Chesapeake Chapter
INCOSE
International Council on Systems Engineering

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March 2011 E-Newsletter

Special Issue on Systems Engineering Professional Certification

Welcome to our special issue dealing with INCOSE's Systems Engineering Professional Certification Program. Of course you can find out all things CSEP (as well as the ASEP, ESEP and Acquisition extension) at the INCOSE website. But they provide just the cold hard facts. What about the reality of filling out the application .... in taking the test .... and getting references?? Well this month our Newsletter provides stories, tips and resources for the aspiring certified SE. And our next Monthly dinner will address these issues by talking to several who have been through the ordeal. Be sure to join us on March 16th for this special event. It's going to be filled with great information. See you then! ~~ Paul B Martin, CSEP; INCOSE Chesapeake Communications Officer

Dinner Meeting - Wednesday 16 March 2011

Understanding the INCOSE SE Professional Certification Program

Paul B. Martin, CSEP -- Sr. Systems Engineer Serco-NA, Inc.

Presentation: Get smart on CSEP. What is CSEP? How do I get to be one? Is CSEP worthwhile? How does CSEP differ from ESEP and ASEP? Come get your questions answered about what INCOSE's CSEP 'is' and 'is not'. Understand the process for getting one. For the first half of our presentation, one of the Chesapeake Chapter's own CSEPs, Paul Martin, will explain CSEP, what it is, the application process, the preparation for and taking of the exam. Paul is the instructor for the CSEP prep course given by the University of Maryland Baltimore County Training Center. The second half of our presentation will consist of three INCOSE CSEPs (or variations, e.g. ASEP, ESEP) sharing their personal testimony about their CSEP experience, e.g. how they studied/prepared for the exam, how many times they took the exam, their career SE experience, whether or not CSEP has made a difference in their day to day work and/or career progression, etc. Come, listen, learn, ask questions and we will dispel all of your misconceptions concerning INCOSE's Certified Systems Engineering Professionals!

Speaker: Mr. Martin has more than 25 years experience as a General Engineer specializing in Systems Development and Procurement in the Defense Acquisition community. He is presently working as a Senior Systems Engineer for Serco-NA, Inc. He is also an Adjunct Professor for the UMBC College of Engineering and Information Technology, Systems Engineering Graduate Programs, where he teaches ENEE 663: System Implementation, Integration, and Test. He also teaches a CSEP preparation for UMBC Training Center. He has earned a Master of Science in Systems Engineering along with a Certificate in Software Systems Engineering from George Mason University in 1994. He also has a DAWIA

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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.

in Systems Engineering along with a Certificate in Software Systems Engineering from George Mason University in 1994. He also has a DAWIA Level III certification in Systems Planning, Research, Development and Engineering. In March 2007 he became an INCOSE "Certified Systems Engineering Professional."

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

Meal: : Corned Beef and Cabbage, Parsley potatoes, Green beans, served with garden salad, dressing, rolls and butter, dessert, including a small Fruit Plate, coffee, iced tea

>>Download the March Meeting Flyer Here<<
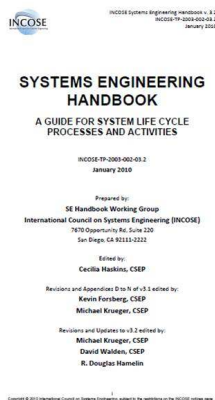
Reservations:
   - **By website:** Credit card via PayPal, go to our **>>Registration Page<<** for details on the presentation, more about the panelists, cost details, cancellations, and directions

Presentation ONLY: FREE (no reservations necessary)

The purpose of the Chesapeake Chapter is to foster the definition, understanding, and practice of world class systems engineering in industry, academia, and government. In light of that goal, every month at our dinner meeting we have a drawing for the latest in Systems Engineering literature. So come on out for a chance to win.

This month's door prize is:
INCOSE Systems Engineering Handbook v3.2
from INCOSE

The President's Corner

MBSE and CSEP

My theme for the INCOSE Chesapeake Chapter is still the value proposition: How does our local Chapter return value to you as a member? Last month, Mark Walker reported on the hot new topic in systems engineering -- Model Based Systems Engineering (MBSE). Read about the meeting in our article "Did You Miss Last Month?" article. Have you signed up for one of the MBSE discussion groups? Why not? This is your future! MBSE is how you as a systems engineer will make a difference in this world. Of course MBSE is new technology and comes in many different flavors. While there is opportunity there is also risk. If you are interested, please send me an e-mail John.Lewis@incose.org.

This month, on CSEP Nite, Don York and Paul Martin will be talking about current best practices in Systems Engineering as captured in the ISO/IEC 15288 standard. The CSEP certifies that you know and can apply current systems engineering

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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:

Local SE Training

Preparing for the Certified Systems Engineering Professional (CSEP) Exam

Obtaining a CSEP is not easy, but that's what makes it so valuable. You have to demonstrate your real world experience via a lengthy application and three references. Then you need to pass a

practice. For the engineer, the CSEP is a resume builder. It tells your boss and potential hiring managers that you are current and competent.

For the manager, CSEP and the SE Handbook have some interesting side effects. Instead of wasting time arguing about processes and their implementation, a team can now move out on day one with standardized solutions. The team can now focus its energies on problem solving and problem-specific process improvement. Consequently, whatever role you fill on the systems engineering team, the upcoming CSEP Nite is a not-to-miss meeting. I look forward to seeing you on Wednesday, 16 March 2011.

John Lewis, CC President,
john.lewis@incose.org

Feature Article

How I was able to become part of the exclusive CSEP club
by Paul Martin

[Editor's Note: This article was written in 2007 but the lessons learned are still relevant for today.]

On **March 23, 2007**, at around 1:45pm, I clicked the "end test" button and then I confirmed that I did indeed wanted to end the test. Then I waited, staring at the blank screen. This is not as instantaneous as they made it sound. As I waited I thought about how much time and effort it took me to get to this place. Would it be enough? Will I be able to say to my peers "Hey, I'm a Certified Systems Engineering Professional!"? I was seconds away from finding out. To think I started this process 254 days (or 9 months and 11 days) earlier, back on . . .

13 June 2006: I e-mailed four of my colleagues who knew my background in System Engineering. Three were engineers and the forth was my program manager. I did this several weeks before I started my INCOSE application. This was to (1) give them warning of what I was about to do; (2) make sure they were willing to do it and (3) get their contact information. Keep in mind, that once I submitted the application, my references only have **TWO WEEKS** to submit their recommendation. So I wanted to give them plenty of time to think about what they were going to say about me. Also I wanted to be sure I could get at least three. If any refused I would have to keep looking. When I e-mailed them I attached the recommendation instructions and form. I also related what activities I did back to the SE Roles located on the back of the instructions.

20 July 2006: Fortunately, three of the four did respond in the affirmative. (I found out later one of the engineers was on vacation and got inundated with work when he got back.) Once I had my references, along with their addresses, I sat down to fill out the application. It had two parts:

1. The application itself -- where you supply general information about you,

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two-hour, 120-question, multiple-choice exam. The courses listed below will help prepare potential candidates for this demanding process by becoming familiar with the INCOSE SE Handbook version 3.2 which is the basis for the examination.

1. Center for Systems Management

March 8 – 10th
Northern VA.

CSM the industry leader in preparing system engineers for the INCOSE CSEP designation, announces a public CSEP Preparatory class **Register >>HERE<<**

This course is taught by **Kevin Forsberg PHD, CSEP** co-founder of CSM, INCOSE fellow, recipient of the INCOSE Pioneer Award and winner of the INCOSE Outstanding Service Award for his work on INCOSE SE Handbook V3.2, the basis of the CSEP exam.

2. UMBC Training Centers

UMBC
Training Centers
offer an on-line
CSEP Prep Course
Dates: 4 Saturday Mornings,
April 2th -- 30th

>>Register Here<<

Up Coming Conferences

March 08 - 09, 2011
Sixth International Conference on Systems Engineering
The sixth International Conference on Systems Engineering in Israel is a premier forum for the elicitation and exchange of ideas on issues and problems regarding Systems Engineering. The conference is organized by INCOSE_IL / ILTAM and is supported by the Technion's Gordon

your education and, of course, your experiences at your places of employment. I just copied my resume (*which turned out to be a BIG mistake*.) Also the name and addresses/phone number of my references.

2. <u>and the proof of my education</u>. -- They do allow you to scan your college transcript or diploma. Which was fine for my Master's Degree from George Mason University. However, my diploma for BS in Engineering from Widener University was laminated into a 22x34 frame. I couldn't get it on the scanner so I took a digital picture, but it took several attempts to get the lighting, glare and shadows just right.

Finally ready, I sent in my application and digital images of my college transcript/diploma to certification@incose.org. I also got on the INCOSE website and paid my $300 Certification fee.

Also on the same day I sent out e-mails to my references, again with the recommendation instructions and form. I filled out as much as I could for them. I also reminded them to e-mail the completed recommendation form electronically to INCOSE.

3 Aug 2006: All my references sent INCOSE recommendations within the time required. I did have to follow up with a few reminder e-mails but they did come through for me. I sent INCOSE a note to say I had jumped through their hoops -- now what? They responded -- *Yes, your application and references have been sent to the review committee. Once it is approved, you will be notified as to how to take the exam.* -- Now all I could do is wait.

23 Aug 2006: E-Mail received -- *Hi Paul, written notice was mailed to you on August 14th. Unfortunately, your application was denied. I have attached a copy of the letter. There is an opportunity for you to appeal the decision.* -- Wow, didn't see that coming.

Want to find out how Paul gets his CSEP? Read More.

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Status of Model Based Systems Engineering

Mark Walker took an hour to provide an overview of two days' worth of model-based systems engineering (MBSE) presentations from the latest INCOSE International Workshop. Mark covered the four MBSE Essentials: 1. Methods (such as OOSEM); 2. Language Specifications (such as SysML); 3. Tools (such as Magic Draw) and 4. Training. He then proceeded to identify key perspectives and status information and charts, etc. from these IW presentations including the status of the INCOSE MBSE Initiative and the Challenge Teams progress/achievements to date. A MBSE Wiki has been stood up as a publically-accessible portal for collecting the information and work products from these initiatives and teams. Mark also explained the Unified Profile for DoDAF and MODAF (UPDM) which, as the name implies, is a standardized way of expressing DoDAF 1.5 and MODAF 1.2 artifacts using UML and SysML. But it also entails other Military Architectural frameworks such as DNDAF, NAF, AGATE, etc.

Get more details by download Mark's presentation slides here >> **<<.**

Center for Systems Engineering.

April 14 - 16, 2011
CSER2011 - Ninth Annual Conference on Systems Engineering Research
It has now been more than six decades since systems engineering methodologies and practices began to emerge to address the complex and challenging systems we now face on a regular basis. Much has been accomplished in that time and the value of systems engineering is not only unquestioned, but standards such as ISO/IEC 15288 and ANSI/EIA 632 are now widely recognised to be appropriate guidance to acquirers and suppliers for the creation of products and services. The theme of SETE2011 is therefore 'Systems Engineering in the Next Decade'.

May 01 - 05, 2011
Detroit, MI
Department of Defense Intelligence Information Systems (DoDIIS) Worldwide Conference
Hosted annually by the DIA Directorate for Information Management (DS) and Chief Information Officer, DoDIIS Worldwide provides a unique opportunity for defense intelligence community members and industry peers to come together for knowledge sharing, training and discussion of current and future information technology (IT) challenges and requirements. The conference's 2011 theme, Secure and Collaborative Intelligence in Defense of the Nation, highlights the DIA Chief Information Officer's commitment to developing and maintaining secure and reliable networks for Department of Defense personnel, services and information technology customers.

May 02 - 04, 2011
Canberra, Australia
SETE2011 The Systems Engineering Test and Evaluation Conference
SETE2011 (Systems Engineering Test and Evaluation) is a conference co-organized by The Systems Engineering Society of Australia (SESA), The Southern Cross Chapter of The International Test and Evaluation Association (ITEA) and INCOSE Australia. The theme of SETE2011 is 'Systems Engineering in the Next Decade"

June 20 - 23, 2011
21st Annual International Symposium
The INCOSE International Symposium is

Read our whole report on our website >>HERE<<

Also check out the INCOSE MBSE Workshop Wiki page >>HERE<< with all the presentations mentioned in Mark's presentation and more.

By the way the meal was great too. So make a point to join us next month.

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CSEP Tips

Tips for a successful INCOSE CSEP application
by David C. Alldredge, PE, CSEP, CAR, ITIL
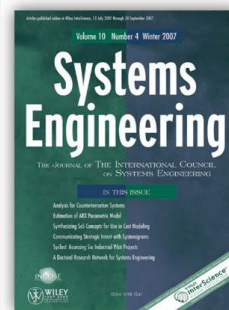*Associate, Booz Allen Hamilton*

I have been an INCOSE Certification Application Reviewer (CAR) for nearly a year now and have reviewed about 25 applications. After this experience I would like to offer my top 10 tips for CSEP applicants to make sure their application is accepted and processed quickly.

1. When you write up your experience, annotate the experience descriptions with the SE Work Areas listed in the "Summary Table of Applicant's SE Experience" later in the application (Form 1). Also add the number of months so it can be compared to what is in the summary table. This will make it very easy for the reviewer to verify the consistency between the two.
2. Don't worry if your contact information on old supervisors or companies is out of date or the companies have changed names. That is not particularly important unless the supervisors are also references.
3. When you put in your experience remember that if you only have five years of SE experience it all must come after your first technical degree

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With Connect you can also download the Dec 2010 Issue of INSIGHT *Systems Development in Extreme Environments from Deep Sea to Deep Space*

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was received. Also the claimed SE experience must be actual work experience and not academic experience as a student. Some academic programs do include full-time work. The portion of academic time that is actual full-time work can be counted.

4. When you select references, find people who have known you and your work for as much time as possible. Ultimately, you need to find people who can collectively vouch for at least the minimum experience time you need for certification.

5. When you select references, former supervisors are best but they don't have to be that. It is best to include at least one former supervisor. They just need to be familiar with your work and be experienced (see tip 6).   Colleagues or co-workers or even subordinates are ok as long as they meet the experience requirements and are familiar with your work.

6. Select references that are systems engineers or program/project managers with at least 10 years of experience themselves and are familiar with your work. They will need to describe their experience in their reference form. An INCOSE-certified CSEP is, by definition, a qualified reference.

7. Do not send your CSEP application to your references so they can just cut and paste from it when describing their experience. This is discouraged and some reviewers will reject the reference if they do that. What I did was to send my references a copy of my resume to help them remember the projects I worked on and the time frames. They should describe in their own words what types of work you performed on the projects they were familiar with. It does not have to match your description of the work. They may remember things you don't and vice versa.

8. Encourage your references to use the terminology that is listed as SE functions in the Form 2A "CSEP Certification Reference Instruction Form" in describing their own work experience. Also ask them to make sure and provide the number of years of experience they have.

9. Encourage your references to use the same list of the SE Functions when describing your work experience also. This will help the reviewer compare their description of your work with yours.

10. Monitor your references and make sure they get their forms sent in. Select at least 4 or more even though only three are required to make sure you actually get three submitted. If you call the INCOSE office they will tell you which of your references they have received.

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Newest Chapter Members

- **Vic Dingus** *TASC*
- **Melissa Sweitzer** *Booz Allen Hamilton*

We welcome our latest new members. We look forward to seeing you at our meetings and tutorials.

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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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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, John Lewis or our Communications Officer, Paul Martin. We value your feedback.

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Please use the Forward email link below so we can invite your friends to join our mailing list. Thanks in advance.

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