



# INCOSE Chesapeake Chapter

International Council on Systems Engineering

February 2015

## E-Newsletter

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### President's Point of View

#### Planning the Future - the 7% Solution



Mr. George Anderson  
INCOSE CC  
President [george.anderson@incose.org](mailto:george.anderson@incose.org)

In this first month of operations, I have already had the opportunity to talk with many Chapter members and am gratified to hear a number of ideas that can help our chapter grow and maintain our dearly won reputation for professional excellence.

In addition to presiding over the monthly membership meeting on January 21st, I attended the Women in Systems Engineering (WISE) event on January 30. Here I learned about upcoming STEM events and saw the

prototype Logo that in my opinion places among the highest standards in heraldry. The use of the (wise) Owl in the artwork is inspiring and I have asked Joanne Serelis to introduce the story in a later article. As the WISE program schedule firms up, I am also looking forward to seeing calendars of coming events and supporting short articles on ongoing STEM activities such as robot wars. All of this effort deserves to reach the 1100 subscribers to our newsletter.

I expect to be more focused this year on what we are doing and less about the past. However, I do want to share with everyone past artifacts that still affect who we are and where we may want to go. The first of these is a health chart of last year's event attendance that includes the speakers. In my years (14) at Chesapeake, I have never seen this data presented to the membership so well.

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- February 18, 2015  
Dinner/Lecture
- WISE Members Mentor Girl Scouts
- Seeking Volunteers for Science Fair Judging
- Upcoming Events

This is the monthly newsletter for INCOSE Chesapeake, a local chapter of INCOSE International. We are a not-for-profit organization dedicated to providing a forum for professionals practicing the art and science of Systems Engineering in the Northern & Central Maryland & Southern Pennsylvania area.



The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our 2015 Programs Director, [Glenn Townson](#), if you would like the opportunity to speak or can recommend someone.

| DATE                                     | SPEAKER                  | TOPIC                          | LECTURE |
|--|--------------------------|--------------------------------|---------|
| <b>Chesapeake INCOSE DINNER/LECTURES</b> |                          |                                |         |
| January 15, 2014                         | Darrin                   | Nano systems                   | 75      |
| February 19, 2014                        | Petenga/Block/Parstoo    | SE @ UMCP                      | 30      |
| March 19, 2014                           | Maier                    | System Architecting            | 50      |
| April 16, 2014                           | Taylor                   | Roots of large system failures | 62      |
| May 21, 2014                             | Osvalds                  | Agile                          | 30      |
| June 16, 2014                            | Ryschedivich             | NASA teams                     | 58      |
| July 16, 2014                            | Gourley                  | Logistics                      | 29      |
| August 20, 2014                          | Weener                   | NTSB System Failures           | 48      |
| September 17, 2014                       | Luthra                   | Big Data                       | 60      |
| October 15, 2014                         | Bayes/Straub/Fitzpatrick | HumanSystemsEngineering        | 28      |
| November 19, 2014                        | McLaughlin               | Neural prosthetics             | 66      |
| <b>TUTORIALS C2</b>                      |                          |                                |         |
| February 15, 2014                        | Eisner                   | Thinking outside the box       | 25      |
| March 19, 2014                           | McGarvey                 | MSBE                           | 70      |
| May 10, 2014                             | Johnson                  | Agile                          | 12      |
| July 12, 2014                            | Maier                    | Systems Architecting           | 27      |
| September 27, 2014                       | Scott                    | Putting systems into SE        | 31      |

*Chart 1. 2014 Chesapeake Chapter Dinners and Lectures.*

The second artifact is an analysis of our two surveys from last year that sought to measure member inputs in two areas. These were programs and the other membership attributes. The entire analysis is posted to our operational documents section on the library pull-down menus on the Website.

I would like to briefly highlight what I think are significant items on this report.

For Programs:

- The dominant chapter technical interests are: Agile, DoDAF Architecture and Cyber security.
- Interest in CSEP certification is low.
- Lean SE is an emerging area of interest.

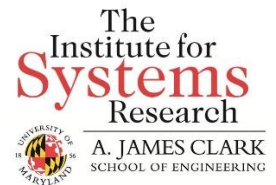
For Membership:

- 35% of respondents held the CSEP Certification.
- 37% of respondents have been members for less than 4 years.
- In 2014, 118 new members or transfers from other chapters were gained.
- Response to training courses was high with 65% showing interest.
- Only 11% expressed interest in running for the Board of Directors (BOD) while 50% showed some interest in serving as an associate Board Member.

I hope that this information helps to clarify the basis on which the BOD plans to move forward and also to serve as a benchmark for our past achievements. Before closing, I want to share the most important metric we currently have our 7% solution. In a year when most INCOSE

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:

Booz | Allen | Hamilton



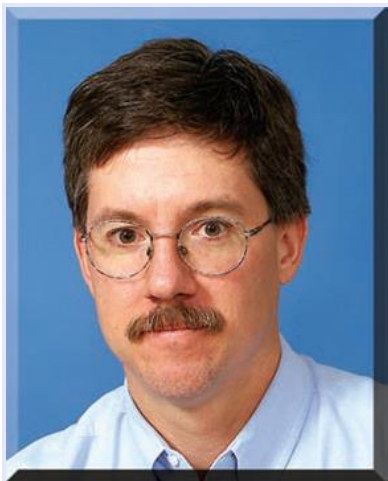
Chapters in the United States had declining memberships, Chesapeake grew by 7%. Our membership in December 2013 was 375 and in December 2014, 402. This means that the number of departures was exceeded by the influx of new arrivals.

Thank you all for caring, participating and making us successful beyond expectation.

*George Anderson - INCOSE Chesapeake Chapter President*

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## 18 February, 2015 (6:00pm - 8:00pm): SE Consideration in the Design of Autonomous Air, Ground, Surface and Undersea Vehicles



*David Scheidt, Principal  
Professional Staff JHU/APL*

**Presentation:** Air, ground, surface and undersea vehicles are currently being used in the home, to support business operations, for space exploration and by most of the world's militaries. The next generation of unmanned vehicles will be autonomous, with vehicles interpreting and responding to the complex world in which they operate in real time. This talk discusses autonomous unmanned vehicle teams that are capable of operating with, or without, real-time human supervision. The benefits of unmanned vehicle autonomy, methods for optimizing team structure and optimizing the

relationship between autonomous unmanned vehicles and humans will be discussed as will hardware in-the-loop experiments involving autonomous air, ground, surface and undersea vehicles.

Click here for more details: ([www.incose-cc.org](http://www.incose-cc.org))

Go to [www.incose-cc.org/registration/](http://www.incose-cc.org/registration/) to register

Parsons Auditorium, Bldg 1  
Johns Hopkins University Applied Physics Laboratory  
11100 Johns Hopkins Road  
Laurel, MD

[Map and Directions](#)



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.

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## INCOSE-CC WISE Members Mentor Girl Scout STEM Group



*Girl Scouts of Central Maryland STEM Group*

Two WISE members - Joanne Serelis (Outreach Chair) and Lauren Conrad (and her husband Mark) were mentors to the Girl Scouts of Central Maryland STEM group, RoboGirls. The 11 girls formed two teams in the 2014 First Lego League robotics competition. The Bully Busters and the Interactive Readers - named after their projects - were the only all-girls teams to compete in the regional

competition held Sunday, 25 January. The coaches (the lead coach was one of the dads and an engineer at APL) and mentors (not in the photo) helped the girls build the robots and program them to perform a series of challenges. The girls also learned core values related to working with others in a respectful way. The girls selected two projects related to finding a way to help people learn about something better, hence the team names. Meetings were held every other Saturday morning, September through January, at the Baltimore headquarters of Girl Scouts of Central Maryland. The teams placed 5th and 8th, and the Bully Busters won the Core Values award. It was great fun for the girls, the coaches, the parents, and the WISE mentors. Look for a full report in the next newsletter.

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## Volunteers Needed to Judge at High School Science & Engineering Fairs

Again, we want to represent INCOSE at local High School Science and Engineering fairs and seek volunteers to help judge selected student projects. For those who have done this, are always amazed and pleased at the variety and sophistication of what some students do. This is an opportunity for us to provide guidance and advice.

The following fairs are scheduled for March:

- Anne Arundel County Regional Science & Engineering Fair; North County HS; Saturday, March 7, 8AM – 1PM [snacks and lunch provided]
- Baltimore Regional Science Fair; Towson University; Saturday, March 22, 7:30AM - 4PM

Usually over 200 projects are available. A team of 2-3 usually cover around 10 projects in time period allotted; so we will preview and preselect projects of interest usually in categories of Engineering [electrical, mechanical], Computer Science, Math & Physics, Transportation, Energy, Environmental, Health Sciences, etc.

Award ceremony takes place on a later date and any/all can attend.

Please contact Don Gantzer, Outreach Lead, 410-956-1562, [dongantzer@comcast.net](mailto:dongantzer@comcast.net) for more details.

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## Upcoming Events and Announcements

- **February 18, 2015:** Dinner Lecture: SE Consideration in the Design of Autonomous Air, Ground, Surface and Undersea Vehicles; David Scheidt, Principal Professional Staff JHU/APL
- **March 18, 2015:** Dinner Lecture: Agile Systems Engineering, Mark Walker
- **April 15, 2015:** Dinner Lecture: The Engineering of Large-Scale Amateur Rockets, Michael Mangieri
- Interested in Jobs Networking? Look [here](#)



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 [President, George Anderson](#) or our [Communications Director, Pat Williams](#). We value your feedback.

### Board of Director Officers, 2015

- President: Mr. George Anderson
- Past President: Mr. Erik DeVito
- President Elect: Mr. John Boccio
- Treasurer: Mr. Kent DeJong
- Secretary: Mr. Mark Kaczmarek

### Directors at Large

- Communications: Mr. Pat Williams
- Programs: Mr. Glenn Townson
- Membership Committee: Mr. Bob Lecorchick

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