



INCOSE

CHICAGOLAND

October 20, 2022



INCOSE Chicagoland Chapter Meeting Agenda

October 20, 2022

Please MUTE your phone



Agenda

- **6:30 – 7:00 PM CT – Welcome and Announcements**
- **7:00 – 9:00 PM CT – Guest Speaker**



- Established in early 1990s as the “Detroit Tri-State” Chapter serving MI and parts of OH, IN and IL. Became the “Michigan” Chapter in 2009 coinciding with the formation of the Cleveland-Northern Ohio Chapter (2009) and the Chicagoland Chapter (2010).
- Serving the State of Michigan and two Student Divisions (UMICH and MTU)
- 230+ Members



Check Us Out on Social Media

- Twitter: <https://twitter.com/INCOSEMichigan>
- LinkedIn: www.linkedin.com/in/INCOSEMichigan
- Facebook:
<https://www.facebook.com/profile.php?id=100086260607476>





NEW SCHAUMBURG MEETING LOCATION

**1501 Woodfield Rd Suite
300N, Schaumburg, IL 60173**



Actalent is an operating company of Allegis Group, the global leader in talent solutions.

www.ActalentServices.com



Actalent at a Glance



4,500+
Clients
Supported



1,100+
Dedicated
Recruiters



27,500+
Consultants
Engaged



2.5 Billion
In Revenue



150+
Offices

- AND -

20
Delivery Centers
Across North America,
EMEA, APAC and India

Capabilities

Sciences

Healthcare +

Clinical Research +

Laboratory Sciences +

Engineering

Power & Utilities +

Software & Systems +

Product & Manufacturing +

Construction Management +

Environmental, Architecture +
& Civil



actalentservices.com



Actalent Solutions

Workforce Solutions and Services that **Make an Impact**



Contract Talent

Gain access to the right expertise with an Actalent Contract Talent solution. Whether you're looking for a partner to contribute to a critical project, support a business expansion or you lack a certain capability in-house, we help you get the work done. We keep our consultants engaged and offer continuous learning opportunities to hone their skills, so they are ready for the next big assignment.



Engineering & Sciences Services

Transformation is constant and fueled by experts passionate about change. Actalent provides comprehensive Engineering, Laboratory, and Clinical Services to help advance the future. When you require specific technical or scientific expertise or an operational end-to-end solution, our people answer the call. Flexible delivery models ensure you have the support where and when you need it to achieve your goals.



bb7 is excited and honored to host the June INCOSE event at our corporate headquarters located at 5407 Fen Oak Drive in Madison, WI.

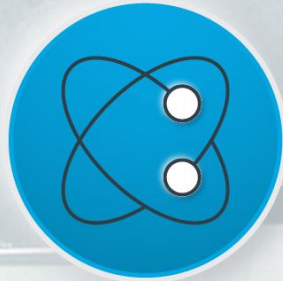
YOUR BIG IDEA
JUST GOT REAL

bb7 CAPABILITIES



DESIGN

DISCOVERY + RESEARCH +
TREND ANALYSIS + UI/UX



ENGINEERING

MECHANICAL + ELECTRICAL
+ EMBEDDED SYSTEMS



TECHNICAL TALENT

ACCESS TO TOP TALENT +
CUSTOMIZED SOLUTIONS



PROTOTYPING + TESTING

MODEL MAKING + CUSTOM TESTING +
FABRICATION

OUR PASSION IS CRAFTING
TRANSFORMATIVE PRODUCTS
FROM GREAT IDEAS.

WE ARE AN INNOVATIVE PRODUCT
DEVELOPMENT FIRM THAT
TRANSFORMS PROBLEMS INTO
PROFITABLE PRODUCTS.

ISO 9001:2015
CERTIFIED

ISO 13485:2016
CERTIFIED



Get to Know Your Fellow Chicagoland SEs

Please participate in a short poll



CHICAGOLAND MEMBERSHIP UPDATE



11 Renewing Members

Thank You for renewing your membership!

Renewed Members

First Name

Gary
Dale
Malcolm
Krishna
Jon
Nish
Farouk
Nicholas
Philip
Yuanhong
Brady

Family Name

Oswald
Brown
Lunn
Potluri
Mooney
Bhagat
Bonilla
Luther
Anthony
Li
Beekman

Company

Hatch
Ford Motor Company
John Deere
Acoustics by JW Mooney
Northrop Grumman Corporation
The George Washington University
Plexus Corporation
Design Integrity, Inc.
John Deere
Eaton



8 New Members

Thank You for joining!

New Members

First Name

Jeffrey
Dave
Stacia
Manivannan
Darpan
Michael
Ankit
Samantha

Family Name

Starke
Myers
Thorson
Nallaiyan
Patil
Wagner
Patel
Eachaves

Company

Marquette University
John Deere
Siemens Healthineers
General Electric Healthcare
Whirlpool
Greeley and Hansen
John Deere
John Deere

INCOSE: A Better World Through a Systems Approach

*The global professional association
for systems engineers*



International Council on Systems Engineering
A better world through a systems approach

www.incose.org

Vision and Mission

VISION: A better world through a systems approach

MISSION: To address complex societal and technical challenges by enabling, promoting, and advancing Systems Engineering and systems approaches

OBJECTIVE: Global leader for systems engineering professionals for career development

FUTURE: Lead the future of systems engineering, academically, in emerging domains, and in practice



Systems Engineering Vision 2035



incose.org/sevision

INCOSE-sponsored SE Vision 2035

- produced by leaders from systems community
- inputs from across industry, academia, and government

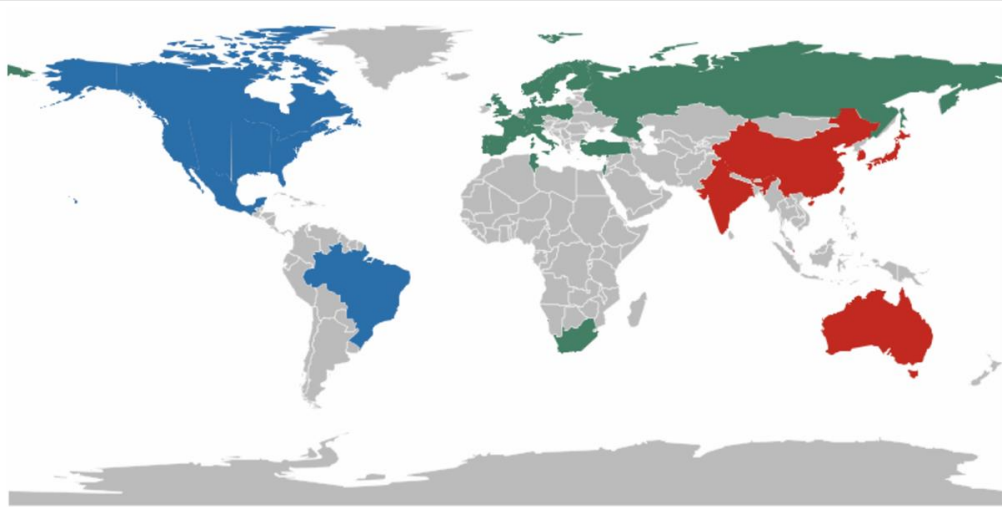
SE Vision 2035 addresses

- Global Context for SE
- Current State of SE
- Future State of SE
- Realizing the Vision

Please work with INCOSE to help realize this vision.

Complete SE Vision 2035 available as website and pdf
www.incose.org/sevision.

INCOSE: The International Council on Systems Engineering



- Connect systems engineers professionals
- Educational tools
- Resources they need
- Networking events
- Virtual platforms
- Handbooks and publications
- Career development
- Advancement through products and services
- Developing global community
- Problem solving through systems approaches
- Forward thinking
- State-of-the art
- Certification

Global Impact



Why Join INCOSE?

INCOSE – global SE professional society
– providing **opportunity for life-long learning** in systems approaches

Community of peers, **resources** for your **career**, and a place to be a **leader**

INCOSE members stand out and are often sought after **experts**. They learn from each other.

INCOSE members create **products**, produce **events**, represent in international forums

INCOSE members increase body of knowledge, **advance practice** of SE

Network with over 19,000 members in 76 countries

Increase your professional stature with INCOSE SE Professional **Certification**



Chapters and Working Groups (WG)

- Connecting people – the heart of INCOSE
- Best ways to increase your circle of influence or work on an issue
 - INCOSE Chapters
 - Working Groups





Benefits of INCOSE Membership

Professional Development (cont.)

3. Recordings of speakers at Chapter Meetings from previous months

Log in first, then go to Library and Resources tab of our home page

The screenshot shows the INCOSE Chicagoland website. The top navigation bar includes links for Collaboration Portal "Connect", Store, Contact us, and the INCOSE logo. A dropdown menu for "Welcome, MIKE" is highlighted with an orange box. Below the navigation bar, the "Library and Resources" tab is selected. The main content area is titled "Chapter Recorded Presentations (Archives)" and includes a table of past meetings.

Date	Presentation	Flyer	Agenda	Recording
2020 July 16	Innovation and National	Flyer-July 2020	COMING SOON	Coming Soon
2020 June 18	Security: Participation	Flyer-June 2020	Agenda-June 2020	View Recording
2020 May 21	and Secrecy	FTA Presentation	Agenda - May 2020	See below
2020 May 21	Asking Questions: A	RiskMgmtWG_May 2020	Agenda - May 2020	View Recording

Corporate Advisory Board (CAB)

```
graph LR; A[Corporate Advisory Board (CAB)] --> B[INCOSE CAB is Voice of Customer to INCOSE leadership.]; B --> C[CAB strategically guides technical leadership, leading to INCOSE products and influence to standards];
```

INCOSE CAB is Voice
of Customer to
INCOSE leadership.

CAB strategically
guides technical
leadership, leading
to INCOSE products
and influence to
standards

WHY JOIN THE INCOSE CORPORATE ADVISORY BOARD?

- Allows your organization to guide direction of SE
- Employees gain access to state-of-the-art products
- Align with fellow industry leaders, grow your global footprint
- Learn how other industry leaders apply SE to solve business problems
- Gain better access to talent through your INCOSE network



Academic Council

Branch of the Corporate Advisory Board facilitating discussion and exploration of issues relevant to academia and strategic collaborations within INCOSE.

A well-educated workforce is key to Global Prosperity

Council member organizations offer bachelors, masters, and doctorate degrees in systems engineering and related programs.

Active in advancing the state-of-the-art of systems engineering through academic programs.

INCOSE Student Divisions

- Undergraduate / graduate students enrolled in accredited curriculum
- Want active involvement in INCOSE

Student Divisions operate under INCOSE chapter, require:

- 1) interested student body,
- 2) faculty member and member of INCOSE willing to act as Division mentor and, and
- 3) active sponsorship and participation by INCOSE chapter

Certification

		
Associate Systems Engineering Professional	Certified Systems Engineering Professional	Expert Systems Engineering Professional
College students and those new to systems engineering may be qualified as Associate Systems Engineering Professionals (ASEP).	Working engineers who can perform independently in a variety of systems engineering functions can be recognized as Certified Systems Engineering Professionals (CSEP).	Individuals who solve the most challenging, technical problems and are seen as leaders in their community can become Expert Systems Engineering Professionals (ESEP).
LEARN MORE	LEARN MORE	LEARN MORE



SEP Certification Mentors

If:

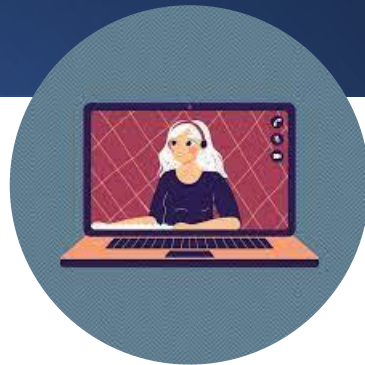
- you are an INCOSE member, and
- you are interested in becoming certified as a Systems Engineering Professional (SEP), and
- you have questions about the certification process

Then:

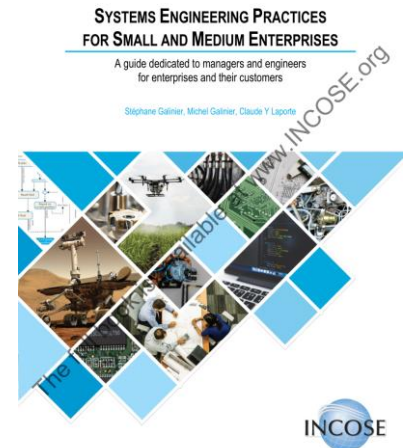
- you can contact one of our SEP Certification Mentors for assistance in getting your questions answered:

INCOSE Member	SEP Level achieved	Email Address
Steve Perich	CSEP	chitownse2@yahoo.com
Russell Kubychек	CSEP	crk022@gmail.com
Chris Freund	ASEP	cfreund7@gmail.com

Conferences and Connections



- <https://www.incose.org/events-and-news>



INCOSE Foundation

Committed to rewarding skills through scholarships for those engaged in finding solutions to complex technical challenges at all stages of their education or career.



Offers possibilities for people to pursue goals that anticipate the future – for them and for the world.



Scholarships Include:

ISEF, the International Science and Engineering Fair INCOSE Award to a pre-college student

The Chesapeake Chapter Award

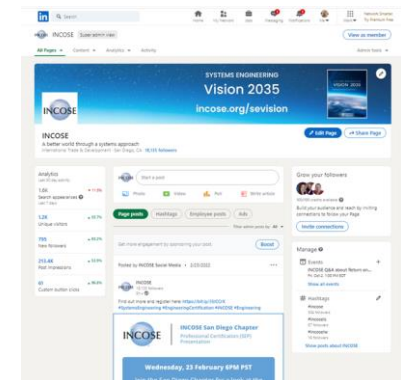
The Stevens Doctoral Award for Promising Research in Systems Engineering to a PhD Candidate

The James E. Long Award for Post Doctoral work

Engage with INCOSE Follow us on social media

Follow, like, comment, and share on all INCOSE social media platforms.

- LinkedIn:
<https://www.linkedin.com/company/44559/>
- LinkedIn Group:
<https://www.linkedin.com/groups/7499834/>
- Facebook
- Twitter
- Instagram
- More to come



Membership Benefits



A global network of colleagues who understand systems engineering



Certification opportunities



Access to quarterly ePublications, *INSIGHT* and *Journal of Systems Engineering*



Electronic version of the Systems Engineering Handbook



Collaborate with experts and practitioners **worldwide**



Exclusive access to INCOSE Connect, the collaborative space for **INCOSE** Members Only



Member discounted registration to the International Workshop and International Symposium.



How to Join INCOSE

1. Go to www.incose.org
2. Click on “Join us”
3. Provide information, including your company / institution. This helps the chapter identify programs that will be of interest to the greatest number of chapter members.
4. Select chapter affiliation – “Chicagoland”
5. Pay \$160 for 1-year membership (or select a longer term at a lower rate)

Student membership - \$50


Refer a new member? Get an Amazon gift card!

Email Mike Gut, Chicagoland’s Secretary, at gut_mike@hotmail.com



 Join us

 Login

 Search

A better world through a systems approach



UPCOMING INCOSE EVENTS



Upcoming Board Meetings

Board Meetings on the first Thursday of each month

- Meetings are open to all members
- Next meeting: Wednesday, Nov 2, 7:00 – 9:00 PM CT
(virtual mtg - attend via web conference)
- Plenty of opportunities to get involved!
 - Leadership and contributor opportunities available
 - Join us!

Interested in helping out?

Contact: John Bayless, Chapter President, via email:
john.bayless@brunswick.com



Benefits of Joining the Chapter Board of Directors

Expand your professional network and make new friends

Build professional capabilities

Elevate your personal brand

Support initiatives that are important to you

Your New Role	Imagine Your Name Here
Vice President	Open Position
Membership Chair	Open Position
Communications Chair	Open Position
Industry Outreach Representative	Open Position



2023 Elections Are Coming...



View/Review Past Lunch & Learn Sessions

Watch video recordings on the “**INCOSE GLNC**”  **YouTube** Channel

If you “SUBSCRIBE” to the YouTube Channel (which is FREE) use “Settings” to receive an automatic email notification of session uploads.

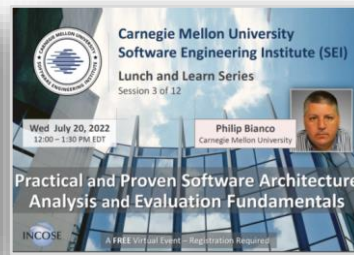
Session 1 (May18, 2022): “Moving Machine Learning into Production Systems”

Session 2 (June 15, 2022): “SEI CERT’s Zero Trust Journey – SE for Cybersecurity”

Session 3 (July 20, 2022): “Practical Proven SW Architecture Analysis & Evaluation”

Session 4 (Aug 17, 2022): “SW Development with CREW Risk Assessment Process”

Session 5 (Sept 21, 2022): “Integrating Requirements Engineering into MBSE”



Session Value = 1 CEU/PDU each.

Statistics To Date: Sessions 1 through 6

Session

Registrations

Host

Session 1 (May18, 2022):

137

Three Rivers (Bianco)

Session 2 (June 15, 2022):

92

Three Rivers (Bianco)

Session 3 (July 20, 2022):

114

Wright Brothers (Long)

Session 4 (Aug 17, 2022):

122

Michigan (Lutz)

Session 5 (Sept 21, 2022):

156

Chicagoland (Parro)

Session 6 (Oct 19, 2022):

201

Three Rivers (Bianco)



Organizing/Hosting
INCOSE Chapters



CHICAGOLAND



Carnegie Mellon
Software Engineering Institute

Next Session ... INCOSE CMU-SEI Lunch & Learn Series

Facing the Challenges of Artificial Intelligence: Building the Discipline of AI Engineering

Session 7 of 12 – Wed Nov 16, 2022

Abstract: AI is continuing to make headlines, by beating the best humans in competitive games, generating large-language models that trigger debates on sentience, and enabling new applications on our mobile devices. The field is growing rapidly, with rapid advances not only in capabilities, but in the practices and tools used to create it. In this talk, we'll talk about where AI is now, some of the big challenges around AI, and discuss some of the efforts being done at the Software Engineering Institute around building the discipline of AI Engineering.



Dr. John Lee

John leads AI Engineering for the Software Engineering Institute (SEI) at Carnegie Mellon University. At the SEI, He focuses on the tools, practices and processes that enable the building of scalable, robust, secure, and human-centered AI. Prior to the SEI, he worked at a leading professional services organization, helping to build an AI practice, through the hiring of hundreds of AI professionals, and the delivery of hundreds of engagements to Fortune 100 companies. He led a global rollout of AI capabilities to 10+ countries, creating a platform for collaboration including approaches for IP sharing, licensing, and engineering standards. He has delivered AI across a number of areas, including financial regulations, sporting league operations, AI strategy, utilities, and has led AI due-diligence as a part of private equity acquisitions. John received his MS and PhD from UCLA, and his bachelors degrees from the University of California at Berkeley.



Upcoming Chapter Meetings

Chapter Meetings on the third Thursday of each month

- Nov 3 Fall Seminar - Conflict, Persuasion, and Negotiation (Zane Scott)
- Nov 10 - Future of Workforce (Dejan Milojevic)



INCOSE Chicagoland Fall Tutorial 2022

Thursday 03 November, 4:00 PM – 8:00 PM CDT

SOFT SKILLS

Instructor – Zane Scott

LIVE, In-Person at Actalent (Schaumburg) and broadcast live via Zoom to INCOSE Chicagoland



In his talk, Zane will coach you on how to:

- ✓ ***use persuasion***
- ✓ ***develop a soft-skill touch "in real time"***
- ✓ ***effectively move a project forward***
- ✓ ***move your career forward!***

About Our Speaker

Zane Scott is a consultant and systems thinker. A frequent presenter and teacher, he shares his knowledge and experience on subjects ranging from systems thinking and engineering to communication, negotiation and conflict management. He is a trained hostage/crisis negotiator and a large and small group mediator.

For over 40 years Zane has built a varied store of professional experiences as a systems engineering services team leader, a management and process improvement consultant and a litigator. He is a graduate of Virginia Tech with a BA in Economics and the University of Tennessee School of Law with a JD. He advanced graduate study in Educational Administration and Counseling and Business Administration.

Zane is an active member of the International Council on Systems Engineering (INCOSE) where he participates in the Social Systems Working Group's Soft Skills Primer Team. He has served as The Chair of the Corporate Advisory Board and a member of the INCOSE Board of Directors. In 2016, Zane and Dave Walden won a Best Paper Award at the International Symposium in Edinburgh, Scotland for their paper on the legal responsibilities for systems engineers.

After the presentation, join our INCOSE Chicagoland sponsored Networking Event at Granite City Brewery, 801 Plaza Dr, Schaumburg, 8-10 PM

Register online: <https://incose-chicagoland-fall-2022-tutorial.eventbrite.com/>





INCOSE Chicagoland Fall Tutorial 2022

Instructor – Zane Scott

Thursday November 3, 4:00 – 8:00 PM

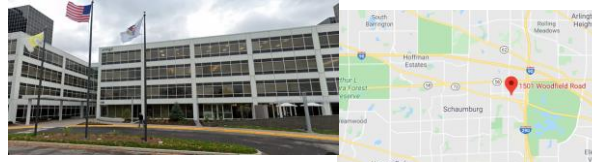
Live at Actalent Schaumburg and delivered Virtually, via Zoom

After the presentation, join our INCOSE Chicagoland sponsored Networking Event at Granite City Brewery, 801 Plaza Dr, Schaumburg, 8-10 PM

Attendees will earn 4 PDUs for the tutorial. Certificates will be provided.

Eventbrite ticket sales are open! Register online: <https://incose-chicagoland-spring-2022-tutorial.eventbrite.com>

INCOSE Chicagoland Sites



Actalent
1501 E. Woodfield Rd. Suite 300N
Schaumburg, IL 60173
3rd Floor Conference Room

Attend live, on-line. Meeting begins at 4:00 PM CT.

RSVP & More Information:

<https://incose-chicagoland-spring-2022-tutorial.eventbrite.com>



Chapter Meeting – November 10, 2022



Topic: Future of Workforce

Presenter: Dejan Milojicic

Distinguished technologist & director Hewlett Packard Labs
Presentation Site: Onsite Actalent + Online

Agenda: 6:30 - 7:00 PM CT - Announcements & Introductions

7:00 - 7:15 PM CT - Working Group Update, Dale Brown Co-chair INCOSE Transportation WG

7:00 - 8:15 PM CT - Feature Presentation and Q&A

Abstract

The pandemic has created STRESS on current existence, values, and daily lives, global work organization, privacy vs. societal benefits, supply chain logistics and much more. Acceleration of the Digital Transformation was forced upon work, education, and private life. In many cases, it was not an acceleration, rather a Digital Crutch that will be discarded as soon as conditions allow. In other cases, change will stay with us well beyond the pandemic. Technologies increasingly play a crucial role and are becoming essential for our survival. Predicting Future of Workforce (FoW) help address the pandemic, but it goes well beyond that. It helps rebalancing the workforce demand and supply, work-life balance, ecological, economical and social changes we undergo.

This presentation discusses issues and technologies that impact the future of the workforce at the corporate and regional scale as well as effects on individuals. The panel addresses personal technologies, automation, technology infrastructure, and security. Outcomes from 10 globally held workshops engaging high-profile individuals from industry, government, and academia are presented, predicting the direction of how the workforce will evolve due to pandemics and beyond. Recommendations to industry, legislators, academia, and professional organizations to consider when planning for the future of workforce are discussed.

About Our Speaker

Dejan Milojicic is a distinguished technologist at Hewlett Packard Labs, Milpitas, CA. He leads research on Future Architectures and is the Principal Investigator of the Heterogeneous Serverless Computing that spans all Hewlett Packard Labs. Earlier he has led the software of the Dot Product Engine, an in-Memory AI accelerator. In his lengthy HP(E) career, he contributed to numerous research efforts spanning software, distributed computing, systems management, and HPC. Dejan led large industry-government-academia collaborations, such as Open Cirrus for the HPC in Cloud program and New Operating System for The Machine program. Dejan has written over 200 papers, 2 books and 79 patents. Dejan is an IEEE Fellow, ACM Distinguished Engineer, and HKN and USENIX member. Dejan was on 8 PhD thesis committees, and he mentored over 50 interns. He founded and taught Cloud Management class at San Jose State University.

Dejan was president of the IEEE Computer Society (2014), IEEE presidential candidate (2019), editor-in-chief of IEEE Computing Now and IEEE Distributed Systems Online and he has served and continues to serve on many editorial boards, technical program committees and steering committees. Previously, Dejan worked in the OSF Research Institute, Cambridge, MA and Institute "Mihajlo Pupin", Belgrade, Serbia. He contributed to novel systems software and parallel and distributed systems that were deployed throughout Europe. Dejan received his Ph.D. from the University of Kaiserslautern, Germany; and his MSc/BSc from Belgrade University, Serbia.



CHICAGOLAND

Chapter Meeting – October 20, 2022



Topic: Putting Soft Skills to Work

Presenter: Zane Scott, Vitech Corp

WG Update: INCOSE Social Systems Working Group

Presenter: Dana Polojarvi, Maine Maritime Academy

Presentation Site: Onsite Actalent + Online

Date: Thursday, October 20, 2022

Agenda: 6:30 - 7:00 PM CT - Announcements & Introductions

7:00 - 7:15 PM CT - Working-Group Update

7:15 - 8:30 PM CT - Feature Presentation and Q&A

Abstract

Past. Did you know that INCOSE's Competency Model lists "negotiation" as a competency essential to requirements management, verification and validation, and acquisition and supply? Every day we all are placed in the position of persuading others and negotiating our way to the solution of shared problems. Sometimes this is formal - involving presentations or papers. Often it is informal with a friendly - or not so friendly- give and take. At the heart of any negotiation is effective communication in the form of listening and expressing ourselves. In all these situations, the fundamental structure of persuasion and our path of expression are the same. Learning the psychology of persuasion and negotiation helps us to understand what it takes to "make our case" and really hear and understand what others are saying. In this presentation, we will discuss the structure of persuasion and identify tools and techniques that will make us better communicators on both sides of the conversation - listening and expression.

About Our Speaker

Zane Scott is a consultant and systems thinker. A frequent presenter and teacher, he shares his knowledge and experience on subjects ranging from systems thinking and engineering to communication, negotiation and conflict management. He is a trained hostage/crisis negotiator and a large and small group mediator.

For over 40 years Zane has built a varied store of professional experiences as a systems engineering services team leader, a management and process improvement consultant and a litigator. He is a graduate of Virginia Tech with a BA in Economics and the University of Tennessee School of Law with a JD. He advanced graduate study in Educational Administration and Counseling and Business Administration.

Zane is an active member of the International Council on Systems Engineering (INCOSE) where he participates in the Social Systems Working Group's Soft Skills Primer Team.

Questions? For more information, go to <http://www.incose.org/Chicagoland/>.



INTRODUCTIONS



Personal Introductions

Stay muted, then unmute when you want to speak, then mute yourself when finished

- Name, Title & Company / locale
- Are you an INCOSE member, and if so, for how long?
- Job opportunities at your company, if any, or announce if you are looking for an opportunity



FEATURE PRESENTATION

[Start recording]