



NEWSLETTER

Los Angeles Chapter of INCOSE

www.incose-la.org

Issue No. 6

July, 2003

COMING EVENTS

Dinner Meeting
Wednesday July 30th

Joint LA INCOSE/SPIN
(Los Angeles Software Process Improvement Network)

COSYSMO:
A Systems Engineering Cost Model
Ricardo Valerdi
USC Center for Software Engineering

Time
5:30 PM Networking
6:00 PM Presentation

Location
The Aerospace Corporation

Dinner Meeting
Wednesday August 20th

Systems Engineering Revitalization
Col. (Ret) Paul Humel, USAF

Location
The Aerospace Corporation

Tutorial
Friday September 26th

DOD Architecture Framework: Overview and Application
Guidance
James Martin

Location
LA Airport Raddison Hotel

Dinner Meeting
October 14th

From Function Driven Systems Engineering to Object
Oriented Software Engineering

Dr. Peter Hoffmann
I-LOGIX

Location
The Aerospace Corporation

2nd ANNUAL CONFERENCE ON
SYSTEMS ENGINEERING RESEARCH
(Formerly Conference on Systems Integration)
April 14-16, 2004

www.usc.edu/dept/engineering/cser

Location
USC Campus
Los Angeles, California



Systems Engineering Education
Opportunities from Southern
California Universities

Michael E. Krueger
Past President and
Newsletter Editor for LA Chapter

In the next couple issues of the newsletter, I hope to have guest articles from various Universities in Southern California regarding their Systems Engineering Educational programs. Since I was most familiar with the University of California Irvine's Extension program, I asked Mr. Rogelio Rodriguez, Director of the Engineering & Science Technologies program to lead off the series in this issue of the newsletter. If there are others who would like to contribute to this series please let me know.

Rogelio C. Rodriguez, B.S.E.E, M.S.E.E, is currently Acting Director for the Engineering and Science Programs at UC Irvine Extension. He has been affiliated with University Extension for the past 8 1/2 years. His primary involvement is in the development of continuing education courses/programs for engineering and scientific professionals. Prior to joining University Extension, Rogelio was a member of the technical staff with a systems integration group at Hughes Aircraft in Fullerton.

Systems Engineering Workforce Development a Key to Success

As companies and industries adapt to changing times, markets, technologies and business practices, alternative systemic methodologies are continuously being explored. To maintain a competitive edge, workforce development is key. Successful businesses find it imperative to update company tools such as software, information systems, and production technologies for process improvement. It also makes sense to invest in the mind set of the workforce that is either developing or implementing engineering management strategies. With more complex interaction of tools, equipment and workforce, a "systems" way of thinking is being accepted as a means to create and sustain process improvement.

UC Irvine Extension has recognized this trend. With the assistance of experts in systems engineering from a variety of disciplines, a certificate program in Systems Engineering has been developed to address a "systems" way of thinking that is applicable to a broad range of industries.

This program looks at the systems engineering process as a multifaceted and multi-disciplined function within an organization. It focuses on the engineering of systems and how to develop the systems engineering mind set through systems thinking. The core body of knowledge relates to the underlying principles of the systems engineering process, systems requirements engineering, design, integration, verification, and validation.

To augment the systems engineering learning experience, elective courses address specific applications of systems engineering. This program benefits all engineers, program managers, project managers and those in other technical and non-technical disciplines who are

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BIOGRAPHY: Ricardo Valerdi is a Research Assistant at the Center for Software Engineering and a PhD student at USC in the Industrial and Systems Engineering department. His research is focused on the cost modeling of systems engineering work in software projects. While completing a Masters degree in Systems Architecting and Engineering at USC, he collaborated on the creation of COSYSMO (CONstructive SYStems engineering cost Model).

involved in any aspects of the system development lifecycle, including procurement, definition, implementation, production and support. Those who are involved with project- or enterprise-level process improvement will also benefit from this program.

You will benefit from this program if you:

- need to understand systems engineering and how to implement systems engineering methodologies that can result in a competitive advantage
- are interested in studying recent developments and applied principles of the systems engineering process, methodologies and tools
- want to gain useful and practical skills for developing your organization's systems engineering process, engineering teams or process improvement

UC Irvine Extension is a proud participant in the Workforce Invest Act (WIA) program. The Systems Engineering program is approved for full WIA funding for qualified participants.

For more information visit http://unex.uci.edu/courses/certificate/systems_engineering.asp

Rogelio C. Rodriguez, M.S.
Acting Director Engineering and Science Programs
UC Irvine Extension - rrodrig@uci.edu

**Joint Dinner Meeting with LA SPIN
(Los Angeles Software Process Improvement Network)
Wednesday, July 30, 2003**

Location
Aerospace Corporation

Time
Networking – 5:30 to 6:00 pm
Presentation – 6:00 to 8:30 pm

Cost
INCOSE Members – Free
Guests and Nonmembers – \$10.00

**COSYSMO: A Systems Engineering Cost Model
Ricardo Valerdi
USC Center for Software Engineering**

ABSTRACT: Building on the synergy between systems engineering and software engineering, the Center for Software Engineering (CSE) at the University of Southern California (USC) has initiated an effort to develop a parametric model to estimate systems engineering costs. The goal of this model, called COSYSMO (CONstructive SYStems engineering cost Model), is to more accurately estimate the effort associated with performing the system engineering tasks defined by ISO/IEC 15288, System Life Cycle Processes.

This presentation will outline the work accomplished over the past two years by USC, in collaboration with its Corporate Affiliates, to develop the initial version of COSYSMO. Ricardo will also describe the development of the model, explain both its size and cost drivers, share some experiences in collecting data for the model, and outline future steps that need to be taken to guarantee COSYSMO's successful adoption.

Previously, Ricardo worked as a Systems Engineer at Motorola and at General Instrument Corporation. He earned his bachelor's degree in Electrical Engineering from the University of San Diego.

RESERVATIONS: YOU MUST RSVP TO ATTEND, NO EXCEPTIONS. RSVP via the INCOSE-LA website (www.incose-la.org) or to Paul Su (paul.k.su@aero.org, 310-336-2602) by July 23 if you are a US citizen, or by July 21 if you are NOT a US citizen.

ADDITIONAL INFORMATION: Additional details can be found at the INCOSE-LA website (www.incose-la.org).

The LA Chapter was presented with the 2002 Gold Circle Award. We were one of four chapters that received this award.

Congratulations to the Board and membership for this accomplishment. The following is the notification of the award from INCOSE International. Mike Dickerson was recognized on behalf of the the LA Chapter during the closing plenary of the INCOSE Symposium in Washington DC.



12 May 2003

Michael Dickerson
President
Los Angeles Chapter of INCOSE
1107 Rambling Road
Simi Valley, CA 93065

Dear Michael,

On behalf of the International Council on Systems Engineering (INCOSE), we are pleased to inform you that the Los Angeles Chapter has been recognized as a Gold Circle Award Chapter based upon its contributions and accomplishments in 2002. This annual award recognizes chapters reaching the highest goals and standards established by our organization.

For many, chapters provide the primary day-to-day interface with INCOSE. Chapters organize technical and social programs, communicate key information about our organization and discipline, support technical activities, and enhance the member experience by facilitating an open, inviting environment where members receive valued products and services that enhance their careers. In fulfilling this mission, Los Angeles Chapter leaders and members have committed significant time and energy to further the goals of our organization.

To honor these efforts and achievements, this Gold Circle Award will be announced during the INCOSE Business Meeting at the 2003 International Symposium in Washington, DC. Please distribute this information to others in your chapter so that they may share in the celebration of your achievements. It is our hope that as President of the Los Angeles Chapter you will attend this event to receive proper recognition of the contributions of the chapter, its leaders, and its sponsors.

INCOSE recognizes that high quality, vibrant chapters are essential in our drive to enrich, educate, and enlighten the INCOSE membership while improving recognition of INCOSE and the systems engineering profession. The Member Board and INCOSE extend heartfelt thanks and appreciation to the Los Angeles Chapter for its contributions towards attaining these goals.

Best regards,

Dr. John Snoderly
INCOSE President

David Long
Member Board Chair

Col. David Wright
Member Board Co-chair



Successful - 2003 Mini-Conference Achieving Quantum Improvement June 7, 2003

Hosted by The Boeing Company in Long Beach

Over 130 in attendance
2 Outstanding Keynote speakers
28 presentations (4 tracks) and a panel
Exhibitors from Universities and Industry



Christine M. Anderson (Program Director Military Satellite Communications Joint Program Office, Space and Missile Systems) Center giving her presentation



Dr. Erik K. Antonsson (Chief Technologist at NASA's Jet Propulsion Laboratory) giving his presentation (right and below)



100 + attend the plenary session for Ms. Anderson's and Dr. Antonsson's presentations



Mike Dickerson (left) (President LA INCOSE Chapter and Mini-Conference Master of Ceremonies) with Dennis Schwarz (The Boeing Company and Mini-Conference General Chair)

Karen Owens (The Aerospace Corporation) presenting "Flavors of the Capability Maturity Model Integration (CMMI)"



Scott Jackson (The Boeing Company) "Whither Systems Engineering? A look at Trends in Systems Engineering."



Mike Bernabe (The Boeing Company) moderates the Panel on Integrating Software and Systems Engineering



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The Board and Officers wish to welcome the following new members in the Los Angeles Chapter of INCOSE:

Lynn Baroff	Jet Propulsion Laboratory
Eric Belle	The Raytheon Corporation
Randy Bennett	NSWC
Michael Bernabe	The Boeing Company
Ron Boain	Jet Propulsion Laboratory
Kris Brooks	Northrop Grumman
Gina Buccolo	The Aerospace Corporation
John Buckley	The Boeing Company
John Buzzatto	Scitor Corp.
Brian Chafin	Jet Propulsion Laboratory
Jovanna Contreras	Northrop Grumman
Kenneth Cureton	The Boeing Company
Richard Deka	Student Loyola Marymount University
Dan Frayssinet	ESPRIT
Kristine Hejna	Northrop Grumman
Hooman Houshmand	Consultant
Kelvin Kemp	Scitor Corp
Hasan Kitapci	USC

Jose Lara
Marisela Lara
Jorg Largent
Dal Lee Student
Patricia Light
Stephen Lyda
Hayley McGuire
Thomas Meyers
Laura Needels
Michael Pagani
Meagan Pitts
Christian Reascos
Joseph Saad
Pankaj Sharma
Brent Theodore
Kimberly Van Gessel
Gary Rudolph
Dr Chuck Weisbin

Student Loyola Marymount University
Student Loyola Marymount University
Northrop Grumman IS
The Boeing Company
Scitor Corp.
Naval Air Warfare Center
The Boeing Company
USAF
Jet Propulsion Laboratory
The Boeing Company
Loyola Marymount University
Loyola Marymount University
The Boeing Company
The Boeing Company
The Boeing Company
Northrop Grumman
Lolay, Inc.
Jet Propulsion Laboratory

Return Address:

**2118 Colony Plaza
Newport Beach, CA
92660**

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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:

2003 Officers and Board

President:	Michael L. Dickerson	simimike@iname.com or	president@incose-la.org
Vice-President:	John Hsu	john.c.hsu@boeing.com or	vicepresident@incose-la.org
Past President:	Michael E. Krueger	michael.krueger@ase-consult.com or	pastpresident@incose-la.org
Treasurer:	Marsha Weiskopf	marsha.weiskopf@aero.org or	treasurer@incose-la.org
Secretary:	Paul Cudney	paulcudney@dslextreme.com or	secretary@incose-la.org
Membership:	Susan Ruth	susan.c.ruth@aero.org or	membership@incose-la.org
Programs/Speakers:	Gina Kostelecky-Shankle	Gina.M.Kostelecky@aero.org or	programs@incose-la.org
Ways and Means:	Thomas Kudlick	synchrocubed@aol.com or	waysandmeans@incose-la.org
Tutorials/Education:	Saul D. Miller	saul.miller@aero.org or	setraining@incose-la.org
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Those interested in INCOSE membership wanting to be placed on our E-mail distribution please contact Susan Ruth - susan.c.ruth@aero.org
Newsletter Editor - Michael E. Krueger - michael.krueger@ase-consult.com