

2018 Member Survey by INCOSE San Diego

May/June 2018

QUESTION 1 - What systems engineering topics would you like to hear at an upcoming monthly meeting? Can you recommend a good speaker?

RESPONSES

- Information Dominance. Network Centric Warfare. Interoperability. (no speaker recs)
- Architecture assessment and auditing
- Update on applied Systems Engineering/Systems Architecting career path. Status of industry-wide talent needs. How to convince managers of tech companies that they need Systems Engineering (and describe what it is in terms that they will understand). SE successes in Model Based Engineering/Digital Engineering ecosystems.
- Systems engineering in a medical device company. What is General Atomics doing in SE?
- Less tech, and more systems thinking and psychological. Decision sciences in particular. Not the computer generated kind, but what we can and might use every day. Examples: Mental models, such as can be found at newsletter@farnamstreetblog.com. Others that I've used in my past are Spencer Johnson's "Yes" or "No": The Guide to Better Decisions. It's a story, but useful.
- Topics relating to each of tropics throughout the "V-Chart": requirements, integration, testing. Happy to speak on Human-Systems Integration / Human Factors Engineering, as well as Cybersecurity later this year. (Frank Lacson, flacson@gmail.com)
- Any and no.
- Cybersecurity, digital currency
- SysML
- Human Systems Engineering Vs Human Systems Interfaces
- Technical debt and how to sell systems engineering to owners/managers
- I am wide-open! It would be interesting to learn how AI & Machine Learning may influence our modeling approaches.
- MBSE
- Return on Investment (ROI) by using the appropriate SE resources for various level of projects. Technical Debt - how do you manage it and what are the tools/techniques to reduce it? Recommend we get one of the instructors from the UCSD extension program to talk about these issues.
- Case studies that tied in the engineering with the cost. Something that looked at trade offs between the cost of doing things perfectly and the real world issues of competition.

Tabular responses

Proposed Topic	Times
Applied Systems Engineering/Systems Architecting career path	
Cybersecurity	
Digital currency	
How to convince managers of tech companies that they need Systems Engineering (and describe what it is in terms that they will understand)	2X
Human Systems Engineering Vs Human Systems Interfaces	
Human-Systems Integration / Human Factors Engineering, as well as Cybersecurity later this year. Get with Frank Lacson, flacson@gmail.com	
Information Dominance	
Interoperability	

Proposed Topic	Times
Less tech, and more systems thinking and psychological, like Decision Sciences	
MBSE	
Network Centric Warfare	
Now AI & Machine Learning may influence our modeling approaches	
Return on Investment (ROI) by using the appropriate SE resources for various level of projects (local university professor?) Trade offs between perfection and real world completion.	2X
SE successes in Model Based Engineering/Digital Engineering ecosystems	
Status of industry-wide talent needs	
SysML	
Systems engineering in a medical device company	
Technical Debt: how do you manage it and what are the tools/techniques to reduce it (local university professor?)	2X
V-Chart: requirements, integration, testing	
What is GA up to in SE? (NOTE – could may be generalized to all local firms, like NG, Qualcomm, etc.)	

QUESTION 2 - At our annual Mini-conference (to be held in early December this year), we usually have 3 or 4 tracks (focused subjects) which multiple speakers address. What tracks would you recommend for this year's conference? Past tracks include Model-based Systems Engineering (MBSE), unmanned vehicles (drones), system engineering tools, system design techniques, system testing, configuration management, System of Systems (SoS), and others.

RESPONSES

- Interoperability.
- Architecture set up and overall configuration
- Becoming an agent for change (deploying successful systems engineering)
- Science of Laws System Engineering Leadership
- SE in an Agile software environment; What is the latest in SE tools; Is SE really advancing technically or are we stuck in an outmoded model?
- A track where project/program management cross with systems engineering or systems thinking. Content in that intersection space between PMI and INCOSE.
- Recommend a panel on systems engineering challenges with both internal stakeholders (other engineering disciplines) and external stakeholders (program management, logistics, customers).
- OMS & UCI
- Systems engineering steps: getting stakeholder agreement, determining architecture, what should interaction/responsibilities of lead systems engineer be with program manager and chief engineer
- System Modeling and SysML
- Autonomous data collection systems and how they're used to implement change in societal systems.
- Software systems engineering
- That all sounds great! Again ... should we explore if or how AI/ML will influence our approach?
- SoS, MBSE, Tools and design techniques
- Branding SE - need to discuss the value added by "true" SEs and the practice of proper SE; the term SE is being diluted by companies that tend to stick unassigned hard discipline engineers to this category.

QUESTION 3 - SD INCOSE has social gatherings and networking opportunities once or twice a year. We have held these on Wednesday nights in place of a monthly meeting. The turnout has been fairly good, but would like to see even more members attend - how do you rank the following conditions in your decision to attend?

RESPONSES: (lower value = highest priority)

Criteria	Highest (1)	High (2)	Neutral (3)	Low (4)	Lowest (5)	Median	Mean
Location within SD	4	11	2	0	0	2	1.88
Time	3	11	3	0	0	2	2
Type of restaurant	1	4	5	2	3	3	3.13
Cost of drinks	0	1	5	4	7	4	4

Comments:

- Have had prior commitment on Wednesday nights
- Time and date - deconflicting with personal/professional schedule
- An environment conducive to conversation
- Who's going to be there. Those e-vite on line registrations are useful, if people really commit. Then you can see who has committed. Might take a financial commitment to lock that in.
- Topic discussed (Highest)
- Time & Location taken together, especially on a week night.
- Noise levels
- Mon - Thur evenings preferred (not Friday's).
- Program content is important to me. The food and locations are usually not places that I want to go to. Do not eat pizza. Do not really enjoy dinner meetings since locations and food choices are not attractive to me.

QUESTION 4 - We have mostly met at Filippi's Restaurant in the Kearny Mesa area this past year. Is this a reasonably convenient location for you to attend? If not, what area of SD County would work better for you?

RESPONSES

- Great spot.
- North County
- No opinion
- Yes, but having a rotating schedule of different locations throughout the county may be helpful
- It is OK but I'd prefer North County
- That's fine.
- Location is good; other locations near the highways is best, especially during lunch hour (e.g., Oggi's membership drive).
- Yes, stick to this venue.
- Yes - or Oggi's near Scripps Poway Parkway - either is good
- This is a good location
- No Preference, I would just like to see a welcome to the chapter email for new members. This survey is a good start to communicating often and early!
- It's OK
- Very convenient
- No, the location is one reason I rarely attend. Mira Mesa or Sorrento Valley are more convenient.

- Yes, all good at Filippi's in Kearny Mesa.
- Yes, it is OK.

QUESTION 5 - If you live or work in North County, would a satellite location up north for our meetings be of interest to you? (I.e. webcasting our meetings to a satellite location where you could still network with other system engineers.)

RESPONSES

- Yes – 5
- No – 4
- Maybe – 5

QUESTION 6 - SD INCOSE is currently experimenting with webcasting. Would you like to see our monthly meetings webcast so that you could watch and listen from work or home? How often do you think that you would participate via webcast / how many times per year (out of 8 meetings)?

RESPONSES

- 8 meetings.
- Yes
- I might be more likely to attend... but I attend plenty of webcasts already.
- Depends on the topic and my schedule. In person is better!
- Yes, 1 or 2 times per year.
- I rarely do it. I suppose relevancy and being busy.
- 4 meetings.
- We should webcast, but I prefer in person as long as the meetings are no further from north county than Kearny Mesa.
- I'm too busy to watch probably
- Not important to me
- Adobe Connect is how a lot of colleges are doing their online classrooms. Very conducive to collaborating effectively online. I would go to them all but it's a timing thing and face to face is always better.
- I would like to see it. Unsure how often I would use it.
- I prefer to meet in person (networking)
- I have some interest in Webcasts. It would depend on the meeting program content and the quality of the webcast.
- 2 meetings.
- 5 meetings.

QUESTION 7 - How does your company support INCOSE?

RESPONSES

- They encourage INCOSE membership - 7
- They pay for part or all of membership cost - 2
- They encourage Certified System Engineering Professional (CSEP) or other INCOSE certification – 6