



**CHICAGOLAND**



# **INCOSE Chicagoland Chapter Meeting Agenda**

May 19, 2022

Please MUTE your phone



## **Agenda**

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



# 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](http://www.ActalentServices.com)**



# Actalent at a Glance



**4,500+**  
Clients  
Supported



**1,100+**  
Dedicated  
Recruiters



**27,500+**  
Consultants  
Engaged



**2.5 Billion**  
In Revenue



- AND -  
**20**  
Delivery Centers  
Across North America,  
EMEA, APAC and India

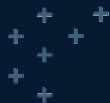
## Capabilities

### Sciences

Healthcare +  
Clinical Research +  
Laboratory Sciences +

### Engineering

Power & Utilities +  
Software & Systems +  
Product & Manufacturing +  
Construction Management +  
Environmental, Architecture +  
& Civil



[actalentservices.com](http://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.

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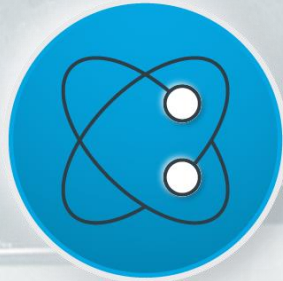
*YOUR BIG IDEA*  
**JUST GOT REAL**



# 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**



## 3 Renewing Members

Thank You for renewing your membership!

| <b><u>Name</u></b> | <b><u>Company</u></b> |
|--------------------|-----------------------|
| Jim Streed         | Motorola Solutions    |
| Naweed Paya        |                       |
| Bhuvana Palanisamy | Collins Aerospace     |



## 1 New Members

Thank You for renewing your membership!

| <b><u>Name</u></b> | <b><u>Company</u></b> |
|--------------------|-----------------------|
| Lidija Kokoska     | Fermilab              |

# 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](http://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](http://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

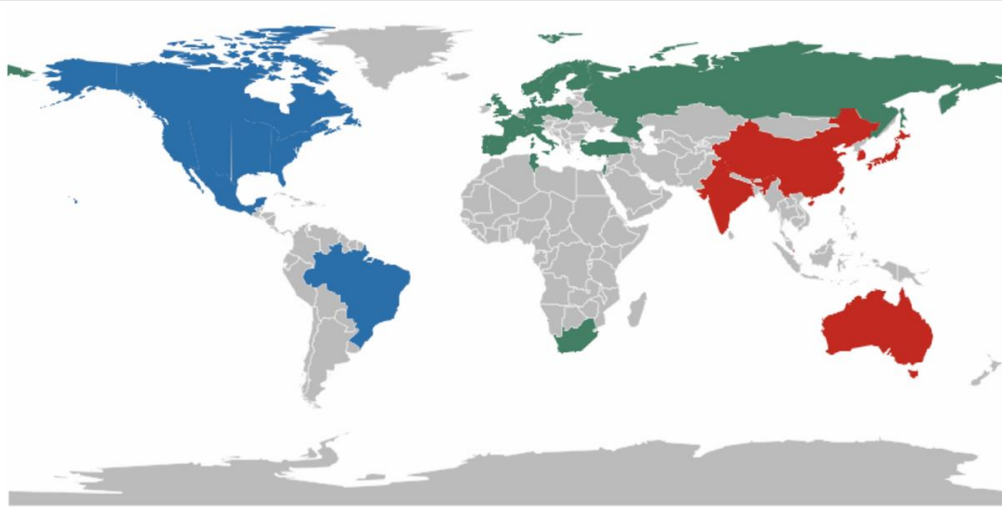
- Global Context for SE
- Current State of SE
- Future State of SE
- Realizing the Vision

*Please work with INCOSE to help realize this vision.*

Complete SE Vision 2035 available as website and pdf  
[www.incose.org/sevision](http://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?

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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





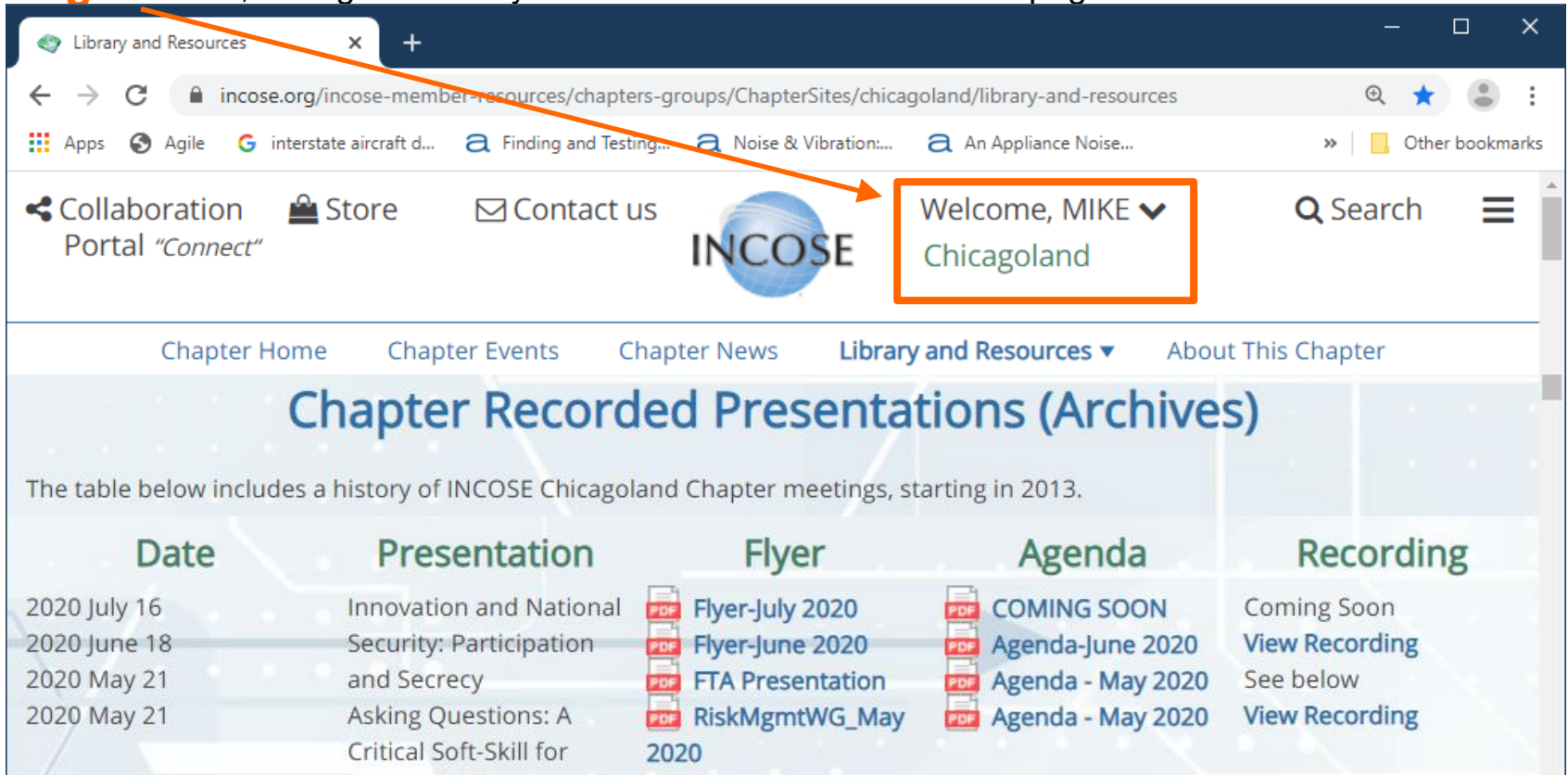


## Benefits of INCOSE Membership









### 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 a web browser window with the URL [incose.org/incose-member-resources/chapters-groups/ChapterSites/chicagoland/library-and-resources](https://incose.org/incose-member-resources/chapters-groups/ChapterSites/chicagoland/library-and-resources). The page features a navigation bar with links for Collaboration Portal "Connect", Store, Contact us, and the INCOSE logo. A user is logged in as "MIKE" under the "Chicagoland" chapter, indicated by a dropdown menu. 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 |  <a href="#">Flyer-July 2020</a>     |  <a href="#">COMING SOON</a>       | Coming Soon                    |
| 2020 June 18 | Security: Participation |  <a href="#">Flyer-June 2020</a>     |  <a href="#">Agenda-June 2020</a>  | <a href="#">View Recording</a> |
| 2020 May 21  | and Secrecy             |  <a href="#">FTA Presentation</a>    |  <a href="#">Agenda - May 2020</a> | See below                      |
| 2020 May 21  | Asking Questions: A     |  <a href="#">RiskMgmtWG_May 2020</a> |  <a href="#">Agenda - May 2020</a> | <a href="#">View Recording</a> |
|              | Critical Soft-Skill for |   |   |                                |

# Corporate Advisory Board (CAB)

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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];
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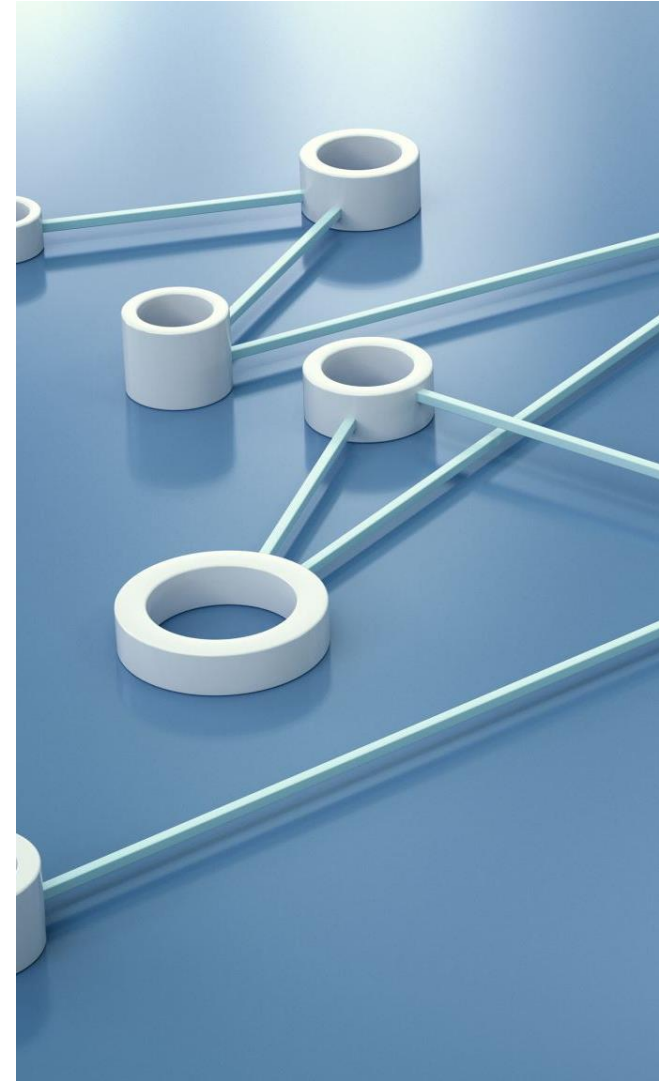
INCOSE CAB is Voice  
of Customer to  
INCOSE leadership.

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

|   |  |   |
|---|--|---|
|   |   |    |
| <b>Associate Systems Engineering Professional</b>   | <b>Certified Systems Engineering Professional</b>  | <b>Expert Systems Engineering Professional</b>  |
| 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). |
| <a href="#">LEARN MORE</a>  | <a href="#">LEARN MORE</a>   | <a href="#">LEARN MORE</a>  |



## SEP Certification Mentors

If:

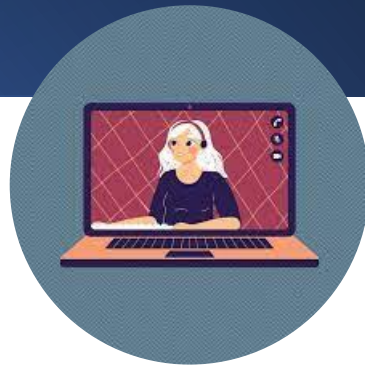
- you are an INCOSE member, and
- you are interested in becoming certified as a Systems Engineering Professional (SEP), and
- you have questions about the certification process

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 Kubychuck | CSEP               | crk022@gmail.com     |
| Chris Freund      | ASEP               | cfreund7@gmail.com   |

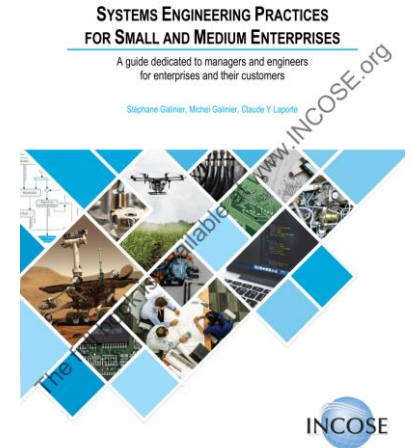
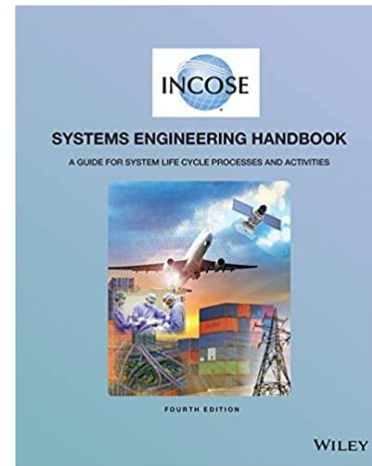
# Conferences and Connections



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



# Publications



<https://www.incose.org/products-and-publications/se-handbook>

# 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

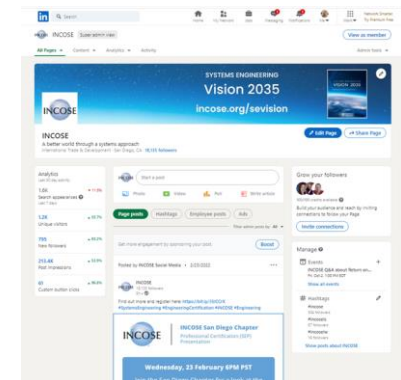
The Stevens Doctoral Award for Promising Research in Systems Engineering to a PhD Candidate

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](http://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](mailto: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: Thursday, June 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](mailto: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          |



## **Upcoming Chapter Meetings**

**Thursday, June 16, 2022**

**Guide to the Systems Engineering Body of Knowledge  
(SEBoK)**

*as always, third Thursday of the month!*



# INCOSE Chicagoland Spring Tutorial 2022

## Lifecycle Concepts and Needs Definition Group Project

Instructor – Lou Wheatcraft

Dates: ~~Saturday May 7<sup>th</sup>, Thursday May 12<sup>th</sup>~~, & **Saturday May 21<sup>st</sup>**

Delivered Virtually, via Zoom

**Attendees will earn 10 PDUs for the tutorial  
Certificates will be provided.**

*Eventbrite ticket sales are open! Tutorial pricing starts at \$50 (tbd).  
Order now for Early Bird pricing, including*

*Special offer for the INCOSE Chicagoland Chapter membership drive:  
Purchase a one-year INCOSE membership and receive discounted tutorial admission.*

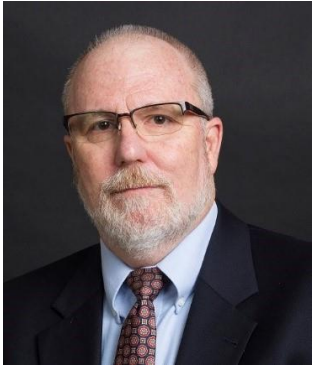
Register online: <https://incose-chicagoland-spring-2022-seminar.eventbrite.com>

- ✓ *It is recommended to register prior to May 7th to allow time to do the prework!*
  - *Pework materials will be available April 7<sup>th</sup>.*

# Chapter Meeting – June 16, 2022



CHICAGOLAND



**Topic: Guide to the Systems Engineering Body of Knowledge (SEBoK)**

**Presenter: Rob Cloutier, SEBoK Editor in Chief**

**Presentation Site: Onsite Actalent + Online**

Date: Thursday, June 16, 2022

Agenda: 6:30 - 7:00 PM CT – Announcements & Introductions  
7:00 - 8:15 PM CT – Feature Presentation and Q&A

## **Abstract**

The **Systems Engineering Body of Knowledge (SEBoK)**, formally known as *Guide to the Systems Engineering Body of Knowledge*, is a wiki-based collection of key knowledge sources and references for system engineering. The site served up over 1M pageviews in 2021.

Celebrating its 10<sup>th</sup> year, the SEBoK provides a guide to the key knowledge sources and references of systems engineering organized and explained to assist a wide variety of individuals. It is a curated wiki, rolling out an update version twice a year. The SEBoK is a not compendium but instead references existing literature and much of the content has restricted intellectual property rights. The volunteer editors continuously solicit input from the SE community to keep it relevant.

The core of the SEBoK is tested and proven knowledge that has been developed through practice, documented, reviewed, and discussed by the SE community. In addition, the SEBoK also covers some of the emerging aspects of SE practice, such as Systems of Systems, Agile Life Cycle approaches and Model Based Systems Engineering (MBSE).

## **About Our Speaker**

Dr. Rob Cloutier is a professor, Systems Engineering Program Chair (MS & Ph.D. programs), and Graduate Director for the College of Engineering at the University of South Alabama (USA). Dr. Cloutier is also the Editor-in-Chief for the Systems Engineering Body of Knowledge. His interests include systems architecting, model-based systems engineering, impacts of AI on Systems Architecting, and the Metaverse for engineering. Past experience includes Stevens Institute of Technology, Lockheed Martin and The Boeing Company (where he was an Associate Technical Fellow). Professional roles included system architect, enterprise architect, and principal systems engineer. Dr. Cloutier served eight years in the U.S. Navy & Navy Reserve. He received his BS from the US Naval Academy, his MBA from Eastern University, and his Ph.D. from Stevens Institute of Technology.

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



# INCOSE International Symposium







# International Symposium 2022 (IS2022)

- June 25 - June 30, 2022.
- A hybrid event with the physical portion at Huntington Place (Cobo Center), Detroit, MI (USA)
- Theme: **The Power of Connection**

## The program by numbers



**15** Tutorials



**4** Keynote speakers



**10** Panels



Over **130** Presentations



## key event Figures



Average of  
**900**  
participants



- The INCOSE International Symposium has been taking place uninterrupted since 1991.
- It is the largest annual gathering of people who do systems engineering.
- The event includes presentations, case studies, workshops, tutorials and panel discussions.
- The program attracts an international mix of professionals at all levels, and includes practitioners in government and industry, as well as educators and researchers.

## About the International Symposium (IS)



# Why Should You Attend IS2022?

- Share ideas, network, build competency, pursue certification.
- Contribute to the advancement of the profession through collaboration on tools, processes and methodologies.
- Learn about new offerings in training and education, and forge new partnerships.
- Tickets from \$500.
- Listen to talks from global leaders such as:

32<sup>nd</sup> Annual INCOSE Symposium 2022  
Denver, CO, USA  
June 25-30, 2022  
The Power of Connection

Keynote Speakers

**Dr. Christopher J. Scolese**  
President & CEO, Center for Automotive Research (CAR)  
Director, National Reconnaissance Office (NRO)  
Biography

**Carla Bailo**  
President & CEO, Peakfield Consultancy Ltd and currently Head of Culture and Engagement, Project Delivery Directorate, Sellafield Ltd  
Speaking Topic: Mobility and System Engineering Integration  
Biography & Abstract

**Laura Doughty**  
Global R&A Senior Global Manager for Systems Engineering, System Safety, Modelling & Simulation and Senior Technical Leader in Software & Control Systems Engineering, Ford Motor Company  
Speaking Topic: The Power of connection: The power of influencing and how to do it  
Biography & Abstract

**Christopher Davey**  
Global R&A Senior Global Manager for Systems Engineering, System Safety, Modelling & Simulation and Senior Technical Leader in Software & Control Systems Engineering, Ford Motor Company  
Speaking Topic: Ford's Connected-Agile, Model Based Systems Engineering and Simulation journey...so far.

Book your place at [www.incose.org/symp2022](http://www.incose.org/symp2022)



# Keynote Speakers



**Dr. Christopher J. Scolese**

Director, **National Reconnaissance Office (NRO)**

Speaking Topic: **Architecting the Future: The Role of SE and DE at the NRO**



**Carla Bailo**

President & CEO, **Center for Automotive Research (CAR)**

Speaking Topic: **Mobility and System Engineering Integration**



**Laura Doughty**

Director Peakfield Consultancy Ltd and currently Head of Culture and Engagement, Project Delivery Directorate, **Sellafield Ltd**

Speaking Topic: **The Power of connection: The power of influencing and how to do it**



**Christopher Davey**

Global R&A Senior Global Manager for Systems Engineering, System Safety, Modelling & Simulation and Senior Technical Leader in Software & Control Systems Engineering, **Ford Motor Company**

Speaking Topic: **Ford's Connected-Agile, Model Based Systems Engineering and Simulation Journey.....so far.**





**Monday June 27<sup>th</sup>**  
**INCOSE IS2022 Attendee Reception**

**Riverfront Terrace**  
**Huntington Place (Cobo Center)**



**View Program and Register: [www.incose.org/symp2022](http://www.incose.org/symp2022)**



**24 Application Domains**  
Top Domains : Defense, Enterprise SE, Aerospace, Academia, Automotive, Social/Sociotechnical and Economic Systems, Industry 4.0 & Society 5.0, Biomed/Healthcare/Social Services, Infrastructure, Oil and Gas

**34 Topics Represented**  
Top Topics : System Architecture/Design Definition, MBSE, Systems Thinking, Needs and Requirements Definition, Modeling/Simulation/Analysis, Processes, Systems of Systems, Resilience, Decision Analysis and/or Decision Management, Complexity, Product Line Engineering, Project Planning, Project Assessment, Project Control, Technical Leadership, Verification/Validation, System Security, Measurement and Metrics, Artificial Intelligence, Machine Learning

**28 Countries Represented**  
Australia, Austria, Brazil, Canada, China, Denmark, Finland, France, Germany, Hungary, India, Israel, Italy, Japan, Lebanon, Lithuania, Malaysia, Netherlands, Norway, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Thailand, United Kingdom, United States

**BROWSE THE PROGRAM**

Dear Christopher Hoffman,

The technical program is on-line. Start exploring the program and build your own agenda.

## Technical Program



**Saturday, June 25 - Sunday, June 26**  
**12 Tutorials**



**Monday, June 27 - Thursday, June 30**  
**130+ Papers and Presentations on Systems Engineering**  
**5 tracks**  
**7 panels**



**4 Inspiring Keynote Speakers**  
Monday, June 27 : Dr. Christopher Scolese (NRO)  
Tuesday, June 28 : Carla Bailo (Center for Automotive Research)  
Wednesday, June 29 : Laura Doughty (Peakfield Consultancy Ltd & Sellafeld Ltd)  
Thursday, June 30 : Christopher Davey (Ford Motor Company)

## Certification

IS2022 is just one of many of events eligible for PDUs. You can claim 1 PDU towards your INCOSSE Systems Engineering Professional (SEP) certification per hour of participation.

## Exhibit hall

Come and meet our exhibitors. More than 40 exhibitors will showcase their products, services and/or training.

## Registration

Register **before May 15<sup>th</sup>** to benefit from the discounted rate.

**REGISTER**

## Hotel Reservation

A limited number of guestrooms are available for IS participants at the Detroit Marriott at the Renaissance Center.

**Reservation deadline: May 31<sup>st</sup>**

**BOOK YOUR HOTEL**





# 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



## Tonight's Presentation

### Speaker: **Zane Scott, Vitech Group**

Vice President of Professional Services at Vitech

25 years of successfully

- Guided individuals and companies in process improvement and teaching systems engineering methodology in a variety of settings
- Authored numerous blog articles
- Co-authored Vitech's book "***A Primer for Model-Based Systems Engineering***"
- Developed and presented of the 20-webinar course "***Leadership for Systems Engineers***" sponsored by the International Council on Systems Engineering (INCOSE)..

### Topic: **No Such Thing As Non-model-based SE**

[Start recording, Introduce Speaker, Transfer Screen to Presenter - Wait for Starting Slide]



# FEATURE PRESENTATION

[Start recording]

# Chapter Meeting – June 16, 2022



CHICAGOLAND



**Topic:** Guide to the Systems Engineering Body of Knowledge (SEBoK)

**Presenter:** Rob Cloutier, SEBoK Editor in Chief

**Attendance:** Onsite Actalent + Online

## INCOSE Chicagoland Sites



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



BB7, 5407 Fen Oak Dr.  
Madison, WI 53718  
Mendota Conference Room



Oshkosh Corp (**Limited to Oshkosh Employees**)  
370 W. Waukau Ave  
Oshkosh, WI 54902

Attend live, on-line. Meeting begins at 6:30 PM CT.

RSVP & More Information:

<https://incosechicagoland-2022-06.eventbrite.com>

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

