



The NorthCoast Interfacer

President's Corner



My term as Chapter President ends in January, when the newly elected officers take over (see article later in this newsletter announcing the result of the elections). It has been an honor to serve as the Chapter President in 2024 and I feel that the Chapter is well positioned entering in to 2025 with a great group of officers. I am grateful to those who served as elected officers this year and to others who volunteered their time to help. I would especially like to thank Bill Klinger and Carl Dister, who have supported the Chapter's Board of Directors in numerous ways.

As I look back over the year, we have accomplished a lot. In February, we were invited to participate with a group from Vitamix in learning about Bayesian networks, and were able to tour the Suburban Clock & Repair store beforehand.

In March we held our Annual General Meeting and introduced a theme for the year's Chapter meetings, focused on the technical processes defined by the INCOSE Systems Engineering Handbook. In support of SySTEAM efforts, members served as First Robotics Judges and we staffed a table at the Girls Take Flight event held on the Case Western Reserve University campus. Between April and November, we held six chapter meetings and discussed various systems engineering processes; including holding our first meeting in the Columbus area. And in November, we held a Chapter Membership Event at TopGolf, which is reported on later in this newsletter.

Beyond these Chapter events, members are involved in other ways as well, such as helping to review Circle Award submissions, or working to infuse systems engineering principles in to microgrid/multigrid curriculum at Cleveland State University (see article later in this newsletter). We also have 15 active certified systems engineering professionals in the chapter; that is about 30% of the members. Thank you to all chapter members who have helped promote systems engineering and INCOSE one way or another.

In closing, I would like to remind all of you that this is your Chapter. It needs your involvement and help, so think about how you can help the Chapter stay strong. Hope to see all of you at Chapter meetings.

Happy Holidays and best wishes for a great 2025.

Dennis Rohn
2024 C-NO Chapter President

Welcome to the Energy Resilience Center of Excellence

[Editors Note: Chapter Leadership was invited to the inaugural meeting of the Cleveland Engineering Society (CES) Multigrids Working Group (WG). Brian Hallett represented the Chapter Leadership at this meeting, held October 23, 2024.]

When I signed-up for the Cleveland Engineering Society (CES) – Multigrids Working Group inaugural meeting at Cleveland State University (CSU), I wasn't quite sure what to expect. I have not been on the CSU campus since 2008 when I was working on a MSEE degree at the Fenn College of Engineering. As I walked up to the new world class Washkewicz College of Engineering, a 2017 addition to the original Fenn Hall, I realized how much has changed at CSU. And from the meeting, I learned that much has also changed with a previously defunct project to develop a Microgrid in Cuyahoga County.

This meeting was a rebirth to the concept that Microgrids and Multigrids can improve the resilience of the electric grid. The meeting was reflective of the collaborative vision for this project, now known as the “Energy Resilience Center of Excellence.” Leadership for the project will be the CES which is setting up office space in Washkewicz Hall and providing volunteers and technical expertise, while Washkewicz College of Engineering is working on developing a curriculum associated with the program aimed at developing a highly educated workforce to help realize the vision of the project.

At the meeting, participants shared their concept for the Energy Resilience Center of Excellence and how this program will drive innovative educational offerings. Dr. Yong Tao, PhD, PE (CSU Mechanical Engineering department) presented on a graduate-level Microgrid Micro-credential program presently being offered at CSU, and Mr. John Juhasz (INCOSE, Telepath Systems) presented on a non-degree certification program that will commence in 2025. The meeting included a tour of a new technology lab that provides technology for the envisioned modeling and simulation that will be involved. The lab has at least eight workstations which include a high-performance mobile PC station and tables for team members to work together and collaborate. Each station also has access to a VR headset to aid in simulation and visualization of research solutions.

Key participants in addition to the CES and CSU included NASA, INCOSE, Swagelok, FirstEnergy, Case Western Reserve University, Ohio State University, GDP Group, Aerozone Alliance, and several others. Mr. Ray Beach (INCOSE, CSE, NASA-retired) provided a vision for the project, including details such as the purpose, background and history, initial focus, products, participants, and next steps. Ray reiterated a common theme of the importance of collaboration, and the need for volunteers and technical experts that include local CES and NASA retirees.

Exciting things are happening at Washkewicz Hall where CES, CSU, INCOSE, NASA, and many others are working together to apply past micro-grid successes like those of the International Space Station in the extraterrestrial environment to the terrestrial environment of Cuyahoga County and beyond. Look for more information from INCOSE and CES regarding this project and get ready to roll-up your sleeves and be a part of this project!

Brian Hallett
Cleveland-Northern Ohio Chapter Treasurer

Chapter Event Recap – TopGolf

On November 11, 2024, the Cleveland-Northern Ohio Chapter of INCOSE hosted a Membership Event at TopGolf in Independence, Ohio for two hours of golf games, food, and fun! Attendees ranged from long-time members to those previously unfamiliar with INCOSE and our mission.



Plans are in work for a Chapter Meeting on January 13, 2025. Watch for an Eventbrite email with details.

Amber Waid
Cleveland-Northern Ohio Chapter Vice President

C-NO Chapter 2024 Election Results

Following the October 25 to November 25 Balloting Period, we are pleased to announce the new cohort of C-NO Chapter Officers:

- **President:** Amber Waid
- **Vice President:** [vacant]
- **Treasurer:** Brian Hallett
- **Secretary:** Sam Ciccone
- **Director At-Large:** Joel Knapp
- **Director At-Large:** Mike Hurrell

Their term of office will run from the end of the first Chapter Meeting in 2025 until the end of the first Chapter Meeting in 2026.

I am grateful to two Past Presidents of the C-NO Chapter—Marian Cronin and Tim Schuler—for their expert service on the 2024 Nominations & Elections Committee.

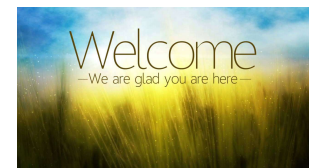
Many thanks to everyone who voted!

Bill Klinger

Nominations & Elections Committee Chair (2024)

Welcome to New Chapter Members

Welcome to new Chapter members since our last Newsletter! The Board of Directors hopes the Chapter can aid you in your professional development and looks forward to getting to know you.



- David Hughes
- Connor Silva

To all members, I would encourage you to invite co-workers and other systems engineers you know to join INCOSE and become active in the Chapter.

Dennis Rohn

Cleveland-Northern Ohio Chapter Membership Chair

INCOSE 2025 International Workshop and 2025 International Symposium

INCOSE conducts two major event every year, the International Workshop and the International Symposium.

The 2025 International Workshop is scheduled for February 1-4, 2025 in Seville, Spain. More details can be found at <https://www.incose.org/IW2025> as they become available. The Workshop centers around technical working groups and other business meetings.



The INCOSE symposium has a rich history that dates back to 1991, and has continued uninterrupted every year to the present. INCOSE's Annual International Symposium is the largest worldwide annual gathering of people who do systems engineering. While the International Workshop tends to be working meetings, the International Symposium is focused on presentations of papers. The call for papers comes out in the fall and papers are due around the end of the year. One way to get involved if you don't want to write a paper, is to become a paper reviewer. They are always looking for more reviewers, and it doesn't require attending the Symposium to be a reviewer. The 2025 International Symposium will be held July 26-31, 2025 in Ottawa, Canada (<https://www.incose.org/symp2025>).

Virtual options are provided for both, if you cannot attend in person.



The INCOSE Systems Engineering Journal



One of the INCOSE member benefits, is the opportunity to read articles in the INCOSE Systems Engineering Journal. It is an international scholarly journal and a primary source of multidisciplinary information for the systems engineering and management of products and services, and processes of all types. The issues can be accessed via: <https://www.incose.org/inet/member-publications/se-journal>, after logging in to the INCOSE domain.

The following articles can be found in the November 2024 issue.

EDITORIAL

- Editorial for modeling and simulation special edition

REGULAR ARTICLES

- Exploring over a decade of systems engineering research center: A community detection and text analytics approach
- Development of functional architectures for cyber-physical systems using interconnectable models
- An ontology-based digital test and evaluation master plan (dTEMP) compliant with DoD policy
- On reference architectures
- Emergent knowledge patterns in verification artifacts
- Systematic approach to a government-led technology roadmap for future-ready adaptive traffic signal control systems
- Human readiness levels and Human Views as tools for user-centered design

REVIEW ARTICLE

- Defining and characterizing the operational context for human systems integration

Volunteer Opportunities

In past newsletters, we mentioned that there are opportunities for individuals to get involved with the Chapter. Some of those opportunities can be one-time efforts, or on-going small efforts. Some examples include: coordinating a chapter meeting location, coordinating food for a chapter meeting, preparing this newsletter, writing an article for this newsletter, leading a discussion at a chapter meeting. There are many more.



In the article above, you will see that the Vice President Position is currently vacant for 2025. It would be great to find someone willing to fill that role. We have been without a Program Chair and a Communications Chair in 2024 and it would be good to fill these in 2025. There are also Membership Chair and webmaster roles that members could fill.

The Board would welcome anyone interested in giving a hand, in one of these roles or even a one-time activity. Contact us if interested. As the idiom goes, many hands make light work.

Associated Groups

As has been mentioned, the Chapter is an Affiliate Member of the Cleveland Engineering Society. They have not filled in their calendar for 2025 yet, but they do have their 73rd Annual CES Design & Construction Conference and Trade Show in February 2025. For more information on it and other events, as they get scheduled, see: <https://www.cesnet.org/news-and-events-1>.

The Chapter is also looking to strengthen a connection with the Project Management Institute Northeast Ohio so we will be trying to pass along information on their events. They have several events coming up after the first of the year, including: Get to Know the PMINEO Chapter (January 7), 2025 Annual State of the Chapter (February 18), and Project Managing the Cleveland National Air Show (March 27). More information can be found on their website: <https://pmineo.org/>.

Welcome Center Cafes



Do you ever wish you knew a little bit more about INCOSE? Whether you are a new member or have been a member for several years, you might want to check out the New Member Welcome Center Cafes archives. This is program featured topics each month to introduce our new members to various communities, initiatives, and individuals that make INCOSE thrive and are now available to be replayed.

Details can be found at: <https://www.incose.org/engage-with-incose/new-member-welcome-center>. If you want to see past cafes, they can be found in the New Member Welcome Center Cafe Archive (<https://www.incose.org/engage-with-incose/new-member-welcome-center/new-member-welcome-cafe-archive>).

INCOSE/Systems Engineering Word Search

Here is a word search to challenge your brain, as we end the year. Find the 45 INCOSE/Systems Engineering terms in the puzzle. Words can go in any direction.

T P R V Q U Z K U Z G C R R I L G C N V N Y S F G X S O D J
 E X E T I U L N N R Y O R H J A Q E O O O N N V J M D D T X
 C K Q N O S Z O M O Y M S E L E T C I M O P G Z U Z I N N D
 H R U M C V R P C E W P T I G W M T Z I M X A I Y I F M E L
 N O I T I S I U Q C A L G R O I A W T C R I S A W V J P M E
 I S R E K A E P S J T E E R C C O A O T G O T T Y E O T E A
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 A O M A W J N W C A A I Q F G I F A A M C S J H E U Z L L E
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 H R T M W L O C W T R O U E I E I R T X P D A S Y R H F N H
 N H S O A J N C I E A P N T S I S D N O I T A D I L A V I I
 J O I P P B F N C I X C I L H W E Z H V S J S M P W A Z T P
 D I I U X T S X V H E O I E A D D S C T K O Y A I Q J N R V
 W P N T V T S I Z F N O Z F Q N K L X R C H A P T E R M A Z
 F D I C I U B V K Z H U F N I R O N U A G Q C J R I N E D H
 R I Q T O S P D B J M K K C O R C I O S Y S M L E O O V M F
 X E U Z X S O A E J G R Z W K A E F T I Q U A R T E R L Y S
 S T D Z K N E P A E E V S C B Z F V I A T E O D T D S C J N
 E Y J L N E W F M E N G I N E E R I N G N A D X C I T D U O
 H G S A O A R E M O T S U C C O M D V R I R P U U G N B F I
 G G J T C H Z O A A C N O I T A R G E T N I E I L Y E G E S
 G T A C E L E R Q A Z E T N N S Q G R D W O Y T C A D N O S
 E A E L G M N K K M I W D S C N R P G P P P I R N I U I H E
 G S S G N K U I A W D A E I V N E H M L J M M G D I T K V F
 S W R O N M J U W T I P K G E V F Q E D I M J L M I S R A O
 L B S J O U R N A L S Y V H O C M V Q K H Q V V N M A O A R
 R L R Q A I G A N J S A W T B B N J R X F P K B S B M W D P
 A M I P S V M W V J E E S E R Q E O N V T D S H G D Y Q V G
 C G K K Q E U I X F B L U D M S E I T I N U T R O P P O H I

ACCESS
 CERTIFICATION
 CONFERENCE
 DEVELOPED
 INSTITUTE
 JOB
 NETWORKING
 PUBLICATIONS
 RISK
 SYMPOSIUMS
 TRANSITION
 WORKSHOPS

ACQUISITION
 CHAPTER
 CUSTOMER
 ENGINEERING
 INTEGRATION
 JOURNAL
 OPPORTUNITIES
 QUARTERLY
 SPEAKERS
 SYSML
 VALIDATION

ANALYSIS
 COMMITTEE
 DECOMPOSITION
 INCOSE
 INTERNATIONAL
 KNOWLEDGE
 PARTICIPATION
 REGIONAL
 STAKEHOLDER
 SYSTEM
 VERIFICATION

ART
 COMPLEX
 DESIGN
 INSIGHT
 INVOLVEMENT
 LEADERSHIP
 PROFESSION
 REQUIREMENTS
 STUDENTS
 TECHNICAL
 WORKING



Systems Engineering Holiday Poem



[Editors Note: This was published in this newsletter a few years ago, but thought it might be worth republishing given the time of year.]

**‘Twas the night before CDR (with apologies to
Clement Moore)
By Dennis Rohn**

‘Twas the night before CDR, when all through the Office
every member was working, with much thoroughness.

The drawings were laid on the table with care,
With hopes that the Panel soon would be there.

The requirements were set, since the previous review,
Now verification results were just coming due.

The PM in her prime and I at my best,
Had just sat down, to take a quick rest.

When out on the floor there arose such a clatter,
That immediately we knew something was the matter.

Out to the conference room we flew like a flash,
To find all the documents thrown in the trash.

The team was all worried, the design was a mess,
The structure was weak, the analysts confess.

We calmed them all down, and began a discussion
Could we update the design and still make the mission.

We looked at the interface to see what was what
In case there was mass that we had to cut.

More rapid than hoped, the analysts they came
And re-did the analysis as if it were game.

The results were astounding, the results were bizarre,
As if they were drinking beer, all out at a bar

All of a sudden there came a voice crystal clear
Never worry, it’s I, your Chief Engineer is here.

A thorough review of the design she did do,

And found a solution, without changes too.

We proceeded to prepare, for the review in haste,
As we did not have any extra time to waste.

The panel showed up with their concerns in hand,
But the team pulled together like a tight little band.

The chair, he reviewed, the package with care,
In hopes that the criteria all would be there.

The presentation was given, one slide at a time
With each question asked, up the wall we would climb

The NGOs and requirements were fine, they did say,
The ConOps and concept were accepted right away.

The drawings were unrolled to show each detail,
And the model reviewed, even built subscale.

Verification analysis and the results were all fine
Pending completion of test showing all was in line.

The panel as they look at the data, were in awe,
As the design held together and met all the law.

They asked more questions and wrote a few comments
They caucused together and spent many moments.

At the end of the day after calling us back,
We were told that the design, nothing did lack.

As the panel they finished, 'ere they walked out the door,
A few suggestions were offered, but nothing more.

The team, we did breathe, a sigh of relief,
All criteria were green, the panel's belief.

The morrow would bring new challenges for sure,
But tonight we could relax and the results savor.

The project manager arose to talk with the team
The smile on her face, cheek to cheek it did beam.

We all heard her exclaim, 'ere she walked out of sight,
"Congratulations to all, and to all a good night!

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2024 Chapter Officers:

President:

Dennis Rohn

Vice-President:

Amber Waid

Secretary:

Sam Ciccone

Treasurer:

Brian Hallett

At-Large Directors:

Anna Sanford

Joel Knapp