

INCOSE at 30 Guiding the Future of Systems Engineering

Why INCOSE?





- •We are the premier choice of systems engineers for professional development.
- •With 30 years of experience and 18,000 members, we are shaping the future of systems engineering.
- •We interact with systems engineers across the globe on a daily basis to set standards and solve problems.









18,000 Committed Members







Premier Choice of Systems Engineers for Professional Development

Corporate Advisory Board

"Voice of the Corporate Customer" for INCOSE-

- Provides advice on overall direction, focus, and priorities
- Brings diverse perspectives on industry, government, and academia.
- Includes the Academic Council —currently 20 Universities
- Acts as a conduit between INCOSE and CAB organizations
- Provides additional resources for INCOSE and support for chapters
- Enables corporations to influence the direction of Systems Engineering
- Allows CAB members to meet with industry leaders, grow their global footprint, and see how other industies apply Systems Engineering to solve business problems
- Encourages connections and networking with competent certified Systems Engineers at all levels through INCOSE events



Improvements ongoing



Institute for Technical Leadership

- A development program for active INCOSE members seeking to improve their leadership skills in an open, collaborative environment.
- This program is a blend of online synchronous learning and asynchronous team collaboration to deliver all content and learn together. The IW and IS provide the opportunity to learn and interact face-to-face.
- We started in 2015 and are now working with our 6th Cohort!





Certification





3768 Current Active Certifications





INCOSE

Value to Our Membership and the Systems Engineering Community

Products and Publications

- Working groups and communities collaborate to create our products and publications
- INCOSE guides and contributes to groups working to determine and set international standards relating to system topics.



MEMBERS

Chapters

More than 70 chapters in 68 countries





Student Outreach

- Student Divisions are operated as a component of nearby INCOSE chapters.
 Undergraduate and graduate students become actively involved in INCOSE.
- INCOSE supports outreach designed to interest and engage K-graduate level activities and research .





Events and Networking

International and regional conferences



Virtual Community

International and regional virtual events for continuing education, collaborative work,

and social interaction with your SE peers.







Guiding the Future of Systems Engineering

Sustainability, Executing the Vision

 A systems approach to a better world through internal initiatives and participation in external programs like the UN Civil Societies Conference







Find us on Social Media



You Tube

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Meeting Tomorrow's Complexities

- Systems Engineering Research
- Artificial Intelligence
- Model Based Systems Engineering
- Digital Information Exchange
- System of Systems Engineering
- Simulation ...



India Chapter MBSE Working Group



New Standards for System of Systems Engineering (SoB) Why standardstation for BoS engineering "Adaption of the system of Systems" "Adaption of the sys

Digital Engineering Information Exchange

www.incose.org/TW2020

Systems Modeling & Simulation a NAFEMS / INCOSE* joint Working Group

NAFEMSINCOS

Systems Modeling and Simulation": 'The use of interdisciplinary functional, architectural, and behavioral models (w physical, mathematical, and logical representational) in performing MBSE to specconceptualize, design, analyze, welfy and validate an organized set of componensubsystem, system, and processes?:





Future of Systems Engineering

- Purpose: Evolve the practice, instruction and perception of SE
- •Goal: Create a road map that drives the evolution of SE
- Scope: Identify needs, priorities and means for transforming SE



Accomplishments and Initiatives 2020

In 2020 we pivoted quickly in response to COVID-19 maintaining INCOSE's dedication to our members. We also:

- Invested in better IT infrastructure to strongly support online conferences and meetings for all members and the public
- Expanded services and accessibility of services to the public and members with on-line Cafés, Mini-Events, and close-captioned Webinars
- Provided free access to select INSIGHT and Systems Engineering publications for 2020
- Kicked off a new initiative to review and improve our strong performance in Diversity, Equity, Inclusion INCOSE
- Offered additional channels for advertising-Web, Social Media, and in our Publications—with INCOSE Marketing and Communications
- Invested in ZOOM and other collaboration tools for groups to work remotely more effectively
- Initiated Artificial Intelligence Working Group at IW
- Benefited when CAB companies stepped up to help their local and national communities and INCOSE activities during COVID-19

- Licensed a global conference platform to enable virtual major INCOSE (IS and IW) and regional chapter conferences
- Arranged for Chapter Affiliation Sponsors to have associate members and apply for SEP Certification Equivalency like CAB members, at an appropriate fee structure
- Opened direct communications to **INCOSE** with: Volunteer Opportunities and Ask the Board
- Invested in business management tools to improve the management of our finances, and commitments to our collaborators
- Added professional support to update and standardize branding across the organization, publications, and social media
- Maintained our SEP certifications program and added 553 new certified system engineers this year
- Added virtual SEP reSeptions to welcome new and upgrading systems engineers to the certification process



- Signed seven new agreements with APTA, ASEE, ASME, CESAMES, Jama Software, Vitech Corporation, and IEA
- Formed new certification academic equivalency agreements-with Colorado State University, Naval Postgraduate School, and University of Michigan.

2020 Certifications-553 of 3768 Active Certifiations

ESEP

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Advancing through Adversity

March, 2020-INCOSE made the important decision to Continue Business as Usual and take on the extra work needed to maintain the Systems Engineering support and value we bring to our members and the public. By moving our services into virtual communities we not only maintained our normal activities we were able to share them with a greater audience who lacked the means and time to travel under normal conditions.



Events and Publications 2020

Recurring Publications and Events

- Letters from President on COVID-19 and INCOSE response
- Newsletters
- Insight Magazine
- Systems Engineering Journal
- Board of Director Meetings, * now virtual
- Systems Exchange Cafes, every two weeks <u>https://www.incose.org/aboutincose/community/virtual-cafe</u>
- Webinar Showcases, every two weeks June to August, now bimmonthly <u>https://www.incose.org/about-incose/</u> <u>community/webinar-showcase</u>

2020 Publications and Products

- Automotive Vision 2025
- Continuous Iterative Development
 Measurement Framework
- MBSE Maturity Survey
- Systems of Systems Quick Reference Guide
- INCOSE (virtual) community offerings
- Integrating Program Management and Systems Engineering
- Systems Engineering Tools Database
- INCOSE Brand Video
- INCOSE 30th Anniversary Video



- INCOSE Japan Symposium 2020
 Virtual Event,
- 2020 Annual INCOSE Western States Regional Conference (WSRC)
- INCOSE Virtual Conference 2020
- CSER 2020—Conference on SE Research
- 2nd Annual INCOSE New England Fall Workshop
- Australian Systems Engineering Workshop 2020
- Human Systems Integration 2020
 Workshop
- 6th Annual SE in Healthcare Conference
- SESA Forum

Happy 30th

Birthday INCOSE

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