NEWSLETTER

2008, 2012, 2017 President's Award for Most Outstanding Chapter

Gold Circle Award 2004-14

Platinum Circle Award 2015-18

Success!

Success is the word to describe the second annual Western States Regional Conference. Why "success?" To "read the room," there were high levels of interest, energy, networking, and substantial technical content on the part of the participants throughout the conference. Credit for the success goes to the sponsors, the volunteers, and the participants.

The sponsors:
- No Magic (platinum level)
- The Americas Sector of INCOSE (gold level)
- Base 2 Solutions (silver level)
- jama software (silver level)
- AGI (bronze level)
- California Institute of Technology (bronze level)
- Capella Open Source MBSE Solution (bronze level)
- Phoenix Integration
- The Science of Laws Institute.

See photos inside

The President's Corner

By Mark McKelvin, Chapter President

As the year comes to an end, I would like to take a moment to reflect on some of the Los Angeles Chapter's initiatives — discussed at the townhall meeting last January — and how we achieved those goals.

First, I would like to thank all volunteers, and especially those on the Board of Directors and those in appointed positions, for their hard work and dedication to the success of the Chapter. What we do as an organization is possible only through the commitment, leadership, and dedication of its members.

President McKelvin

At the townhall meeting in January the membership of the Chapter was asked about the value of an INCOSE membership. This question has also been the highlighted question at many of the monthly meetings of INCOSE's Americas Sector leadership. INCOSE-LA respondents to the question at the townhall identified Chapter meetings as the events which provided the most value to members. Not only do they serve as one of the primary, ongoing events to network, but they also showcase relevant information through exciting and interesting presentations from presenters in academia and industry.

To help increase information sharing throughout the Chapter, we introduced a "virtual networking" segment at the speaker meetings. This is an opportunity to introduce one another to not only those that are physically in the room where the meeting is held, but also to the online attendees.

Inside This Edition

The sponsors were the financial backbone of the conference, and deserve special recognition and thanks for this all important but often unheralded contribution to the success of a conference.

Participants came from across the western United States — as far away as Colorado, New Mexico, and Seattle, and as near as San Diego and here in the Los Angeles metropolitan area.

The participants were rewarded with presentations spanning seven tracks:

1. SE Applications to Healthcare and Medical Devices,
2. Agile Systems Engineering,
3. Model-Based Systems Engineering,
4. SE Perspectives and Case Studies,
5. SE in Natural and Social Systems,
6. Systems Research and Analysis, and
7. Attracting and Developing Tomorrow's SE Work Force.

There were several focused sessions which started on Friday, such as "Systems Engineering: Bootcamp: Taking SE to the Next Level," conducted by Michael Coughenour and Steve Tolle. Dave Mason, a member from San Diego and veteran systems engineer dedicated to education, conducted training session on the Certified Systems Engineering Professional exam on Friday and Saturday. The exam itself was administered on Sunday.

Drs. J Shelley of California State University, Long Beach, and Rick Hefner of the California Institute of Technology teamed up to conduct "SE to the Rescue," a group exercise that gave the assembled systems engineers an opportunity to practice what they preach — folding paper airplanes and transferring "radioactive" popcorn. The results were a little awkward for some, albeit educational and good fun for all.

On Friday Ron Carson made a presentation entitled, "Correcting Misperceptions of SE Practices." Saturday was a full day with twenty one presentations plus a day-long "Professional Development Day." The conference wrapped up on Sunday with twelve more presentations and, after lunch, a tour of the James Webb Space Telescope and the Northrop Grumman Corporation museum.

This wide range of meaty and timely presentations was complemented with several networking opportunities, the acme of which was the banquet on Saturday night. The keynote speaker was LT COL Kellie Brownlee the Materiel Leader, Future Ground Integration for the United States Air Force Space Command, located at the Los Angeles Air Force Base. Col. Brownlee spoke on future ground systems, and provided a range of insights on the challenges they are overcoming as they implement systems engineering Col Brownlee also discussed the determination on the part of the Department of Defense to indeed implement the systems engineering process. Her informative and motivating presentation was appreciated by those in attendance.

Loyola Marymount University was an excellent choice for a venue and the weather was chamber-of-commerce perfect. The nearby Renaissance Hotel was site of the banquet and served an excellent meal as well as hors d'oeuvres for the pre-prandial libations.

Western States Regional Conference 2019 Sponsors

Capella
Open Source MBSE Solution

base2 solutions

AGI

NO MAGIC

Jama software®

THE SCIENCE OF LAWS INSTITUTE

Caltech

Obeo, (Capella) one of the sponsors of the Western States Regional Conference followed up with the following message:

The 2019 edition is now over and we were really happy to support its organization again this year. This was a great edition, intensive and with rich content.

This WSRC was also the opportunity to listen to the feedback of Thales with Maria D'Argostino's talk: "Capitalizing the Benefits of MBSE."

Obeo provided links to some of their resources:
https://www.polarsys.org/capella/features.html
https://www.youtube.com/watch?v=aefpyMBxB-4

For those who would like to know more about Obeo, contact Stephane Lacrampe at:
stephane.lacrampe@obeosoft.ca

From upper left: Dorothy Beneviste pours "radioactive" popcorn, the team (with Phyllis Marbach, chairperson, right front) the INCOSE banner, attendees networking and learning, and, at right the keynote speaker, LT COL Kellie Brownlee.

Photos courtesy an able and active Andrew Murrell. Thank you, Andrew!   From the Editor ;-)

Chapter-Hosted MBSE Training

By Dorothy Benveniste

The INCOSE SE Vision 2020 defines model-based systems engineering (MBSE) as the formalized application of modeling to support system requirements, design, analysis, verification, and validation activities, beginning in the conceptual design phase and continuing through development and later life cycle phases. MBSE principles and best practices form the basis for robust architectures that:

- Emphasize a precise and complete system architecture model "blueprint", using an Architecture Framework with multiple Views, as the primary work artifact throughout the system development life cycle,
- Promote the use of open standards for architectural modeling and tool interoperability, to specify the System Architecture Model and to serve as the gold standard for systems engineers and all stakeholders,
- Ensure that the System Architecture Model is requirements-driven so that all model elements must be fully traceable to system and user requirements, and
- Ensure that the System Architecture Model is architecture-centric so that all model elements maintain both structural and functional integrity relationships, and support full derivation traceability across all system stakeholder views and viewpoints.

To highlight the importance of realizing these benefits, the Los Angeles Chapter has provided MBSE training to Los Angeles and San Diego chapter members on three occasions this year. The training was conducted by experienced INCOSE members with real-world experience in enabling MBSE across multiple industries. Instruction began with an overview of MBSE and the Systems Modeling Language, a general-purpose graphical modeling language for specifying, analyzing, designing, and verifying complex systems that may include hardware, software, information, personnel, procedures, and facilities. Using a copy of Cameo Systems Modeler, class participants were provided with hands-on practice using modeling tools. Instructors guided the students through the steps to create a functional MBSE-based model to solve systems engineering problems. Tips and techniques for applying proven systems engineering principles were provided by the instructors based on their experience with systems engineering projects.

Classroom instructors included Drs. Rick Hefner and Saulius Pavalis. Dr. Hefner is the Program Director for the Caltech Center for Technology and Management Education, where he helps industry professionals and high-tech companies understand and apply systems engineering concepts. He has over 40 years of experience in the aerospace, communications, electronics, and health sciences industries. Dr. Pavalkis provided expertise in Cameo. Dr. Pavalkis, has 15 years of experience working on modeling solutions as a chief MBSE solutions architect, consultant, trainer, PLM products integration manager.

August Speaker Meeting Collaborative Governance

The August 13, 2019 Speaker Meeting featured Dr. Antonia Boadi. Dr. Boadi has a wide range of credentials, and is a member of the Physics Department at California State University Dominguez Hills and a member of the INCOSE Anti-terrorism Working Group. Dr. Boadi's experience, depth of knowledge, and insight shone through quickly in her excellent presentation, "Collaborative governance."

Dr. Boadi opened with a review of the history of terrorism and the development of Government agencies to deal with terrorism. The Office of Homeland Security was established eleven days after the terrorist events of September 11, 2001. As such, it was established as a Cabinet-level agency which unified twenty-two Federal departments (what might be described as a confederation of bureaucratic fiefdoms) and agencies and oversaw and coordinated a comprehensive national strategy to safeguard the country against terrorism and respond to any future attacks.

Dr. Boadi presented an excellent problem statement which reflected the changes in technology and geo-politics which have complicated the challenge of terrorism. She noted several types of threats:

Nuclear Weapon

Improvised Nuclear Device

Radiological Dispersal Device – (also referred to as a "dirty bomb")

Radiation Exposure Device

She noted that the major growth has been in the latter three with the increased availability of resources and the increase in the number of organizations whose members are not averse to using weapons of mass "disruption" (vice weapons of mass destruction). Dr. Boadi led a research team which investigated the potential impact of a hypothetical dirty bomb, were it detonated in the area of San Pedro and Long Beach. The financial consequences were noteworthy in terms of port shutdown (the busiest port in the United States) and related business losses, plus the decontamination costs in the area covered by the plume.

Dr. Boadi addressed the challenges of prevention. Dealing with the technical attributes of a potential weapon of mass disruption is no mean task. Further, organizational challenges were daunting in their own right, as the risks emanate from around the world. Corruption can be a problem.

Dr. Boadi commented on the "problem statement" that the solution is, "really just systems engineering," and that the lack or organization (or coordination amongst organizations) is a opportunity for Model Based Systems Engineering. As an aside, one reaction she encountered

was that she was "stuck in engineering mindset." She did include a quote from The Honorable Bennie Thompson, Ranking Member, House Homeland Security Committee: "The Department of Homeland Security should aggressively recruit professionals with DoD experience because of their expertise in guiding the development of complex systems."

Dr. Boadi reviewed the definition of a System of Systems and then the applicability of the concept to the problem, combined with the utilization of MBSE. She noted some of the challenges, cited by Dr. Ron Williamson:

- MBSE and SoS pain points
- SoS Management
  ◊ Lack of SoS Authorities and Funding
  ◊ Constituent Systems
  ◊ Leadership
- SoS Technical Issues
  ◊ Autonomy and Emergence
  ◊ Capabilities and Requirements
  ◊ Testing, Validation and Learning
  ◊ SoS Principles

Time limits brought the presentation to a close, perchance to the disappointment of an interested and engaged audience. Dr. Boadi's presentation was well presented and provided insights into the challenges and applications of the systems engineering discipline.

> **This presentation discussed the generic application of systems engineering and systems-of-systems principles and methodologies to notional nuclear/radiological counter-terrorism scenarios and activities.**

The value of the meetings is reflected by the virtual attendees from other chapters such as the San Francisco Bay Area Chapter, the Chicagoland Chapter, and the San Diego Chapter, to name a few. We have had a great success in extending the wealth of information beyond just the geographic confines of the Los Angeles Chapter. A special thankyou goes to our Programs Director, Nazanin Sharifi, for spearheading and managing those efforts.

This year, we wanted to increase our engagement with students in Science, Technology, Engineering, and Mathematics (STEM) fields and to have more tutorials in areas such as model-based systems engineering and systems engineering fundamentals. We have had two extraordinarily successful tutorials on model-based systems engineering. We have engaged students at the California State University in Long Beach by providing a systems engineering introduction presentation to the students and faculty at the institution. These events have led to an increase in awareness on key areas of interest to the systems engineering field, and the events have improved our visibility as a professional organization in the southern California area. Thanks to our Education Director, Dorothy Benveniste, for leading our education and STEM efforts.

There is a lot of activity in and around INCOSE-LA to engage our members. We are always looking for ways to improve our value added, as an organization, for our members. We encourage engagement in events – participating, planning or in execution of the event. There are still a few more months left in this year and plenty of activity for you to be involved. Please feel free to reach out to any member or board member and express your interest in participating.

Third Quarter Strategic Planning Meeting
By Mark McKelvin, Chapter President

The third quarter Strategic Planning Meeting (SPM) took place on Saturday, September 7, 2019 at the Manhattan Beach Community Church. In addition to morning snacks and an awesome lunch provided by Shirley Tseng, the attendees covered several interesting topics. INCOSE Los Angeles (INCOSE-LA) has several tools that are assisting with communicating to the membership and helping the INCOSE-LA board with managing the Chapter. At the SPM, we discussed two of those tools: Meetup and Sitefinity.

If you are unaware, INCOSE-LA has a Meetup page and presence. Meetup is a website, like Facebook, that allows for people of common interests to form social online groups. INCOSE-LA has a group on Meetup where we share events and engage with our followers and with you — our members. We also like to share pictures of our participation in these events. So, check us out at https://www.meetup.com/INCOSE-LA/.

President McKelvin

At this SPM, attendees were exposed to Sitefinity. It is a content management system that allows for users to create, store, manage, and present content on your website. It is the engine that INCOSE central office uses to serve chapter webpages. Phyllis Marbach provided a short, but very effective and interesting tutorial on how to use Sitefinity.

This opportunity gave the attendees a quick look at the work that the Communications Director, Scott Birtalan, must accomplish to provide you with informative content through our INCOSE-LA webpage here, www.incose-la.org.

In addition to highlighting upcoming events, we decided on a few changes that we hope the membership can appreciate and value. One of the changes is the INCOSE-LA logo. You may have noticed the new logo design in the email announcements (or as commonly known as "Reflectors"). We have also implemented and deployed a new template for the email notifications to give the organization a fresh look in hopes to attract more readers, members, and interest in INCOSE-LA.

Our final SPM for the calendar year is planned for November. Please be on the look out for an email notification of the SPM along with other events. We, the board of INCOSE-LA, hope to see you at the next SPM.

Human Systems Engineering
November 12th. Speaker Meeting
Presented by John Clark

How do we systems engineer humans? How do we engineer systems that include humans? Do all systems include humans? If so, which humans, how are they included in a system, and how do we perform systems engineering on them? Are they elements of the system like hardware and software are? Do we have hardware, software, and humanware? (Yes, you heard it here first folks, humanware!). Are there any systems that do not include humans in any way whatsoever?

On November 12, 2019, John Clark will discuss these questions from the perspectives of "SE Standards" and the "INCOSE Systems Engineering Handbook," going back to their earlier versions and coming up to date, including the two most recent approaches. At the end of this presentation we ask you to answer the question: which of the two most recent approaches do you consider to be the optimum and for what reasons?

John Clark is a world-renowned subject matter expert on systems engineering with over 50 years of experience applying systems engineering and software engineering. He was the Corporate Systems Engineering Instructor and a Chief Engineer at Northrop Grumman Corporation (NGC), John is the Training Working Group (WG) founder and co-chair, Process Improvement WG co-chair, SE Handbook and SE Fundamentals tutorial developer and instructor, Certified Systems Engineering Professional course developer and instructor. He received the coveted INCOSE Outstanding Service Award and was selected to the INCOSE Hall of Leaders at the INCOSE International Symposium in 2010 "For promoting the INCOSE Certification program through leadership in the development and ongoing delivery of the INCOSE SE Handbook Tutorial." John received the INCOSE Technical Operations Award at the INCOSE International Workshop in 2014 "For the development, delivery, and management of the portfolio of INCOSE webinars, tutorials, and presentations in collaboration with Chapters and other Working Groups." For NGC, he was the Corporate SE instructor, SE Associates (SEA) instructor, and the founder of the INCOSE Community of Practice (CoP), Agile SE CoP, and NGC SE Handbook WG. John received the NGC Exemplary Performance Award for Multi-Sector Collaboration from NGC President Wes Bush and Vice President John Chino for developing the NGC SE Handbook. He received a BSEE from Penn State and a MSEE from the State University of New York, and currently is an adjunct instructor the SE Master's Degree program at Old Dominion University in Norfolk, Virginia.

More details on the Chapter website at www.incose-la.org and in a future Reflector Notice in you e-mail.

STEM
Science, Technology and Math
The Future of Our Profession
Photos and inputs provided by Fred Lawler

The Eighth Annual Mars Rover Update and Professional Society Expo, co-sponsored by INCOSE-LA, was successfully held at the Northrop Grumman's S Café on Saturday, September 21, 2019.

This premier Science, Technology, Engineering and Mathematics (STEM) outreach event featured students interested in engineering, with a dozen professional societies catering to their budding interests. The day-long event also featured tours of the James Webb Space Telescope (JWST), and final mission updates on the Mars Rover. The JWST is undergoing final telescope-bus integration and testing. The mission updates from Mars were provided by Charles Baker and Brian Monacelli from the Jet Propulsion Laboratory.

Over three hundred people attended the event. Attendees spanned the entire academic education spectrum — elementary, junior-high, high school and college students — plus many parents and professionals. Two school groups also attended: the San Pedro Boys & Girls Club and the Los Angeles Air Force Base (AFB) Youth Programs.

In addition to several indoor STEM activities to whet the students interests, Lieutenant Colonel Porter and his staff from the Los Angeles conducted several outdoor rocket and robotic hands-on STEM activities.

Exhibitors this year included several new ones, as noted below:

- AIAA-CSULB Student Chapter (new)
- AIAA-UCLA Student Chapter (new)
- West High's FIRST (Robotics) Club (new)
- Heritage Center (@ LA-AFB)
- IEEE
- INCOSE
- NSBE (new)
- OSSC/IVC
- PMI
- SHPE (new)
- SWE
- VitalLink

Our future systems engineers in action!

This annual Expo allowed students to explore possible career interests, plus offering the attending societies opportunities to discuss how their various activities and pursuits could align with and facilitate these student interests. These societies also could identify solicit new volunteers and potential new members from the adult attendees.

Many dedicated volunteers (including several from INCOSE-LA) were instrumental in preparing for and conducting this annual Expo. Thanks also to Fred Lawler (founder of this Expo) for his tireless coordination of this unique multi-Society networking event.

STEM: MANHATTAN BEACH, MARS,... AND BEYOND?

Join INCOSE!

The International Council on Systems Engineering is the world's authority on this science of the future.
Learn more at: www.incose.org

18th *Annual* Conference on Systems Engineering Research (CSER)

Recent Trends and Advances in Model-based Systems Engineering
Mar 19-21, 2020, Crowne Plaza Hotel, Redondo Beach, CA

Conference General Co-Chairs, USC

Prof. Azad M. Madni
Systems Architecting and Engineering

Prof. Barry Boehm
Systems and Software Engineering

Technical Program Co-Chairs, USC

Prof. Mahta Moghaddam
Electrical Engineering

Prof. Daniel Erwin
Astronautical Engineering

Systems engineering is undergoing a transformation motivated by mission and system complexity, and enabled by technological advances such as model-based systems engineering, digital engineering, formal modeling, and the convergence of systems engineering with other disciplines. This conference is focused on exploring recent trends and advances in model-based systems engineering (MBSE) and the synergy of MBSE with simulation technology and digital engineering. The 18th Annual Conference on Systems Engineering Research (CSER) invites researchers to submit papers on MBSE methods, modeling approaches, standards, languages, and economics analysis to respond to the challenges posed by 21st century systems.

Research Paper Topics

- Model-Centric Engineering
- Digital Transformation
- Digital Engineering, Digital Twin, and Digital Thread
- Cyber-Physical-Human-Systems
- Internet of Things
- Non-Deterministic Evolutionary Systems
- Integration of MBSE with Simulation Technology
- Integration of Humans with Intelligent Systems
- Verification of Intelligent Systems
- Modeling for Continuous Development and Deployment

- Model-Based Verification and Testing
- Economic Analysis of MBSE
- Autonomous Systems
- Human-Machine Teaming
- Human-Machine Collaborative Decision Making
- Role of Machine Learning in MBSE
- Model Curation
- Integrating Models across Life Cycle
- Human-Technology Integration
- Modeling the System Qualities Tradespace

Important Deadlines

- **November 1, 2019:** **Full Papers Due**
- **December 15, 2019:** Notification to Authors
- **February 1, 2020:** Final Conference Papers Due
- **March 19,2020:** Tutorials and SEANET Graduate Students' Forum at USC
- **Link**: https://cser2020.org/

Conference Co-Managers

Mr. Eric Belle
INCOSE-LA

Mr. Terry Rector
The Aerospace Corp.

USC Viterbi
School of Engineering
Systems Architecting and Engineering

INCOSE
Los Angeles

STEVENS
INSTITUTE *of* TECHNOLOGY
THE INNOVATION UNIVERSITY

For Sponsorship/Exhibitor information contact Terry Rector, terry.e.rector@aero.org

2020 Elections

During the month of December the members of the Los Angeles Chapter of INCOSE are called on to select the new members of the Board of Directors.

The success of the Los Angeles Chapter is driven by two things: our officers and our members. INCOSE has acknowledged the Chapter with the Gold Circle Award every year since 2003 and with the Platinum Circle Award every year since its inception in 2015, plus the President's Award for the most outstanding chapter in 2017. However, more important than the awards are the services and value provided to and available to the Chapter members.

The officers include both an elected group and an appointed group. The elected group, selected annually by the membership, consists of 5 Executive Officers and 5 At-Large Directors. The Executive Officers serve for 1 year (and can be re-elected for a second year). The At-Large Directors serve 2-year terms, which are staggered to preserve Chapter knowledge from year to year. The 5 appointed officers are managers and committee chairs who volunteer their time to serve specific functions, such as producing the *Newsletter* or distributing the Reflector.

The Officers and Directors nominated for the year 2020 are:

- President: Mark McKelvin*
- Vice-President: Mark TenEyck*
- Past President: Rick Hefner*
- Secretary: Phyllis Marbach*
- Treasurer: Rick Hefner
- Membership Director: Karen Grothe*
- Programs Director: Nazanin Sharifi+
- Communications Director: Scott Birtalan*
- Systems Engineering Education Director: Dorothy Benveniste+
- Ways and Means Director: Shirley Tseng

*Seeking a repeat time.
+In the second year of a 2-year term.

Very soon, all INCOSE-LA members will receive an email ballot. We hope you will take the time to cast your vote.

Our Chapter has a rich tradition and history of members stepping up and serving the membership. Their efforts over the years have resulted in the many services offered to the members, services such as speaker meetings, training opportunities by leading experts in the profession, and networking events throughout the Los Angeles metropolitan area. Past members of the leadership team speak of the rewards of volunteering – rewards such as the benefits provided to the membership at large and rewards in terms of personal and professional growth.

We are also interested in new volunteers who can help us shape the direction of the chapter. Even if you only have a few hours to devote, we can craft a job to fit your interests and time. Contact Mark McKelvin, *markmckelvin@gmail.com*, if you would like to discuss an opportunity.

More WSRC Photos

Top to bottom: the Loyola Marymount University campus, Ted Mulder from the San Diego Chapter making a presentation, veteran systems engineers sharing the nuances of our profession, and bon vivants at the banquet.

Name	Organization
Anthony Williams	Lockheed Martin Aeronautics
Xueqing Hu	
Fredly Benitez	
Ryan Yanagi	California State Polytechnic University, Pomona
Kendall Young	Alion Science and Technology
Susan Economy	Moog, Inc.
Jeffrey Mueller	Defense Acquisition University
Mike Ash	Caltech
Heather Laffoon	
Flaum Noah	Intellisense Inc.
Kristopher Scher	SAIC
Jacob Harbuck	

2019 Board of Directors

Elected Officers			Elected At-large Directors		
President	Mark McKelvin	mckelvin@usc.edu	Membership Chair	Karen Grothe	Ksgrothe@yahoo.com
Vice President	Mark TenEyck	Mark.teneyck@3ds.com	Programs Committee Chair	Nazanin Sharifi	n.sharifi77@gmail.com
Immediate Past President	Rick Hefner	rhefner@caltech.edu	Systems Engineering Education	Dorothy Benveniste	djbenven@ca.rr.com
Secretary	Phyllis Marbach	prmarbach@gmail.com	Ways and Means Chair	Stephen Guine	Stephen.Guine@ngc.com
Treasurer	Lin Yi	Lin.yi.dr@ieee.org	Communications Committee Chair	Scott Birtalan	scott.birtalan@ngc.com
Appointed Positions					
Newsletter Editor	Jorg Largent	jorg.largent@incose.org	Student Division Ambassadors	Scott Birtalan	scott.birtalan@ngc.com
Technical Society Liaison	Shirley Tseng	shirleytseng@earthlink.net	Reflector Manager	Deborah Cannon	Deborah.a.cannon@aero.org
Chapter Awards Manager	Rick Hefner	rhefner@caltech.edu	Social Media Manager	Doris Gebelein	doris.gebelein@lmco.com
Professional Networking Chair	Scott Birtalan	scott.birtalan@ngc.com	New Member Ambassador	Collette Kurtz	kurtz905@aol.com
Representative to the SF Valley Engineer's Council	Stephen Guine	Stephen.Guine@ngc.com	Volunteer Coordinator	Karen Miller	karmill888@aol.com

INCOSE-LA Chapter   NEWSLETTER

Vol. 17: Issue 5, October — November 2019

Return Address:

PO Box 10969
Westminster, CA 92685-0969

Forwarding Service 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 systems engineering or related fields.

UPCOMING EVENTS

For more information on these and other events of interest in the Los Angeles area, look for a Reflector Notice in your email, and check the Chapter website: www.incose.org/los-angeles . Like us on Facebook

Election of Officers for 2020 coming soon!

November Speaker Meeting
Human Systems Engineering
John Clark
Tuesday, November 12, 2019
No cost for members
at www.incose-la.org and a Reflector Notice in you e-mail.

Fourth Quarter Strategic Planning Meeting
November, 2019
Details on the Chapter website at www.incose-la.org and
in a future Reflector Notice in you e-mail.

Annual Holiday Party
December, 2019
Details on the Chapter website at www.incose-la.org and
in a future Reflector Notice in you e-mail.

Townhall Meeting
The members' opportunity to be heard and contribute
Tuesday, January 20, 2020
5:30 p.m. — 8:00 p.m.
Buca di Beppo
1670 S. Pacific Coast Highway
Redondo Beach, CA 90277
No cost for members
Details in the next edition and in a Reflector Notice

Conference on Systems Engineering Research
March, 23 — 25, 2020
The University of Southern California
Paper submittal due date: November 1, 2019
For more information go to https://cser2020.org/