



The NorthCoast Interfacer

President's Corner



Ohio had a sales tax-free weekend earlier this month to support back-to-school shopping. And by the time you read this, some schools may be back in session, with students learning new things.

And as some of you know, I retired at the end of last month after a 40-year career. I had been talking with a co-worker one of my last weeks, and they used a single word to describe me – curious.

I've been thinking about that word – curious – and how it relates to learning. A quick internet search provided the following definition of curious: *eager to know or learn something*.

So how eager are you, to know or learn something? It is not just those students going back to school that need to learn. We all need to learn, and it is a continuous process that should last your whole lifetime. Think about drafting. If no one learned how to do it differently, designers would still be using pencil and paper to produce drawings.

I would like to encourage each of you to remain curious. And what better way, than by participating in Chapter meetings, where you have an opportunity to learn from and interact with one another. INCOSE also offer many other ways to learn, from webinars, the International Workshop, the International Symposium, working groups, and publications, including the Systems Engineering Journal, mention later in this newsletter. And there are many other resources beyond INCOSE that I would encourage you to investigate, such as the Project Performance International monthly systems engineering newsletter, Systems Engineering Research Center webinars and events, and even events internal to your organization.

In this competitive world, it is important to find ways to improve your processes so they cost less, take less time, and or produce a higher quality product. While not every new bit of knowledge may be helpful, unless you remain curious, you will never find something that may

help you. And maybe you have some knowledge that would help others. Consider leading a discussion at a chapter meeting as a way to pass it along.

What are you going to learn (or share) over the next six months to a year? Hopefully you will seek learning opportunities, especially as they relate to systems engineering.

I would like to challenge each of you to stay curious and participate in our chapter meetings, invite colleagues to attend with you, and encourage them to join INCOSE.

- Dennis Rohn

2023 C-NO Chapter President

Welcome to New Chapter Members

Welcome to new 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.

- Anna Sanford
- Gnaneswari Narisetty
- Emily Tritschler

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

2023 Energy & Mobility Conference & Expo

The 2023 Energy & Mobility Conference & Expo is right around the corner. The conference is being held at the Cleveland I-X Center, on September 12-15, 2023. This event convenes professionals from across

the global energy and mobility technical & business communities (including energy and infrastructure, aviation and space, autonomous control, automotive and commercial vehicles) to facilitate information sharing, technology transfer, conversations on key questions, cross-industry collaboration, and synergistic approaches. These experts will support the advancement of energy and mobility sectors with modern technologies and configurations and facilitate their successful future convergence.

Registration is open and there are various options to choose from. Over the four days, there are four technical tracks planned (including one focused on systems engineering), several keynote



speakers, and seven workshops. For more information, check out the E&M website: www.energyandmobility.org/.

October Chapter Meeting

Save the Date: October 10, 2023

We plan to meet in Lorain, Ohio, at the Lorain Historical Society's Carnegie Center—a wonderfully repurposed Carnegie Library, built in 1924.

Just this month, the National Park Service added the LHS Carnegie Center to the National Register of Historic Places.

One of the Society's museum exhibits presents compact overviews of Lorain's key historical industries: Shipbuilding, Steel Production, and Automobile Assembly.

The Latino Lorain History Project, begun in 2019, created the graphic display *Celebrating 100 Years of Latinos in Lorain*, based on personal oral histories. The LHS Executive Director, Barb Piscopo, intends to have the full set of display panels available for us to view.

Join us in Lorain on October 10, when we celebrate National Hispanic Heritage Month with a buffet of Puerto Rican cuisine!

- Bill Klinger

Events Committee Member

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:

www.incose.org/2023_redesign/publications/se-journal.

The following articles can be found in the July 2023 issue.

- System reconfiguration ontology to support model-based systems engineering: Approach linking design and operations.
- Driving digital engineering integration and interoperability through semantic integration of models with ontologies
- A survey on what users think about SysML
- Insights from developing improvisational theatre intervention at NASA.
- A reinforcement learning approach to system modularization under constraints.
- On metrics and prioritization of investments in hardware security

- Using conjoint analysis to incorporate heterogeneous preferences into multimodal transit trip simulations.
- Testing coverage-based software reliability growth model considering uncertainty of operating environment.
- Detecting emergence in engineered systems: A literature review and synthesis approach
- A systematic literature review of sociotechnical systems in systems engineering

2024 Cleveland-Norther Ohio Chapter Elections

Over the years, since the Chapter was chartered in 2008, we have had numerous dedicated volunteers serve in the various elected positions. In October, our Chapter will be electing officers for 2024. Have you ever thought of getting involved? Being a Chapter officer is a great opportunity to grow leadership skills and past officers are always willing to help mentor new officers. There are six elected positions, President, Vice-President, Secretary, Treasurer and two At-large Directors.

Bill Klinger has graciously agreed to run the nominations and election process once again. If you are interested in what each position entails, feel free to reach out to Bill, or one of the existing officers. Self-nominations are welcome; all you need to do is let Bill know of your interest in running for a position.

Affiliate status with the Cleveland Engineering Society

Hello C-NO Chapter Members:

As you may have recently heard, our Cleveland-Northern Ohio Chapter of INCOSE has become and Affiliate member of the Cleveland Engineering Society (CES)! This partnership will provide additional opportunities for learning, volunteering, and collaboration.

If you navigate to the [CES website](#), you will see:

- The history of the Cleveland Engineering Society
- News and events
- Volunteer opportunities
- Open job opportunities (currently none)

With the chapter log-in credentials, you can also see:

- Member Directory (approx. 240 members)
- Ability to post a job for your organization.

Please let me know if you have any questions or would like any additional information. You can also reach out to myself, or Dennis Rohn if you are interested in the log-in credentials.

Brian Hallett

2023 C-NO Chapter Treasurer

August Chapter Meeting

Site Selection Strategy

For 2023, the C-NO Chapter Events Committee (Carl Dister, Bill Klinger, and Marian Cronin) chose Chapter Meeting Sites that lie beyond our usual Cleveland-area stomping ground, in the hope of better serving Chapter Members who reside in farther corners of Northeast Ohio.

Further, we sought to:

- highlight the rich cultural heritage of diverse ethnic groups whose diligent community efforts contributed to the character and strengths of the region.
- gather at historical venues we can experience *together*, and
- share useful information on Systems Engineering topics.

Peninsula, Ohio

We selected this Summit County village (population ~500), partly because it was a stop along the Ohio & Erie Canal and later flourished from local railroad service. Today, it is in the center of the Cuyahoga Valley National Park. Tiny Peninsula proudly claims “more than 20 places” listed on the National Register of Historic Places.

Historic Architecture

In 1882, Cleveland-based architect John Eisenmann (1851-1924) became the first professor of Civil Engineering at the Case School of Applied Science [later, “Case Institute of Technology,” unified into Case Western Reserve University in 1967].

From 1880 to 1890, Eisenmann pioneered structural steel construction when he co-designed the innovative Cleveland Arcade—one of the earliest indoor shopping malls in the United States.

Remarkably, Eisenmann designed the Ohio State Flag in 1901. Three years later, he wrote Cleveland’s first comprehensive Building Code.

Along the way, Eisenmann designed a hip-roofed school building in Stick-Style Architecture for the Peninsula Board of Education. Built in 1887, the frame structure has a pyramidal roof tower with an open belfry.



Eisenmann earned \$140 for his Peninsula schoolhouse drawings. The building was constructed for \$4,000.

The brick addition, completed in 1920, consolidated the township's one-room schoolhouses into a centralized school.

The conjoined buildings served various community purposes until 1985, when the State Fire Marshal ordered them closed, for safety reasons. A \$1.2

million renovation, begun in 1999, superbly rehabilitated the historic facility, now known as *Boston Township Hall*.

C-NO Chapter Members in Class: August 16, 2023

Fifteen people met in a former classroom, on the second floor of the brick building.



Photo by Kellie Anton

Historical Presentation: The Ohio & Erie Canal

Rebecca Jones Macko has worked for the National Park Service for more than 30 years—mostly serving as a Park Ranger in the Cuyahoga Valley National Park.

Rebecca told us fascinating stories of the Ohio & Erie Canal, built between 1825 and 1832, and inspired by an earlier vision of President George Washington.

Meant to connect New York City, the Hudson River, Lake Erie and the Ohio and Mississippi Rivers all the way to the Gulf of Mexico, the Ohio & Erie Canal was instrumental in the maturation of the nation. It afforded westward expansion and new prosperity in Ohio, including the emergence of Cleveland as a port and manufacturing center.

As a canal boat stop, Peninsula was “home to several mills, stone quarries, boat yards, five hotels, and 14 bars (until 1887).” The village was a highly-functional melting pot of immigrants and locals—so much so that the Peninsula public schools were integrated, more than a century ago. That fact is proven by the Blacks present among the students in the class photos (circa 1910) that hang in the hallways of Boston Township Hall today.

Rebecca’s background in Folklore and Public History, together with her strong interpretation skills, make her a tremendous speaker. What an informative and entertaining talk!



Technical Presentation: Model Based Systems Engineering



Shira Nadile is an Aerospace Engineer and the “MBSE Implementation Lead” at NASA’s John Glenn Research Center at Lewis Field.

Shira gave a detailed presentation, updating the Chapter on recent developments in MBSE, as practiced by NASA. She mentioned two documents of particular note: NASA-HDBK-1009 NASA Systems Modeling Handbook for Systems Engineering and NPR 7123.1 NASA Systems Engineering Processes and Requirements.

Shira’s talk prompted considerable discussion during the Q&A Period. One intriguing topic was the application of MBSE to the management of infrastructure security and cybersecurity.

Acknowledgements

Todd Clark (of the Boston Township Hall Committee, Inc.) graciously facilitated our low-cost rental of the “Small Hall,” located in the brick portion of Boston Township Hall.

Brian Hallett (C-NO Chapter Treasurer) smoothly handled the event funding and payment.

Many thanks to Carl Dister and Dennis Rohn for kindly picking up and delivering our dinner orders from Fisher’s Cafe & Pub and The Winking Lizard, in Peninsula.

Thanks also to Marian Cronin for supplying the all-important LCD Projector and cables.

I am to blame for the color photos in this article.

- Bill Klinger

Events Committee Member

Chapter Website Update

In the last newsletter, I shared an update about INCOSE and Chapter Information Technology (IT) resources. This month, I’d like to highlight an additional change.

In July, our Chapter’s website transitioned to the new INCOSE format. What had been a single site has been migrated to two sites, one for the public and one for INCOSE members only. After reviewing all of the data on various chapter site, INCOSE has suggested certain content be kept internal, rather than broadly sharing it, which is what resulted in the two sites.

The public site is shown below, in figure 1. You will see in the image of Cleveland, below the Chapter name, a button that says, “VISIT OUR MEMBERS-ONLY INET PAGE.” Clicking on that button takes you to our internal page, which can be seen in figure 2 below. You may need to login in first before the INET button becomes available.

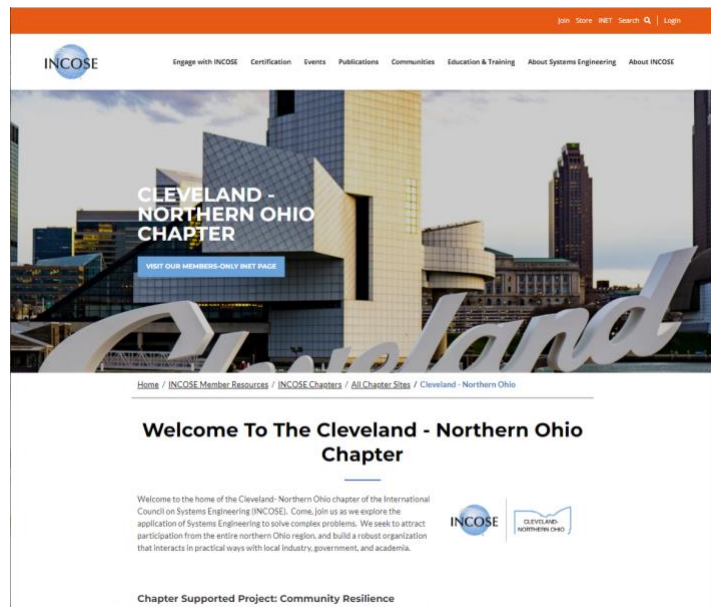


Figure 1 C-NO Chapter Website

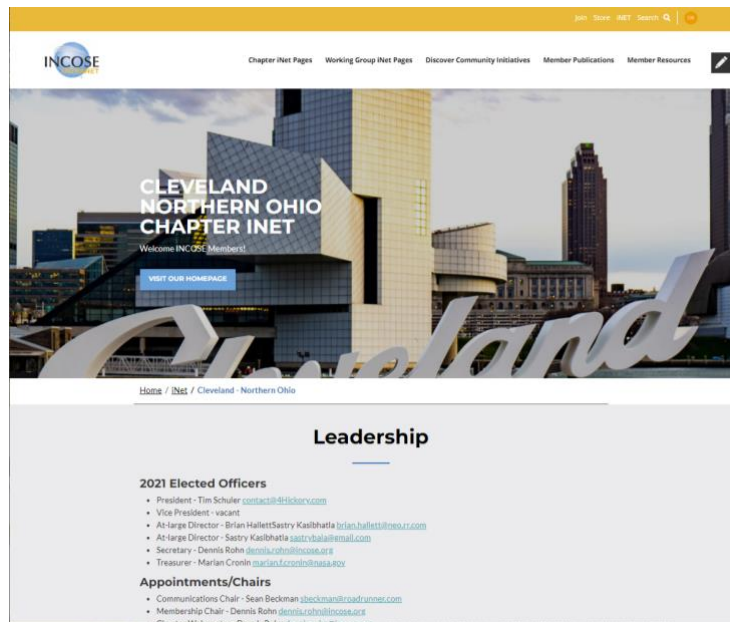


Figure 2 Chapter SharePoint Site

Some of the information on these pages may be a little out of date, as they were created over a year ago. I am in the process of working to update them. If you have any ideas, information to be posted, or would like to help, feel free to reach out to me.

Dennis Rohn

Like us on Facebook

If you are on Facebook, search for Cleveland-Northern Ohio INCOSE Chapter and “like” us.



2023 Chapter Officers:

President:

Dennis Rohn

Vice-President:

Sastry Kasibhatla

Secretary:

Amber Waid

Treasurer:

Brian Hallett

At-Large Director:

Sam Ciccone