2009 Mini-Conference!
Call for papers and more details — see page 2

INCOSE
International Council on Systems Engineering

UPCOMING EVENTS

October Speaker Meeting

INCOSE Technical Working Groups:
What they are, what they do for you and how you can participate

Speakers: A panel of members who chair or are involved in INCOSE Technical Working Groups
October 21, 5:30 p.m. to 8:00 p.m.
The Boeing Company, Huntington Beach
Cost for members and Boeing employees: FREE
Cost for non-members: $10.00
Remote sites will be available
See page 3 for more information

November Two-Day Tutorial

DAY 1: An Introduction to the OMG Systems Modeling Language (OMG SysML^{TM})
DAY 2: Object-Oriented Systems Engineering Method (OOSEM)
Speaker: Sanford Friedenthal
November 18-19, 8:30 a.m. to 5:30 p.m.
Venue to be determined — watch for updates in Reflector messages & visit the INCOSE-LA website
See page 7 for more information

Chapter Office Elections
December—TBS

Holiday Party
December 13, 2008

2009 INCOSE-LA Mini-Conference
Enhancing Systems Engineering:
Expanding Our Process to Meet Future Needs
Presentations and forums of interest to the systems engineering professional community
February 7, 2009
at Loyola Marymount University
See page 2 for more information

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* www.incose-la.org

Coming Soon!
Election of Chapter Officers
Jorg Largent, Co-editor

One of the greatest opportunities within any profession is to serve your fellow professionals. As Chapter President David Boyd noted last month, it is members such as you, who volunteer your time and knowledge, who help advance systems engineering as a profession, and who make our chapter the success that it is. In November, we will be publishing the biographies of candidates for the elected positions on the Board of Directors. The election itself will follow in December.

Members such as you can help. If you know of someone who could serve as an officer, please contact our president, David Boyd (John.D.Boyd@boeing.com) or our vice-president, Eric Belle (eric_c_belle@raytheon.com).

Thank you for your support and your contributions to making INCOSE-LA the fine chapter that it is.

COSYSMO?
Find Out More at USC

The USC Center for Systems and Software Engineering (CSSE) is hosting the 23rd. international forum on COCOMO (Constructive Cost Model) and Systems/Software Cost Modeling and ICM Workshop 3. The forum will be held on the USC campus October 27 – 30, 2008. This forum is of potential interest for systems engineering professionals. The planned discussions cover a wide range of topics including COCOMO, a proven model for software projects, and COSYSMO, the Constructive Systems Engineering Cost Model, an extrapolation of COCOMO for systems engineering.

There is no registration fee for affiliates. There is a $500.00 fee for others. The list of affiliates includes the major industry, aerospace, and government organizations in southern California and has grown to include organizations from across the country and two members from foreign countries.

The internet address for more information is: http://csse.usc.edu/csse/event/2008/cocomoicm08/pages/home.html.

INCOSE
LOS ANGELES CHAPTER (INCOSE-LA)
MINI-CONFERENCE
FEBRUARY 7, 2009
LOYOLA MARYMOUNT UNIVERSITY

Enhancing Systems Engineering:
Expanding Our Process to Meet Future Needs
Aerospace ◊ Commercial ◊ Defense ◊ Enterprise ◊ Service

Whether we want to accept it or not, everyone does Systems Engineering—some formally, some unconsciously, many haphazardly. As Jorg Largent (INCOSE-LA Newsletter Editor) so nicely stated, "Every successful project does systems engineering: some of them do it deliberately; the others do it eventually."

Unconscious systems engineering can be hidden under a host of different names: Business Planning, Business Forecasting, Program Definition, Engineering Management, Tradeoff Studies, Problem Solving, etc. While each of these has its own formal methods which may be applied, Systems Engineering integrates them, thus attacking the challenge of effectively developing complex systems.

This Mini-Conference will address the application and evolution of Systems Engineering to meet current and future needs for systematic development. These needs are present in not only in the traditional aerospace and defense industries, but also in the commercial and service industries. It is an opportunity for practitioners in each industry to learn from the perspectives of each other.

Each presentation will be limited to 20-25 minutes with 10-15 minutes of Q&A for a total time of 35 minutes. Please send a one-page-or-less summary of your presentation to the Technical Chair, Richard F. Emerson (email: r.emerson@computer.org) by **November 12, 2008**. You will be notified of acceptance by **December 9, 2008**. Your final presentation is due **January 21, 2009**. When you are notified of acceptance, the presentation format will be included. 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 Richard F. Emerson at r.emerson@computer.org.

TRACK 1	TRACK 2	TRACK 3
Applying Systems Engineering to: Infrastructure Systems • Utilities (water, power, waste, communication) • Transportation and distribution Enterprise Systems • Service systems (non-tangible systems) • Business and finance • Health care • Social Systems How-to case studies	**Right-sizing Systems Engineering:** Partitioning the process • Agile Methods • Just-in-time • Outsourcing and Systems Engineering and Technical Assistance (SETA) Contractors Trading cost, performance, schedule, and risk • Competing drivers — customer and suppliers • Just enough (how to know when to stop) • Feasibility (technical, economic, political, aesthetic) Predicting cost and schedule growth	**Evolving Systems Engineering to address:** Soft systems • People systems • Evolving systems • Self-healing systems Systems of Systems • Service-oriented systems • Complex Adaptive Systems (CAS)

Particulars

October 21, 2008, 5:30 p.m. to 8:00 p.m.
The Boeing Company, Building 14 (Bolsa Room)
5301 Bolsa Avenue
Huntington Beach
Remote sites will be available.
Cost for members and Boeing employees: FREE
Cost for non-members: $10.00

Working Groups Represented:

- Cost
- Net-Centric Operations
- Defense Systems
- Lean Systems
- Resilience
- Motor Sports
- Space Systems
- Intelligent Transportation and Transit Systems

Intended Audience:

- Members and Non-Members of INCOSE.
- Any engineer or manager who is interested in ways to apply his or her knowledge in a specific area of interest.
- Any engineer or manager who is interested in learning more about the technical depth of INCOSE as a professional technical society

If you are interested in one of the working groups listed above, this meeting is for you!

Aside from the many opportunities for an engineer to learn about systems engineering through monthly speaker meetings, quarterly tutorials and annual symposia, INCOSE offers the opportunity to practice systems engineering and apply domain-specific principles within a variety of Technical Working Groups. These groups provide a neutral setting for an engineer to contribute to and learn from INCOSE-sponsored groups that span one more Systems Engineering (SE) enablers: Systems Science, SE Technical Process, SE Management Process, SE Support Process, Modeling and Tools and Specialty Engineering. These groups are formed to serve the needs of specific sectors such as Aerospace & Defense, Market Driven Products, Emerging Technologies, Enterprise, Information Systems, Infrastructure, Public Interest and Transportation

Members of a technical working groups collaborate via teleconferences and e-mails on goals and objectives. In some instances, this collaboration results in a theme for a panel discussion, a track of presentations or even a tutorial series for INCOSE's International Symposium. INCOSE sponsors an annual International Workshop that is organized for the benefit of Technical Working Groups to meet face to face and accomplish their work. This next International Workshop will be in San Francisco, CA, from January 31 —February 3, 2009.

There are a number of INCOSE-LA members who either chair a group or are heavily involved in one or more of these groups. The October Speaker Meeting will offer attendees the chance to listen to a panel of members as they introduce their working group, provide a summary of current activities, and discuss opportunities to participate throughout the year in various activities including the 2009 International Workshop. These members include Scott Jackson (INCOSE Fellow), Dr. John Hsu (INCOSE-LA Past President), Dr. Stan Settles (INCOSE Fellow), Chris Delp (Current Webcast Chair), Eric Belle (Current Vice President), Dr. Bo Oppenheim (long time member and venue sponsor for many Chapter Mini-Conferences). Mike Krueger (INCOSE-LA Past President), Ed Casey (INCOSE-South AZ President).

Reservations: RSVP by October 17 online at www.incose-la.org or by email to registration@incose-la.org (please include "INCOSE-LA October Mtg" in subject line)

Directions: *From San Diego Freeway (405) South:* After passing exit to Freeway 605, stay in the right lane of the 405, which merges into the Garden Grove Freeway (22) East, and make an immediate exit at Bolsa Chica Street. Drive south to Bolsa Avenue, make left turn at Bolsa, pass the Boeing main entrance sign on your left, and then turn left in to Parking Lot C (just before or at Graham Street). Park and proceed around to the Main Lobby at the northwest corner of Building 14.
From San Diego Freeway (405) North: Take Bolsa Avenue/ Golden West exit (Exit 18, next exit after Beach Blvd exit). Continue West on Bolsa, pass Springdale, and make right turn into Parking Lot C at Graham Street or into the lot entrance immediately following Graham. Park and proceed around to the Main Lobby at the northwest corner of Building 14.

Skunked by Poorly Chosen Words
Jorg Largent, co-editor

A family game of *Trivial Pursuit* illustrates the importance of using words correctly and of making certain everyone on the team understands the meaning of the words used. The question: "Who is the smelliest member of the weasel family?" The young child tentatively guessed: "The mommy?"

This story illustrates three points with respect to choosing and using words:

- The antecedent of the word "who" is a person. The word was misused, but the child heard it as if it had been used correctly.
- The child had not taken biology yet, so she did not understand that the word "family," when used in this context, referred to a group of animals.
- If you think you know all the words and you think you know the answer, but, when they are put together, they don't make sense — start asking questions!

Lesson to be learned: *Be thoughtful when choosing your words and be sure that people understand the words you are using.*

As an international professional engineering society, INCOSE prides itself on the expertise and knowledge of its "brain trust," the INCOSE Fellows. INCOSE Fellows are chosen and honored for their significant contributions to the field of systems engineering, and for their intellectual leadership and expertise. As the Los Angeles Chapter of INCOSE, we are honored and grateful to have INCOSE Fellows chosen amongst the technical leaders of our community. As a member of the INCOSE-LA Board of Directors, I congratulate and honor Dr. John R. Clymer and Dr. Stan Settles for becoming INCOSE Fellows. So who are Dr. Clymer and Dr. Settles? Read on…

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Dr. John R. Clymer is a researcher, practitioner, and teacher in the field of systems engineering who was named INCOSE Fellow this year at IS 2008. He is a well-known expert in conceiving, engineering, and demonstrating computer-aided design tools for context-sensitive, self-adaptive systems. He has been a member of INCOSE since its beginning.

As a teacher, Dr. Clymer is currently a professor of electrical engineering and systems engineering at California State University, Fullerton (CSUF). He has been teaching since 1977. At CSUF, Dr. Clymer is a founding-member and principal investigator for the Applied Research Center for Systems Science. In addition, Dr. Clymer teaches Systems Engineering courses through the UC Irvine Extension, and he is on the board of CSUF Extension Systems Engineering Certificate Program. He brings a rich set of professional experience to the classroom and has developed advanced graduate-level courses in systems engineering. He has published 60 papers and four books covering intelligent evolutionary systems, systems design and evaluation methodology, simulation, optimization, fuzzy control, and machine learning. His international recognition was achieved through extensive participation in INCOSE; in the Institute for Electrical and Electronic Engineers (IEEE), the Systems, Man, Cybernetics Society (SMC); and the Military Operations Research Society (MORS). His latest book is *Simulation-Based Engineering of Complex Systems*.

As a practitioner, Dr. Clymer is an expert in systems design, analysis and evaluation, and optimization. Dr. Clymer is currently a systems engineering consultant for FORELL Enterprises. In addition to his current position at FORELL, Dr. Clymer has consulted (from 1984 to present) for Raytheon, the U.S. Navy, and Rockwell International (now The Boeing Company). Prior to that, from 1966 through 1984, Dr. Clymer was a systems engineer for General Electric and U.S. Navy Fleet Analysis Center (FLTAC). At FLTAC, Dr. Clymer led the team that developed a closed-loop missile test system. Dr. Clymer also has two U.S. patents: (1) Combined Discrete-Event and Continuous Model Simulation and Analysis Tool and (2) Guidance System.

As a researcher, Dr. Clymer is internationally known in the general area of simulation-based systems engineering. Dr. Clymer developed the OpEM graphical language based on parallel processing language concepts and mathematical linguistics. Models based on the OpEM graphical language have been successfully used for 30+ years in industry, government, and academia to perform operational modeling of complex systems. Over the years, Dr. Clymer and his project teams have developed models that include U.S. Navy destroyers, battle groups, and the Trident Submarine.

Dr. Clymer received his B.S.E.E. and M.S.E.E. from Iowa State University in 1964 and 1966 respectively. In 1971, he received a Ph.D. in electrical engineering from Arizona State University. His Ph.D. dissertation developed and applied Context Sensitive Systems (CSS) theory to explicitly represent and assist understanding complex, non-linear distributed-adaptive systems. In addition, Dr. Clymer is a Fellow of the Orange County, California Engineering Council; was 1992 Section Chair for IEEE of Orange County; and was a Hughes Faculty Research Award recipient from 1989-1990.

*****

Dr. Stan Settles is a researcher, practitioner, and teacher in the field of systems engineering. He was also named INCOSE Fellow this year at IS 2008. His research and teaching interests are in the areas of systems architecting, engineering management, lean operations, and manufacturing systems engineering.

As a teacher, Dr. Settles is currently the Director of the Systems Architecting and Engineering Program, the IBM Professor of Engineering Management, the Co-director of the Center for Systems and Software Engineering, and former Chair of the Daniel J. Epstein Department of Industrial and Systems Engineering at the University of Southern California. The USC School of Engineering honored him with its Faculty Service Award for 2001 for his contributions to many aspects of society. Dr. Settles also taught as an adjunct faculty member at Arizona State University from 1966 through 1991.

As a practitioner, Dr. Settles had a 30-year career with AlliedSignal Aerospace (now Honeywell), primarily in Phoenix, Arizona. Dr. Settles held a number of positions in design and project engineering, manufacturing, and general management. His titles included: Manager of Industrial and Manufacturing Engineering, Division Director of Planning, Division Vice-president of Manufacturing Operations, and Corporate Director of Industrial and Manufacturing Engineering.

As a researcher Dr. Settles served as Program Director for Design and Integration Engineering at the National Science Foundation. Dr. Settles was on loan to the NSF from Arizona State University, where he was a Research Professor in the Department of Industrial and Management Systems

Engineering. In 1992 and 1993 he served as Assistant Director for Industrial Technology in the White House Office of Science and Technology Policy. Dr. Settles serves as the Director for Academic Matters on the INCOSE BoD, and was selected by the systems engineering academic leaders to be the initial chair of the INCOSE University Leadership Roundtable. Dr. Settles has been active in the Council of Engineering Systems Universities since its inception in 2003. Dr. Settles has served on the INCOSE Commercial Steering Board since its inception and represents USC on the CAB. Dr. Settles is one of the founding members of the Motor Sports Working Group, which fits in well with his hobby of land speed racing (206 mph). Dr. Settles is also past president of the Institute of Industrial Engineers, a fellow of INFORMS, a member of ASEE, IEEE and SAE International. Dr. Settles also served as the chair of the National Research Council's Board on Manufacturing and Engineering Design.

Dr. Settles earned his M.S.E. and Ph.D. in industrial engineering from Arizona State University. Dr. Settles holds B.S. degrees in both industrial engineering and production technology from LeTourneau University. Dr. Settles was honored by election to the National Academy of Engineering in 1991. Dr. Settles works at keeping the systems perspective in focus within the NAE, where he serves on the Oversight Committee of the Division of Physical Sciences and Engineering. Dr. Settles is listed in a number of biographical references, including Who's Who in America.

International Symposium 2008: An Enlightened Perspective
Jose S. Garcia, Jr.,
Member, INCOSE-LA BoD and Systems Engineer at
The Boeing Company

For those of you who had the opportunity and privilege to attend the 2008 INCOSE International Symposium (IS) in Utrecht, Netherlands, themed "Systems Engineering for the Planet," I am almost certain the experience was intellectually inspiring. Sherry Pietras wrote an excellent report on the 2008 International Symposium for INCOSE-LA [September 2008]. Metaphorically speaking, INCOSE's International Symposiums are to the systems engineering profession what the Olympics are to athletics. They are the main event, and an intellectual opportunity to collaborate, debate, learn, and listen on a global scale. Last year, I had the privilege to attend the 2007 IS in San Diego (thanks to my company, The Boeing Company, sponsoring me). It was an experience I will never forget, and as a new INCOSE member at the time, it was an enlightening moment, bringing me in contact with the best and brightest in our field of systems engineering (SE).

For those of you who did not attend the 2008 International Symposium like me, let us turn to our intellectual leaders (INCOSE Fellows and past chapter presidents) for their take on the symposium. After all, we turn to our Fellows and leaders, not just for their expertise, but also for their enlightened perspective on our profession. For this article I polled INCOSE Fellows (both new and established) and a past INCOSE-LA chapter president on their experience and takeaways from the IS 2008.

Our very own Scott Jackson (2004 INCOSE Fellow, Chair of INCOSE's Resilient Systems Working Group, and USC SE professor) from INCOSE-LA, presented a tutorial on "Architecting Resilient Systems" to a receptive international audience. Scott Jackson was encouraged that systems engineering has such an international appeal. His encouragement was motivated by sitting together with a group from South Africa at the banquet. Scott mentioned a couple of good memories about the conference. Scott especially remembered a remark by Peter Checkland, upon Peter's acceptance speech for his INCOSE Pioneer award: "In his address, Peter said that he could only accept the term 'systems engineering' if 'engineering' were interpreted in the broadest sense, for example, 'to engineer a hostage release'." His other fond (and interesting) memory was avoiding getting run over by the millions of bicyclists. Will we ever experience that in L.A.?

Dr. Stan Settles (Director of Academic Matters for INCOSE and Director of the Systems Architecting and Engineering Program at USC), who is a member of our INCOSE-LA professional community, was named INCOSE Fellow 2008 at the International Symposium. He summed up the excitement and intensity of being at the International Symposium with this quote: "It was like drinking water out of a firehose." With so much to see, learn, and listen, it was "six very intense days". Dr. Settles' most memorable moment (of course!) was being inducted as an INCOSE Fellow. At IS 2008, he was involved in the Board of Directors meetings and represented USC on the Corporate Advisory Board, as well as the Academic Forum, and was the session chair for the new Engineering Systems Track. And this was just the tip of the iceberg. Dr. Settles chaired other meetings, and as a new INCOSE Fellow, he participated in the Fellows meetings as well. Dr. Settles' overall experience made him realize "what a vibrant society we have". According to Dr. Settles: "My main 'takeaways' seemed to be the tasks to work on for INCOSE, [such as] the recent acceptance of INCOSE as a participating member of ABET."

Finally, I had the opportunity to talk about the 2008 International Symposium with Dr. John C. Hsu, my mentor at The Boeing Company. Dr. Hsu is the INCOSE Chair of the Net-Centric Operations (NCO) Working Group and a past president of our INCOSE-LA chapter. Dr. Hsu's current tasks and challenges as the chair of the NCO Working Group are capturing the knowledge created by the group since 2005 and helping transform INCOSE into an NCO organization. At the International Symposium, Dr. Hsu was the moderator for an "enthusiastic" panel discussion under the subject of "How to Engineer the Emergent Behavior of a System of Systems". In addition, he chaired NCO Working Group meetings, and presented a paper on the "Applicability of Architecture Reference Models". For Dr. Hsu, the entire symposium was a memorable event. "The Symposium is good for learning and exchanging Systems Engineering knowledge." I couldn't agree more!

INCOSE-LA Making a Difference: Community Service Day at the LA Regional Foodbank
Elizabeth C. Deems

Please join us on **Saturday, Oct 18th** from **8:45 am to 12:00 pm** for INCOSE-LA's "Community Impact Project." We will be volunteering our time at the Los Angeles Regional Foodbank, making food packages for over 7,000 women with infants, children, and senior citizens in Los Angeles County. The Los Angeles Regional Foodbank is a nonprofit charitable organization that has been serving the disadvantaged of our community for 35 years. They are at the heart of a charitable food distribution network that includes nearly 900 charitable agency sites in Los Angeles County.

At the Foodbank, volunteers help to sort donated goods and to break down and repackage large pallets of canned and packaged goods into "kits" that are redistributed to deserving beneficiaries within the Los Angeles area. These food packages include canned fruit, canned vegetables, rice, cereal, and other non-perishable food items from their USDA food commodities donations.

By giving just a little of our time, we can make a big difference in our community.

INCOSE-LA members and their family members (minimum age 14) will have the opportunity to give a bit of their time to help their communities. For more information, please contact Elizabeth Deems at Elizabeth.C.Deems@jpl.nasa.gov or Eric Belle at eric_c_belle@raytheon.com. In order to allow the Foodbank sufficient time to make adequate staffing and logistics preparations, we are requesting that you RSVP at least one week prior to the event. Please bring a copy of the waiver form available on the INCOSE-LA website "Special" tab, wear comfortable clothes you can work in, and do not wear open-toed or high heel shoes. Bringing rubber gloves is recommended but not required.

Please sign up by Monday, October 13th. Online registration via the "Special" tab of the INCOSE-LA website is now available.

September Speaker Meeting Recap
Jorg Largent, co-editor

Mr. John Silvas presented an excellent overview of the Systems Engineering and Integration (SE&I) contractor roles and functions in support of the Global Positioning Satellite System. This speaker meeting was attended by approximately 40 people at the host site plus many more at remote sites in Huntington Beach, Anaheim, the Jet Propulsion Laboratory, and Palmdale, plus at least one out-of-state remote site.

Mr. Silvas represents Booz-Allen Hamilton and is the Plans and Process Team Lead for the GPS SE&I team. Mr. Silvas' presentation included overviews of the GPS system, the U.S. Air Force GPS Wing, and the SE&I team and concluded with a discussion of key SE&I activities. The GPS wing, located at the Los Angeles Air Force Base, is of note as the DoD Acquisition Office for the GPS system.

It was interesting to note that "GPS," which we can take for granted in our automobiles, is a system of systems: a system of satellites, a control system, and a "user segment" system. The GPS team is sensitive to the need for these systems to work together seamlessly, and they face a challenge of incorporating new capabilities without interrupting the service enjoyed by the current users. Mr. Silvas' presentation included a comprehensive and informative discussion of how the SE&I team is meeting the challenge. One interesting tool used to visualize and organize the solution to the challenge was the use of a multi-dimensional "V" model. The Chapter thanks Mr. Silvas for his presentation.

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) to update your information.

Name	Title	Company
Kevin Ahearn	Consulting Engineer	Mechanical Systems Engineers, Inc.
Gerald Baur	Laboratory Supervisor	Boeing Satellite Development Center
Mark Gallo	Principal Systems Engineer	SAIC
Renee Linehan	Operations Manager, Systems Development Center	Raytheon Company
Ryan O'Leary	Systems Engineer	Control Point Corporation
Darron Ottley	SE Program Manager	U. S. Navy
Glenn Shirtliffe	Jason-1 Project Manager	NASA Jet Propulsion Laboratory
Jared Stelter	Staff Engineer	McStarlite Company

November Tutorials
November 18 and 19, 2008, 8:30 a.m. to 5:30 p.m.
Day 1: "An Introduction to the Object Management Group Systems Modeling Language (OMGSysML^{tm})"
Day 2: "Object-Oriented Systems Engineering Method (OOSEM)"

Venue: The location is being changed. Watch for a Reflector email or check the INCOSE-LA web site (www.incose-la.org) for the latest information.

Target Audience: Practicing systems engineers and others interested in applying the model-based approach to systems engineering.

November 18, 2008 Tutorial: "An Introduction to the OMG Systems Modeling Language (OMGSysML^{TM})"

Tutorial Objectives: This introductory course should provide the student with an understanding of:
- Benefits of model-based approaches for systems engineering
- SysML diagrams and language concepts
- The role of SysML in a model-based SE process

Tutorial Description: The Object Management Group (OMG) Systems Modeling Language (OMG SysML™) is a general-purpose graphical modeling language for specifying, analyzing, designing, and verifying complex systems that may include hardware, software, information, personnel, procedures, and facilities. In particular, it provides graphical representations with a semantic foundation for modeling system requirements, behavior, structure, and constraints that support a broad range of engineering analysis. SysML represents a subset of UML 2.0 with extensions needed to satisfy the requirements of the UML™ for Systems Engineering RFP.

This tutorial provides an introduction to how SysML can address the needs of the systems engineer. It includes background and motivation, an overview of the SysML diagram types and language concepts, and selected sample problems to demonstrate how the language can be used as part of a typical SE process.

The SysML specification was developed in response to requirements by a diverse group of tool vendors, end users, academia, and government representatives with sponsorship from both INCOSE and the OMG. The OMG SysML™ Specification was adopted in May 2006. For more information, go to http://www.omgsysml.org/.

Prerequisites: Background in systems engineering. Exposure to UML helpful but not required.

November 19, 2008 Tutorial: "Object-Oriented Systems Engineering Method (OOSEM)"

Tutorial Objectives: This introductory course would provide the student with an understanding of:
- An overview of OOSEM activities and modeling artifacts
- Some key modeling concepts that support system specification and design.

Tutorial Description: This tutorial will introduce an Object-Oriented Systems Engineering Method (OOSEM), which integrates a top-down systems approach with object-oriented concepts and modeling techniques. This method uses the extension to UML for systems engineering called the OMG Systems Modeling Language (OMGSysML™). OOSEM brings to Systems Engineering a technique for leveraging some of the expressiveness of SysML and the advantages of OO to help architect more flexible, extensible, and upgradeable systems with new, evolving technology. Another major goal of OOSEM is ease of integration with object-oriented methods for software engineering, and integration with hardware engineering and other disciplines. The tutorial will provide an overview of the model-based method for needs analysis, requirements analysis, logical design, physical design, and supporting activities.

Prerequisites: Background in systems engineering. Exposure to SysML.

> The format for both days will be a lecture format with class discussion.

About Sanford Friedenthal, Principal Systems Engineer, Lockheed Martin

Sanford leads an effort to enable model-based systems development across Lockheed Martin in support of the Corporate Systems and Software Initiative. His experience includes the system life cycle from conceptual design through development and production on a broad range of systems. He has been a systems engineering department manager and a lead developer of advanced systems engineering processes and methods including the Lockheed Martin Integrated Enterprise Process and the OOSEM. Mr. Friedenthal also was a leader of the Industry Standards effort through the OMG and INCOSE to develop the Systems Modeling Language OMG SysML ™ that was adopted by the OMG in 2006, and he is co-author of "A Practical Guide to SysML".

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. 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:

2008 Board of Directors and Appointed Positions

Elected Officers

President:	John David Boyd	john.boyd@incose.org	or	president@incose-la.org
Vice-President:	Eric Belle	eric_c_belle@raytheon.com	or	vicepresident@incose-la.org
Past President:	James Manson III	james.manson@incose.org	or	pastpresident@incose-la.org
Secretary:	Beth O'Donnell	elizabeth.l.o'donnell@boeing.com	or	secretary@incose-la.org
Treasurer:	Marsha Weiskopf	marsha.weiskopf@aero.org	or	treasurer@incose-la.org

Elected At-Large Directors

Membership:	Paul Cudney	paul.cudney@incose.org	or	membership@incose-la.org
Programs/Speakers:	Jack Elson	jelson@nu.edu	or	programs@incose-la.org
Tutorials/Education:	Shirley Tseng	shirleytseng@earthlink.net	or	setraining@incose-la.org
Ways and Means:	Dana Pugh	dana.pugh@incose.org	or	waysandmeans@incose-la.org
Communications:	OPEN			

Appointed Positions

Newsletter co-editors:	Edie Ung, Jorg Largent	edie@raytheon.com	or	Palmdalejorg@aol.com
Newsletter Production Manager:	Lee-Ann Seeling	lseeling@imsco.us.com		
Reflector Manager:	Susan Ruth	susan.c.ruth@aero.org		
Industrial Relations Manager:	Jose Garcia, Jr.	jose.s.garcia-jr@boeing.com		
Technical Society Liaison:	Edmund Conrow	info@risk-services.com		
Chapter Recognition Manager:	Michael Maar	michael.c.maar@boeing.com		
Lead Site Coordinator:	Anna Warner	anna.warner@boeing.com		
Webcast Event Manager:	Chris Delp	cldelp@jpl.nasa.gov		
Website Content Manager:	Communications Director			
Website Technical Manager:	Benjamin Luong	Benjamin.Q.Luong@boeing.com		
2009 Mini-Conference Chair:	Shah Selbe	shah.selbe@boeing.com		
2009 Mini-Conference Technical Program Chair:	Dick Emerson	r.emerson@computer.org		
Venue Chair:	Denise Nelson	Denise.J.Nelson@boeing.com		
Representative to San Fernando Valley Engineers' Council:	Stephen Guine	Stephen.Guine@ngc.com		

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