

What is Systems Engineering?

Systems Engineering (SE) is an interdisciplinary approach and means to apply Systems Thinking to enable the realization of successful systems.

SE focuses on defining stakeholder needs and required functionality early in the development of a system, documenting requirements, and then proceeding with design, implementation, integration, and system verification and validation while considering the complete problem: operations, cost and schedule, performance, training and support, test, manufacturing, and disposal.

SE addresses the environmental, business and technical needs of all stakeholders, with the goal of delivering a high-quality system that meets user needs.

As complexity and change continue to escalate in our systems, services, and society, a primary goal of the systems engineer is to reduce risks associated with new systems or modifications to existing systems. SE lowers the risk of hasty commitments without adequate study. It simply costs less to prevent errors, early in the development of a system.

Over the past fifty years, the time from prototype to significant market penetration of a successful new product has dropped by more than a factor of four. Acceleration of the development process calls for effective SE. To maintain a competitive edge in the 21st century, a well-defined SE process is now *critical*.

For More Information

2025 INCOSE C-NO Chapter Officers

President	Amber Waid
Vice-President	vacant
Secretary	Sam Ciccone
Treasurer	Brian Hallett
At-large Director	Joel Knapp
At-large Director	Michael Hurrell

Reach us at: NorthOhioINCOSE@gmail.com or cleveland-north-ohio@incose.net

INCOSE Administrative Office

INCOSE
7670 Opportunity Rd, Suite 220
San Diego, CA 92111-2222
Phone: 858-541-1725
E-Mail: info@incose.net

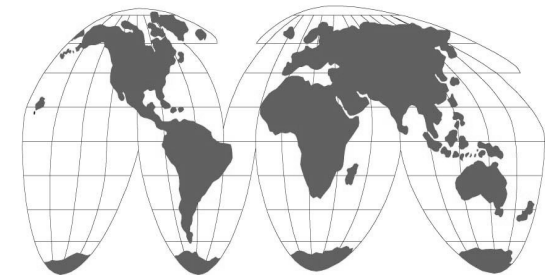
To Join INCOSE

Join online at www.incose.org or by postal mail. Regular Annual Dues are \$175; just \$50 for students. Pay online, or by sending payment with a completed application to the INCOSE Administrative Office. To join the local Chapter, designate *Cleveland-Northern Ohio* as your Affiliated Chapter.



<http://www.incose.org/cleveland-northern-ohio>

To share, promote, and advance the best of systems engineering from across the globe for the benefit of humanity and the planet.



2014, 2021 Gold
2009-13, 2015-16, 2018-19, 2020, 2023 Silver
2008, 2017 Bronze
Chapter Award Winner



About the C-NO Chapter

The Cleveland-Northern Ohio (C-NO) Chapter was founded in 2008, to support INCOSE in the expansion of SE definition, understanding, practice, and evolution. The Chapter seeks to engage both individuals and organizations in Northern Ohio.

Chapter goals:

- Foster education and professional growth by presenting regular programs on SE topics.
- Provide a local forum for fellowship and dissemination of SE knowledge.
- Conduct focused SE workshops, to supplement government and industry training programs.
- Promote collaboration in SE research and education.
- Support INCOSE technical committees.
- Serve Chapter members in their efforts to understand, apply, and represent SE in their specific industrial, academic, or government positions.

C-NO Chapter Meetings

The Chapter holds monthly meetings - usually free of charge to members. Guests are welcome.

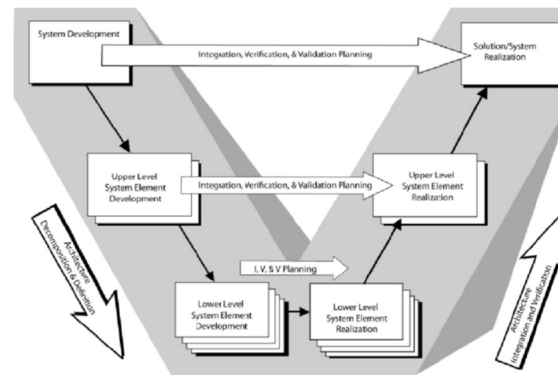
Meetings often feature invited speakers. Attendees freely discuss problems of importance in their work, and learn about SE efforts in local organizations.

Communications to Members

The Chapter communicates with members via e-mailed announcements, newsletters, and the Chapter Website.

INCOSE Member Benefits

- Network with more than members spread across the world.
- Contribute through INCOSE technical activities.
- Collaborate with SE experts and practitioners.
- Free quarterly e-Publication, *INSIGHT*.
- Free electronic version of *Systems Engineering*, the INCOSE Journal.
- Discounts on INCOSE publications.
- Free use of i-Pub, the INCOSE publications database, offering 2,000+ symposia papers.
- Exclusive access to INCOSE members-only collaborative space, which delivers:
 - the *INCOSE Membership Directory*
 - the *Systems Engineering Handbook*
 - the *Measurement Primer*, and
 - current and past issues of *INSIGHT* and *Systems Engineering*.



Systems Engineering Vee Model

Why Join INCOSE?

Since the inception of professional associations, prospective members have asked: "Why should I become a member? What is in it for me? Is membership a good value?"

INCOSE offers ways to:

- Increase your value to your employer or client by expanding your skills toolkit.
- Broaden your network of professional colleagues.
- Advance the practice of Systems Engineering by contributing to the body of SE knowledge.
- Participate in the global marketplace.
- Demonstrate SE competency to your employer or client, through certification.
- Show your readiness for a management position.
- Keep the SE profession healthy for the future
- Promote the SE profession by serving in a chapter leadership position.

INCOSE Online

INCOSE maintains a website, e-mail reflectors for SE announcements, discussions threads, Working Group collaboration areas, chapter webpages, and other information of interest to systems engineers.

Go to: www.incose.org

Keep informed about the Chapter's upcoming events at the C-NO Chapter website: <http://www.incose.org/cleveland-northern-ohio>