# NEWSLETTER







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





2004-14 2015-18



# Kicking Off the New Year



President McKelvin

The first Chapter meeting of the year was held Tuesday, January 21, 2020 at The Aerospace Corporation. Chapter President Mark McKelvin welcomed those in attendance and introduced Dr. Azad Madni for the installation of officers. Dr. Madni welcomed all assembled. He thanked the 2019 board members for their hard work last year. Those incoming officers in the room were asked to

stand for recognition. Dr. Madni asked board members to pledge their allegiance to the organization. Lin Yi is stepping down as the treasurer and Stephen Guine is stepping down as the Ways and Means Director. The Treasurer position is being held by Rick Hefner. The Treasurer responsibilities were then described. Rick was not able to attend, but Dr. Madni expressed confidence that Dr. Hefner accepts the responsibilities. Mark McKelvin was asked to accept these responsibilities on behave of Rick, and he did. Phyllis Marbach is the current secretary. Dr. Madni discussed the importance of the position and the duties it entails. Phyllis accepted these responsibilities from her remote connection. Mark TenEyck is the President-elect and although not present, his responsibilities were accepted by Mark McKelvin for him (Mark TenEyck). Mark MeKelvin will serve as the President of INCOSE-LA in 2020. Mark is a prominent scholar in the field of systems engineering.

(See "Kick-off" on page 3)

# CSER 2020: It's Coming! March 19 — 21, 2020

The Conference on Systems Engineering Research (CSER) is less than two months away and, for many of us, now is the time to start planning to attend. As with past CSER events, CSER 2020 will be another superb opportunity for the systems engineering professionals to expand their knowledge base and to broaden their networks within the profession. CSER 2020 has several key elements.

#### Theme:

The 18<sup>th.</sup> Conference on Systems Engineering Research 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. Researchers have submitted papers on MBSE methods, modeling approaches, standards, languages, and economic analyses to respond to the challenges posed by 21<sup>st.</sup> Century systems.

#### **Sponsors:**

The growing list of sponsors for this premiere event includes: The Boeing Corporation, General Motors, Dassault Systèmes, NoMagic and The Aerospace Corporation.

#### **Keynote speakers:**

The conference will feature discussions, panels and presentations on major topics of interest by leaders from academia and industry.

#### Venue:

The venue for the conference is the popular and elegant Crowne Plaza Hotel, well remembered as the host venue for CSER in 2017.

See CSER advertisement on page 5.

## Inside This Edition

#### **Education and Conferences Features** Chapter Kickoff for 2020 2020 Conference on Systems Engineering 2020 International Workshop Photos 1, 5 Year-End Gala 6 February Speaker Meeting, A Systems Engineering Approach 2 3 Whom to Contact Caltech Center for Technology and Management 3 7 **New Members** 2020 Western States Regional Conference 4 **Upcoming Events** Back page

### A Systems Engineering Approach February Speaker Meeting

#### ABSTRACT

With its inaugural (pathfinder) class in August of 2011, California State University, Long Beach (CSULB) increased the teaching capacity for mechanical and electrical engineering baccalaureate degrees in the California State University system during a state budget crisis and economic downturn. The Antelope Valley Engineering Programs (AVEP) is a unique, independently accredited by the Accreditation Board for Engineering and Technology (ABET), featuring a degree completion program created to serve geographically under-served high desert region and its aerospace industry. As the programs recruit their tenth cohort, they are in transition from freewheeling start-up to business-as-usual operations.

This purposeful presentation details a thought experiment of examining CSULB's AVEP through the lens of systems engineering tools and perspectives to develop insight into its education and business practices. The generated insights are intended to help improve the programs both through better operation and educational experiences. The thought experiment indicates that the systems engineering perspective is valuable in this non-traditional application and can generate useful insight.

#### **SPEAKER BIOGRAPHY:**

Dr. Shelley has been teaching upperdivision undergraduate and graduate level courses in mechanical engineering since 2005. She has conducted educational research in engineering leadership and served as the ABET evaluation coordinator for the CSULB's AVEP BSME-AV



program. She has published at ASEE, AIAA, and JANNAF conferences and in journals such as Polymer and Journal of Metals. Before 2005, J developed materials, process, and structures technologies for rocket propulsion applications for the US Air Force, was the Liquid Rocket Engine Application Lead for the Integrated High-Payoff Rocket Propulsion Technology's Materials Working Group, and managed over a dozen Small Business Innovative Research and other contracts for Air Force Rocket Laboratories. She is a licensed Professional Engineer in Mechanical Engineering. Her Ph.D. was awarded in 2000 by the University of Utah.

#### **PARTICULARS:**

Date: Tuesday, February 11, 2020

Time: 5:15 – 7:30 p.m.

Cost: free for INCOSE members, \$5.00 for INCOSE CAB members, and \$10.00 for all others.

Agenda: sign-in at 5:30 p.m. followed by light refreshments (local option), networking, and other pleasantries followed by the presentation at approximately 6:30 p.m. The host site will be at The Aerospace Corporation in El Segundo with remote sites available throughout the Los Angeles area. For more information and to register for this event to go the Chapter's webpage at: www.incose.org/los-angeles. Registration is required for this event.

INCOSE-LA Representatives at the 2020 International Workshop included Dr. Azad Madni and Dr. Len Troncale, at left, INCOSE-LA Past-president Phyllis Marbach and INCOSE President-elect Marilee Wheaton with Dorothy McKenny, lower left, and Paul Cudney, lower right







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("Kick-off," continued from page 1)

The president's responsibilities were then described and Mark accepted those responsibilities. Nazanin Sharifi is the Programs Director and those duties were described. She was asked if she would continue performing her responsibilities and she accepted those. Karen Grothe accepted her responsibilities as Membership Director. Shirley Tseng is the new Ways and Means Director. Those responsibilities were described and Shirley accepted those duties. Dr. Madni continued with the questions to those present and the board about supporting the goals of the chapter. Dr. Madni concluded the installation of officers with words of encouragement and then turned the meeting over to President McKelvin.

Mark recognized the contributions of the many volunteers who worked with the members of the Board of Directors to produce the many speaker meetings, tutorials, conferences, and other events intended to provide value to the members and to the systems engineering community. The Los Angeles Chapter is using a lot of best practices and is a leader among the chapters with its diverse outreach, including Science, Technology, Engineering, and Math (STEM) activities such as the Mars Rover exposition, lunch-and-learn events, and presentations to other chapters.

President McKelvin opened the discussions to how the Chapter could improve and become more contemporaneous as it works to be the go-to destination for the systems engineering professionals and organizations in the Los Angeles Region.

Longshoremen's union mascot: a dockshund.

"I'm lonely," she said, and pointed to a button she was wearing that bore the words "Kiss me. I'm Irish." "I'm hungry," he said. "Quiche me I'm French."

An assessment of the situation between China and Russia (circa 1970): "dogma eats dogma," "you said a Maothful."

Strictly Speaking, by Edwin Newman

# **Great Leaders Always Evolve**

# **Engineer a Personal and Organizational Transformation**

Today's revolutionary connected devices require creative technical leadership. This winter, professionals charged to build advanced, intelligent systems will meet in Caltech CTME workshops and labs to acquire hands-on experience. Ready to ignite your career?

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Machine Learning for Advanced Analytics
Managing Cybersecurity Operations
Advanced Project Management
Model-Based Systems Engineering

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Attend or contact a program advisor to customize a program for your organization:

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**Center for Technology & Management Education** 

#### Heresy?

Global warming has nothing to do with systems engineering. Systems engineering has everything to do with global warming.

#### Not a member? Join INCOSE!

Learn more about becoming a member by clicking on https://www.incose.org/grow-in-se

2020 Board of Directors					
Elected Officers			Elected At-large Directors		
President/ Immediate Past President	Mark McKelvin	president@incose-la.org	Communications Committee Chair	Scott Birtalan	communications@incose-la.org
Vice President	Mark TenEyck	vicepresident@incose-la.org	Membership Chair	Karen Grothe	membership@incose-la.org
Secretary	Phyllis Marbach	secretary@incose-la.org	Programs Committee Chair	Nazanin Sharifi	programs@incose-la.org
Treasurer	Rick Hefner	rhefner@caltech.edu	Systems Engineering Education	Dorothy Benveniste	djbenven@ca.rr.com
			Ways and Means Chair	Shirley Tseng	shirleytseng@earthlink.net
Appointed Positions					
Newsletter Editor	Jorg Largent	newsletter@incose-la.org	Registrar	Paul Cudney	paulcudney@dslextreme.com
Speaker Meeting Site Host	Deborah Cannon	Deborah.a.cannon@aero.org			

### **INCOSE-LA Chapter NEWSLETTER**

2020 INCOSE WESTERN STATES REGIONAL CONFERENCE

# Celebrating the Sound of Systems Engineering!

September 17-19, 2020 - Seattle, Washington



#### Call for Proposals: Deadline - March 31, 2020

The Seattle Metro Chapter of INCOSE is hosting the third annual Western States Regional Conference, serving the systems engineering communities across the western United States and beyond. The conference will feature keynote presentations, tutorials, technical presentations, panel discussions, and networking events. The venue is Seattle Pacific University (SPU) near downtown Seattle and convenient to numerous business and entertainment opportunities.

The conference theme is *Celebrating the Sound of Systems Engineering!* We want to acknowledge and celebrate successful application of Systems Engineering in the Puget Sound area and Western USA and identify future activities of potential value. Specific areas related to the INCOSE Vision 2025 include new industry domains, new technologies, and newer methodologies like Model-Based Systems Engineering and Artificial Intelligence.

The WSRC Program Committee invites you to submit a proposal for a presentation, panel discussion, or tutorial. We are open to any submission but are especially interested in case studies and the application of systems engineering to:

- Healthcare and Medical Devices
- Critical Infrastructure: Communications, Energy, Food and Agriculture, Transportation
- Aviation and Space Systems
- E-Commerce, Cloud Services, and System Security
- Autonomous Systems and Resilience
- Education and Workforce Development

#### **Submitting a Proposal:**

Proposals (in English) must be submitted through Easy-Chair, <a href="https://easychair.org/conferences/?conf=wsrc2020">https://easychair.org/conferences/?conf=wsrc2020</a>, and must include:

- Title
- Presenter(s)' name, affiliation, contact information, and brief biography, including any additional presenters or instructors, if any
- Abstract which clearly and concisely describes the subject (1000-word limit). Please ensure that the abstract clearly identifies (1) the issue to be addressed, (2) the main points of the presentation, and (3) what the audience will take away from the presentation
- For panels, please identify why the topic is relevant, panel participants who have committed to participate, and a summary of their position statements
- For tutorials, please identify top-level learning objectives, topical outline, and proposed duration (half or full-day)
- Presentations are allocated 45 minutes including questions

Each accepted submittal will receive one \$50 registration discount. At least one presenter (or the panel chair and all panelists) must register for the conference and pay the applicable registration fee.

WSRC2020 will feature an INCOSE Systems Engineering Professional Development Day (SE PDD) on **Friday, September 18.** The SE PDD will be a virtual extension of the conference, with the featured sessions broadcast from SPU to several satellite sites across the region. Presentations and panels may be selected for participation in the SE PDD.



Presenters grant INCOSE the right to record, publish, and distribute their presentations, including audio, video, and slide show content, unless expressly denied in writing. See the INCOSE IP release form: https://www.incose.org/wsrc/wsrc2020/home



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

## Recent Trends and Advances in Model-Based Systems Engineering

March 19 - 21, 2020, 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* 

#### Theme:

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#### Venue:

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More information is available at the registration website.

# Registration Now Open! Conference website

cser2020.org





#### **Conference Co-Managers**







**Mr. Terry Rector** *The Aerospace Corp* 



For Sponsorship/Exhibitor information contact Mark TenEyck @ mteneyck11@gmail.com

**INCOSE-LA Chapter NEWSLETTER** 

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# **Year-End Membership Gala**

By Nazanin Sharifi

The Chapter closed out the year with a Year-End Membership Gala at the Residence Inn in Long Beach, California. We had a very eventful night! INCOSE President Elect, Marilee Wheaton, served as our Keynote Speaker. We had a guest speaker, Bethany Orozco, who spoke to us about EnCorps and the importance of Science, Technology, Engineering, and Math (STEM) teaching programs in high-needs communities.

INCOSE Los Angeles Chapter President, Mark McKelvin, gave out awards to the chapter volunteers. Mark presented Rick Hefner with the Susan C. Ruth Award for his outstanding contribution to the Los Angeles Chapter as Trainer, Technical Program Lead for the Western States Regional Conference (WSRC), numerous presentation and speaking roles, and, many other roles in support of INCOSE and the Los Angeles Chapter for over 20 years. Mark awarded Lin Yee with the President's Award for his outstanding service to the Chapter as Treasurer. Phyllis Marbach and Dorothy Benveniste were recognized for outstanding leadership and organizational skills in executing a successful WSRC 2019, held at Loyola Mount University. Scott Birtalan, Mark TenEyck, Jorg Largent, and Stephen Guine were recognized for an outstanding team effort in support of Chapter communications; and Nazanin Sharifi, Karen Grothe, Paul Cudney, Shirley Tseng, Deborah Cannon, Andrew Murrell, and Frederick Lawler were recognized for their valuable and unwavering support and commitment supporting the Chapter and INCOSE — a job well done with planning and executing this year's events.

Rick Hefner made a wonderful announcement that Mark McKelvin will be serving as President for another term in 2020! Mark McKelvin led the chapter through changes, and always brought his best to serve the Chapter. We're very excited to have Mark as INCOSE LA President in 2020. We had the Rooftop band play awesome music throughout the evening and had fun games. In one of those games, Dorothy Benveniste won for creating a paper airplane that landed closest to the target! A special thank you to Andrew Murrell for his volunteering his time, photography skills, and leadership at the Gala and other INCOSE LA Chapter events throughout the year. The ambiance and atmosphere were great fun!



## **INCOSE-LA Chapter NEWSLETTER**

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# The Board of Directors wishes to welcome the following new members to 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 <a href="www.incose.org">www.incose.org</a>) to update your information.

Name	Organization		
Christopher Goodeaux	Embry-Riddle Aeronautical University		
Gina Yoo	SAIC		
Andi Jones	Embry-Riddle Aeronautical University		
Nadim Kneizeh	SAIC		
Kingslee Gourrick	USMC		
David Dawson	Embry-Riddle Aeronautical University		
Lea Eskildsen	SAIC		
Christopher McDaniels	CT Cubed Inc.		
Rachel Di Barolomeo	LinQuest Corporation		
Joshua Church	TMT International Observatory		
Olivia Wesel	Booz Allen Hamilton Inc.		
Lisa Hritz	Northrop Grumman Corporation		
Arturo Rodriguez Salazar	LinQuest Corporation		
Raul Ruiz	Loyola Marymount University		
Luis Villagomez	Loyola Marymount University		
Andrew Yang			
William Gonser	LinQuest Corporation		
Yvonne Liu	Loyola Marymount University		
Ryan Lee	LinQuest Corporation		
Long Le	LinQuest Corporation		
Howard Neely	Three Birds Systems		
Javier Blandon	University of Southern California		
Donald Min			

### Not a member? Join INCOSE!

Learn more about becoming a member by clicking on <a href="https://www.incose.org/about-incose/incose-membership">https://www.incose.org/about-incose/incose-membership</a>

### **INCOSE-LA Chapter NEWSLETTER**

## INCOSE-LA Chapter NEWSLETTER

Vol. 18, Issue 1, February — March 2020

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 an e-notice from the Chapter in your email, and check the Chapter website: www.incose.org/los-angeles. Please like us on Facebook.

#### **First Quarter Strategic Planning Meeting**

Saturday, February 22, 2020 9:00 a.m. to 3:00 p.m. PST Manhattan Beach Community Church, Fireside Room 303 S Peck Avenue Manhattan Beach, CA 90266

#### **February Speaker Meeting**

Dr. J Shelley
Tuesday, February 11, 2020
5:30 p.m. to 8:00 p.m.
No cost for members

#### **March Speaker Meeting**

Bryan Smith
Look! Gorillas are doing Ballet:
An Agile Transformation Story (Air Force)
Tuesday, March 10, 2020
5:30 p.m. — 8:00 p.m.
No cost for members

#### **Conference on Systems Engineering Research**

March, 19 — 21, 2020 The University of Southern California See article on page 1 and advertisement on page 5 For more information go to https://cser2020.org/

#### **Western States Regional Conference**

Celebrating the Sound of Systems Engineering
September 17 — 19, 2020
Seattle Pacific University
Seattle, Washington
See advertisement on page 6
For more information go to:
https://www.incose.org/wsrc/wsrc2020/home

For the latest information and registration on these and other upcoming Chapter events, go to the Chapter website at www.incose.org/los-angeles