



# NEWSLETTER



2002, 2004-10



2003



2008 President's Award for Most Outstanding Chapter



## ★ ELECTION EDITION ★

### UPCOMING EVENTS

**INCOSE-LA Holiday Party**

When: Saturday, December 11, 2011

Where: Roz Lewis' House

R.S.V.P. by December 9, 2010

*Details on page 8*

### SAVE THE DATE

**January Speaker Meeting**

**New Officers, Awards, Town Hall Discussion**

When: January 11, 2011

Where: Boeing, Huntington Beach, CA

*Details on page 8*

**INCOSE International Workshop 2011**

When: January 29—February 1, 2011

Where: Hyatt Regency, Phoenix, AZ

*Go to [www.incose.org](http://www.incose.org) for more details*

**February Tutorial**

**Model-Based Systems Engineering/SysML**

Presenter: Sandy Friedenthal

When: February 4-5, 2011

*More details to come in future newsletters*

**CSER 2011: Conference on Systems Engineering Research**

When: April 14-16, 2011

Where: Crowne Plaza Hotel, Redondo Beach, CA

*Details on pages 5 & 7*

### Board Elections

The transition from 2010 to 2011 quickly approaches. Your 2010 Board of Directors (BoD) calls on you, the members of the Chapter, to take time to read your slate of candidates for the 2011 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 job-related experience.” The committee then decides upon a slate of candidates.

It is now up to you, our members, to vote for the 2011 BoD. We proudly introduce to you our slate of candidates for next year’s Board of Directors.

**Members, please vote on line!**

<http://www.incose-la.org>



**Voting period:  
December 1-31, 2010**

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# VOTE MEET THE

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**President: Beth O'Donnell**  
(one-year term 2011)

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**Beth O'Donnell** is a Systems Engineer for the Boeing Research and Technology, Strategic Projects and Analysis organization. In this role she is responsible for affordability, cost-effectiveness, operations analysis, and trade study support to a variety of military and NASA proposals and programs, as well as for internal development projects. Beth was the Systems Engineering affordability lead for the Ares I Avionics and Upper Stage successful proposal efforts. She has expertise in systems engineering and affordability for new space system programs including satellites, launch vehicles, and manned vehicles, as well as missile defense and UAV programs.



Beth has been a member of INCOSE since 2004. She has served as Secretary for the INCOSE-LA chapter in 2008 and 2009, and was vice-president in 2010. She has been active on the committees for CSER 2008 and for the 2007, 2009 and 2010 INCOSE-LA Mini-Conferences, and is also involved in several INCOSE working groups. Her goal for INCOSE-LA for 2011 is to continue to work to bring products and services of value to the local systems engineering community, and to encourage participation by members for the purposes of career development, education, and furthering the discipline of systems engineering.

Beth has a B.S. in Industrial Engineering from Cal Poly, San Luis Obispo and an M.S. in Systems Architecting and Engineering from USC.

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**Vice President: John Silvas**  
(one-year term 2011)

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**John Silvas** is a Senior Associate at Booz Allen Hamilton, currently supporting the GPS Directorate at the Space & Missile Systems Center (SMC) as the System Integration Lead on the System Engineering & 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, mission thread analysis, giver-receiver analysis, and early-lifecycle 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 a total of 17 years of systems engineering experience, working mostly on large scale DoD 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 U.S. Air Force during the first Gulf War working in satellite communications – three years on active duty and five years in the reserves. He has a B.S. degree from Virginia Tech, and obtained his INCOSE Certified Systems Engineering Professional (CSEP) certification in January 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. More recently, he has served as Programs Director for the INCOSE-LA Chapter in 2009 and 2010.

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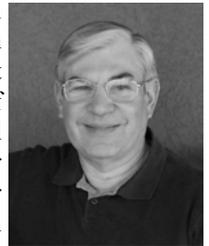
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**Secretary: Alan Kirschbaum**  
(one-year term 2011)

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**Alan Kirschbaum's** active engagement in systems engineering practice stretches over past 15 years. From 1999 to 2010 he provided space systems acquisition management consulting, defense system planning analysis, and engineering concept design services to DoD 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 AT&T consultancy, 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 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's enjoyed 39 years experience in DoD

# CANDIDATES

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.

Alan has been a participant in INCOSE-LA Chapter activities, most recently having 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 B.S. 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.

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**Treasurer: Harvey Soldan**  
(one-year term, 2011)

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Candidate statement and photograph were unavailable at press time, but is posted along with the other candidate information at [www.incose-la.org](http://www.incose-la.org).

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**Programs Director: Michael Kim**  
(two-year term, 2011-2012)

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**Michael Kim** is a Senior Professional Staff in Space Systems and Application Group at the Johns Hopkins University Applied Physics Laboratory. He is currently working on requirements and interfaces analysis in Mission Control Segment for Enhanced Polar System (EPS) Satellites. Previously, he worked for Booz Allen Hamilton as an Associate

performing systems engineering and integration tasks on various space programs sponsored by U.S Air Force, e.g. Space Launch and Test Range Modernization efforts for Vandenberg AFB and Patrick AFB, Space Situational Awareness for Joint Space Operations Center (JSpOC), and MILSATCOM systems for joint users. Prior to Booz Allen, he worked for Northrop Grumman Corporation as Systems Integration Lead working on Common Bomber mission planning system for C2ISR Directorate at Electronic System Center (ESC). He was also IV&V analyst for Minuteman III ballistic missile targeting program and operational flight/ground programs under Nuclear Surety Cross Check Analysis (NSCCA) program.

Michael is a prior U.S. Army Chemical officer proficient at

Nuclear, Biological and Chemical defense doctrine and sensor/reporting technologies. His military tour includes four years in Germany and a deployment to Macedonia as the United Nations Pre-Deployment Forces.

Michael is a Certified Systems Engineering Professional (CSEP) and has been a member of INCOSE since 2004. He has volunteered for various local INCOSE LA Chapter activities including chairing Systems Engineering for Integrated Technical Business Environment track at 2005 Mini-Conference and working as Deputy Programs Director and Chapter Website Technical Manager last year. Michael is looking forward to working as Programs Director at INCOSE LA Chapter for next two years. He would like to bring more exciting learning and networking opportunities to local INCOSE members through monthly INCOSE LA Speaker Series meetings.

Michael has a B.S. in Physics from U.C. Berkeley, an M.B.A. degree from U.C. Irvine, and an MS in Systems Architecting and Engineering from USC. He has been married for over seven years to his wife Julie, and they happily live in Marina del Rey, California.

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**Communications Director: Edie Ung** (incumbent)  
(two-year term, 2011-2012)

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**Edie Ung** is Systems Engineer, Manager III, at Raytheon Space and Airborne Systems in El Segundo. She is currently an operations manager for one of their business area chief engineers. A twenty-year employee, who started her career originally at Hughes Aircraft, she has rotated through a number of opportunities from a software engineering, configuration management, and process improvement to earn more management responsibilities by becoming a project lead and control account manager and line management.



In addition to her many years of experience in the aerospace industry, she has worked in the commercial industry as well. Previously, Edie was a software systems engineer developing systems in information technology, networking, and financial services for Lockheed Federal Credit Union, and she was a process engineer and requirements manager at Motorola, supporting new technologies in the Personal Communications Sector.

An INCOSE member since 2008, Edie volunteered as one of the Newsletter co-editor later that year to become more involved in the INCOSE-LA Chapter. Currently, she is completing her two-year term as Communications Director for 2009 and 2010 and continues as Newsletter co-editor.

Edie earned a B.S. in Computer Science from California State University, Los Angeles, and completed a pre-med program.

# MEET THE CANDIDATES

(continued from page 3)

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## Membership Director: Paul Cudney (incumbent) (two-year 2011-2012 term)

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Paul Cudney recently retired from his position as Senior Systems Engineer with Lockheed Martin. He has nearly 45 years experience in systems integration, software maintenance, test, and verification for real-time, ground-based control systems involving aircraft, missiles and satellites.

Paul served as Chairman of the Los Angeles Chapter of the Association for Computing Machinery (ACM), and also as Chairman of the ACM Committee on Chapters. In addition, Paul is a member of the Steering Committee for the Southern California Software Process Improvement Network.

Paul has been an INCOSE member since 2000, was twice Track Chairman at INCOSE-LA Mini-Conferences, once Secretary of the Chapter, and has served as Membership Director for the past untold years. Paul vigorously supports activities to increase the knowledge and stature of our members, and seeks to increase member participation as a low-risk method of gaining direct job-related experience.

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## INTERIM ELECTION

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### Ways & Means Director: Michael Maar (2nd year of two-year term-2011)

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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 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.

He has participated as judges 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, B.S.E.E. from George Washington University, and M.B.A. from Virginia Polytechnic and State University.

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## Elected Board Member Returning in 2011

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### Systems Engineering Education Director Shirley Tseng

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Shirley Tseng was elected to this office in 2008 and again in 2010. Shirley has experience in space operations, ground systems, spacecraft systems, satellite networks with general systems engineering, software engineering, and system architecture. Shirley began her engineering career with satellite space operations and ground system development at GE (now

Lockheed Martin Mission Systems). She joined Hughes Aircraft Corporation, Space Communication to work on MILSTAR Spacecraft systems engineering and Hughes New Venture Organization to work on satellite technology and business service development on emerging satellite services, such as XMRadio and Spaceway systems. With MorganFranklin, Shirley supports customers such as NASA, the Navy, and Missile Defense Agency (MDA) with advance technology support, space mission and data services development, DODAF and JCIDS development, architecture and system development, network architecture, and tool environment development.

Shirley actively keeps up with many disciplines with membership and participation in numerous organizations. Shirley joined the INCOSE-LA Chapter when it was first formed and is an active member attending most meetings and tutorials. Shirley has supported the prior two CSERs with publicity support.

Shirley is a graduate of the University of Pennsylvania with degrees in Systems Engineering and Wharton Economics.



**CSEAR** 2011  
CONFERENCE ON SYSTEMS  
ENGINEERING RESEARCH  
An International Conference

**Conference Flyer**  
Ninth Annual Conference on  
Systems Engineering Research

April 14-16, 2011

Crowne Plaza Redondo Beach & Marina Hotel  
Redondo Beach, California

<http://www.incose-la.org/cser2011/>

## Conference Topics

We will enjoy research papers and thought provoking discussions addressing the conception, design and architecting, development, modeling and simulating, production, operation and support of systems; definition of metrics of performance, and improvement methods; assessment and mitigation of risks; definition of critical success factors, and best practices.

## Venue

Our headquarters hotel for CSER 2011 is the beautiful Crowne Plaza Redondo Beach & Marina Hotel. Overlooking the Pacific Ocean and King Harbor Marina, this convenient beach hotel is just 7 miles from Los Angeles Airport (LAX) and is close to many favorite Southern California attractions.

## Agenda

The CSER 2011 agenda will follow a format similar to other CSERs in the past by having plenary sessions, concurrent tracks, and a banquet with keynote speaker. The agenda is under development and will be made available shortly.

## Sponsorship

There are opportunities to sponsor, demonstrating your company's commitment to the continued growth of this exciting engineering discipline. If your organization is interested in sponsorship, please contact our CSER Corporate Liaison, Mr. Jose Garcia at [jose.s.garcia-jr@boeing.com](mailto:jose.s.garcia-jr@boeing.com).

## Registration

The registration web site is under development and will be up and running shortly. In the meantime, if you want early registration or related information, please email [registration@incose-la.org](mailto:registration@incose-la.org) for details.

## Volunteer Opportunities

Be part of history! Join our exciting team as we plan, organize, and execute this event. Please contact Harvey Soldan at [harvey.soldan@jpl.nasa.gov](mailto:harvey.soldan@jpl.nasa.gov) for volunteering opportunities.

INCOSE-LA in partnership with the University of Southern California and Stevens Institute of Technology presents the 9<sup>th</sup> annual Conference on Systems Engineering Research

The conference objective is to provide practitioners and researchers in academia, industry, and government a common platform to present, discuss and influence Systems Engineering research with the intent to enhance Systems Engineering practice and education. Papers are solicited pertaining to research in all these areas.

### Conference Honorary Chair:

George Friedman, USC

### Conference General Co-Chairs:

Azad Madni (USC)

Elliot Axelband (RAND)

### Technical Program Co-Chairs:

Roger Ghanem (USC)

Marilee Wheaton (The Aerospace Corporation)

### Conference Management Chair:

Terry Rector (COM DEV – USA)

[terry.rector@comdev-usa.com](mailto:terry.rector@comdev-usa.com)





**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 [www.incose.org](http://www.incose.org)) to update your information.

Name	Title	Company
Tom Zweiller	Director, Systems Engineering	Norrthrop Grumman
Maryann Hiller	Ph.D. Student	USC
Frank Kuykendall	Principal MTS	JPL
Michael Markoe	Sr. Systems Engineer	Control Point Corporation
David Edwards	Design Engineering Manager	Control Point Corporation
Johann Magana	Certification Engineer	ITT Aerospace Controls
Phyllis Nelson	Professor	Cal Poly Pomona

## CSER Wants YOU!

*By Terry Rector*

*Conference Management Chair, member since 2009*

**Join in our excitement!** Planning is well underway for the 9<sup>th</sup> Annual Conference on Systems Engineering Research 2011 (CSER 2011) which will be held April 14-16, 2011, in Los Angeles.

CSER 2011 will be jointly presented by the Los Angeles Chapter of INCOSE (INCOSE-LA), the University of Southern California (USC), and the Stevens Institute of Technology. We are honored to have Dr. George Friedman of USC serving as our Conference Honorary Chair; to have Dr. Azad Madni of USC and Dr. Elliot Axelband of RAND as our Conference General Co-Chairs; and to have Dr. Roger Ghanem of USC and Ms. Marilee Wheaton of Aerospace serving as Technical Program Co-Chairs.

CSER 2011 carries on where CSER 2010 left off this past March 2010, where Stevens Institute of Technology and Delft University of Technology, in collaboration with USC, hosted a very successful event that attracted approximately 300 attendees. These attendees represented a broad array of industries, professional societies and major universities dedicated to systems engineering. CSER 2011 will follow a similar format with plenary sessions, concurrent tracks, and a banquet with keynote speaker. The conference will focus on the contributions of research to the vigor and future growth of the systems engineering discipline; topics will range from Agile Systems Engineering to Collaborative Engineering. Finally, the conference will conclude with an Industry Panel designed to discuss the current challenges being experienced within the systems engineering community.

Additionally, CSER 2011 will provide access to cutting edge systems engineering research as well as perspectives from senior industry representatives. INCOSE LA is offering organizations opportunities to showcase your capabilities and for sponsorship including tiered sponsorship levels and sponsorship of individual events. If your organization is interested in

## Do You Know About These Membership Benefits & Opportunities?

Did you know? That you have an INCOSE-provided e-mail alias in the form of [firstname.lastname@incose.org](mailto:firstname.lastname@incose.org)? You can redirect e-mail from this address to an address of your choosing by logging in to the member-only sharepoint <https://connect.incose.org>. Don't know about connect? More information is here: <http://www.incose.org/members/accessConnect.aspx>

Did you know? INCOSE-LA Strategic Planning meetings are open to any members who want to become more involved in the Chapter operations and volunteer opportunities.

We are tentatively planning our next meeting in January 2011. If you are interested, please reply to [secretary@incose.org](mailto:secretary@incose.org).

For sponsorship, please contact our CSER Corporate Liaison, Mr. Jose Garcia at [jose.s.garcia-jr@boeing.com](mailto:jose.s.garcia-jr@boeing.com). Volunteer opportunities are also available; please contact Mr. Harvey Soldan at [harvey.soldan@jpl.nasa.gov](mailto:harvey.soldan@jpl.nasa.gov).

If you are considering attending the conference, then please submit your contact info to the conference registrars, Mr. Paul Cudney and Mr. John Boyd, at [registration@incose.org](mailto:registration@incose.org). As important information is released, you will receive updates including notification when registration is available.

The Los Angeles Chapter of INCOSE welcomes your participation in CSER 2011!

### **For up-to-the-minute event details:**

- ◆ Check future editions of the Newsletter
- ◆ Watch your email for the Reflector
- ◆ Visit the INCOSE-LA website at <http://www.incose-la.org>

## **January Speaker Meeting**

### **New Officers, Awards, Town Hall Discussion**

Plan to attend our next speaker meeting which will be on Tuesday, January 11, 2011, at the Boeing facility in Huntington Beach. A full evening is planned, with the induction of our new officers followed by an awards ceremony.

Of special interest will be the "town hall" discussion in which members will be invited to "do the talking" and to discuss the chapter and what we can do to better meet the needs of the membership. In addition, it is the intent of the Board of Directors to move forward with input from the membership and take those inputs to the leadership of the international organization at International Workshop 2011 in Phoenix.

Invitations will be extended to INCOSE fellows and CAB members to participate in the discussions and to listen to the membership. Additional details are in work and will be distributed in a Reflector email notice.

Please come and participate in an evening of dialogue and our traditional "substantial refreshments."

**R.S.V.P.:** IN ORDER TO ATTEND, AN R.S.V.P. IS NECESSARY BY JANUARY 7, 2010.

There are two ways to R.S.V.P. One is by registering online at [www.incose-la.org](http://www.incose-la.org). The second is by sending an email to [registration@incose-la.org](mailto:registration@incose-la.org) (please include "INCOSE-LA January Meeting" in subject line). If you are uncertain whether or not you'll be able to attend, DO make a reservation. Attendance at this site is limited to U. S. citizens and resident aliens; we regret that foreign nationals will not be able to attend at this site. Please bring your picture identification (driver's license, passport, or green card) to the meeting. Site contact: Beth O'Donnell, phone 714-837-6924 or email [elizabeth.l.o'donnell@boeing.com](mailto:elizabeth.l.o'donnell@boeing.com)).

Look for any additional details in the January Newsletter.



*You are invited to the*

## **INCOSE-LA Chapter**

# **Holiday Party**

**December 11, 2010**  
**3:00 p.m. to 7:00 p.m.**  
**at Roz Lewis' house**

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

**No cost for member and one guest**  
*Bring a non-gag gift for the gift exchange (~\$10 value)*

**R.S.V.P. to Rosalind Lewis by December 9**  
**Phone: 310.336.1805**

**Email: [Rosalind.Lewis@aero.org](mailto:Rosalind.Lewis@aero.org)**  
with subject line

**"INCOSE-LA Holiday Party"**

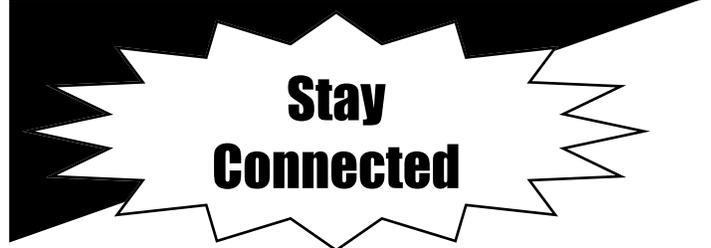
Directions to Roz's home will be provided as an acknowledgement of your R.S.V.P.



## **Let us know!**

Did you ever want to lead or organize an effort for the benefit of a community or school project or competition such as what you might find at a science fair, rocket competition or robotics competition? Did you ever want to get involved in Engineering Week or some other organized event, but you did not know where to start or have any support? Or maybe you want to steer a few college-bound sons or daughters toward engineering and need a few SEs to speak at your local school's college night. Then let us know!

You have the potential to draw from the experiences, wisdom and volunteerism of a SE team of 350+ members. The Chapter newsletter is a great way to advertise your need or call for volunteers. Presenting your need to your Chapter's Board of Directors is also a great way to jumpstart the collective! Contact our volunteer coordinator, Nehal Patel when you are ready! [Nehal.patel@incose.org](mailto:Nehal.patel@incose.org)



**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](mailto:susan.c.ruth@aero.org)

**INCOSE-LA Chapter NEWSLETTER**

Vol. 8: Issue No. 11 2010 Election Edition

# November Speaker Meeting Recap **Architecting Resilient Systems**

*Contributed by Ignacio Serrano and Cesar Aviles, Students  
Loyola Marymount University*

On Tuesday November 9, 2010, the INCOSE-LA chapter hosted not just new members, but also Scott Jackson (USC associate professor) as part of their ongoing monthly speaker series. Scott Jackson, the author of *Architecting Resilient Systems: Accident Avoidance and Survival and Recovery from Disruptions*, talked about his latest book in this meeting, presenting an overview of Resilient Systems. He teaches a very interesting course that focuses on Architecting Resilient Systems. Professor Jackson has also written a book on the topic.

The epiphany regarding this topic for Mr. Jackson occurred when he read an article written by Elizabeth Pate-Cornell on “Organizational Aspects of Engineering Safety: The Case of Offshore Platforms” which propelled his interest in Resilient Systems. Scott Jackson presented many definitions of “resilient” but concluded that we must design resilient systems that minimizes the impact or recovery time after a disruption occurs. He explained that resilient should be the fourth dimension included with better, faster, cheaper. There are three phases of disruption: the pre-event, event, and the recovery after the event, with two types of disruptions A-inputs (external), and B-inputs (internal), which degrades the function of components interacting with each other. As a part of his presentation he focused on explaining the importance of architecting solutions that can handle both internal and external disruptions. Examples of internal disruptions are reliability failures and human error. Examples of external disruptions are terrorist attacks and natural disasters.

Scott presented the topic of “culture” (within a company and external to the company), which has shown to be a major contributor to accidents. Mr. Jackson mentioned two ways to treat culture: change it and manage it. He presented the topic of Resilience Heuristics (and listed 30 of them) for which there are four major attributes. First is capacity: does the system have the ability to survive destruction. Second is flexibility: does the system have the ability to re-structure itself in some way. Third is tolerance: if the system is struck could it still function. Fourth is cohesion: for the system to work all the pieces must work properly. In summary Scott Jackson present an interesting topic of building resilience in your design to help mitigate and recover in the future of a disastrous event occurring by presenting the primary aspects of resilience as adaptability, risk and culture.

Architecting Resilient Systems is all about building systems that can handle failures. An example he uses is the 9/11 power restoration project. Con Edison, the New York utility company, responded to 9/11 by putting together an organization to manage the system of generators deployed after the attack. Scott argued it would be much more cost effective to have built redundant power lines.

## **INCOSE-LA 2011 Board Elections**

**Voting period: December 1-31, 2010**



**Members vote online at  
<http://www.incose-la.org>**

## **2010 Chapter Awards Submission Deadline is Approaching...We Need Your Inputs**

*By David Boyd, Past President, member since 2004*

What are Chapter Awards? These are chapter awards, such as the Gold Circle, Silver Circle and Bronze Circle awards. The awards are used to recognize a Chapter for its activities that improve the recognition of INCOSE and the systems engineering profession at the local, national and international levels.

The awards provide a measurable way to guide a Chapter in its strategies to bring meaningful opportunity and value to you, its members, in the form of speaker meetings, tutorials, conferences and other career-enhancing opportunities. So how do these awards affect you as a member? The Chapter is evaluated over a broad range of areas which includes specific participation and contributions of its members, such as participation in technical working groups and contributions to journals such as INSIGHT. Each year, we submit a spreadsheet of evidence that is evaluated by an INCOSE awards committee.

If you have participated in any of the listed activities throughout this past year, then please share your accomplishments with Josh Sparber, Chapter Secretary ([secretary@incose-la.org](mailto:secretary@incose-la.org)). With your concurrence, we also would like to recognize you in our newsletter.

- Refereed articles published in journals such as INCOSE's
- Articles published in other non-INCOSE technical journals
- Attendance at the INCOSE International Symposium
- Attendance at the INCOSE International Workshop
- Donations to the INCOSE Foundation, Scholarship Fund, or Engineers Week
- Achievement of INCOSE certification—ASEP, CSEP or ESEP certification

# INCOSE-LA Chapter NEWSLETTER

Vol. 8: Issue No. 11 2010 Election Edition

## Return Address:

800 S. Pacific Coast Hwy. #8-205  
Redondo Beach, CA 90277

## Forwarding Address Requested

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

The Los Angeles Chapter meets several times per year for dinner meetings, and additionally sponsors tutorials and other activities of interest to those in the systems engineering field or related fields. L. A. Chapter officers are as follows:

### 2010 Board of Directors and Appointed Positions

#### Elected Officers

<b>President:</b>	Rosalind Lewis	rosalind.lewis@aero.org	or	president@incose-la.org
<b>Vice-President:</b>	Beth O'Donnell	elizabeth.l.o'donnell@boeing.com	or	vicepresident@incose-la.org
<b>Past President:</b>	Eric Belle	eric_c_belle@raytheon.com	or	pastpresident@incose-la.org
<b>Secretary:</b>	Josh Sparber	joshua.sparber@dcma.mil	or	secretary@incose-la.org
<b>Treasurer:</b>	Marsha Weiskopf	marsha.weiskopf@aero.org	or	treasurer@incose-la.org

#### Elected At-Large Directors

<b>Membership:</b>	Paul Cudney	paul.cudney@incose.org	or	membership@incose-la.org
<b>Programs:</b>	John Silvas	silvas_john@bah.com	or	programs@incose-la.org
<b>Systems Engineering Education:</b>	Shirley Tseng	shirleytseng@earthlink.net	or	setraining@incose-la.org
<b>Ways and Means:</b>	<b>Open</b>			
<b>Communications:</b>	Edie Ung	ma1teez@yahoo.com	or	communications@incose-la.org

#### Appointed Positions

<b>Newsletter Co-editors:</b>	Edie Ung, Jorg Largent	ma1teez@yahoo.com	or	Palmdalejorg@aol.com
<b>Newsletter Production Manager:</b>	Lee-Ann Seeling	Lee-Ann.S.Seeling@raytheon.com		
<b>Reflector Manager:</b>	Susan Ruth	susan.c.ruth@aero.org		
<b>Industrial Relations Manager:</b>	Jose Garcia, Jr.	jose.s.garcia-jr@boeing.com		
<b>Technical Society Liaison:</b>	Edmund Conrow	info@risk-services.com		
<b>Chapter Recognition Manager:</b>	Michael Maar	michael.c.maar@boeing.com		
<b>Lead Site Coordinator:</b>	Anna Warner	anna.warner@boeing.com		
<b>Webcast Event Manager:</b>	Chris Delp	cldelp@jpl.nasa.gov		
<b>Website Technical Manager:</b>	Michael Kim	kim_michael_l@bah.com		
<b>Professional Networking Chair:</b>	Nehal Patel	nehal_p1_patel@raytheon.com		
<b>2010 Mini-Conference Chair:</b>	Richard (Dick) Emerson	remerson9@gmail.com		
<b>2010 Mini-Conference Technical Program Chair:</b>	Rick Cline	richard.g.cline@boeing.com		
<b>2011 CSER Chair:</b>	Terry Rector	Terry.Rector@comdev-usa.com		
<b>Representative to San Fernando Valley Engineers' Council:</b>	Stephen Guine	Stephen.Guine@ngc.com		

Those interested in INCOSE membership please contact Paul Cudney - [paul.cudney@incose.org](mailto:paul.cudney@incose.org). If you wish to be placed on our E-mail distribution, please contact Susan Ruth - [susan.c.ruth@aero.org](mailto:susan.c.ruth@aero.org).