

# NEWSLETTER



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



2004-14



2015-16

## The Martian Curiosity Rover and our Future Systems Engineers

Following in the footsteps of the Science, Technology, Engineering, and Math (STEM) event last year, we can look forward to another event this year on September 8. This outreach to students in the Los Angeles area is sponsored by several professional societies, including INCOSE-LA, and several other prominent aerospace organizations. Details are in work, but as of the publication of this edition of the *Newsletter*, the event will again be held in the S Café at the Northrop Grumman facility in Manhattan Beach.

If you can spare a few hours on a Saturday afternoon, this is an opportunity for members to volunteer, telling people about systems engineering and INCOSE. To learn about the event last year and the contribution of INCOSE-LA, read the October, 2017 edition of the *Newsletter*, available through the Chapter webpage. Contact Phyllis Marbach ([prmarbach@gmail.com](mailto:prmarbach@gmail.com)) to volunteer and to participate in this invigorating event. As more details become available, they will be published in the *Newsletter* and posted on the Chapter webpage.

## The International Symposium 2018 Washington, D. C.

### 2018 International Symposium

Going to the symposium? Please let us know. In addition to the technical programs, members of the Los Angeles Chapter often enjoy networking with one another, plus we are often honored at the awards banquet. Our point of contact is President Rick Hefner, [rhefner@caltech.edu](mailto:rhefner@caltech.edu).

## Help Wanted, Help Available Systems Engineering Outreach

Organizations looking for help with their implementation of systems engineering can turn to the Los Angeles Chapter of the International Council of Systems Engineering (INCOSE) for assistance.

INCOSE is a non-profit professional organization that has been developing and refining the science – from the theoretical to its day-to-day utilization – for over 25 years and is here to help. The Los Angeles Chapter (INCOSE-LA), representing over 400 systems engineering professionals in the Los Angeles metropolitan area, is the branch of INCOSE with the mission to meet the needs of the professional community and of those organizations in the metropolitan Los Angeles area which would like to know more about systems engineering.

For organizations interested in learning more about this exciting and increasingly essential profession, INCOSE-LA offers a variety of speakers and tutorials to help understand the legislated mandates or the sometimes daunting terminology of “agile,” “lean” and “model-based systems engineering (MBSE).” INCOSE-LA can also assist in more comprehensive and formal training and certification, through professional training organizations such as PPI (see page 7), through local colleges and universities (see page 10), or through the global network provided by INCOSE. If interested, please contact:

[programs@incose-la.org](mailto:programs@incose-la.org)

For organizations looking for systems engineering professionals to join their team, INCOSE-LA can reach out to this pool of talent through its *Newsletter* and website. If interested, please contact

[newsletter@incose-la.org](mailto:newsletter@incose-la.org)

For more information about systems engineering and INCOSE, go to:

<https://www.incose.org/>

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## April 10, 2018 speaker meeting Agile Systems Engineering and Earned Value

The April Speaker Meeting featured Past-president Phyllis Marbach addressing the question, “How do you use Agile methods on highly-critical systems that required earned value management?” Phyllis is a well spoken and highly knowledgeable authority on “Agile.” Her expertise is recognized throughout the profession; she has taught and spoken on the subject on several occasions.

Phyllis opened her presentation with a discussion of Agile and a key concept (“scrum”). It is important to note that the methodology is iterative and incremental and that the “scrum” tactic helps establish agreement on a plan and to then keep the project focused on the plan so that people stay on target. This includes daily stand up meetings to discuss what has been accomplished, and what tasks are next, or what problems are preventing the accomplishment of those tasks.

### Agile is often called “Lean-Agile”

Agile was developed to address three challenges to the traditional systems engineering process:

1. Changes to the architecture – Agile systems engineering is flexible, modular architecture framework; rather than having Big Design Up Front
2. Changes to the process – Agile systems engineering is iterative and incremental rather than traditional or sequential
3. Changes to the roles:
  - With Agile systems engineers become members of the implementation teams;
  - With Agile systems engineering staffing remains more level throughout the development to support and maintain the architecture, requirements, testing, verification, artifact development, etc.

One of the concepts that is a part of Agile is “story points.” Story points are tools that are used to describe features of the product of the project and the associated effort. Story points are then weighted, starting with a weight of 1 for the easiest and then progressively assigned weights of appropriately higher and higher numbers. Story points are grouped into features they describe and the features are then prioritized leading to a roadmap of features. The roadmap provides the big picture with the details coming during release and iteration planning [a tailored incremental life cycle model]. This approach segues easily in to Earned Value management and the associated management of Earned Value, the Budgeted Cost for Work Scheduled, the Budgeted Cost of Work Performed, the Actual Cost of Work Performed and Cost Variance.

Of note at the conclusion to Phyllis’ presentation was a discussion of the interest in Agile on the part of the Government Accounting Office (GAO). The GAO is the watchdog for Congress (taxpayers), and has the mission of ensuring projects are using best practices in the spending government funding.

### Using Agile practices as highly-critical systems are developed will enable the system to evolve

A March 17, 2015 GAO Expert Meeting included a “GAO Schedule Guide Agile Appendix” which cited 10 best practices:

1. Capture all activities
2. Sequence activities, including a Kanban Board
3. Assign resources, including a Kanban Board and small teams of five to nine people
4. Establish duration (sprint durations consistent and between one and three weeks)
5. Ensure horizontal and vertical traceability
6. Ensure the critical path is valid – releases included in program
7. Ensure that the total float is valid, using hardening sprints or catchup sprints for unfinished work
8. Conducting a schedule risk analysis, involving sprint planning sessions
9. Updating the schedule using actual progress and logic
10. Maintaining a baseline schedule.

More information on Agile and this comprehensive presentation is available through the INCOSE Collaboration Portal (see “INCOSE Connect”) link to the Chapter files (Chapters, Los Angeles, 2018-CHAPTER Folder, C-0 Event Results, C-1 Chapter Meetings and Events, 20180410 Speaker Meeting).

## Would you Rather Not Receive the Newsletter? Please Let us Know!

The Board of Directors would like to thank those that responded to last month’s survey asking about interest in the *Newsletter*. The Board is working to tailor Chapter activities to best meet the interests and needs of the membership. As a part of this ongoing effort, the Board is asking members who would prefer *NOT* to receive the *Newsletter* in the mail to express their preference in an email to:

[newsletter@incose-la.org](mailto:newsletter@incose-la.org)

Please put “newsletter” in the subject. And please feel free to add any comments or suggestions.

Thank you for helping us serve you better.

A concern about the relentless advance of technology: "When, nine bridges shall span the river Ness, the Highlands will be overrun by ministers without grace and women without shame,..." Attributed to Coinneach Odhar, a.k.a the Brahan Seer, a prophet. The Brahan Seer lived in the Seventeenth Century and is, in some quarters, credited with prophesizing the Caledonian Canal (completed in 1822), in addition to the bridges, and the floods which swept bridges away.

## Western States Regional Conference

The technical program is taking shape for the Western States Regional Conference (WSRC) of the International Council on Systems Engineering (INCOSE). The WSRC will take place on Thursday through Saturday, September 20 – 22, 2018, near Salt Lake City, Utah. The venue is the Orbital ATK Conference Center located close by in scenic Ogden Canyon.

The WSRC Technical Program includes presentations, panel discussions, workshops, and tutorials. The program is complemented by networking events and a banquet. Notification e-mails have been sent to those who submitted abstracts for presentations, panel discussions and workshops. The team is working to pull together and finalize the details.

A plenary on September 20 (Thursday) at 11 a.m. will open the proceedings. The opening will be followed by lunch and workshops. Activities on Thursday will include an opportunity to take the Systems Engineering Professional certification knowledge exam on paper.

Friday and Saturday will have plenary speakers, presentations, and panel discussions from 8 a.m. until 5 p.m.

As an added feature, there will be a “Systems Engineering Professional Development Day” (SE PDD) held on Friday. For the benefits of Chapter members who are interested but cannot make the trip to Ogden, INCOSE -LA is making arrangements for the broadcast of selected presentations and the keynote address of the SE PDD. When the details are finalized, a Reflector Notice will be made to INCOSE-LA’s distribution and published in the *Newsletter*.

Friday evening an event dinner will be held at the conference venue with a keynote speaker. Between the day’s presentations and dinner is an opportunity for networking, with hors d’oeuvres supplementing the good company.

The WSRC team is very happy to provide this conference for our western chapter members and invited guests. We hope you will attend in person, and if that is not possible please consider attending the remote location in Long Beach to keep your systems engineering practices current, learning about leading edge practices and solutions to challenges the technical community is facing.

For more information on this exciting and premiere event, please go to the conference website at:

<https://incose-wsrc.eventbrite.com>

## Systems Engineering Handbook Training

*By Past-president Phyllis Marbach*

The INCOSE Training Working Group and the INCOSE Los Angeles Chapter recently completed a series of free training webinars on the INCOSE Systems Engineering Handbook v4.0. These webinars were open to all INCOSE members and to employees of INCOSE CAB organizations. This weekly series began on Thursday, October 5, 2017 and ran through April 26, 2018. These webinars were created by and recorded by John Clark, who conducted the course in 2015 and 2016.

Course materials included the shared documents, tutorial slides, questions, and audio and video recordings. These materials are available for downloading and use at your convenience.

Employees of Rockwell Collins Irvine regularly attended from their location in Irvine and other students called into the sessions from multiple states. Individuals attended as many of the group sessions as possible and, when that was not possible, they were encouraged to listen to the recorded material on their own. Most slides contain speaker notes in the PowerPoint Notes View.

Phyllis Marbach, 2017 President of INCOSE-LA, facilitated all but one of the sessions. John Clark graciously attended some of the trainings to make sure all went well and willingly facilitated the session when Phyllis was not available. In order to complete the trainings by the end of April the initial plan was to conduct one-hour evening sessions on both Wednesdays and Thursdays. However, in true collaborative fashion, when the students requested, we expanded the Thursday evening sessions to allow us to cover the material for two sessions in one evening. Trainings proceeded from 4:30 p.m. until 6:30 p.m., henceforth. This enabled us to complete all 34 sessions in eight months with a few weeks off during winter and spring for normal school breaks.

We were happy to coordinate two Certified Systems Engineering Professional (CSEP) and Associate Systems Engineering Professional (ASEP) paper testings soon after the completion of the training. Both were conducted on Friday, May 4, 2018: one in the morning at Loyola Marymount University (LMU) and the second in the afternoon at the Rockwell Collins facility in Irvine. To help students prepare for the tests, Stephen Guine, CSEP, conducted an in-person Jeopardy Game at the Northrop Grumman Corporation facility in Redondo Beach and a virtual Jeopardy Game for LMU students.

Thanks go to John Clark, Stephen Guine, John Poladian, Andrew Murrell and Carol Berardino for all their support during the trainings and testing.

INCOSE-LA is looking for a volunteer to host the video training during 2018-2019 and Phyllis would be happy to share lessons learned from the recently completed training sessions. Please contact [prmarbach@gmail.com](mailto:prmarbach@gmail.com).

Another training opportunity, this one at the WSRC:  
Systems Engineering Professional Development Day  
Friday, September 21, 2018



### INCOSE-LA Chapter NEWSLETTER

Vol. 16: Issue 3, June — July 2018



**Autonomous Vehicles – a.k.a. “autonomous” or “driverless” automobiles, the Twenty-First Century answer to the Greyhound Bus slogan: “Leave the Driving to Us?”**

*Kay Das made a presentation on autonomous vehicles at the May Speaker Meeting (below). He also had made a presentation at the September, 2017 speaker meeting (see October—November, 2017 edition of the Newsletter). The February 2018 speaker meeting featured Shaun Westbrook, a Principal Human Machine Interface (HMI) Lead and Futurist at Honda Research and Development Americas who spoke on Honda’s contributions to this developing world of autonomous vehicles (see April—May edition of the Newsletter). Member Josh Sparbar has done some research on his own and has written a complementary article (also in the April—May edition) in addition to the article below. Editor*

**The Connected Vehicle Revolution, Continued  
The May Speaker Meeting  
By Josh Sparbar**

The Speaker Meeting on May 8, 2018 featured Kay Das speaking on Autonomous Vehicles (AV). While AVs are still evolving, many ideas were being passed through the mental filters of the systems engineers who attended the event. Mr. Das presented a concept for a control center and for test strategies utilizing a mock city test environment he called “Aquarius.” An intriguing part of the lecture was his mind map of all the issues related to AVs, including cyber safety, current manufacturer efforts and linking technologies related to making an AV system work.

During the lecture he did point out the difficulties of navigating the existing environment. Ubiquitous potholes in the city of Los Angeles present challenges to sensors and the algorithm that would activate evasions based on a pothole’s depth, size, and proximity. Even more in depth: unintended objects, like a rubber duck floating in the pothole water, could represent anything from a misplaced toy to an Improvised Explosive Device.

Building an AV network will have system impacts. As systems engineers we define the problem space; moreover, we need to need to develop an excellent set of questions around possible future systems. What are your thoughts? A set of system questions could start out as:

- Could AV traffic be limited to only its own traffic lanes, thereby avoiding the need to deconflict AV traffic with the normal mishmash of mobile traffic?
- Could AVs help cities become greener by combining AV lanes with guarded pedestrian walkways and bicycle lanes? Could they possibly eliminate some highways and provide more green space?
- Could AVs simplify and ease out some infrastructure density; e.g., traffic lights?
- Could fleets of AVs be municipality owned and maintained? Could a mesh of inner city AVs coordinate consumer travel via mobile devices?
- Should AVs focus on the most profitable future revenue streams—like delivering services, groceries, goods and gifts to a population that would mainly work from home? If so, would AVs need to coordinate services with Unmanned Aerial Vehicles?

## **Caltech Team in Competition to Design Habitat for Astronauts on Mars**

Students at the California Institute of Technology are developing design concepts for a habit to be used by astronauts when they go to Mars. Helen Wexler of the Caltech team made a presentation to the INCOSE-LA Strategic Planning Meeting on May 12, 2018.

Since that meeting, INCOSE-LA has begun meeting with the Caltech team and found the team composed of the readily anticipated scientists who are developing novel and practical solutions to the challenges.

The competition in which they are participating is a progression of increasing levels of sophistication and complexity, to demonstrate potential capabilities.

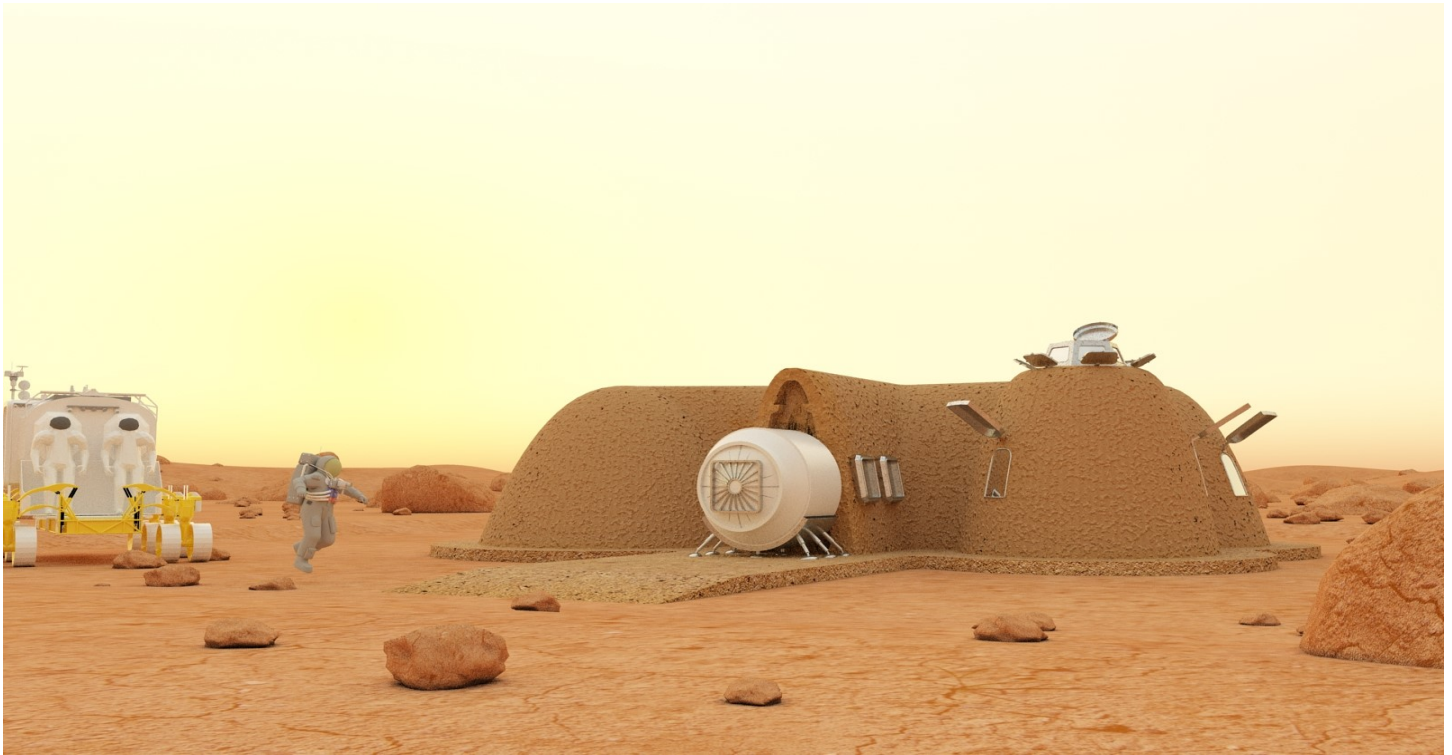
In 2015, NASA launched the Mars Habitat Challenge to find technologies from around the world that would use materials indigenous to Mars and 3D printers to fabricate houses. In Phase 1 teams were tasked with proposing a preliminary design and in Phase 2 they developed and printed new materials relevant to Mars geology. In Phase 3 we approach the challenge of developing a high-fidelity Building Information Modeling (BIM) model, hydrostatic testing and 3D printing and robotically autonomously assembling a sub-scale Mars habitat.

Currently the team is working on “Virtual Construction Level 1” with an electronic submission and a physical sample due July 25, 2018. This is to be followed by two progressively more complex and sophisticated models concluding with an on-site competition for “Construction Level 3 April 29 – May 4, 2019.

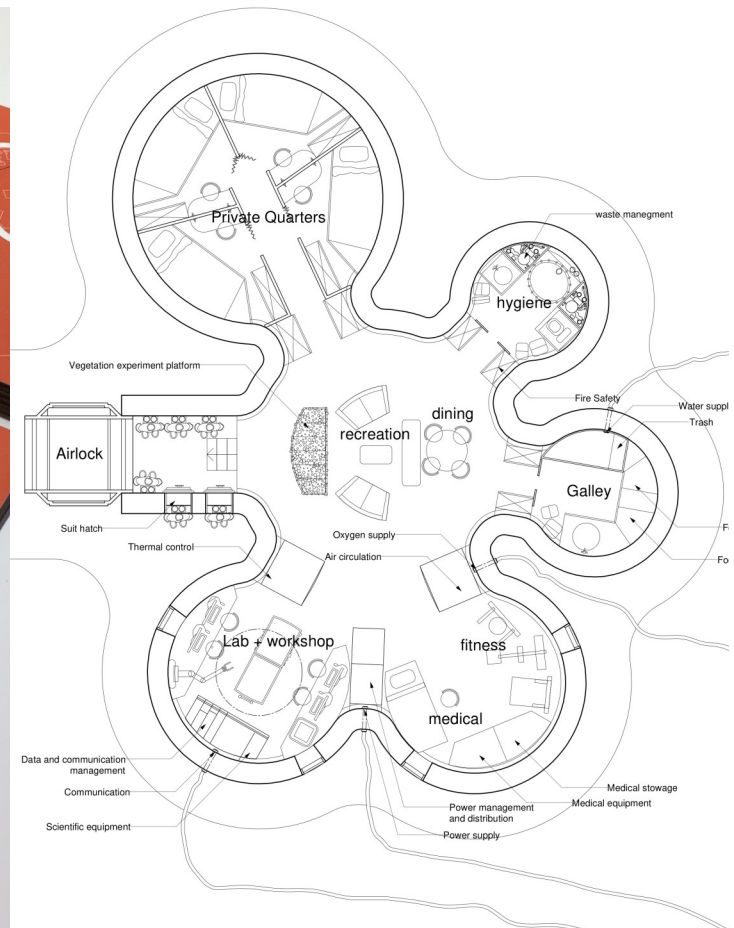
This fast-paced team has asked for mentoring with volunteers in various technical capacities, business development, videography, management, systems engineering. As progress is made, there will be follow-up reports. The team is anticipating increasing their utilization of the systems engineering process in August, according to Donal O’Sullivan, the astrophysicist who has taken on the challenge of leveraging systems engineering for the benefit of the project.

Interested? Bring your academic “A” game and running shoes, and join this grand adventure by contacting Jorg Largent at [jorg.largent@incose.org](mailto:jorg.largent@incose.org).

**Do you have questions of your own or answers to Josh’s questions? Sent your thoughts to the editor of the Newsletter at [newsletter@incose-la.org](mailto:newsletter@incose-la.org).**



*Coming Soon to a Planet Near You*



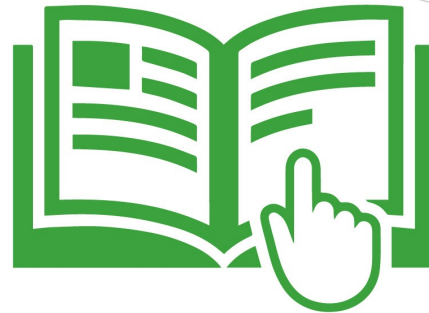
## INCOSE-LA Chapter NEWSLETTER

Vol. 16: Issue 3, June — July 2018



# LOOKING FOR TIPS TO HELP YOU COMPLETE THE CSEP APPLICATION FORM?

**VIEW #1 HERE:**  
**CT-INT.CO/TIP1**



CLICK HERE TO FIND OUT MORE  
[www.certificationtraining-int.com](http://www.certificationtraining-int.com)

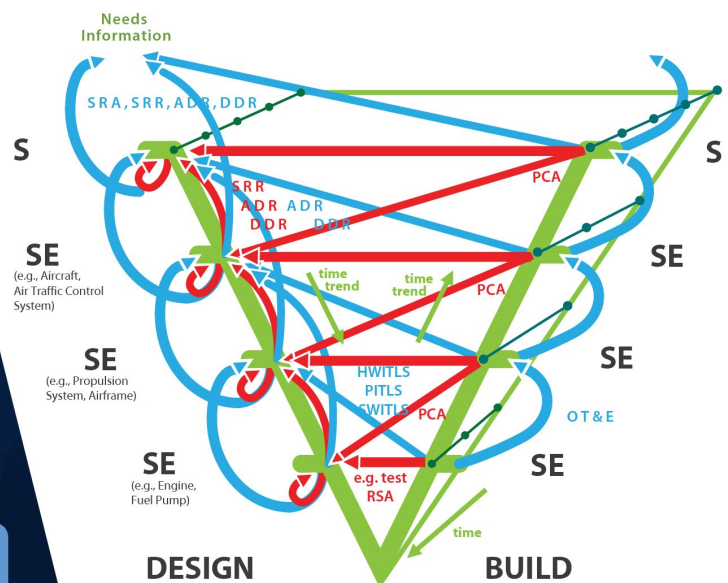
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**Verification:**  
Is the work product correct-meets requirements?  
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Does the work product satisfy the need for the work product?

**WEDGE MODEL™**

*systems engineering training for project success ...*

SAVE THE DATE

# WSRC

Western States Regional Conference

**SYSTEMS ENGINEERING OUT W.E.S.T.**

**Workplace • Environment • Sustainment • Technology**

**September 20-22, 2018 — Ogden, Utah**



Printing courtesy of Orbital ATK

Check out the details at: <https://incose-wsrc.eventbrite.com>



# Females in Aerospace Engineering

By Past-president Phyllis Marbach

California State University Long Beach (CSULB), the American Institute of Aeronautics and Astronautics (AIAA), and The Society of Women Engineers (SWE) student chapters held a “Females in Aerospace Engineering” panel discussion on April 11, 2018. INCOSE-LA Past-president, Phyllis Marbach was honored to join the panel to discuss how panel members responded to and overcame challenging or difficult situations encountered during their careers. The panelists discussed how male advocates can make a difference and also provided some examples of discrimination they encountered. Stories shared included how the panelist deflected that discrimination and established a relationship with the individual to continue to work effectively together. One panelist encouraged students to find internships and when working as an intern to make him or herself valuable by being willing to do the job that others did not want. When an intern who has done this returns to school the employer and fellow employees will miss her or him and want him or her back. Also, panelists recommended new hires and interns take the time to go to lunch and after work events to get to know their co-workers, even if doing so results in working a longer day.

Pictured below, left to right, are Females in Engineering participants: Caitlin Rubia, Phyllis Marbach, Michaelyn Thomas, Shandy Asturias, Diana Alsindy, Jacqueline Sotraidis, and Serena Quach

Other panelists were Jacqueline Sotraidis, a Propulsion Engineer at Virgin Orbit; Shandy Asturias, a Senior Payload Integration Engineer at Virgin Orbit; Diana Alsindy, a Propulsion Development Engineer at Virgin Orbit; and Dr. Michaelyn Thomas, a Senior Manager of Affordability at Virgin Orbit. Thanks go to Serena Quach, the chairwoman of the CSULB AIAA chapter and to Caitlin Rubia, the President of the Society of Women Engineers, for hosting the event. Feedback from the students that attended has been very positive.

## Reflector Notices

One of the media used to reach out to the systems engineering community is a “Reflector Notice,” an e-mail message sent out by the Chapter. If you are not receiving those notices but would like to receive them, please email Deborah Cannon at [Deborah.a.cannon@aero.org](mailto:Deborah.a.cannon@aero.org).

I have noticed even people who claim everything is predestined, and that we can do nothing to change it, look before they cross the road.

Professor Stephen Hawking



Perhaps the challenge we face as systems engineers is to turn the herd. For many who are keenly aware of the value of the discipline, our first inclination might be to try to do the opposite.



The children now love luxury. They have bad manners, contempt for authority; they show disrespect for elders and love chatter in place of exercise.

Then again, what did Socrates know?





## Solar Decathlon and Advanced Energy Communities

### June 12, 2018 Speaker Meeting

**Speaker:** Alex McDonald

**Abstract:** Solar Decathlon winner Alex McDonald will discuss his graduate work at the University of California, Irvine:

- designing and building a modular, solar powered house for the U.S. Department of Energy's Solar Decathlon 2015, and
- modeling the energy demand and retrofit of a Huntington Beach community of 10,000 people for use in a California Energy Commission's solar powered Advanced Energy Community.

The presentation will include discussions on advanced solar powered and green-building best practices as well as on the utilization of whole building simulation tools for hourly, time-resolved energy modeling of the built environment, which could facilitate integration into a 100% renewable modern grid.

**Bio:** Alex McDonald is a former mechanical engineering graduate student researcher and a recent graduate from the Henry Samueli School of Engineering at the University of California Irvine (UCI).

During his matriculation at UC Irvine, Alex managed Team Orange County, Casa del Sol, one of the largest teams in the U.S. Department of Energy's Solar Decathlon 2015 competition. The team included 100 students across the campuses of University of California Irvine, Chapman University, Irvine Valley College, and Saddleback College. Alex integrated the decathlon into his graduate research where he



incorporated the green building best practices into his thesis.

Most recently, he was part of a partnership of public and private interests working on behalf of the California Energy Commission's Advanced Energy Community initiative to develop a solar powered district in Huntington Beach for a mixed-use community of 10,000 people. As a part of this enterprise Alex models aggregate building energy demand.

Additionally, he volunteered at the US Solar Decathlon 2013, and attended EU Solar Decathlon 2014. His management duties included development of integrated design practices, raising over a million dollars in resources, recruitment of students and professional mentors, and the construction and competition entry of the solar home. He maintains further professional, academic, and community service experience.

Professionally, he was a commercial Heating, Ventilation, and Air Conditioning consultant for Wood Harbinger, supporting project for The Boeing Company, US Navy, and Seattle Public Schools, among others.

Prior to that, he worked as a project engineer for

Harder Mechanical at one of Intel's primary manufacturing plants in Chandler, Arizona. While studying mechanical engineering and political science at Washington State University, Alex had several notable internships with CH2M Hill working on Seattle area light rail, and with Kiewit on the Tacoma Narrows Bridge expansion.

#### **Registration:**

<http://events.r20.constantcontact.com/register/event?oeidk=a07efb8nry43970186e&llr=l4ihvgeab>

**Cost:** Members: FREE. Non-members: \$10 (refreshments provided)

#### **Schedule:**

5:15-5:30 Sign-in/Registration  
 5:30-6:00 Networking/Refreshments  
 6:10-6:20 Introduction  
 6:20-6:30 WG Presentation (TBD)  
 6:30-7:30 Guest Speaker Presentation

#### **Hosted site:**

The Aerospace Corporation

**DIRECTIONS TO THE AEROSPACE CORPORATION**

Location: between Imperial and El Segundo Blvd (north to south), between the 405 Freeway and Sepulveda (east to west).

From the San Diego (405) Freeway heading SOUTH:

1. Take the exit towards El Segundo Blvd.
2. Turn Left onto S La Cienega Blvd.
3. Take the 1st Right onto W El Segundo Blvd.
4. Take the 2nd Right onto N Aviation Blvd.
5. Bldg. D8 will be the third building on the right, just past the discount bakery.

From the San Diego (405) Freeway traveling NORTH:

1. Take the El Segundo Blvd exit, Exit 44.
2. Turn Left onto W El Segundo Blvd.
3. Turn Right (North) on N Aviation Blvd.
4. Bldg. D8 will be the third building on the right, just past the discount bakery.

From the 105 Freeway traveling WEST:

1. Take the exit towards 405 South
2. Before getting onto the 405 Freeway, take the El Segundo Blvd exit.
3. At the bottom of the ramp, turn left (west)
4. Turn right on Aviation Blvd.
5. Bldg. D8 will be the third building on the right, just past the discount bakery.

The facility is the third building from the corner of Aviation and El Segundo, just north of the discount bakery. Only the southern-most gate of the facility is open. Identify yourself to the security guard as attending the INCOSE meeting. You can park where Security directs and enter through the lobby at the center of the building near the flag poles. Knock on the first of the double doors, and someone will open the door for you. The handicap ramp is on the north side and can be reached by driving all the way around the back of the building. Inform the security guard if you plan to use that ramp.

The development of full artificial intelligence could spell the end of the human race....It would take off on its own, and re-design itself at an ever-increasing rate.

Professor Stephen Hawking

## INCOSE-LA Chapter NEWSLETTER

Vol. 16: Issue 3, June — July 2018

# From the President

By Rich Hefner, President, INCOSE-LA

Time flies fast. I am surprised to realize that summer is already here (my children already know – they have been counting the days). And with summer comes the realization that our INCOSE-LA program year is already halfway through.

At our Town Hall in January, I asked those assembled what activities you wanted to do more of. The answer was “Everything!” So your hard-working Board of Directors and Elected Officers have been trying to do just that – speaker events, tutorials, handbook training, CSEP Exam prep, student events, preparation for the Western States Regional Conference and International Symposium. This newsletter highlights past and upcoming events. I encourage you to find some events that interest you – we have something for everyone!

Obviously, running a series of events of this quantity and quality requires lots of support. We have some wonderful opportunities for YOU to help out, from a few hours to a bigger commitment. No experience necessary, and you get to work with a great group of folks! Just contact me at [rhefner@caltech.edu](mailto:rhefner@caltech.edu) to discuss.

Rick Hefner, Chapter President

# Caltech

**Executive education solutions to the challenges faced by today's technology-based organizations**

## Public Courses – Summer 2018

Agile Project Management (starts June 9)

Lean Six Sigma Black Belt (starts June 23)

PMP Review (starts June 29)

Model-Based Systems Engineering (starts July 7)

Project Management (starts July 7)

Advanced Analytics (starts July 14)

Predictive Analytics (starts July 21)

Enroll at <https://ctme.caltech.edu>

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## Western States Regional Conference Panel and Presentation Topics

**THE PANELS AND PRESENTATIONS AT THE WSRC WILL COVER A BROAD RANGE OF TIMELY TOPIC AREAS:**

- **SYSTEMS ENGINEERING ACROSS THE ENTERPRISE**
- **MODEL-BASED SYSTEMS ENGINEERING**
  - **AGILE SYSTEMS ENGINEERING**
  - **SPECIALTY TOPICS**
  - **SUSTAINING LEGACY SYSTEMS**
- **RESILIENCE AND SUSTAINABILITY**
- **SYSTEMS ENGINEERING PROGRAM AND PROJECT MANAGEMENT COLLABORATION**

**Check out the details at:**  
<https://incose-wsrc.eventbrite.com>

## Systems Engineering Professional Development Day WSRC Satellite Site in Long Beach

There will be a “Systems Engineering Professional Development Day” as a part of the Western States Regional Conference. This one-day event will be held on Friday, September 21, 2018. The event will consist of a series of presentations and will feature Garry Roedler, INCOSE President, as the keynote speaker.

People who are interested in furthering their careers and would like to take advantage of this outreach are welcome to participate remotely at the Dassault facility in Long Beach. Mark TenEyck, Senior Sales Executive with Dassault and Programs Director for the Los Angeles Chapter has made the arrangements for the use of their facility.

The Chapter will send out a Reflector Notice with more details (exact times, cost, registration, et al) as soon as they are established by the WSRC Board of Directors.



## Not a member? Join INCOSE!

Learn more about becoming a member by clicking on <http://www.incose.org/membership/valueofmembership.aspx>

## INCOSE-LA Chapter NEWSLETTER

Vol. 16: Issue 3, June — July 2018



**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 [www.incose.org](http://www.incose.org)) to update your information.

Name	Organization

### New Remote Site for Speaker Meetings

INCOSE-LA would like to announce an additional option for our members to attend social events even if they are not able to be at the host site. This is a great opportunity to meet your neighbors in the systems engineering community. We have added a remote site in Woodland Hills. Free parking, sandwiches, snacks and refreshments are provided. Other sites are available throughout the area. Check the meeting announcements for details on the Woodland Hills site and other sites that might be in your area.

**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](http://www.incose.org)

### 2018 Board of Directors

Elected Officers			Elected At-large Directors		
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Technical Society Liaison	Shirley Tseng	<a href="mailto:shirleytseng@earthlink.net">shirleytseng@earthlink.net</a>	Reflector Manager	Deborah Cannon	<a href="mailto:Deborah.a.cannon@aero.org">Deborah.a.cannon@aero.org</a>
Chapter Awards Manager	Rick Hefner	<a href="mailto:rhefner@caltech.edu">rhefner@caltech.edu</a>	Social Media Manager	Doris Gebelein	<a href="mailto:doris.gebelein@lmco.com">doris.gebelein@lmco.com</a>
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Representative to the SF Valley Engineer's Council	Stephen Guine	<a href="mailto:Stephen.Guine@ngc.com">Stephen.Guine@ngc.com</a>	Volunteer Coordinator	Karen Miller	<a href="mailto:karmill888@aol.com">karmill888@aol.com</a>

### INCOSE-LA Chapter NEWSLETTER

Vol. 16: Issue 3, June — July 2018

# INCOSE-LA Chapter      NEWSLETTER

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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](http://www.incose.org/los-angeles) . Like us on Facebook

### June Speaker Meeting

Solar Decathlon and Advanced Energy Communities

By Alex McDonald

Tuesday, June 12, 2018

5:30 p.m. — 7:30 p.m.

The Aerospace Corporation

El Segundo, California

*See article on page 9 for details*

### July Speaker Meeting?

The Chapter traditionally does not have a Speaker Meeting during the month of the International Symposium

### 2018 International Symposium

Saturday, July 7 — Thursday, July 12, 2018

Washington D. C.

*Check the INCOSE website*

*(INCOSE.org, News and Events) for details*

### Third Quarter Strategic Planning Meeting

*The members' opportunity to be heard and contribute*

August 11, 2018

No cost for members

*Details in work and a Reflector Notice will be e-mailed as they become available*

### International Society for the Systems Sciences (ISSS)

62nd Annual Conference and Meeting

July 22 – 27, 2018

Oregon State University in Corvallis, Oregon

Theme: "Innovation and Optimization in Nature and Design"

*For more information about the planned activities, speakers, sub-themes and key dates, visit: <http://www.issss.org/world>*

*email to: [enquiryissss@gmail.com](mailto:enquiryissss@gmail.com)*

### Mars, Curiosity, and STEM

*The members' opportunity to be heard and contribute*

September 8, 2018

*See article on page 1*

*Details in work and a Reflector Notice will be e-mailed as they become available*

### Western States Regional Conference

September, 20 — 22, 2018

Ogden, Utah

*See articles on pages 3, 7, and 10*

*For more details go to <https://incose-wsrc.eventbrite.com>*