



NEWSLETTER



2002, 2004-11



2003



2008 President's
Award for Most
Outstanding
Chapter



UPCOMING EVENTS

October Speaker Meeting

Lean Enablers for Systems Engineering (LEfSE) and Lean Enablers for Managing Engineering Programs (LEfMEP) — Overview

Presenter: Dr. B. Oppenheim of Loyola Marymount University

NOTE WEDNESDAY DATE

When: Wednesday, October 17, 2012
5:30 p.m. to 7:45 p.m.

Where: Booz Allen Hamilton, LAX Office
See page 2 for details

One-day Tutorial

Lean Enablers for Systems Engineering (LEfSE) and Lean Enablers for Managing Engineering Programs (LEfMEP): overview and detailed discussion of Lean enablers

Presenter: Dr. B. Oppenheim of Loyola Marymount University

When: Saturday, October 27, 2012
9:00 a.m. — 2:00 p.m.

Details in article to the right

2013 Mini-conference

WHEN: March 16, 2013

WHERE: Loyola Marymount University
Details in work; see the article on page 3

See more "save the date" activities on page 3

October Tutorial

**Lean Enablers for Systems Engineering and
Lean Enablers for Managing Engineering Programs
2011 Shingo Award, 2010 Best INCOSE Product Award**

On Saturday, October 27, 2012 the Chapter will host a tutorial featuring Dr. Bohdan "Bo" W. Oppenheim, Professor of Systems Engineering, Loyola Marymount University (LMU) Los Angeles and a renowned pioneer in the applications of LEAN to systems engineering.

LEAN ENABLERS PRESENTED FROM THE PERSPECTIVE OF THE 26 SYSTEMS ENGINEERING PROCESSES IN THE INCOSE HANDBOOK

While the project overview will be discussed at the October 17th speaker meeting (see page 2), this tutorial will dive into the full application of these Lean Enablers. The tutorial will cover two recent important additions to the body of knowledge of systems engineering and project management:

1. Lean Systems Engineering is a new body of knowledge applying the wisdom of Lean Thinking to systems engineering. Lean Systems Engineering represents the synergy of the two areas, leading to superior systems engineering process. Most emphatically, Lean Systems Engineering does not mean "less systems engineering"; it means better systems engineering, with better preparations, planning, front-loading, training, and more common sense, leading to better program execution. It also means better integration with Program Management. **Lean Enablers for Systems Engineering (LEfSE)** is a product designed by 14 experts from industry, academia, and U.S. and foreign governments, supported by Lean Systems Engineering Working Group of INCOSE (the largest of INCOSE Working Groups). Lean Enablers are formulated as 147 "do's" and "don'ts" of systems engineering practice focused on Mission Assurance/Product Success and elimination of waste. The Lean Enablers have received the 2011 Shingo Award for Operational Excellence, the 2010 INCOSE Product of the Year Award. The work was presented in 40 lectures and tutorials in 12 countries on three continents.

2. Lean Enablers for Managing Engineering Programs (LEfMEP) is the result of a two-year Joint MIT-PMI-INCOSE project called Lean in Program Management Community of Practice, which was based on the LEfSE project. LEfMEP integrates many aspects of systems engineering and Project

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October Speaker Meeting

Lean Enablers for Systems Engineering (LEfSE) and Lean Enablers for Managing Engineering Programs (LEfMEP) - Overview

Presenter: Dr. Bohdan "Bo" Oppenheim
Graduate Director of Mechanical Engineering
Loyola Marymount University (LMU)

PARTICULARS

When: Wednesday, October 17, 2012, 5:30 — 7:45 p.m.

Where: Booz Allen Hamilton, LAX Office
Building 5220 — 2nd. Floor, Suite 200
5220 Pacific Concourse Drive

Remote sites will be available for this speaker meeting

Cost: Members-FREE; Non-members-\$10.00

Meeting Agenda:

5:30 - 6:20 p.m. Registration, networking, refreshments
6:20 - 6:30 p.m. Welcome and announcements
6:30 - 7:45 p.m. Presentation followed by questions and answers

Abstract: Please see page 1 for the Oct. 27 Tutorial Abstract. The present (Speaker's Meeting talk) Abstract is the same. Note: the Speaker's Meeting will cover only the project overview, while the Tutorial will add a comprehensive discussion of the enablers mapped onto the 26 systems engineering processes in INCOSE Handbook.

The new field of Lean Systems Engineering (LSE) is the application of Lean Thinking to Systems Engineering and to the related aspects of enterprise management. Lean Thinking is the holistic management paradigm credited for the extraordinary rise of Toyota to the most profitable and the largest auto company in the world. For example, the Prius car design was completed in nine months from the end of styling, a performance not matched by any competitor. Lean has become an established paradigm in manufacturing, aircraft depots, administration, services, education, banking, supply chain management, health, and product development, including engineering. The present talk is about the already-mature body of knowledge of the application of Lean to Systems Engineering. In a 2009 interview Dr. Oppenheim noted that Lean Systems Engineering is not Less Systems Engineering; it is more and better Systems Engineering with less waste: waiting, lack of coordination, needless rework. "It is a means to finally reduce the notorious schedule and budget overruns of our programs."



Biography: Bohdan "Bo" W. Oppenheim is a Professor of Systems Engineering at Loyola Marymount University in Los Angeles, and founder and co-chair of INCOSE Lean Systems Engineering Working Group, the largest Group of INCOSE. Dr. Oppenheim joined LMU in 1981. He is a world-recognized expert on and developer of Lean Enablers for Systems Engineering (LEfSE), and a key member of the second joint INCOSE-PMI-MIT project developing Lean Enablers for Managing Engineering Programs, integrating Lean Systems Engineering with Lean Project Management. Dr.

Oppenheim authored the book *Lean for Systems Engineering with Lean Enablers for Systems Engineering* (Wiley, 2011) and served as the second author of *The Guide to Lean Enablers for Managing Engineering Programs* (Oehmen, 2012). His engineering degrees include Ph.D. from Southampton, U.K.; Graduate Engineer's Degree from MIT; MS from Stevens Institute of Technology; and B.S. (equiv.) from Warsaw University of Technology in Aeronautics. His industrial experience spans offshore, space, software, and mechanical engineering.

His credits include five books, 20 journal publications, \$2.5 million in externally funded grants, and a 30 year industrial experience. He is the recipient of 2011 Shingo Award, 2010 INCOSE Best Product Award, 2011 Fulbright Award, and 2008 Los Angeles Center for Enriched Studies Best Teacher Award.

Dr. Oppenheim is a pillar of the Los Angeles Chapter and received the 2011 Susan C. Ruth Award for his contributions to the Chapter and his continued willingness and ability to exercise organizational resources for the benefit of the Los Angeles Chapter. This award is to honor Chapter volunteers who have given a significant amount of volunteer service to the chapter for at least five years.

R.S.V.P.: Please R.S.V.P. by Friday, October 12, 2012

ALL PARTICIPANTS: Attendees must R.S.V.P. Please register online at <http://www.incose-la.org> (this is important so as to help facilitate implementing the meeting). You will be asked to provide your full name, title, company, phone number, and email address. State whether you are a United States citizen, resident alien, or foreign national. Please bring your picture identification (driver's license, passport or green card) to the meeting.

Substantial refreshments will be provided at the host site. Refreshments may be provided at remote sites. Refer to the INCOSE-LA website or contact the point-of-contact for the respective remote site for more information.

Planned Remote Webcast Sites:

Antelope Valley (Edwards Air Force Base, Palmdale): Held on the campus of the Antelope Valley College in the "BE" (Business Education) building, room 207. Open to all; no R.S.V.P. deadline. POC: Mike Wallace, phone: 661-540-0290, email: m.wallace@ngc.com.

Huntington Beach: The Boeing Company, 14900 Bolsa Chica Road, Building 17, Conference Room 109. Please register by Friday, October 12, 2012. Open to U.S. citizens and non-resident aliens. **We regret that foreign nationals will not be able to attend at the Boeing Company site.** Visitors will need to bring identification and check in with Security in the lobby of Building 17 not later than 6:00 p.m. Please bring your picture identification (driver's license, passport and/or green card) to the meeting. Point of contact: Beth O'Donnell, phone: 714-372-2543, email: elizabeth.l.o'donnell@boeing.com. Refreshments will be provided at this site.

Goleta: Control Point Corporation, 110 Castilian, Suite 200, Goleta. Please register by Friday, October 12, 2012. POC:

(Continued on page 4)

Mini-Conference 2013

Another INCOSE-LA Tradition,
An Opportunity to Learn, Network, and Share
(Without the Travel)

INCOSE-LA is planning a one-day conference on March 16, 2013. As in the past, the Mini-conference will address current important issues in systems engineering. The theme for the 2013 conference is: **Technical Education, Career Development and Collaborative Exploration**. This conference will combine traditional conference methods with something new: the “un-conference” structure. Another planned departure from “the way we have always done it” at this conference will be a job fare section.

In addition to structuring the conference to address current issues of interest to the systems engineering community, with a portion of the conference using a non-traditional architecture, the leadership team is planning for this conference to be economical (\$25 — \$50). In keeping with past practices, the cost will include breakfast, breaks and lunch.



The venue for the mini-conference will be Loyola Marymount University, in the Westchester area of western Los Angeles, overlooking Playa Vista and Marina Del Ray. The facilities, with the airy atrium, spacious dinner area and comfortable meeting rooms is the ideal setting for this conference.

The initial planning is for the conference to be divided up into three tracks:

- Track 1 Focused Technical Development
 - ◆ The theme is “Using Systems Thinking” and the call for presentations will be announced by email and on the INCOSE-LA website.
- Track 2 Career Development and Recruiting
 - ◆ Presentations on seeking, applying for, interviewing and landing a position, picking up new marketable skills or changing your career area focus
 - ◆ Opportunity to meet with recruiters
- Track 3 Systems Engineering Camp
 - ◆ Self organizing, un-conference
 - ◆ Propose a topic (50 min time limit, including Q&A) and attendees will vote your offering into the line-up or out
 - ◆ You can propose to lecture by yourself, have a panel discussion or an interactive workshop.
 - ◆ Format is open. Topics open. You can even propose a topic and ask for someone else to present.

Want to be a part of the next Mini-conference? Join the team now and help guide and shape this Mini-conference!
Contact:

Terry Rector at 949.910.1128 or terry.rector@scientist.com
OR

Richard Emerson at 818.926.0013 or remerson9@gmail.com

Look for updates on the details, the presentations, and the opportunities to participate on the INCOSE-LA website and in future editions of the *Newsletter*.

September Speaker Meeting The Investigation into Sudden Unintended Acceleration in an Automobile

By Jorg Largent

The September speaker meeting featured Dr. Ed Gamble from the Jet Propulsion Lab (JPL) speaking on the so-called “sudden unintended acceleration” in Toyota automobiles.

The well-attended meeting was opened by Chapter President John Silvas. In addition to the host site at Booz Allan, remote site at Loyola Marymount University, JPL, Goleta, Huntington Beach, and the Antelope Valley joined it. John opened the meeting with introductions and a special acknowledgement of new members. John then turned over the meeting to Dr. Gamble.

The guest speaker for the evening, Dr. Gamble is a Principal Engineer at JPL’s Laboratory for Reliable Software. He obtained a bachelor’s of science degree and a master’s of science degree from UCLA and a Ph.D. from Massachusetts Institute of Technology in 1990. He worked as an Invited Researcher in Kyoto Japan at that Advanced Telecommunications Research Institute from 1990 to 1996.

(Continued on page 7)

SAVE THE DATE

Solar Decathlon

Hosted by the U. S. Department of Energy,
October 3 – 13, 2012
at the Orange County Great Park in Irvine

Networking Event

When: Wednesday, November 7, 2012
Details in work

November Speaker Meeting

Details in work

Presenter: Dr. Larry Earnest, Northrop Grumman
When: Tuesday, November 13, 2012
5:30 p.m. to 8:30 p.m.

Where: Booz Allen Hamilton, LAX Office

Year-end Holiday Party

When: December 9, 2012
Details in work

Systems Engineering Proverbs

Proverb 1: Good architecture is expensive and bad architecture is even more expensive.

Proverb 4: Given eight hours to chop down a tree, spend six hours sharpening the ax. OR work smarter, not harder. Flailing away looks productive, until you realize that the tree is still there and all the bushes are splintered, scattered and disorganized.

Proverb 6: Tests trump opinions. [the owners of some opinions have been known to deny the validity of the test results – editor]

Dr. Doug Loverro, April 2009 Speaker Meeting

(LEfSE and LEfMEP tutorial, continued from page 1)

Management. The community of practice was made up of selected subject matter experts from industry, government, and academia. The LEfMEP were extensively validated through community and practitioner feedback, multiple workshops at INCOSE and PMI conferences, web-based meetings hosted by MIT's Lean Advancement Initiative, and surveys of the extended professional community. The survey results clearly show that programs that use the Lean Enablers show a significantly stronger performance in all dimensions—from cost, to schedule and quality, as well as stakeholder satisfaction. The work is organized into (1) the 10 themes for major engineering program management challenges, and (2) the 43 Lean Enablers with 286 subenablers to overcome these challenges, better integrate program management and systems engineering, and lead engineering programs to excellence. All LEfSE have been integrated into the present work. The main engineering program management challenges that were identified and addressed by the Lean Enablers in this guide are: 1. Firefighting—Reactive program execution; 2. Unstable, unclear, and incomplete requirements; 3. Insufficient alignment and coordination of the extended enterprise; 4. Processes are locally optimized and not integrated for the entire enterprise; 5. Unclear roles, responsibilities, and accountability; 6. Mismanagement of program culture, team competency, and knowledge; 7. Insufficient program planning; 8. Improper metrics, metric systems, and key performance indicators; 9. Lack of proactive program risk management; and 10. Poor program acquisition and contracting practices. The tutorial will cover fundamentals of Lean Systems Engineering and the project overview (the same as the subject of the Speaker's Meeting on Oct. 17), and detailed discussion of Lean enablers. The latter will be presented from the perspective of 26 systems engineering processes in INCOSE Handbook.

It is recommended that the listeners purchase the following reference text (1) and free reference download (2) before the tutorial:

- 1) Book: *Lean for Systems Engineering with Lean Enablers for Systems Engineering*, B. W. Oppenheim, Wiley & Sons, 2011
- 2) *The Guide to Lean Enablers for Managing Engineering Programs, 2012* (free download link: <http://dspace.mit.edu/handle/1721.1/70495>.)

ADMINISTRIVIA:

- **DATE: SATURDAY, OCTOBER 27, 2012**
- **TIME: 9:00 A.M.. - 2:00 P.M.**
- **WHERE: BOOZ ALLEN HAMILTON, LAX OFFICE—SEE THE SPEAKER MEETING ARTICLE (AT RIGHT) FOR DIRECTIONS.**
- **COST: \$90.00 FOR MEMBERS OF INCOSE AND \$110.00 FOR NON-MEMBERS.**
- **INCLUDES: BREAKFAST, BREAKS, AND LUNCH AS WELL AS HANDOUTS.**

(October Speaker Meeting, continued from page 2)

Scott Grant, scott.grant@control-pt.com. 805-882-1884, x108 for directions or more information.

Pasadena, JPL – Please register online by Thursday, May 3, 2012. Contact Michela Muñoz Fernández at Michela.Munoz.Fernandez@jpl.nasa.gov for specific location and directions. JPL, 4800 Oak Grove Dr, Pasadena CA. Open to all. Visitors must register by RSVP deadline. Site coordinator: Chelsea Dutenhoffer, chelsea.dutenhoffer@jpl.nasa.gov.

Directions to the host site at Booz Allen Hamilton:

From the San Diego (405) Freeway traveling south:

1. Take exit 46 toward Century Blvd. West/LAX.
2. Turn left (south) on south La Cienega Boulevard.
3. Turn right onto Pacific Concourse Drive.
4. Follow the road until you reach the second stop sign (immediately past court house parking garage on the right) and turn right. At gate on the far right, press the green button to receive a parking ticket (admin staff will validate parking).
5. After passing the gate, turn left and park in the visitor parking lot. Walk past the water fountain, across the rotunda to building 5220. Meeting will be on the second floor, Suite 200.

From the San Diego (405) Freeway traveling north:

1. Take the El Segundo Boulevard exit, exit 44, toward Hawthorne Blvd.
2. Turn left onto west El Segundo Boulevard.
3. Turn right (north) on south La Cienega Boulevard.
4. Proceed on La Cienega until the third stoplight.
5. Turn left onto Pacific Concourse Drive.
6. Follow the road until you reach the second stop sign (immediately past court house parking garage on the right) and turn right. At gate on the far right, press the green button to receive a parking ticket (admin staff will validate parking).

After passing the gate, turn left and park in the visitor parking lot. Walk past the water fountain, across the rotunda to Building 5220. Meeting will be on the second floor, Suite 200.

Financial Planning Raise Your Financial IQ

Presented by Aarone Tirpak, Wells Fargo

Introduction by Mark Stelling, Raytheon Retiree, INCOSE member, & Independent Financial Advisor

- **Date:** Saturday, October 6, 2012
- **Time:** 10:00 a.m. - 2:00 p.m.
- **Where:** Booz Allen Hamilton, LAX Office
- 5520 Pacific Concourse Drive 2nd Floor, LA, CA
- **Cost:** Free including continental breakfast and light lunch courtesy of Wells Fargo
- **R.S.V.P.:** Please R.S.V.P. by Tuesday, October 2, 2012 via <http://www.incose-la.org>
- **More Information:** Contact Shirley Tseng, 714-832-5373, shirleytseng@earthlink.net

Systems Engineering

Online Certificate Program



- Apply techniques to a broad range of industries
- Complete the entire program online
- Transfer specific coursework towards the Professional Master's Degree in Applied Systems Engineering (PMASE) from Georgia Institute of Technology
- Improve your organization's operational efficiency
- Prepare for INCOSE certification



Curriculum

- Foundations of the Systems Engineering Process
- Systems Requirements Engineering
- System Design and Integration
- System Validation and Verification
- Simulation-Based Engineering for Complex Systems
- Systems Engineering Tools and Methods
- INCOSE Certification Preparation

For more information:

Julie Pai, Program Representative
julie.pai@uci.edu • (949) 824-6333



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News from the Strategic Planning Meeting

By Jorg Largent

Twelve members of the Board of Directors, plus three members, attended the third strategic planning meeting on September 8, 2012. President John Silvas had canvassed the leadership team and membership for topics and set the theme of the meeting: to analyze strategy and key chapter activities, and to have an in-depth membership discussion around maximizing the value proposition.

The Chapter is continuing to host speaker meetings in October and November, a tutorial in October, networking events in November and December, and the mini-conference in March of 2013. Shirley Tseng, as the Director of Programs, and our Technical Society Liaison is investigating collaboration with the local chapter of the American Institute of Aeronautics and Astronautics and the local chapter of the Institute of Electrical and Electronics Engineers. Shirley presented the “parking lot” of topics of potential interest for future speaker meetings and tutorials.

The Director of Systems Engineering Education, Dr. Larry Earnest, discussed plans to expand the scope of the educational offerings. Dr. Earnest’s presentation included discussions about developing CSEP instructors and presenting workshops and tutorials focused on advanced systems engineering skills, enabling systems engineers to stay viable in the changing work environment.

A major concern and focus for the leadership continues to be providing value to the Chapter membership and increasing that value. The Board noted a shift in the work place in that INCOSE membership, and, particularly, INCOSE certification is increasingly appreciated and sought out by employers, tempered by the caution that there is still a ways to go. The positive aspect of this observation was buttressed in the recently completed on-line Certified Systems Engineering program sponsored by INCOSE and conducted by John Clark of Northrop Grumman.

A few of the ideas for increasing value to the membership discussed will be forwarded to the international Board of Directors for consideration.

One of the areas in which the Chapter can support the membership is by a mentoring program. The demographics of the members of the Los Angeles Chapter show a wide range of ages and levels of experience, which has the potential of a mentor/mentee program. The professional Networking Chair, Nahal Patel, is working on a plan to kick-start mentoring; a

networking event at which potential mentors could meet with systems engineers who feel that their careers could benefit from mentoring.

Also discussed were expanding our use of electronic media such as LinkedIn. In the same vein, the Chapter is working on modernizing the Chapter website.

The plans for the Chapter-hosted mini-conference were reviewed. The conference will be held next March and will be an opportunity for members to contribute to the advancement of the profession. Additional details will be forthcoming in the Newsletter and in Reflector Notices.

One of the keys to being a successful chapter is the members who volunteer to make things happen. The Board appreciates those who have volunteered and is working on parceling out activities. Additional comments and suggestions are welcome.

Stay Connected

Get the latest on INCOSE-LA happenings in the Reflector e-mails

If you wish to be placed on our e-mail distribution, contact Susan Ruth

susan.c.ruth@aero.org

Networking Event Brings to Growth in Systems Engineering to Light

By Scott Birtalan

The quarter’s chapter networking event was held recently at Lido di Manhattan Bistro in Manhattan Beach. Nearly a dozen chapter members and a few non-members interested in seeing ‘what we do’ turned up for an evening of casual networking over great food and cocktails.

Our signature ‘round the room’ introduction highlighted the broadening application that the systems engineering discipline has enjoyed in the past few years with professionals from several industries in attendance. The typically high defense industry turnout was well complemented by medical, communications, and educational fields. The Los Angeles chapter’s networking committee holds casual events quarterly alternating between the South Bay and Pasadena areas.

We are looking for opportunities to hold events in other Los Angeles neighborhoods. Please feel free to offer suggestions by contacting Nehal Patel at nehppatel@gmail.com.

Volunteers!

Would you like to be a part of the hard-working team that provides these benefits to the members of INCOSE-LA? If you are interesting in volunteering, speak to a member of the Board of Directors or send an email to President@incose-la.org

INCOSE-LA Chapter NEWSLETTER

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(September Speaker Meeting, continued from page 3)

Toyota had a growing number of unsubstantiated reports of “Sudden Unintended Acceleration.” The tragic circumstances of many of the reports resulted in a public hue and cry. The U.S. Department of Transportation (D.O.T.) took command of the situation and promised Congress that they would “get into the weeds.” The task was not as easy as it might have seemed, and the D.O.T. sought help from outside the Beltway, ultimately ending up with the team of NASA, the Jet Propulsion Lab, and Caltech. It had been noted that the engine control system on the Toyota shares a great many similarities with spacecraft control systems, hence the decision to go with the aforementioned team.

Part of the challenge faced by the team was to address a full spectrum of potential concerns and procedures and protocols and to perform the analyses while protecting the intellectual property. Toyota responded quickly and supported the team without hesitation. The management at Toyota was interested in the contention that sudden unexplained accelerations were occurring in their products and wanted to determine and field a fix as quickly as possible. The team had a good rapport with the Toyota engineers.

The team applied logic model checking to the electronic throttle control system in 2005 Toyota Camry vehicles. A total of six logic models were developed; each model focused on a subset of the full control system that the team postulated as a potential cause for unintended acceleration. Correctness claims against the logic models were derived from Toyota design documents and from conditions leading to unintended acceleration. None of the logic model verifications lead to a correctness claim violation indicative of unintended acceleration. One logic model verification identified a software condition whereby high- power transistors moving the throttle plate could be shorted. The software condition was based on an obscure confluence of task and interrupt timing delays. Subsequent investigation confirmed that hardware control logic prevented software induced shorts. This work was part of the

2010 Department of Transportation investigation of unintended acceleration claims against Toyota vehicles and was published in the software appendix to NASA’s NESC report. This work was performed jointly with Gerard Holzmann.

The challenge faced by the team had several subtle aspects. One is that software, unlike hardware, has no persistent damage. Second, while the software can record failure codes, but no codes were reported. They may have been looking for a problem that was masquerading as correct operation.

Tool selection was an important task as the team set about finding a way to analyze the software.

The determination and selection of test conditions were equally important. One of the challenges was the requirement for the system to operate in environments that could not be controlled – a challenge facing the design, testing, and verification of space vehicle control systems. To meet this challenge, NASA already had tools that were designed to find subtle software anomalies. The recognition of and definition of legitimate software errors was required (“illegitimate” errors are exemplified by those that are caused by or precipitated by a tool of piece of test equipment).

The team performed a functional analysis of how the throttle control worked, and based on drawing, circuit diagrams, and requirements. From this they were able to build a model of the system behavior. Once the model was built, the team ran trials on the model to ensure that it matched reality.

One thing that made their task easier was interface control. Dr. Gamble noted that if the interface is well defined then it is easier to model and then we can produce and explore all possible inputs and outputs. One problem in this application is if the documentation is at too low a level, that is, it gives code rather than the interface. Dr. Gamble noted that this propensity is fairly common. The evening concluded with questions and answers and with thanks from those in attendance for an interesting and insightful 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
Susim Gedam	Sr. System Engineering	Capstone Turbine Corporation
Simon Sedighpour	Student	
Qin Zhu	Graduate Student	University of Southern California
Thomas (Tom) C Meseroll	Director Systems Engineering	LinQuest Corporation
Andrew (Arthur) Grey	Corporate Engineer	LinQuest
Brian J Budzyn	Director - Systems, Software Electrical Engineering	Capstone Turbine Corporation
Mark G Gilbreth	VP Engineering and CTO	Capstone Turbine Corporation
Penelope (Penny) J Barton	Sr. Technical Writer	SAIC

INCOSE-LA Chapter NEWSLETTER

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INCOSE-LA Chapter NEWSLETTER

Vol. 10: Issue No. 9 October 2012

Return Address:

**PO Box 10969
Westminster, CA 92685-0969**

Forwarding Address Requested

The International Council on Systems Engineering (INCOSE) is a not-for profit membership organization founded to develop and disseminate the interdisciplinary principles and practices that enable the realization of successful systems. INCOSE's mission is to share, promote, and advance the best of systems engineering from across the globe for the benefit of humanity and the planet. The Los Angeles Chapter meets several times per year for speaker meetings, and, in addition, sponsors tutorials, mini-conferences and other activities of interest to those in the systems engineering field or related fields.

2012 Board of Directors

Elected Officers			Elected At-large Directors		
President	John Silvas	silvas_john@bah.com	Membership	Paul Cudney	paul.cudney@incose.org
Vice-President	Terry Rector	terry.rector@incose.org	Programs (acting)	Shirley Tseng	shirleytseng@earthlink.net
Past President	Beth O'Donnell	elizabeth.odonnell@incose.org	Systems Engineering Education	Larry Earnest	Larry.earnest@incose.org
Secretary	Alan Kirschbaum	alan.kirschbaum@incose.org	Ways and Means	Michael Maar	michael.maar@incose.org
Treasurer	Harvey Soldan	harvey.soldan@jpl.nasa.gov	Communications	Jorg Largent	Jorg.largent@incose.org
Appointed Positions					
Newsletter Co-editor	Jorg Largent	jorg.largent@incose.org	Newsletter Co-editor	DeAnna Regalbuto	deanna.regalbuto@verizon.net
Technical Society Liaison	Shirley Tseng	shirleytseng@earthlink.net	Reflector Manager	Susan Ruth	susan.c.ruth@aero.org
Chapter Recognition Manager	Joshua Sparber	jsparber@netzero.net	Industrial Relations Manager	Jose Garcia Jr.	jose.s.garcia-jr@boeing.com
Professional Networking Chair	Nehal Patel	Patel_Nehal@bah.com	Website Technical Manager	Mark Gallo	mark.gallo@incose.org
2012 Mini-Conference Chair	Michael Wallace	m.wallace@ngc.com	Lead Site Coordinator	OPEN	
2012 Mini-Conference Technical Chair	Bruce Riggins	Bruce.riggins@incose.org	Rep to the SF Valley Engineer's Council	Stephen Guine	Stephen.Guine@ngc.com
Student Division Ambassador	OPEN		New Member Ambassador	Collette Kurtz	collette.kurtz@incose.org