience levels. I served as the moderator who presented each panelist with a number of specific questions designed to facilitate responses. This approach provided the attendees with lessons learned from panel member's personal experiences, including pitfalls to avoid, and meaningful advice on how to navigate in the professional work environment. Attendees were also given the opportunity to ask the panelists direct questions.

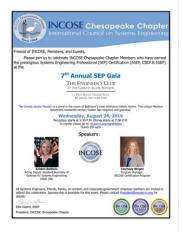
The final component of the event included time for meeting, greeting and networking. Throughout the event, the attendees were engaged, eager to learn, and took advantage of the time to gain knowledge and to develop their networks.

In its second year, this event has grown in interest. We have started discussions focusing on expanding this event to a full day seminar in 2017. WISE has also been approached about hosting an additional Intern Event in Northern Baltimore County in 2017. Look for details on our web site at http://www.incose-cc.org/wise-3/.



WISE, Women In Systems Engineering - Make A Difference!





INCOSE Chesapeake Chapter Programs Update



Gundars Osvalds Programs Director, ESEP

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On July 27th, our chapter provided a dinner meeting where Dr. David Rico discussed the topic of "Business of Value Agile Organizations; Strategies,

Models, &



Dr. Rico on the Attributes of Business Agility

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.

JOHNS HOPKINS APPLIED PHYSICS LABORATORY

IOHNS HOPKINS

of ENGINEERING

sponsor at Johns Hopkins University Applied Physics Lab. The lecture was recorded for future posting on our YouTube site by Audio Visual staff at the

were present at this event hosted by our

lab.

Principles for Enterprise-level Agility". More than 30 attendees

On 15 July 2016, INCOSE Chesapeake Chapter President-Elect Mike Pafford conducted a day-long Tutorial on "Agile Project Planning" for several members of the INCOSE Southern Maryland (SOMD)



Dr. Rico Compares Business Agility to "... Having a Plan Until They Get Punched in the Mouth"

Chapter at the Wyle Labs facility in Lexington Park, Maryland. All attendees earned 6 Professional Development Units (PDUs). The primary objective of the Tutorial was to introduce or re-emphasize for SOMD Chapter members. several specific Systems Software Engineering, Engineering, Project Management techniques and tools being used to collaboratively develop initial work items for current and modern



President-Elect Mike Pafford Conducts Day-Lona "Aaile Proiect Plannina" Tutorial at **INCOSE SOMD Chapter**

Application Lifecycle Management (ALM) projects employing Agile Scrum methods. Tutorial materials (shared with all attendees via INCOSE Connect) were updated from materials Mike used to conduct versions of the Tutorial on 19Dec15 (in conjunction with IEEE) and 02Apr16 at SEDC 2016. He also used information from the Tutorial in a one-hour talk on "Agile ALM Project Planning" given to the PMI Baltimore



Bill Kaplan, JHU/APL, Manages the Control Room in the Parsons Auditorium during recording of Dr. Rico's Lecture



OHNS HOPKINS





Chapter (Columbia, MD location) at its 27Jun16 Lunch Meeting.

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/





For Experienced Technology, Cyber, Engineering & Intelligence Professionals

Many of you may have noticed the new Tech Expo logo in our recent communications. The INCOSE BOD, in the interest of member's career development, attended the employment fair last month. We had the pleasure of meeting dozens of job seekers at the event. We would discuss the merits of the value-add of membership in our society through continuous career expansion and growth due to our dinner events and tutorials as well as material available at the national level. Please contact me at 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: August 10, September 22, October 12, November 16, December 8

Virginia Tysons Corner Ritz Carlton 2016 Events: August 11, September 15, October 13, November 3, November 15, December 7



George Anderson, Past-President, was one of the INCOSE Chesapeake Chapter's representative for the Tech Expo on June 15 at the BWI Marriott.

Chicago Cyber Security Summit

Thursday, August 25, 2016 from 8:00AM to 6:00PM Hyatt Regency Chicago, 1 51 East Wacker Drive Chicago, IL 60601

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





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.



The Chesapeake Chapter of INCOSE is proud to recognize the following partner organizations and upcoming conferences that may be of interest to our membership.





New York Cyber Security Summit

Wednesday, September 21, 2016 from 8:00 AM to 6:00 PM, Grand Hyatt New York, 109 E 42nd St. New York, NY 10017. Register at http://cybersummitusa.com/new-york-2016/ with Promo Code INCOSE2016

to receive 50% off on a Full Summit Pass.

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 90401. Register at http://cybersummitusa.com/los-angeles-2016/ with Promo Code INCOSE2016 to receive 50% off on a Full Summit Pass.

Integrity Technology Consultants (ITC) Sponsor Student Dinners for Chesapeake **Chapter Monthly Meetings**



Thanks to a generous donation from our Corporate Sponsor, Integrity Technology Consultants (ITC), college students attending our INCOSE Chesapeake Chapter monthly dinner meetings and lectures at JHU/APL will receive dinner

free of charge. ITC was founded in 2003 by Rebecca and Kerry Ireland to provide engineering and management consulting solutions to the National Security Agency's SIGINT, Technology, Research, and National Threat Operations Center organizations, as well as the United States Cyber Command (USCC). ITC provides expertise and mentoring in Systems Engineering, Enterprise Architecture, Integration & Test, Cyber Security Engineering, Program/Project/Portfolio Management, Technical Standards Compliance and Verification, DoD UAV Technologies, and SIGINT Mission Operations Support. Functionally, ITC staff supports Counter-Terrorism and Counter-Insurgency operations, Enterprise, Intelligence Community (IC), and Foreign Partner Collaboration & Information Sharing, IC Cloud Architectures, SIGINT, Cyber Defense and Network Intrusion/Mitigation, System Transition & Decommission activities, and Tactical/National Unmanned Aerial Vehicle (UAV) technologies. Many of ITC's consultants hold advanced degrees and certifications such as the PMI PMP, DAWIA, CISSP, and INCOSE Systems Engineering Professional (SEP) Certifications. ITC prides itself in providing an employment environment that underscores the core values of honesty, integrity, and respect for the dignity of their employees - their greatest asset. Visit their web site at: http://www.seekintegrity.com/

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).

- August 17 6 pm Dinner Meeting & 7 pm Lecture. Thomas Heffner, Design Strategist and Dennis Smith, Innovation Projects Specialist. "Design Thinking 101: What is Design Thinking and How Can it Help Your Organization Create a Culture of Innovation". (1 PDU).
- **September 21** 6 pm Dinner Meeting & 7 pm Lecture. Leonard Levine, Defense

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**











Information Systems Agency (DISA), "DoD Perspective on UAF Data Models"

- 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 mailto:egianni@verizon.net.]
- November 16 6 pm Dinner Meeting & 7 pm Lecture. "SE Standards Update", Ken Zemrowski.

Other Events (Workshops, Tutorials, Symposiums, Galas)

- August 20, Saturday Tutorial: "Design Thinking Learn the tools and methods of Design Thinking that will turn your organization into an Innovation powerhouse": Tom Heffner & Dennis Smith. 8 AM Breakfast, Tutorial 9 AM-12 PM, Lunch 12-1 PM, Tutorial 1-3 PM
- August 24 7th Annual Systems Engineering Professionals (SEP) Gala. Guest Speakers Ms. Courtney Wright, INCOSE PM for Certification and Ms. Kristen Baldwin, Acting DASD SE. REGISTRATION IS NOW OPEN! Register here by AUGUST 20, 2016: http://www.incose-cc.org/registration/. Corporate sponsors are needed. Contact Gundars Osvalds, programs@incose-cc.org
- September 24, Saturday 9 am 12 pm, "Beyond Thinking Outside the Box, For Entrepreneurs and Systems Engineers", Dr. Howard Eisner, Cost \$100. (3 PDUs)
- 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. (16 PDUs)
- December 7th Chesapeake Chapter Holiday Party, Awards Ceremony & Silent Auction to benefit the INCOSE Foundation and the Chapter Scholarship Fund.



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



Membership Arena

Mark Kaczmarek, Membership

The Chesapeake Chapter proudly welcomes our new members:

July 2016

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

June 2016









- John A. Baker, Baker Consulting Services, LLC
- Cheri Jackson, Jovian Concepts, Inc.
- William Kelly
- Katrina Park
- Amanda Pollock, Textron Systems
- Robert Russell, Northrop Grumman Corporation
- Angela Satchell

May 2016

- Jeffrey Corey, Asymmetrik Ltd.
- Anwar Kittrell, Northrop Grumman Corporation

April 2016

- Joseph Dougherty, Northrop Grumman
- Holly Jeffrey, Northrop Grumman
- Irving Pollard, SPAWAR
- Kristen Handy, Booz Allen Hamilton
- Alex Duda, Northrop Grumman

March 2016

- Christopher Couch, Northrop Grumman
- Eric Hiltpold, Jovian Concepts

February 2016

John Shelton, Johns Hopkins University/APL

The Professional's Book Review Series

Craig Tyler, ESEP, Chapter Secretary

Presenting the second article in a series of reviews dealing with professional books that provide useful Systems Engineering insights.

The Internet of Things Business Primer by Sudha Jamthe (2016)

Sudha Jamthe is a recognized entrepreneurial mobile product leader and an instructor of the first

Internet of Things (IoT) business course at Stanford University's Continuing Education School. She wrote the book for mobile and IoT entrepreneurs and students to serve as an introduction and plan of action to build an IoT business from a technological idea.

THE INTERNET

OF THINGS BUSINESS PRIMER

HOW TO BUILD AN IOT BUSINESS

STANFORD EDITION

SUDHA JAMTHE

Part I presents steps to create a new or extend an existing business using IoT. Ms. Jamthe makes the distinction between an IoT device, which is comprised of hardware and sensors, whereas an IoT product is a device with a customer experience that focuses on solving a problem for the customer.

Part II offers many mini-case studies to discuss best practices and lessons learned as these businesses built and launched their IoT products. These applications include wearables, smart home, connected cars, drones, and smart cities.

Part III presents disrupted innovations from IoTs and value creation. A diverse set of IoT uses are discussed.















Part IV discusses the technologies that play a part in IoT product deliver and value creation through big data and predictive analytics.

Lastly, Part V presents a vision of the future of IoT, including how it will change job opportunities for students as well as people working in the field.

CYBER SECURITY SUMMIT

Summary and Recommendations

As a person who enjoys reading case studies that illustrate how theories are put into practice, I enjoyed the 19 mini-case studies that serve as examples in this 215-page self-published paperback book. These examples reflect the diversity of the current IoT products – some offering new means of simplifying and controlling our lives (creating new value) while others serve as a safety net when we lose things or forget to lock a door.

What I most like about the book is the thought process and planning that Ms. Jamthe outlines to create, market validate, perform design iterations, and make business decisions (partnering, branding, and creating new markets/segments).

You can find out more from the author at http:// http://iotbusinessprimer.com.

2HB Providing Free Dinner for College Students Attending Monthly INCOSE-CC Meetings



Thanks to a generous renewal of a donation from our Corporate Sponsor, 2HB, college students attending our INCOSE Chesapeake Chapter monthly dinner meetings and lectures at JHU/APL will receive dinner free of charge. 2HB has been providing this generous

support to our chapter since 2015. 2HB Incorporated was founded in 1994, incorporated in 1995, and provides core competencies that include Java Programming, Software Engineering, Web Based Development, Telecommunications Engineering, and Systems & Technical Services. 2HB has since built on these offerings to add Systems Engineering, Management Consulting, and Information Security services. 2HB's vision is to build a company where the owners would want to work. With dedication, passion, humility, and the wisdom garnered from years of successful partnerships, 2HB's mission is to provide a rewarding, family-oriented environment for their employees. 2HB is committed to contributing to the development and improvement of our communities, as well as to creating lasting customer relationships by surpassing their customers' business expectations. Visit their web site at: http://2hb.com/cms/











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 <u>President, Ellie Gianni</u> or our <u>Communications Director, Pat Williams</u>. We value your feedback.

Board of Director Officers, 2016

- President: Mrs. EleanoraAnn "Ellie" Gianni, ESEP
- Past President: Mr. George Anderson, ESEP
- President Elect: Mr. Michael Pafford
- Treasurer: Mr. Tony Gigioli

- Secretary: Mr. Craig Tyler, ESEP
- Communications: Mr. Pat Williams, CSEP
- Programs: Mr. Gundars Osvalds, ESEP
- Membership Committee: Mr. Mark Kaczmarek

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