



**CHICAGOLAND**



# **INCOSE Chicagoland Chapter Meeting Agenda**

February 17, 2022

Please MUTE your phone



## Agenda

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



**CHICAGOLAND**



# MEMBERSHIP



## 4 New Members

Welcome New Members within the last month:

<b><u>Name</u></b>	<b><u>Company/Institution</u></b>
Jamini Patel	Chamberlain Group
Joshua Priestley	
Mark Rudeinger	
Grant Tsuchiya	Abbot



## 4 Renewing Members

Thank You for renewing your membership!

<b>Name</b>	<b>Company/Institution</b>
Chris Staub	Chamberlain Group
Craig Jacobson	SHINE Technologies
Rummana Sadiq	GN Resound
Daniel Sobczynski	



# Benefits of INCOSE Membership

## Professional Development

1. **Monthly speakers at Chapter Meetings** on topics relevant to System Engineering (later in this meeting)
2. **Monthly Webinars** on topics relevant to System Engineering (hosted by INCOSE Central).

[incose.org/about-incose/community/webinar-showcase](https://www.incose.org/about-incose/community/webinar-showcase)

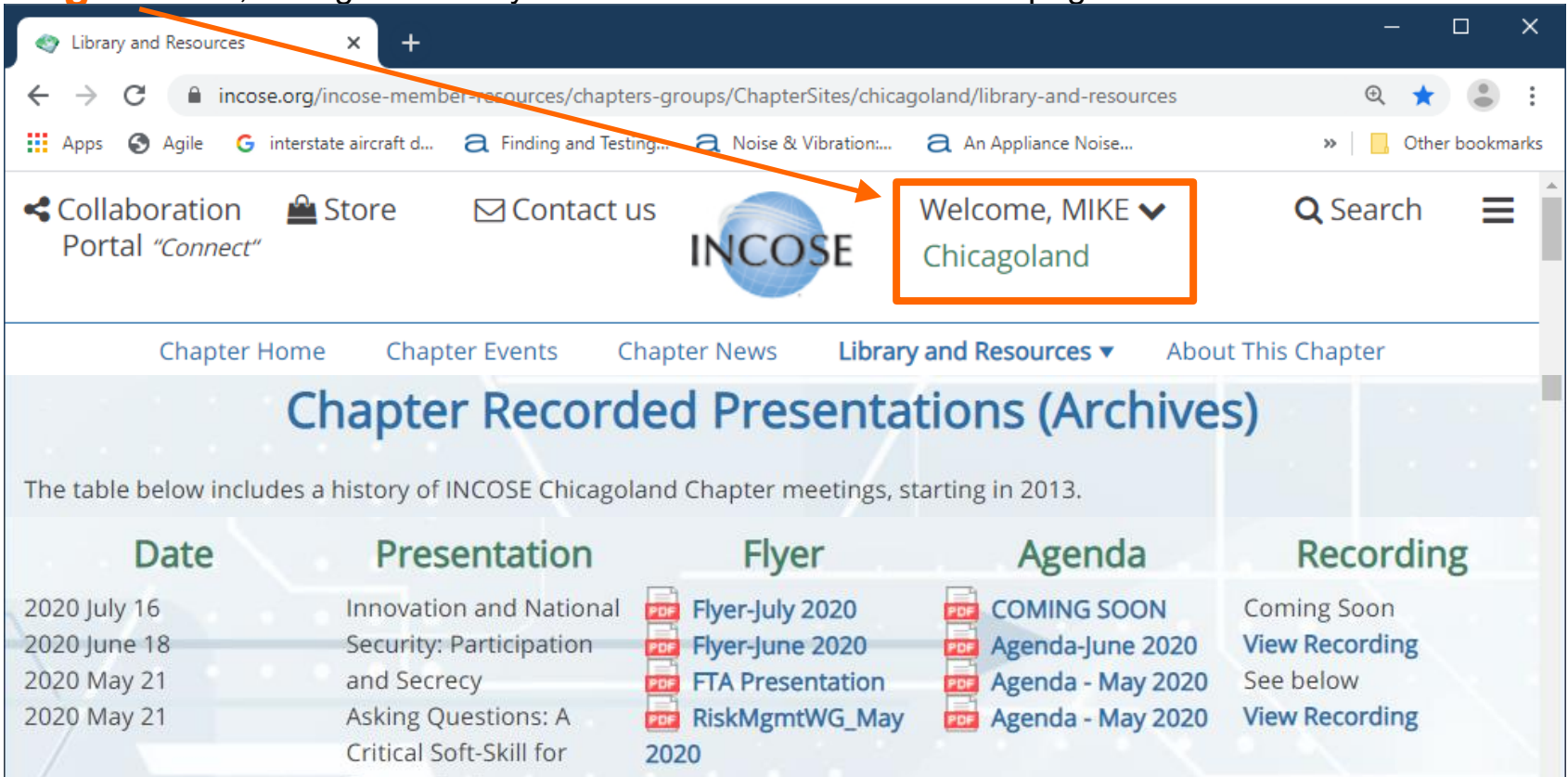


## Benefits of INCOSE Membership









### 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`. The user is logged in as MIKE. The navigation menu includes 'Collaboration Portal "Connect"', 'Store', 'Contact us', and 'INCOSE'. The 'Library and Resources' tab is selected. Below the navigation, the page title is 'Chapter Recorded Presentations (Archives)'. A table lists the following presentations:

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 Critical Soft-Skill for	 <a href="#">RiskMgmtWG_May 2020</a>	 <a href="#">Agenda - May 2020</a>	<a href="#">View Recording</a>



## Benefits of INCOSE Membership (Cont.)

### Professional Development (cont.)

#### 4. Access to INCOSE Periodicals:

Digital versions are included with your membership. All published 4 times per year.

#### a) Systems Engineering (SE) Journal

*Systems Engineering*, INCOSE's scholarly journal, is a primary source of multidisciplinary information for the systems engineering and management of products and services, and processes of all types.

Members may access the journal online at the [Wiley InterScience - Systems Engineering](https://onlinelibrary.wiley.com/journal/15206858) site: <https://onlinelibrary.wiley.com/journal/15206858>

#### b) INSIGHT Magazine

*INSIGHT* is the Practitioners' Magazine of INCOSE.

Members may access the magazine online at the Connect site: <https://connect.incose.org/Library/InsightMagazine/default.aspx>

#### c) INCOSE Members Newsletter

Emailed out to members each quarter.





# Benefits of INCOSE Membership

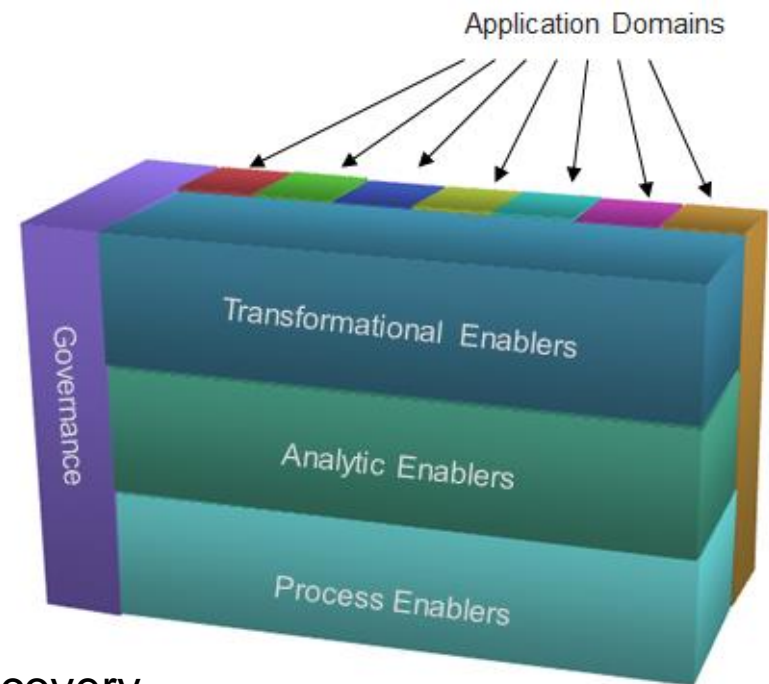
## Professional Development (cont.)

### 5. Access to the output of 51 INCOSE Working Groups

<https://www.incose.org/iw2020/program/working-group-information-sheet>

Just a few examples:

- Automotive
- Lean Systems Engineering
- Configuration Management
- Healthcare
- Risk Management
- Natural Systems
- Systems Security Engineering
- Training
- Critical Infrastructure Protection and Recovery





## Benefits of INCOSE Membership (Cont.)

### Professional Development (cont.)

**6. INCOSE Connect:** content developed by Chapters and Working Groups  
(Click on “INCOSE CONNECT” on the Chapter’s home page)



**7. System Engineering Certification (ASEP, CSEP, ESEP)**  
(Click on “SEP Certification” on the Chapter’s home page)





# Benefits of INCOSE Membership (Cont.)

## Professional Development (cont.)

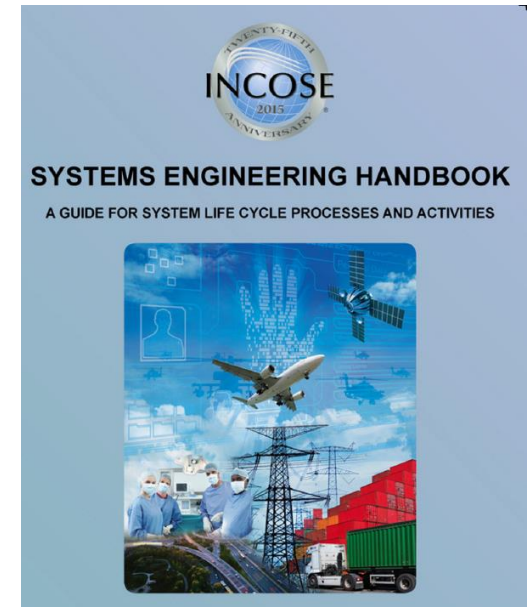
9. Access to the INCOSE Store for discounted and **free** publications:



Current texts on Systems Engineering, including

- Systems Product Line Engineering Handbook
- Guide for Writing Requirements
- System of Systems Primer
- Product Line Engineering Primer
- Systems Engineering Handbook

**Free to download**





## Benefits of INCOSE Membership (Cont.)

### Professional Development (cont.)

- 10.** Access to Tweets on **new job leads** (from Chapter web site):

Missing out on chapter news, events and promotions? Get on our [email list!](#)

Have a question for the INCOSE Chicagoland Chapter? email us at [incose.chicago@gmail.com](mailto:incose.chicago@gmail.com)



- 11.** Access to INCOSE's **System Engineering Job Board**:

<http://incose.careerwebsite.com/>

- 12.** Free Resume Review Service

Email your resume to [incose.resume@gmail.com](mailto:incose.resume@gmail.com) for a review by Systems Engineering managers.



## Benefits of INCOSE Membership (Cont.)

### 13. Networking Opportunities

18,000+ INCOSE members worldwide

Networking for yourself and for employees!

- Before and after Chapter events

- Supporting your Chapter

- Supporting a Working Group

- Workshops/Symposiums

- Share SE Job postings at meetings & in members-only e-mail

### 14. Leadership Opportunities

Chapter Board of Directors (listed on Chapter website, under 'About This Chapter')

Chapter Committee participation

- [Micro-volunteering Roles Available](#)

- (Roles as small as data entry or company networking)

Working Group participation (Two board members co-chair working groups!)



## **Benefits of Joining the 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

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



## Benefits of INCOSE Membership (Cont.)

### 16. Helping Others

- Share SE knowledge/experience with:
  - New SEs
  - Professional Societies
  - K-12, college students
- Advance the art/profession of Systems Engineering
- Establish your brand
- “Pay It Forward”



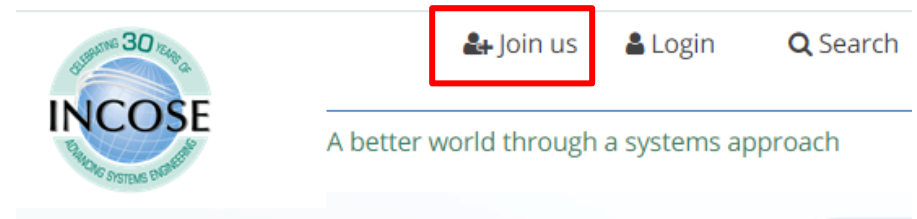
## How to Join INCOSE

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)







# SE CERTIFICATION



## Three SE Certification Levels



If you have just started practicing – or want to start practicing – systems engineering, then ASEP is for you. This certification is for people at the beginning of their career as a systems engineer. The ASEP has “book knowledge” but not yet significant experience as a systems engineer.



If you are a practicing Systems Engineer with more than five years of systems engineering professional work experience, then CSEP is for you.



If you are a systems engineering leader with recognized systems accomplishments and have many years of systems engineering professional work experience, then ESEP is for you.

For more information on SE Certification, go to:

<https://www.incose.org/systems-engineering-certification/>



## SE Certification Levels for experienced practitioners



WE KNOW A THING OR TWO BECAUSE  
WE'VE SEEN A THING OR TWO.



Certification provides a means to be recognized for your knowledge and years of SE experience.



## 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



# **UPCOMING INCOSE EVENTS**



## Upcoming Board Meetings

### Board Meetings on the first Thursday of each month

- Meetings are open to all members
- Next meeting: Thursday, March 3, 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)



# **Upcoming Chapter Meetings**

**March 17, 2022**

**Understanding Stakeholder Needs Before Defining Requirements**

*as always, third Thursday of the month!*

# Chapter Meeting – March 2022



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## **Topic: Understanding Stakeholder's Needs Before Defining Requirements; And Spring 2022 Seminar Overview**

### **Presenter: Lou Wheatcraft**

Senior Consultant and Managing Member at Wheatland Consulting, LLC.

**Presentation Site:** Remote. Online attendance only due to COVID-19.

**Date:** Thursday, March 17th, 2022

**Agenda:** 6:30 - 7:00 PM CT – Announcements & Introductions  
7:00 - 8:45 PM CT – Feature Presentation and Q&A



### **Abstract**

Needs, Requirements, Verification, and Validation are common threads that tie all lifecycle activities and processes together.

Over the last 2 ½ years the Requirements Working Group (RWG) has been working on several new products including the *Needs, Requirements, Verification, Validation, Lifecycle Manual (NRVVLN)*.

Project success depends on the project team clearly understanding the stakeholders' real-world expectations and needs before defining a set of design input requirements.

In last month's chapter meeting, Lou gave an overview of the NRVVLN.

In this presentation Lou will focus on Section 4 of the NRVVLN, providing a more in-depth discussion concerning the activities involved in understanding what the stakeholders need the system to do, defining a set of feasible lifecycle concepts, and an integrated set of needs from which the design input requirements for the SOI will be transformed.

This topic is also the focus of a seminar that Lou will be presenting for the Chapter in the Spring of 2022. In this presentation, Lou will also outline the approach we are planning for this Seminar.

### **About Our Speaker**

Lou Wheatcraft is a senior consultant and managing member of Wheatland Consulting, LLC.

Lou is an internationally recognized expert in systems engineering with a focus on needs, requirements, verification, and validation across the system lifecycle. Lou has over 50 years' experience in systems engineering, including 22 years in the United States Air Force.

Lou supports clients from government and industries involved in developing and managing systems and products including aerospace, defense, medical devices, consumer goods, transportation, and energy.

Lou has spoken at various INCOSE conferences and chapter meetings and has published and presented many papers concerning needs, requirements, verification, and validation.

Lou is past chair and current co-chair of the INCOSE RWG.

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





# INCOSE Chicagoland Spring Tutorial 2022

## Lifecycle Concepts and Needs Definition Group Project

Instructor – Lou Wheatcraft

Delivered Virtually, via Zoom on 3 consecutive Saturdays in May

Session 1: Project Kickoff: 07 May, 8:00 AM – 12:00 PM CDT

Session 2: Project Q&A: 14 May, 8:00 AM – 10:00 AM CDT

Session 3: Project Presentations: 21 May, 8:00 AM – 12:00 PM CDT



### *In this seminar, you will learn*

- ❑ Identify the need for, and benefits of, defining lifecycle concepts and needs prior to defining the design input requirements
- ❑ Describe the major activities and resulting knowledge and artifacts involved in defining lifecycle concepts and needs
- ❑ Understand the importance of validating and baselining the integrated set of needs before transforming them into the set of design input requirements

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



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# INCOSE Chicagoland Spring Tutorial 2022

## Lifecycle Concepts and Needs Definition Group Project

Instructor – Lou Wheatcraft

Dates: Saturday 7, 14, & 21 May

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-sprint-seminar.eventbrite.com>



14th Annual Great Lakes / North-Central Regional Conference (GLNC14)

# Mobility Systems: Land, Sea, Air and Space



**GLNC** INCOSE 14<sup>th</sup> Annual GLNC  
[Postponed] ce  
Nov 30 – Dec 3, 2021 Hybrid Edition

1

<https://www.incose.org/glnc2021>



**CHICAGOLAND**



# INTRODUCTIONS



## Personal Introductions

For this online meeting, we will do individual introductions, proceeding in the order of the day of your birthday: 1st, 2nd, 3rd, etc.

***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
- One thing you want the BoD to know



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# **FEATURE PRESENTATION**

[Start recording]



## Tonight's Presentation

### Speaker: **Lou Wheatcraft, Wheatland Consulting LLC**

Lou Wheatcraft is a senior consultant and managing member of Wheatland Consulting, LLC.

Lou is an internationally recognized expert in systems engineering with a focus on needs, requirements, verification, and validation across the system lifecycle. Lou has over 50 years' experience in systems engineering, including 22 years in the United States Air Force.

Lou supports clients from government and industries involved in developing and managing systems and products including aerospace, defense, medical devices, consumer goods, transportation, and energy.

Lou has spoken at various INCOSE conferences and chapter meetings and has published and presented many papers concerning needs, requirements, verification, and validation.

Lou is past chair and current co-chair of the INCOSE RWG.

### Topic: **Needs, Requirements, Verification, Validation Lifecycle Manual**

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



Thank You for attending!  
See you at next month's Chapter Meeting!



**Topic: Understanding Stakeholder's Needs  
Before Defining Requirements**

**Presenter: Lou Wheatcraft**

Senior Consultant and Managing Member at Wheatland Consulting, LLC.





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# Chapter Meeting – April 2022



## **Topic: Iliff's Hierarchy of SE**

**Presenter: Randall C. Iliff, Eclectic Intellect LLC**

**Presentation Site:** Remote. Online attendance only due to COVID-19.

Date: Thursday, April 21, 2022

Agenda: 6:30 - 7:00 PM CT – Announcements & Introductions  
7:00 - 7:30 PM CT – Annual General Meeting  
7:30 - 8:45 PM CT – Feature Presentation and Q&A

## **Abstract**

After 40 years helping the world embrace the benefits of SE, it's clear that leaders struggle to understand and value our gift. As a profession we have clearly failed to motivate the market.

In the field of Psychology, *Maslow's Hierarchy of Needs* has become a classic model for explaining motivation and is widely used to explain why people don't do what others expect.

In this presentation I'll respectfully borrow Maslow's concept of hierarchy and share a development view consisting of five discrete need levels and twenty possible transitions between those levels. We'll explore common failure modes and explain why your strategy for advancing the idea of SE must be matched to the current level of your market. We'll even use the model to warn that institutional regression is more common than progress!

## **About Our Speaker**

A seasoned Program Manager and expert Systems Engineer, Randy built a 40-year legacy of disruptive innovation in aerospace, medical, commercial and consumer markets.

As Vice President at bb7 he helped manage over 250 development projects per year. He was the SE Manager for IceCube, a cubic-kilometer scale observatory in Antarctica. To date, over fifty thousand people worldwide have attended his classes, keynotes and featured speaker presentations.

Randy is a charter member of the International Council on Systems Engineering (INCOSE), current representative for INCOSE on the INCOSE-PMI Alliance, and is a passionate supporter of bringing the logic of SE to the entire world.

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