



NEWSLETTER

Los Angeles Chapter of INCOSE

www.incose-la.org

Issue No. 9

Oct, 2003

COMING EVENTS

Dinner Meeting

October 14th

From Function-Driven Systems Engineering to Object Oriented Software Engineering

Location - The Aerospace Corporation

Dr. Peter Hoffmann - I-LOGIX

Dinner Meeting

November 11th

Integrating Systems Engineering and Earned Value Management

Paul Solomon - Northrop Grumman Corporation

Location - The Aerospace Corporation

Holiday Party Event

Sunday, December 14th 3:00 pm - 7:00 pm
Susan Ruth's home

LA CHAPTER ELECTIONS

Starts- Oct 13th and ends Oct 31st on-line LA INCOSE Website

The following is the nominated

slate of Officers and Board members (See page 3)

Officers for 2004 Board of Directors

President - John Hsu	Membership - Paul Cudney
Vice President - Dennis Schwarz	SE Education - Anna Warner
Treasurer - Marsha Weiskopf	Ways and Means - Ron Williamson
Secretary - Karen Miller	Communications - Paul Su

ANNOUNCEMENT AND CALL FOR PAPERS

Abstract Submission Deadline: October 17, 2003

Acceptance and Instructions: November 1, 2003

(Those intending to submit papers at the INCOSE annual symposium are encouraged to submit them at CSER)

2nd Annual Collaboration
University of Southern California
Stevens Institute of Technology
CONFERENCE ON
SYSTEMS ENGINEERING RESEARCH
(Formerly Conference on Systems Integration)
April 15-16, 2004
Los Angeles, California
USC Campus

www.usc.edu/dept/engineering/cser

The conference theme is the definition of the frontiers of systems engineering research and applications in new directions to provide the robust development and management of future complex systems.

ABSTRACTS:

Abstracts must include: 1) Title, 2) Names of Authors and Affiliations, 3) Address for the Corresponding Author
Please send abstracts in Microsoft Word (not to exceed 400 words) to:

Dr. George Friedman, Conference Chairman- gfriedma@usc.edu



Systems Engineering Education Opportunities from Southern California Universities

Michael E. Krueger
Past President and
LA Chapter Newsletter Editor

This is the fourth and final article in the series on University Systems Engineering Programs that have outreach programs to industry. In last month's Newsletter, Dr. Frederick S. Brown provided an overview of Loyola Marymount's Masters program in Systems Engineering. This month Dr. Stan Settles and Scott Jackson present University of Southern California's program in Systems Engineering.

Systems Architecture and Engineering at the University of Southern California

The mission of the USC Graduate Program in Systems Architecting and Engineering (SAE) is to "improve the student's capability to create, develop, deliver and support innovative complex systems that are successful and market leaders by means of an interactive educational process, and to conduct research to that end."

The program's emphasis is real world relevance. To achieve that: 1) an inherently multidisciplinary approach is used and 2) its professors must have *both* significant academic and industrial experience. Of the 25 total INCOSE Fellows, 4 are at USC, more than any other organization. Five of the senior SAE faculty have a total of 175 years of industrial experience and were Vice Presidents or CEOs of their industrial organizations.

The SAE program is an integral academic program of the School of Engineering; it is not an extension program. As such, it must adhere to the quality standards of the school. The USC School of Engineering was rated as #8 nationally these last two years by US News and World Report.

USC SAE students take over 500 courses annually; over 100 students are currently candidates for the MS SAE degree. Students are sent by more than 20 organizations including: The Aerospace Corporation, Boeing, the DOD, LA DWP, Ericsson, Honeywell, JPL, Lockheed Martin, Motorola, Northrop Grumman, Qualcomm, Raytheon, and United Technologies.

Dr. Eberhardt Rechtin, retired CEO of The Aerospace Corporation, and an AIAA, IEEE and INCOSE Fellow, founded the program in 1987. Dr. Elliot Axelband, a retired VP of Hughes Aircraft Co, and an IEEE and INCOSE Fellow, who served from 1994 to mid 2003, succeeded him as SAE Director. The current SAE Director is Dr. Stan Settles, a retired VP of the Allied Signal Aerospace/The Garret Corporation, and a Fellow of the IIE and the Institute for Operations Research and Management Science. Dr. Settles is a member of the National Academy of Engineering, and a Professor in the Daniel

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J. Epstein Department of Industrial and Systems Engineering, where he holds the IBM Chair in Engineering Management. Dr. Settles is also a member of INCOSE.

Courses are provided live in USC campus classrooms and by wireless transmission to selected companies and regional sites in the LA area. The courses are also provided by webcast throughout the US and other parts of the world. Students' questions and comments are relayed in real time back to the classroom by telephone, and an internet chat line enables classroom interaction. Webcasts are archived for the entire semester and can be reviewed by students to catch up on lectures missed or for any other purpose. The USC MS SAE Degree (10 – 3 unit courses) and the USC Certificate Program (5 – 3 unit courses) can be obtained without ever setting foot on campus. No thesis or comprehensive examination is required.

A description of the Systems Architecture and Engineering program can be found at: <http://www.usc.edu/dept/publications/cat2002/engineering/>. Students are asked each semester to provide confidential reviews of the classes they take and their instructors and have provided high ratings.

In 1996 USC (as prime) teamed with UMR (University of Missouri at Rolla) to bid against its peers in response to an RFP issued by Boeing, and sent to 25 universities Boeing considered as having good systems engineering programs, to provide graduate system engineering MS and Certificate programs to meet Boeing's needs. USC/UMR was awarded that program in late 1997, and classes began in the Spring Semester of 1998. This program - a variant of the USC standard MS SAE/Certificate program but with more required and less elective courses - is available to Boeing and non-Boeing students. More information re this program can be found at: <http://den.usc.edu/boeing/>. Boeing has reviewed this program twice in the last three years and has given it excellent ratings. The Co-Director of this program is Dr. George Friedman, retired Corporate VP and Chief Technology Officer of the Northrop Corporation, an AIAA Fellow, and a past president and Fellow of INCOSE. Ken Cureton, James Hines and Scott Jackson, all Boeing employees, are instructors in the SAE program.

Instructors from Boeing and other companies teach many of the courses at USC where industrial experience is of value, further enabling the USC theme of industrial relevance.

Dr. Nikias, the Dean of the USC School of Engineering, has declared the SAE program a "strategic initiative" and endorsed increased faculty hiring, and an expanded research and educational program, likely including a Ph.D. in SAE. This semester, for example, a new course in Net-Centric SAE, ISE 599, has been introduced.

USC – in collaboration with The Stevens Institute of Technology – is managing and will be hosting the first conference focusing on systems engineering research this coming April, see <http://www.usc.edu/dept/engineering/cser>. The INCOSE Los Angeles chapter is a co-sponsor of this event.

For more information about the USC SAE program contact Dr. Stan Settles at 213-740-0263, or email: settles@usc.edu. For SAE/DEN (Distance Education Network) admission information, contact Ms. Carolyn Suckow at 213-740-8616, or email: jecks@usc.edu.

Dinner Meeting
Tuesday, October 14, 2003

Location
The Aerospace Corporation

Time
Networking 5:30 pm
Speaker 6:30 pm

Cost
Members Free
Guests \$10.00

From Function-Driven Systems Engineering to Object Oriented Software Engineering
Dr. Hans-Peter Hoffmann
I-Logix

ABSTRACT: Establishing a seamless flow from "concept to code" to meet the ever-increasing competitive challenges of designing and developing large, complex systems is akin to the Holy Grail. Attempts to achieve this by imposing a single methodology for both the systems component and the software component - though logical from a theoretical point of view - has consistently made one group or the other unhappy.

This presentation describes a model-based system and software development process that combines both function-driven systems engineering and object oriented software engineering. The key part of this "Integrated Process" is the "Bridge" between the two paradigms.

BIOGRAPHY: Dr. Peter Hoffmann, Chief Methodologist for System Design at I-Logix, has over twenty years of experience in all phases of aerospace/defense and automotive systems development. A respected specialist in real-time systems design, Dr. Hoffmann is responsible for delivering senior-level consulting, mentoring, and training to embedded systems developers. Clients include Alenia, BAe, Boeing, Daimler Chrysler Aerospace (DASA), Eurocopter, General Dynamics, GIAT, JPL, Lockheed Martin, NASA and SAAB.

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 October 10 if you are a US citizen, or by October 7 if you are NOT a US citizen.

FOR ADDITIONAL INFORMATION :
Please go to INCOSE-LA website (www.incose-la.org).

FOR DIRECTIONS:
Please go to www.incose-la.org then Calendar of Events

* Tuesday, October 14 ... **The Aerospace Corporation**

The 2003 Board is proud to present to the membership the following slate of candidates for the 2004 Officers and Board of Directors for the Los Angeles Chapter of INCOSE.

INCOSE News

As members of the LA Chapter you will be requested to vote on the this slate of candidates. Voting will be done through the LA INCOSE Website. The voting booth will open Monday Oct 13th and close Friday October 31st.

Best Regards
Chair of the Nominating Committee

Officers



President:
Dr. John C. Hsu, a Project Specialist for the Boeing Company, has 29 years of experience in a wide variety of engineering disciplines, management and software. In the past 16 years he has worked at The Boeing Company as Technical Manager, Project Manager and Principal Investigator for military and commercial aircraft design and research.

John has been constantly involved with INCOSE activities. He has served as the Vice-President of INCOSE LA Chapter, General Chair of the Mini-Conference, Session Chairs and an active presenter in the INCOSE Conferences. Dr. Hsu is an Associate Fellow and a Member of the Systems Engineering Technical Committee of AIAA (American Institute of Aeronautics and Astronautics).

John earned his Ph.D. in Mechanical and Aerospace Engineering, M.S. in Nuclear Engineering, M.S. in Mechanical Engineering and is a registered Professional Engineer.

Vice President:
Mr. Dennis Schwarz, Director of System Engineering for the Boeing Company, has worked for McDonnell Douglas and now Boeing for the past 18 years. During his career, he has worked on numerous aircraft programs on both the commercial and military sides of the company. He began in Manufacturing Engineering then later held positions in the Program Office, Engineering, Advanced Programs, and Commercial Aircraft Modification Services. His most recent position was Director of Systems Engineering for the C-17 Program. Currently, Dennis is Director of Product Processes and Tools for Boeing Air Force Systems. He has a degree in Mechanical Engineering and an MBA.



Treasurer:
Ms. Marsha V. Weiskopf, Director IST for The Aerospace Corporation, has over 20 years experience in both military and commercial communications systems. She joined The Aerospace Corporation in 1993, and since Oct 2002, she has been the Systems Director for the International Space Technology Department in the Strategic Awareness and Policy Directorate, also known as Project West Wing. Marsha also has over 10 years experience at the Hughes Aircraft Company's Space and Communications

Group where she provided communications engineering support to several commercial and classified military programs. Marsha is the current Treasurer of the LA Chapter of INCOSE.

Secretary:
Ms. Karen Miller is a Systems Engineer on the F-18 program at Northrop Grumman specializing in Life Cycle Cost. She also creates and implements Cost Reduction Initiatives and Lean Events for the Program. Prior to this assignment Karen was a Supportability Project Manager for several Northrop programs. She teaches Systems Engineering courses at Loyola Marymount University and has taught courses at USC.

Board of Directors (2 year terms)



Membership:
Mr. Paul Cudney recently retired from Lockheed Martin. Paul has nearly four decades of systems engineering experience as a real-time systems programmer, security engineer, requirements analyst, system integrator, and manager. He was Chairman of the Los Angeles Chapter of the Association for Computing Machinery, served as a track chair at this year's INCOSE-LA Mini-Conference, and is also a member of AIAA.



Systems Engineering Education/Tutorials:
Ms. Anna Warner, employed by MDC/Boeing since 1985, is currently engaged on the C17 Program in the Systems Engineering Department. She is responsible for the Project Management Process Areas for CMMI certification. Since 1990 she has worked as a Program Manager in the Commercial Division of Boeing (and before the merger, McDonnell Douglas Corporation). Anna managed large customer programs and major engineering aircraft modifications for Boeing. Anna is a graduate of the University of Warsaw, Poland (MS in Econometrics, graduated first in class), UCLA (Executive MBA) and USC (MS in Systems Engineering and Architecting). Currently, she is in the process of completing doctoral studies in Systems Engineering at USC (expected graduation summer 2004). She is also a certified Project Management Professional (PMP) and a Microsoft Certified Professional (MCP).



Ways and Means:
Mr. Ron Williamson, A Senior Engineering Specialist for The Aerospace Corporation, has over 30 years of engineering project management and systems development experience. His areas of expertise in systems engineering include Operational Requirements Analysis, System Requirements Specifications, and Interface Control Documentation. Ron has extensive background in Electrical Engineering, with emphasis on power system engineering, electronic system development and hardware/software integration. Ron has a BS and MS in Electrical Engineering and is a Registered Professional Engineer in California. Ron has served as the Communications Chair for 2002/2003. In that capacity he resurrected the chapter web site and ensures its continued operation. He also helps in the coordinates the monthly meetings that are held at The Aerospace Corporation.



Communications:
Mr. Paul Su is a member of the technical staff at The Aerospace Corporation in El Segundo, California. He joined the company in 2001 and since then has provided Systems Engineering support to various military and civil space systems projects in areas such as risk management, requirements engineering and systems architecting. Paul's involvement with INCOSE started in 2002 with his assistance to the communications chair. He is primarily responsible for maintaining the Los Angeles chapter website and registration for the chapter sponsored events. Paul received his Master of Engineering degree in Manufacturing in 1996 and his Bachelor of Science in Mechanical Engineering in 1995, both from the University of California, Los Angeles.

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The Board and Officers wish to welcome the following new Chapter members:

- | | | | |
|----------------|--------------------|-------------------|---------------------------|
| Bill Stroud | Northrop Grumman | Joe Dziezynski | Northrop Grumman |
| Neil Cabreza | Lockheed Martin | Greg Madden | Northrop Grumman |
| Philip Cormier | The Boeing Company | Rebecca Henninger | Jet Propulsion Laboratory |
| Tom Dunford | The Boeing Company | Tim Lee | The Boeing Company |

INCOSE News

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-shankle@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
Communications:	Ronald Williamson	ronald.w.williamson@aero.org or	communications@incose-la.org

Those interested in INCOSE membership wanting to be placed on our E-mail distribution please contact Susan Ruth - susan.c.ruth@aero.org
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