



# INCOSE Chesapeake Chapter

International Council on Systems Engineering

## E-Newsletter

February 2013

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**Dinner/Lecture 20 February 2013 (6:00 – 8:00 pm)**

### [Flexibility in Engineering Design](#)



*Dr. Richard de Neufville*

**Presentation:** Flexibility in design is an idea whose time has come. Experience indicates that the use of flexible design for the design of major infrastructure systems can lead to significant, double digit percent improvements in expected value. Computational and methodological advances now enable us to investigate the performance of designs under multiple scenarios, and to identify those that can perform best over the range of possible eventualities. This talk describes the approach combining screening models, simulation and subsequently optimization. The presentation will illustrate flexibility in design with a range of example applications to major systems, in particular power systems faced with major changes in fuel prices, the source of energy production, and in the demand for electric power.

**Speaker:** Dr. de Neufville is an engineer and system designer. His research and teaching now focus on inserting flexibility into the design of technological systems. His book *Flexibility in Engineering Design* (MIT Press, co-authored with Prof. Scholtes of Cambridge University) appeared in 2011. Dr. de Neufville is known for innovations in engineering and education. He is the author of 6 texts on systems engineering. He has worked on projects “on all continents except Antarctica” and holds several international academic appointments. Numerous prizes, such as the Sizer Award for the Most Significant Contribution to MIT Education, have recognized this work. He has his Ph.D. from MIT and an honorary doctorate from the Delft University of Technology

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

**Dinner:** Chicken breast with mushroom marsala sauce; Wild rice; Steamed Broccoli, served with garden salad, dressing, rolls and butter, dessert, including a small Fruit Plate, coffee, iced tea

[>>Download the Meeting Flyer Here<<](#)

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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.



**Mark your Calendars with these upcoming events:**

March 20, 2013: (6:00 - 8:00)  
[Monthly Dinner/Lecture: Modern Requirements Verificatin, How much can you afford?](#)

**Reservations:** Purchase a ticket to this event by Credit card via PayPal, go to our [Registration Page](#)

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## Presidents POV

# Looking Forward

As many of you know, the INCOSE International Workshop was held in Jacksonville, Florida from 26-29 January 2013. Personally, it was a hectic and informative week. We were well represented as 17 members of our chapter joined 324 other INCOSE members - a record IW attendance for INCOSE, and all the more impressive given some of the current constraints on attending conferences and workshops of any kind. The 341 attendees came from chapters spread across 14 countries. There were approximately 30 Working Groups and an additional 40 sessions devoted to the operational side of INCOSE (e.g. Academic Council, INCOSE Foundation, Events Committee, and Tech Ops).

As a newly minted President, I spent most of my time participating in meetings devoted to the improvement of chapter operations. I learned a lot. Perhaps the most informative activity was the insight I gained as a participant in the meetings devoted to rating the chapter award submissions. Bob Levin and Tony Gigioli (past CC Presidents) were part of a leadership team that supervised the evaluation process. It was an eye-opening experience with respect to the rigor of the evaluation process, the verification of achievements, and the fact that most chapters (especially the more established ones such as the CC) provide a lot of extraneous information to support their self-ratings. It was a labor intensive process that took up chunks of time.

To address this issue, a Chapter Awards Lean Improvement Initiative has been established to examine the current chapter awards process and propose enhancements to simplify. As far as I'm concerned, it can't come soon enough! In addition, I attended several working meetings devoted to sharing best practices and lessons learned about improving chapter operations, retaining members, and the upgrading of the INCOSE Website. The latter will involve the upgrade of the current incose.org site and connect.incose.org to a feature-rich content management platform. The upgrade will provide INCOSE members and leaders with powerful tools to share information. The upgrade will impact all public sites and pages for INCOSE, the registration and renewal process, and the location of public chapter and working group sites hosted on the INCOSE servers.

Additional information can be gained by accessing <http://www.incose.org/NewSiteInfo> I also learned that the CC Chapter is well regarded in INCOSE, and frequently serves as a benchmark for the larger INCOSE organization (e.g. Website, Newsletter, Program, and Strategic Planning). But we still have opportunities for improvement.

To this end, I have invited the President-Elect David Long and the Technical Director Bill Miller to meet with the CC Board of Directors to hear their



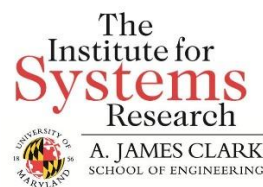
Philadelphia, PA  
June 24-27, 2013

[INCOSE International Symposium](#)

The Chesapeake Chapter is always looking for volunteers to speak at our upcoming meetings! Please contact our 2013 Programs Director, [Dr. Alex Pavlak](#), 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:

Booz | Allen | Hamilton



perspectives and explore ideas about improving chapter services. Don York, Alex Pavlak, and I took the opportunity afforded by our attendance at the IW to have a strategic planning meeting. We had a good preliminary exchange and developed a road map for completing a working draft for the Board by 22 February. We anticipate a more streamlined and user-friendly plan. When the Board approves the plan we will post it on our Website. Before leaving the IW, I also attended the INCOSE Foundation Board meeting. A major topic was the development of an initiative to honor the memory of David Wright. I will be the liaison between the Foundation Board and INCOSE. More information will be forthcoming in future issues of the Newsletter. My parting thought is that feedback at the IW indicated our chapter is experiencing real leadership as an organization and through the volunteer efforts of our membership, A lot of people mentioned that we are a valuable resource of information on how to run a successful chapter. Thank you to all who contribute!

*Bill Ewald CC President*

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## Did you miss last month's lecture [Open Source Cloud: OpenStack](#)



*Pat Holben, CTO, ZOT,  
Inc.*

Cloud based architectures dominate the IT space, and there is no more disruptive technology than an Open Source Cloud. In the short time it has been around, OpenStack has begun to turn the IT world on its head, and further advances in open source networking and storage technologies in combination with this software will have profound implications in the years to come.

[>>Check out the complete write-up on the event as well as Pictures <<](#)

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## Don't Miss The Upcoming Event In March [Modern Requirements Verification](#)



*William  
Fournier, CSEP,  
PMP*

Presentation: Testing is usually the preferred verification method but it is expensive. Real-world case studies, practical advice, and emerging trends of requirements verification to show the relationship between financial constraints and confidence needs applied to a program will be discussed. Requirements testing can be viewed as "confidence per dollars"; that is, for every dollar spent, how much confidence

is gained that the system is performing as required? It's an important question, the goal being to maximize the amount of confidence in a system while staying



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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 may wind up in a future issue of our Newsletter.

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within financial constraints. How verification relates to test event planning will also be discussed. Bill will also present why "tight traceability", in which the sum of the requirements equals the whole system, is a critical concept in large-scale system development where requirements number in the thousands. [>>Check out the Event Flyer Here<<](#)

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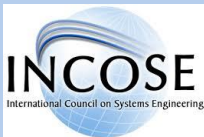
## Science Fair!

### Anne Arundel County Regional Science and Engineering Fair

Again INCOSE-CC is going to participate as a judge in the annual Anne Arundel County Regional Science & Engineering Fair to be held March 2nd at North County High School 8:00 -12:30. Over 200 middle and high school students participate. We will judge a selected set of projects and identify the top few we feel meet some basic principles that future SE's should possess. If you are interested in participating please contact [dongantzer@comcast.net](mailto:dongantzer@comcast.net) or [Donald.York@tasc.com](mailto:Donald.York@tasc.com)].

Also if you know of other county science fairs, or want to get more involved in similar activities as STEM [Science Technology Engineering Mathematics] please contact our Outreach lead [dongantzer@comcast.net](mailto:dongantzer@comcast.net) 410-956-1562.

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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, William Ewald](#) or our [Communications Officer, Oren Eisner](#). We value your feedback.

#### Board of Director Officers, 2013

- President: Dr. William Ewald
- Past President: Dr. Don York
- President Elect: Dr. William Ewald
- Treasurer: Mr. Richard Bentley
- Secretary: Mr. Mark Kaczmarek

#### Directors at Large

- Communications: Mr. Oren Eisner
- Programs: Dr. Alex Pavlak
- Membership Committee: Mr. Bob Lecorchick