

## **UPCOMING EVENTS**

#### Interview Skills Workshop

Sponsored by AIAA, IEEE Coastal LA Section, INCOSE-LA, MIT Club of Southern California Presenter: Scott Olsen, The Olsen Group When: Saturday, December 10, 2011, 8:30 a.m. — 1:30 p.m. Cost: \$20 for AIAA, IEEE, INCOSE-LA and MIT Club members; \$40 for non-members Fee includes Continental breakfast, lunch, and networking *See page 5 for details* 

#### **INCOSE-LA Year End Holiday Party**

When: Sunday, December 11, 2011, 3:00 p.m.—7:00 p.m. Where: Susan Ruth's home, Whittier See page 5 for more details

#### IBM Rational Systems and Software Events

When: Tuesday, December 13, 2011, 8:30 a.m.-7:00 p.m. and Wednesday, December 14, 2011, 8:30 a.m. - 5:00 p.m. Where: Costa Mesa Cost: FREE See page 6 for more details

## SAVE THE DATE

International Workshop (IW2012)

When: January 21-24, 2012 Where: Jacksonville, FL

Conference on Systems Engineering Research 2012

When: March 19-22, 2012 Where: St. Louis, MO

#### INCOSE-LA Mini-Conference

When: Saturday, March 31, 2012 Where: Loyola Marymount University, Los Angeles See page 7 for more details

### NOT A MEMBER? JOIN INCOSE!

Learn more about becoming a member by clicking on: http://www.incose.org/membership/valueofmembership.aspx

## **Voice Your Choice!!**

The transition from 2011 to 2012 quickly approaches. Your 2011 Board of Directors (BoD) calls on you, the members of the Chapter, to take time to read your slate of candidates for the 2012 BoD. These candidates are presented to you on the pages that follow.

For those who are not familiar with the process of our Chapter elections, an explanation: the BoD consists of a "voting body" and an "appointed body." The voting body consists of ten positions, five of which are the "Executive Officers" and five of which are the "At-large Directors." The Executive Officers hold one-year terms while the At-large Directors hold two-year terms. The two-year terms are staggered to preserve Chapter knowledge from year to year. The appointed body consists of managers and chairpersons who are recruited to execute specific functions such as producing the *Newsletter* or the *Reflector*. Each functional area generally falls under the oversight of one of the directors. We want to stress the importance of the appointed body: it is the primary method for someone to engage in the operations of the Chapter and to progress into a position of the voting body.

An election committee reviews a preliminary list of names, which is constructed from the recommendations made by current and past officers, directors, chairpersons, and managers. Recommendations are based upon many factors that range from participation as an attendee (speaker meetings, tutorials) to volunteering in just about any capacity and who is willing to volunteer on the Board. Volunteer? Yes. As Paul Cudney, our Membership Director, so eloquently explained, "Serving on the Board is an excellent, low-risk method of gaining direct jobrelated experience." The committee then decides upon a slate of candidates.

It is now up to you, our members, to vote for the 2012 BoD. We proudly introduce to you our slate of candidates for next year's Board of Directors.

> **HOW TO VOTE:** Go online at <u>www.incose-la.org</u>. Voting period: December 1-December 30

## John Silvas Candidate for President (one-year term)



John Silvas is a Senior Associate at Booz Allen Hamilton, currently supporting the GPS Directorate at the Space & Missile Systems Center as the System Integration Lead on the System Engineering and Integration (SE&I) contract. In this role since October 2008, John has been leading a team of enterprise-focused integrators, with such functions as future GPS capability delivery planning and analysis, thread analysis, giver-receiver analysis, and earlylifecycle risk reducing system integration

demonstrations. The common focus for all of these functions is to work across system and segment boundaries (i.e., external interfaces) to ensure the new physical parts (satellites, control software, user equipment) integrate properly with each other and ultimately with the currently operational system.

John joined Booz Allen in June 1998 in McLean, Virginia as a consultant and has over 18 years of systems engineering experience, working mostly on large scale Department of Defense programs in the areas of requirements analysis, architecture development, technical management and control, systems engineering process improvement, and system integration. Prior to joining Booz Allen, he served in the US Air Force during the first Gulf War working in satellite communications - three years on active duty and five years as a reservist. He has a bachelor's degree from Virginia Tech in Industrial Design, and obtained his INCOSE Certified Systems Engineering Professional certification in Jan 2006.

John joined INCOSE in early 2004 to gain a better understanding of the overall systems engineering process, as well as increase his credibility with clients and colleagues. Shortly after giving a presentation on GPS at one of the INCOSE-LA Chapter monthly speaker meetings in September 2008, John became the Chapter's Programs Director serving for two years (2009-2010). More recently, he has served as the Vice President for the INCOSE-LA Chapter in 2011.

He is also a regular guest lecturer in the University of Southern California's Viterbi School of Engineering master's program where he lectures on interface analysis and systems integration helping to provide students with real-world examples and context for why these functions are so important in systems engineering.

## **Terry Rector Candidate for Vice-president** (one-year term)



Terry Rector is the Director of Government Relations at Physical Optics Corporation, Inc. (POC), in Torrance California. In this highly dynamic role, he manages Small Business Innovation Research (SBIR) Phase I and II projects, acting as intermediary between the company's Principle Investigators and the Department of Defense, commercial,

and civil agencies that participate in SBIRs. Additionally, his role requires Terry to oversee continued development of technology and commercialization opportunities while working interactively with Technical Directors, Vice Presidents/General Managers, and Corporate Marketing personnel.

Prior to joining POC in early 2011, Terry's experience included Director of Business Development for Com Dev, USA, and Senior Systems Engineer at Northrop Grumman Aerospace Systems, after completing a highly successful military career. He has over 25 years in systems engineering, project management and business development - advocating systems to make the war fighter's job safer and easier.

Terry has two A.S. degrees from the Communicate College of the Air Force in Space Systems Technology and Air Field Management, a B.S. degree in Electrical Engineering from Southern Illinois University and two Masters Degrees - one from the University of North Dakota in Space Systems and another from the University of New Hampshire in Program Management. Additionally, Terry has earned many honors and awards from AFCEA, AFA, AOC, and the Air Force.

(Continued on page 3)

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# INCOSE-LA Chapter NEWSLETTER

#### (Continued from page 2)

Terry joined INCOSE early in 2008 to gain a broader understanding of the overall systems engineering process, as well as to meet others in our industry with like interests. In 2010, Terry served as the INCOSE-LA Mini-conference Sponsor Chair. In 2011, Terry served as the INCOSE-LA CSER Conference Management Chair, where he led a highly motivated team of INCOSE-LA members in the planning and successful execution of CSER 2011. Terry's primary goal for his time in leadership is to increase the value of what the organization provides to its members and to the systems engineering profession.

### Alan Kirschbaum Candidate for Secretary (one-year term)



Alan Kirschbaum's active engagement in systems engineering practice stretches over the past 15 years. From 1999 to 2010 he provided space systems acquisition management consulting, defense system planning analysis, and engineering concept design services to Department of Defense clients on behalf of AT&T Government Solutions. He performed process analysis and improvement services

for Air Force Space and Missile Systems Center (SMC) systems engineering and acquisition policy activities. He authored strategic planning and execution roadmaps for acquisition wings and development planning organizations. Additionally, he managed broadly ranging systems and component technologies developments for risk reduction, including modeling and simulation, command and control integration, remote sensing, and space operations.

Prior to his role as a consultant for AT&T, he served as Director of Systems Engineering for all of SMC, beginning in 1995. There, he devised and implemented system-of-systems integration and interoperability solutions across Air Force space programs. He formulated the basic charter for the Space Mission Integration Office and put into practice the DoD Joint Technical Architecture for Air Force space systems at SMC. He tailored Performance Based Business Environment and Operational Safety and Suitability policies to Air Force space systems and was the INCOSE Corporate Representative.

Earlier, he functioned as associate director for technology, at DoD's Ballistic Missile Defense Organization, he headed the Seismic Systems Acquisition Division at Air Force Technical Applications Center, and he was the advanced systems integration manager in the Secretary of Air Force Office of Research. In all, he has enjoyed 39 years experience in DoD systems management and engineering including complex project management, advanced research and development, technology planning, and engineering organization leadership. His technical expertise is in astrodynamics, space remote sensing, controls, and communications with recognized mastery of aerospace and information systems design, test, and production.

In terms of INCOSE-LA Chapter activities, he is currently chapter secretary and has recently served on the technical program committee for INCOSE-LA 2009 and 2010 Mini-Conferences. He also is an Associate Fellow, American Institute of Aeronautics and Astronautics, a Senior Member, American Society of Mechanical Engineers and a Senior Member, Air Force Association. He's a registered Professional Engineer (Ohio) and is the recipient of the Legion of Honor.

Alan holds a bachelor's degree from the University of Maryland in Mechanical Engineering and an M.B.A. from New Mexico Highlands University. He's a graduate of the Defense Systems Management College and the National War College's National Security Management program.

Alan is currently serving on the Board of Directors as the Chapter Secretary.

## Harvey Soldan Candidate for Treasurer (one-year term)



Harvey Soldan is a systems engineer at The Jet Propulsion Laboratory and has over 30 years experience in NASA, military, and commercial systems. He joined The Jet Propulsion Laboratory as a contractor in 1987 and is currently the Deep Space

Network System Engineer for the DSN Aperture Enhancement Task. Previously he was the Deep Space Network Tracking, Telemetry and Command System Engineer. Harvey has worked on many military and commercial programs specializing in technical publications, testing, communications and systems engineering. Prior projects were for Raytheon, Walt Disney and Gould NAVCOM. Harvey received his B.A. from The Johns Hopkins University in Biology with a Chemistry minor. He is currently the INCOSE-LA treasurer.

## \*Stay Connected\* Get the latest on INCOSE-LA happenings in the Reflector e-mails If you wish to be placed on our e-mail distribution, contact Susan Ruth *Susan.c.ruth@aero.org*

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## Michael Maar Candidate for Ways and Means Director (two-year term)



**Michael Maar** is an Associate Technical Fellow with The Boeing Company. He is currently a systems engineer for the Ground Mobile Radio, and Joint Enterprise Network Manager. He is also working on satellite navigation system research and development. He joined Rockwell International in 1985. Over the years, he has led development of various types of communications and signal processing

systems, including international communication satellites, ground and space-based surveillance systems, space and airborne laser, and space shuttle orbiter mission data processing.

Michael was a technical chair for the INCOSE LA Mini-Conference in 2005. He supported the mini-conference in 2009 as finance/risk chair. He was a reviewer of the technical papers and the finance chair for CSER 2006. He was the finance chair for CSER 2008. He has been the INCOSE Awards manager since 2007. Michael is currently serving the Chapter as the Ways and Means Director.

He has participated as a judge for First Lego League and First Tech Challenge robotics competition events. Michael holds a B.S.E.E. (First Class Honours) from Hong Kong University, M.S.E.E. from George Washington University, and M.B.A. from Virginia Polytechnic and State University.

## Dr. Larry Earnest Candidate for Systems Engineering Education Director (two-year term)

**Dr. Larry Earnest** is a senior systems engineer at Northrop Grumman where he has performed critical systems engineering work on the B2 Stealth Bomber, F/A-18 Super Hornet, Global Hawk, Homeland Security Programs and other complex systems. Dr. Earnest recently earned his doctorate in Systems Engineering at Stevens Institute of Technology in Hoboken, New Jersey. He



earned his M.B.A. from the University of Redlands, and a B.S. in Industrial Technology Electronics, from California State University, Long Beach. His research interests are process architecture and cognitive systems engineering.

In addition, Dr. Earnest has been an active participant in the INCOSE Lean Systems Engineering Working Group as well as a member of National Defense Industry Association, Society For Design and Process Science, and Systems Engineering Advisory Group.

#### The Board of Directors wishes to welcome the following new members in the Los Angeles Chapter of INCOSE:

Note: The information listed below is from the member directory and is based upon your initial membership application. If the information is not correct or complete, then please access the member directory (at <u>www.incose.org</u>) to update your information.

Name	Title	Company	
Michael Sievers	Senior Systems Engineer	Jet Propulsion Laboratory	
John Campbell	Systems Test/Verif. & Valid. Engineer	Man Tech International/ Jet Propulsion Laboratory	
Delia Reyes	Student	University of Southern California	
David Cordell	Senior Systems Engineer	IT/NASA/Dell Federal	



## In Memoriam

INCOSE Midwest Gateway Chapter and members of The Boeing Company Systems Engineering community wish to mark the passing of Bill Schoening.

Bill was a Technical Fellow of Boeing, a Past President of the International Council on Systems Engineering (in 1997), an INCOSE Fellow, a Founding Member of the Midwest Gateway St. Louis Chapter, the first elected President of the Midwest Gateway Chapter (1992), and was serving as chapter Treasurer at the time of his passing. He was an avid birder and juggler. Bill passed away on November 5, 2011 at Missouri Baptist Hospital, St. Louis. He was 69 years old.

### INCOSE-LA Chapter NEWSLETTER

### **Interview Skills Workshop**

#### Sponsored by:

- American Institute of Aeronautics and Astronautics
- Institute of Electronic and Electrical Engineers, Coastal Los Angeles Section
- International Council on Systems Engineering, Los Angeles Chapter
- Massachusetts Institute of Technology (MIT) Club of Southern California (CSC)

Presenter: Scott Olsen, of The Olsen Group

#### PARTICULARS

When: Saturday, December 10, 2011, 8:30 am – 1:30 pm

Where: Northrop Grumman Café

One Space Park Drive 'S' Café

Redondo Beach, California

(On Marine Ave, a quarter mile east of Aviation Boulevard) Note: the meeting is in open area, so no badge required.

**Cost:** \$20 for members of the sponsoring organizations, \$40 for non-members. Fee includes workshop and refreshments.

#### Schedule:

8:30 a.m. – 9:00 a.m.: Continental breakfast and registration 9:00 a.m. – 9:15 a.m.: Introduction

9:15 a.m. – 10:00 a.m.: Increasing You Value to an Employer—Anthony Nicoli, MIT CSC

10:00 a.m. - 10:15 a.m. Break

10:15 a.m. – 12:15 p.m. Power Interviewing Skills Workshop – Scott Olsen, The Olsen Group

12:15 pm – 1:30 pm: Lunch and Networking

**Abstract:** The job market is tough these days. It pays to be prepared to present what you have to offer to a prospective or current employer with clarity and impact. But where can you learn the skills required to master an interview?

Four Los Angeles organizations have joined together to bring you this Interview Skills Workshop. This is a rare opportunity to learn how to increase the value you bring to an employer and to hone your ability to articulate that value during an interview.

Scott Olsen of The Olsen Group, an accomplished career counselor and trainer, will lead a half-day program where you will learn interview techniques to help you land your next dream job, including how to handle difficult interview questions and how to make your strengths shine.

Whether you are seeking to reenter the workforce or are currently employed and considering a career change, this event will make sure you're perfectly poised when opportunities come your way.

Registration: Register online at:

<u>http://alumweb.mit.edu/clubs/mitcsc/BrowseWeb.do?</u> webSiteId=SI000397&webPageId=P008&eventId=43324 Register soon! Capacity is limited.

#### **Directions to Northrop Grumman Café:**

- From the 405, exit onto Rosecrans-West.
- Turn LEFT onto Aviation (third stoplight).
- Turn LEFT on Marine (second stoplight).
- Turn RIGHT at the next stoplight.

• Parking lot and Building S are on the RIGHT at end of driveway.

The meeting is in the lower level cafeteria. Google map reference:

http://maps.google.com/maps?

f=q&source=s\_q&hl=en&geocode=&q=marine+ave+manhattan +beach&sll=37.0625,-

<u>95.677068&sspn=55.543096,71.806641&ie=UTF8&ll=33.8939</u> 23,-

118.374496&spn=0.001799,0.002191&t=h&z=19&iwloc=A

#### **Testimonial:**

"I attended the Interviewing Skills Workshop in 2010 and found it to be excellent. Scott's experience and advice was very helpful and the interactive nature of the workshop allowed me to gain real-world experience in interviewing skills. The group activities were beneficial because they helped me to greatly reduce my anxiety about job hunting and improve my confidence going in to interviews.

Thanks again and please invite me to the next workshop."

Greg Griffes 2010 IEEE Coastal LA Section chair

For-profit Chicken Littles are necessarily averse to the systems engineering process.

## You are invited to the INCOSE-LA Chapter Holiday Party

Sunday, December 11, 2011, 3:00 p.m. to 7:00 p.m. at Susan Ruths' house (in the Whittier heights area)

### Great People \* Fine Food Gift Exchange \* Lots of Fun \*

No cost for member and one guest Bring a non-gag gift for a white elephant gift exchange (something you already have, but feel guilty throwing away re-gift or purchased item ~\$15 value)

#### R.S.V.P. on line by December 9, 2011

Go to http://events.r20.constantcontact.com/register/event? llr=l4ihvgeab&oeidk=a07e52q19xg57cf82a7

Your R.S.V.P. is essential to plan appropriately. Please indicate if you will be bringing a guest. While this is intended as an adult party, if bringing your children makes sense, they are welcome...please provide their ages to allow for appropriate food and activity preparation

Directions to Susan's home will be provided as an acknowledgement of your R.S.V.P.

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## Smart Products for a Smarter Planet



## Free IBM Rational Systems and Software Engineering Events

IBM invites INCOSE-LA to join them for *three* Rational<sup>®</sup> systems and software engineering events to learn how IBM<sup>®</sup> Rational is helping to lead the innovation agenda while addressing the complexity challenge. Events include a symposium (day of December 13, 2011), an IBM/INCOSE reception (evening of December 13, 2011), and hands-on workshops (day of December 14, 2011).

### 1. Symposium

Date: Tuesday, December 13, 2011
Time: 8:30 a.m. - 5:00 p.m. (registration & breakfast start at 8:30 a.m.)
Location: Hilton orange county/ Costa Mesa
3050 Bristol Street
Costa Mesa, CA 92626
714-540-7000
Topics: How DOORS helps JPL, aerospace and defense roadmap, us army application of the model based approach, link data approach to integrating domains, DoDAF, demonstrations and more.
Meals: breakfast and lunch provided

### 2. IBM/INCOSE Reception

Date: Tuesday, December 13, 2011
Time: 5:00 p.m. - 7:15 p.m.
Location: Same as above
Special Topic: Includes the presentation, "IBM Watson and Jeopardy: was it only a game?"

### 3. Hands-on Workshops

Date: Wednesday, December 14, 2011 Time: 9:00 a.m. – 5:00 p.m. (registration starts at 8:30 a.m.) Location: 600 Anton Blvd., Second Floor-Rm. #208 Costa Mesa, CA 92626 Topics: Marning Session Hands on experience applying IBM Bat

**Morning Session -** Hands-on experience applying IBM Rational doors, IBM Rational Rhapsody and IBM Rational team concert with process guidance on best practices – comprising a complete lifecycle solution for systems engineering and embedded software development.

Afternoon Session - Hands-on session provides an in-depth look at the process of defining and managing requirements throughout the systems and software development lifecycle. Complimentary lunch and parking

**Registration and more information:** https://www-950.ibm.com/events/wwe/grp/grp004.nsf/v16\_enrollall? openform&seminar=Z25SU5ES&locale=en\_US&invemail=&S\_TACT=NA

### INCOSE-LA Chapter NEWSLETTER Vol. 9, Issue No. 12 Election Special 2011



## **CALL FOR PRESENTATIONS**

### INCOSE LOS ANGELES CHAPTER (INCOSE-LA) 2012 Mini-Conference



Saturday, March 31, 2012 Loyola Marymount University, Los Angeles CA

## Systems Engineering for Agility and Affordability

**Systems Engineers** have a long and successful track record of delivering large and complex systems. In response to a fast paced, cost constrained and continuously changing world, systems development has become closely integrated with business objectives like value creation and assured ROI. Investment capital requires low costs, manageable risks, and high reliability, which in turn makes a disciplined approach to systems engineering even more critical and places a higher premium on program execution.

This **Mini-Conference** will consider practical approaches to performing system engineering more efficiently and effectively, which may involve bringing more 'agility' into systems engineering processes.

In order to advance systems engineering as a discipline and as a profession, we invite you to submit a one page abstract of your idea for a presentation. Suggested topics include:

- Innovative methods for designing affordable solutions in an environment where requirements are increasingly more complex and funding is limited
- Assuring completeness and discipline in the systems engineering process while embracing an agile mindset.
- Use of new collaborating technologies, including web-based platforms, to manage globally distributed development resources.
- New architectural paradigms like service-oriented architecture and cloud computing.
- Capturing agility, responsiveness, and trustworthiness as design attributes in system trades.
- Early concept engineering and the need for speed, including the rapid conceptualization, design and manufacture of highly resilient, adaptable systems.
- Case studies on successful collaborative and/or cross-industry projects are especially welcome. A common, integrated set of best practices that could enhance overall program success.

Presentations will be limited to 20-25 minutes with 5-10 minutes of Q&A, for a total time of 30 minutes. Please send a one-page or less summary of your presentation to the Technical Chair, Mark Gallo (email: mark.gallo@incose.org) by **December 31, 2011**. You will be notified of acceptance by **January 30, 2012**. Your final presentation is due by **March 9, 2012**. When you are notified of acceptance, the presentation format will be provided. Ideally, all communications will be through email. If this is not possible, please advise immediately so that we can make arrangements to accommodate your needs. Should you have further questions, address them to Mark Gallo at mark.gallo@incose.org.



INCOSE-LA Chapter NEWSLETTER

## Volunteerism **My Perspectives**

#### **Bv** Susan Ruth

How many of you have been, are, or aspire to be a manager? Whether you wish to try your hand at managing people or projects, the skills you learn while volunteering in a volunteer-managed environment, such as INCOSE-LA, are without equal.

One such skill is motivating others. Naïve or untested managers often believe their jobs come with the power and authority to compel others do the right work and to do the work right. Seasoned managers know, however, that the number of carrots and whips a manager actually has are few and not very effective in the long run. Other motivational techniques are needed to encourage people to do their jobs. Given that in volunteer environments we do not get to hire or fire anyone, we have no carrots or whips at all. Therefore, a volunteer environment is a great place to learn alternative motivational techniques and discover what works and what does not.

The topic of volunteer motivation arose recently when your chapter leadership invited John Thomas, INCOSE Presidentelect, to participate in a discussion of proposed bylaw changes that include creating new organizational positions. This rearranging of "the org chart" begs the question; why would (should) people want to do that job? What is in it for them?

Knowing that in any volunteer environment it is crucial to make sure that the volunteers get more than they give, I volunteered to describe various volunteer types and the activities each would value. Understanding this "volunteer space" is critical to creating positions that give people a personal motivation for "stepping up to the plate" and carrying out the activities needed to keep a volunteer organization moving.

Main principle: Volunteer time is precious - respect it, use it wisely.

Volunteers come in many flavors. Some people have a lot of time they are willing to "donate". Others want to participate, but have limited time with only specific time slots available, e.g., only at work, or only at home. Additionally, it is important to identify what motivates potential volunteers. Here are some of the motivations that I have observed. Activity and position characteristics appealing to those motivations appear in parenthesis.

- 1. Improving the depth and breadth of one's network (regular interactions, in venues such as workshops, with people they would like to meet, e.g., sales contacts, senior people from their own organization, or thought leaders in a particular subject)
- 2. Developing and honing leadership skills (opportunities to guide the organization into the future; usually, this is not enough by itself.)
- 3. Developing and honing management skills (assuring that present positions and activities are executed with quality; sually, this is not enough by itself either.)

- 4. Developing a social group (Los Angeles Chapter speaker meetings, networking events, holiday event)
- 5. Advancing a particular pet project (satisfy a personal challenge, advance the state of the art, useful for work, advances a credential, is energizing, engage technical area leaders.)
- 6. Checking a box for a resume
- 7. Looking good to the boss
- 8. Enhancing visibility
- 9. Feeling like they will make a difference, personal satisfaction, and
- 10. Creating a personal forcing function to maintain technical currency and/or connections (Attend speaker meetings, bringing the refreshments to the speaker meetings).

There are probably more motivations, but I think these are the basics. In any case, identifying the characteristics of potential volunteers before completing a new position description helps increase the odds of success when approaching people to fill the position. In our chapter, we routinely rearrange position titles and content to adapt to our volunteer pool. Note the separation above between leadership and management. I have found that most people are naturally a leader or a manager, not both. My personal experience is that the volunteer environment is the best "hands on" management training and leadership experience.

In summary, each of us has only one life to live and volunteering to the extent we can is personally and professionally rewarding. While this article was aimed at volunteering within INCOSE, its principles hold true for any organization including those in which we earn our livings. For example, when you seek to get the machine shop to meet your deadline, especially if you are not a manager, you are recruiting a volunteer within your company. Potential volunteers - step out with courage to maximize the personal and professional value of your time. Volunteer!

#### SPAM – Not! Renew Your Membership

Your INCOSE membership is in jeopardy, if email from info@incose.org is trapped by your SPAM filter. INCOSE no longer sends renewal reminders by mail, so look for your renewal reminder in your inbox.

Your member record is the key; reminders are emailed only to the first email address in your record. If you are not getting INCOSE E-Notes, then your email address may not be valid, or your SPAM filter may be overly enthusiastic. You can verify your contact information on-line at http://www.incose.org click on "View / Update your Member Record" (left column).

For most of us (over 200 in the Los Angeles Chapter), our INCOSE memberships expire early in June. Renewal reminders will be emailed 30 days and 15 days before your membership expiration date. A drop notice will be sent 15 days after your membership lapses.

We look forward to having you as an active INCOSE member all year. Renew your membership now - on-line at

## INCOSE-LA Chapter NEWSLETTER

#### **SPIN on November Speaker Meeting**

By Byron Hawkins, SoCal SPIN

An announcement on the Southern California Software Process Improvement Network (SPIN) email list recommended this evening's presentation on Human Centered Design (HCD). It was the first I had heard about INCOSE, so I was interested to see what the organization is about, and as a Java user interface architect I am always interested in the topic of usability. Another point of interest for me is the relationship between university research and technology production, so this was an opportunity to learn how two University of California, Irvine, professors (Drs. Hadar Ziv and Judith Olson) build their curriculum on a business-specific subject, and how they connect with the business world through consulting and by proxy of their students.

The presentation outlined two distinct categories of implementation challenge in HCD, and showed how they are most effectively accomplished. Introducing HCD into a project begins with management buy-in, which has proven difficult with less mature organizations. The return on investment can easily be established with concrete data from a broad range of HCD successes, some of which are very well known, such as the iPhone. There are many kinds of value to be gained, from increased sales and customer retention, to optimization of employee work effort, to improved user focus and willingness to participate, to alleviation of support costs and legal liability. Incorporating HCD early in a project's lifecycle reduces the risk of rework down the road, which is always expensive and often causes major logistical complications. Reasons abound for making HCD an essential factor in any technology product, though it is still common practice for project management to put it off until the symptoms of "unusability" demand attention.

Once a project has made a commitment to usability goals, there are of course many challenges in accomplishing them. The essential factors of HCD appear throughout all aspects of a product, including the details of each user interaction, user perception of the product's state graph, the discoverability of features, and so on. While it might seem convenient to simply add an HCD phase to the project workflow, the permeating nature of usability requires that all phases of the product lifecycle include an HCD component. For some phases like mockups and storyboards, usability awareness can be incorporated into the existing methodology. Other phases require introducing a new unit of work specific to HCD. This May be a simple peer of its technical counterpart, such as a user testing phase to go along with functional testing, or it May involve novel concepts like the "archetype user". The common challenge in all cases is for a development organization to put aside technical concerns long enough to discover what actual humans experience while using the product.

As a software development team lead, the takeaway for me is that there is an opportunity to improve usability in every phase of a project. If my team has been allocated a sprint that includes no points of concern for human users, then I need to discover what has been left out, seeking expertise from colleagues and from websites like http://www.useit.com. If I am not free to authorize the adjustments myself, at the very least I should suggest to management that an important value factor seems to have been overlooked. The software will pass all its functional tests whether it is useful to people or not, so it is a matter of professional discipline and understanding to maintain sufficient attention to the human factors.

#### Usability is King!

A Report From the November Speaker Meeting By Alisa E. Stimage

What is in it for "us"? When people hear about the latest iPhone software upgrade or design, you will see people sleeping outside of stores at many locations across the globe to get this new product. The iPhone phenomenon has demonstrated "users and usability are key....if it does not work for people, it does not work"!

Listening closely via teleconference at Antelope Valley College – we learned that professors Hadar Ziv and Judy Olson from University of California Irvine, have got it right. We have to create "human centered design" (HCD) systems for real world experience.

- Process of designing from the user's perspective
  - Does the right thing
  - Is easy to learn and use
  - Is satisfying
- Return on investment (ROI)
  - When using HCD well, sales, internet traffic count and user's performance all increase
- Most companies doing HCD spend about 10% of total budget on HCD. Estimates vary by the organization's maturity, their commitment to quality and the size of their project.

So why spend the money? Employees of large or small companies want to feel like they are a part of something. Employees are considered "human" capital (asset) on a company's balance sheet, if a company wants to improve its ROI, you have to provide them with a tool or "human centered design" system that is "usable" to get that positive return on investment.

As defense budgets are shrinking and "we have to do more without more", the undersecretary of defense Dr.. Ashton carter. We have to relay the message to our customer to come up with a "usable" concept of operations (CONOPS) document that can assist the engineers with defining requirements that are "human centered" to include those in a "hybrid value chain" (HVC) system.

What do I mean by HVCs? Hybrid value chains are those individuals who possess the knowledge, skills and abilities to perform a set of requirements for a desired outcome working in a virtual environment. Setting up a physical infrastructure costs money and it takes time to recoup money on your investment especially on large capital items; with the development and improvements in technology, everyone is thinking "affordability" but also need to include "usability".

If it does not work for the people, it does not work and it isn't affordable!

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The International Council on Systems Engineering (INCOSE) is an organization formed to advance the art and science of systems engineering in both the public and private sectors. INCOSE's mission is to advance the state of the art and practice of systems engineering in industry, academia, and government by promoting interdisciplinary, scalable approaches that produce technologically appropriate solutions that meet societal needs.

The Los Angeles Chapter meets several times per year for speaker meetings, and, in addition, sponsors tutorials, mini-conferences and other activities of interest to those in the systems engineering field or related fields.

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