

The NorthCoast Interfacer

President's Corner



It is hard to believe that the end of February is here already. Your 2024 Board of Directors is at work trying to put plans in place for the rest of the year. One area that I would like to see us continue with is systems, science, technology, engineering, arts, and mathematics (SySTEAM) outreach, building on the momentum started last December with the NSBE Jr. event. This would be in addition to providing opportunities for our member to learn and network with one another.

When I first joined INCOSE in 2000, I was only participating in international events. Once the Cleveland-Northern Ohio Chapter was formed, I found my membership to be much more beneficial, being able to interact both locally and internationally. If you have not attended an International Workshop or International Symposium, check in to them and consider attending, either in-person or virtually. And if you have not had the opportunity to interact locally, join us at an upcoming meeting, event or activity. I challenge each of you to stay curious and participate in our chapter meetings, events and activities, invite colleagues to attend with you, and encourage them to join INCOSE.

As usual, if you have any suggestions for chapter meeting topics, event, or activities, feel free to reach out to us.

- Dennis Rohn 2024 C-NO Chapter President

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.



• Mark Lefebvre

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

February Chapter Event Sherlock Holmes – Bayesian Pub Night

The Vitamix Systems Engineering Community of Practice invited the Chapter to participate in this event held Thursday, February 22, 2024.

Pre-event Tour

Prior to the main event, participants had the opportunity to get a tour of the Suburban Clock & Repair store in Berea, hearing about their history, the history of timekeeping, the various types of clocks they sell, and how they go about repairing many of the clocks. We even saw a grandfather clock from the mid-1700's (top right photo below).



The Main Event

The main event took place at the Cornerstone Brewing Company. Seven individuals, split into two tables, met to learn about using Bayesian Networks for analysis. It was a fun exercise utilizing the Sherlock Holmes' Silver Blaze story as the source material to create a Bayesian Network and see if we would come to the same conclusion as Sherlock Holmes. Unfortunately, we ran out of time to see if we did. Materials used that evening can be found in our Chapter SharePoint area in case anyone is interested in reviewing them.



Photos curtesy of Dennis Rohn and Carl Dister

Dennis Rohn

Chapter Meetings in 2024

The Board is still in the process of finalizing a meeting rhythm for the year and topics. We are discussing starting a series of chapter meetings focused on a discussion of one or more of the systems engineering processes as defined in the INCOSE Systems Engineering Handbook, version 5. We plan to hold a hybrid meeting in March. Stay tuned for details. During the year we may vary the time and format of the meetings to see what works best, but do hope to establish a regular rhythm with plenty of notice.

We would like to grow attendance at our meetings. Most meetings are free and open to anyone with an interest in systems engineering. When you receive meeting information, please pass it along to anyone else in your organization who may be interested. Typically, there will be a flyer posted on our webpage with the meeting information. Feel free to download it and post it near your office. And if you plan to attend, which we hope you will, why not invite someone else to join you.

First Robotics Judging Opportunity

The FIRST Robotics Buckeye Regional event is seeking judge volunteers. As part of our chapter STEM and SySTEM outreach, the chapter would like to support this competition by providing judges. This is an opportunity to engage with a group of highly talented and inventive high schoolers participating in a robotics competition. Joel Knapp has participated as a judge for the last 10 years and finds it to be very inspirational watching how these young people have applied engineering principles to build and operate robots and working with other teams compete for the championship. The Buckeye Regional Competition takes place March 22nd and 23rd at the Wolstein Center downtown. Breakfast and Lunch is typically provided and there is a Judges dinner the evening of the 21st to discuss the competition and Judges responsibilities.

If you are not familiar with FIRST Robotics, the Competition gives high school students and their adult mentors the opportunity to design and build a robot using a standard "kit of parts" within a common set of rules to play a game with limited time. The robot game changes every season and is always exciting. It's as close to real-world engineering as a student can get.

No FIRST experience is needed to be a judge, just strong assessment and communication skills, willingness to work as a member of the judging team, and a two-day time commitment. If you're looking for an opportunity such as this:

- Login or create an account at <u>http://my.firstinspires.org/Dashboard/</u>
- Click the Volunteer Registration tab & click 'Volunteer at an Event'
- Filter events by program (FIRST Robotics Competition) and area to find an event near you
- Select roles you are interested in
- Complete the FIRST Youth Protection Background Screening, required of all volunteers (renewable every 4 years) & ensure you have agreed to the Consent & Release Form.

Contact Jon Potter at jwp3371@gmail.com if you have questions about the application process. And if you have questions about what it is like to be a judge reach out to Joel Knapp at joel.j.knapp@nasa.gov.

INCOSE 2024 International Symposium



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. The program attracts an international mix of professionals at all levels, and includes practitioners in government and industry, as well as educators and researchers. The benefits of attending the Symposium include the opportunity to 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.

The 2024 International Symposium will be held July 2 to 6, 2024 in Dublin, Ireland. A full and exciting program is planned for the first four days, followed by a day of tutorials. It is not too early to start making plans to attend. Register before May 19, to save on registration fees. If you can't make it to Dublin, a virtual option is also available.

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: <u>https://www.incose.org/2023_redesign/publications/se-journal</u>.

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

- REGULAR ARTICLES
 - o Model-based risk analysis for system design
 - Model-based architecting evaluation method for the delivery of complex nuclear projects
 - Energy planning in sub-Saharan African telecom networks: Decision support using a soft systems methodology
 - Simulating a sterilization processing department to evaluate block schedules and tray configurations
 - Optimal verification strategy for general development plans using a belief-based approach
 - Interpreting integrability
 - Cyber oriented digital engineering
 - o Statistical modeling to relate technology readiness to schedule
 - Joint Offering Evaluation Framework for Assessing the Feasibility and Business Value of a Digital Twin Use Case
 - Measuring the digital transformation maturity level independently with the design science research methodology
 - Minimising conflicts among run-time non-functional requirements within DevOps
 - Team and communication impacts of remote work for complex aerospace system development
 - o MBSE adoption experiences in organizations: Lessons learned
- Communication
 - Lessons learned from establishing the Systems Engineering Research Center, a networked University Affiliated Research Center

Volunteer Opportunities

In the last newsletter, 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. The Board would welcome anyone interested in giving a hand. Contact us if interested. As the idiom goes, many hands make light work.





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. This is a program with a new featured topic each month to introduce our new members to various communities, initiatives, and individuals that make INCOSE thrive.

Details can be found at: <u>https://www.incose.org/engage-with-incose/new-member-welcome-center</u>. If you want to see past cafes,

they can be found in the New Member Welcome Center Cafe Archive (<u>https://www.incose.org/engage-with-incose/new-member-welcome-center/new-member-welcome-cafe-archive</u>).

Like us on Facebook

If you are on Facebook, search for <u>Cleveland-Northern Ohio INCOSE Chapter</u> and "like" us.



2024 Chapter Officers:

President: Dennis Rohn

Vice-President: Amber Waid

Secretary: Sam Ciccone

Treasurer: Brian Hallett

At-Large Directors: Anna Sanford Joel Knapp