NATIONAL ACADEMIES
Sciences
Engineering
Medicine

INCOSE, Human System Integration Working Group

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Co-Chair INCOSE HSI working group

INCOSE®
Working Group
HUMAN SYSTEMS INTEGRATION

MAY 2025

INCOSE Human System Integration

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https://www.incose.org/communities/working-groups-initiatives/human-systems-integration

INCOSE General Information

Working Group
HUMAN SYSTEMS INTEGRATION

- The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded to develop and disseminate the transdisciplinary principles and practices that enable the realization of successful systems. INCOSE is designed to connect systems engineering professionals with educational, networking, and career-advancement opportunities in the interest of developing the global community of systems engineers and systems approaches to problems. We are also focused on producing state-of-the-art work products that support and enhance this discipline's visibility in the world.

INCOSE - INTERNATIONAL COUNCIL ON SYSTEMS ENGINEERING

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INCOSE

Working Group
HUMAN SYSTEMS INTEGRATION

Our Vision

To unite and advance the global systems community

Our Mission

INCOSE fosters systems engineering knowledge exchange, application, education, and research. We are dedicated to being the world's trusted authority and forum for the practice, science, and art of systems engineering.

Strategic Objectives

Advance systems engineering as the world's trusted authority

Expand the systems engineering community while growing INCOSE

Foster professional development and systems engineering competencies

Achieve operational excellence

https://www.incose.org/communities/working-groups-initiatives/human-systems-integration

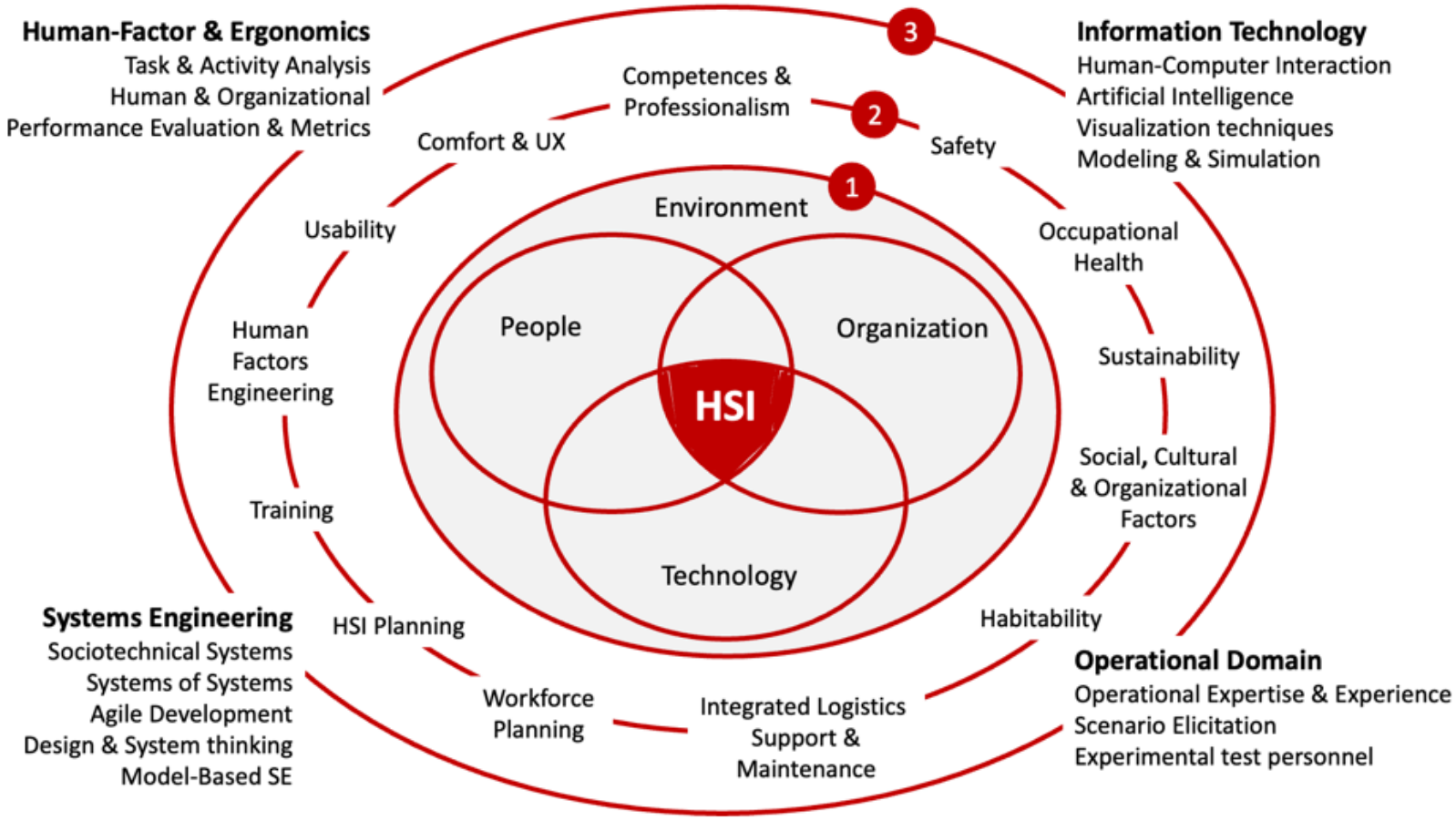
HSI Working Group Purpose & Mission

- Human Systems Integration (HSI) is a transdisciplinary sociotechnical and management approach to systems engineering used to ensure that a system's technical, organizational, and human elements are appropriately addressed across the whole system lifecycle, service or enterprise system. HSI considers systems in their operational context together with the necessary interactions between and among their human and technological elements to make them work in harmony and cost-effectively, from the early design to disposal.

- **Our mission,** is to ensure all design and engineering disciplines include human and socio-technical interaction and integration to enable system performance.

https://www.incose.org/communities/working-groups-initiatives/human-systems-integration

Why is HSI important for Systems Engineering?



The Scope of Human Systems Integration

- Humans are part of nearly every system, the ability for the human to be integrated into a system at many levels creates better usable and safe systems.
- HSI is a technical and management approach, explicitly aligning with the Systems Engineering processes & lifecycle.

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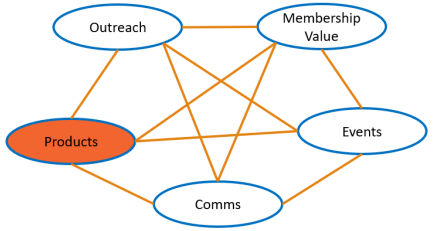

Products

Key Focus for 2025 is the HSI Primer

- Volume One (released Oct 2023)
- Four more volumes planned for release
  - Volume 1, Introduction to Human System Integration (Complete)
  - Volume 2, Fundamentals (In Progress)
  - Volume 3, Transdisciplinary Human Systems Integration (In Progress)
  - Volume 4, Humans Systems Integration domain specific case studies and applications
  - Volume 5, Human Systems Integration Reference Materials

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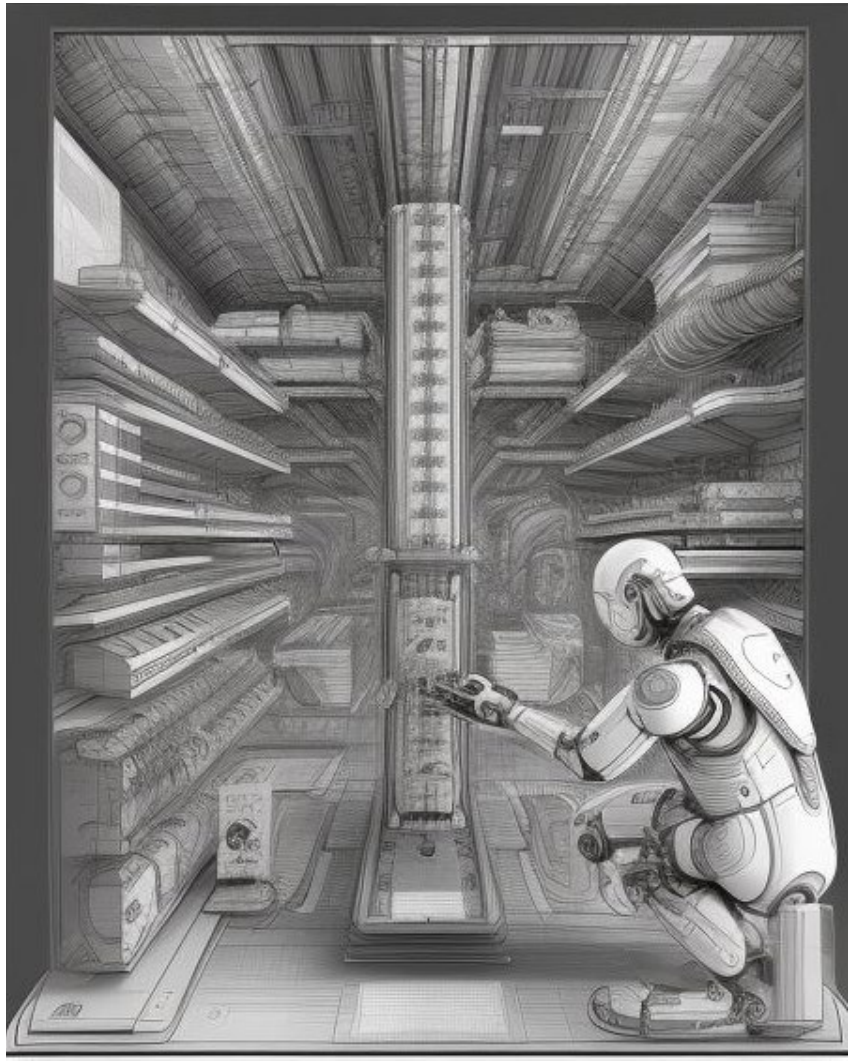
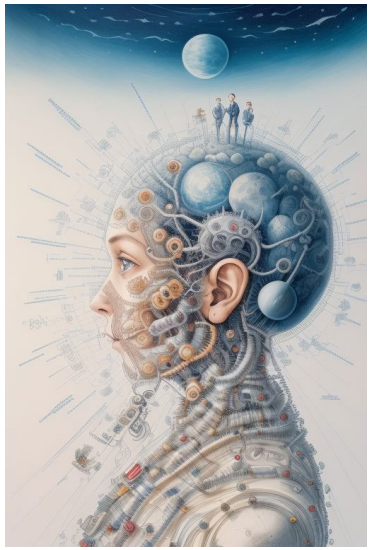
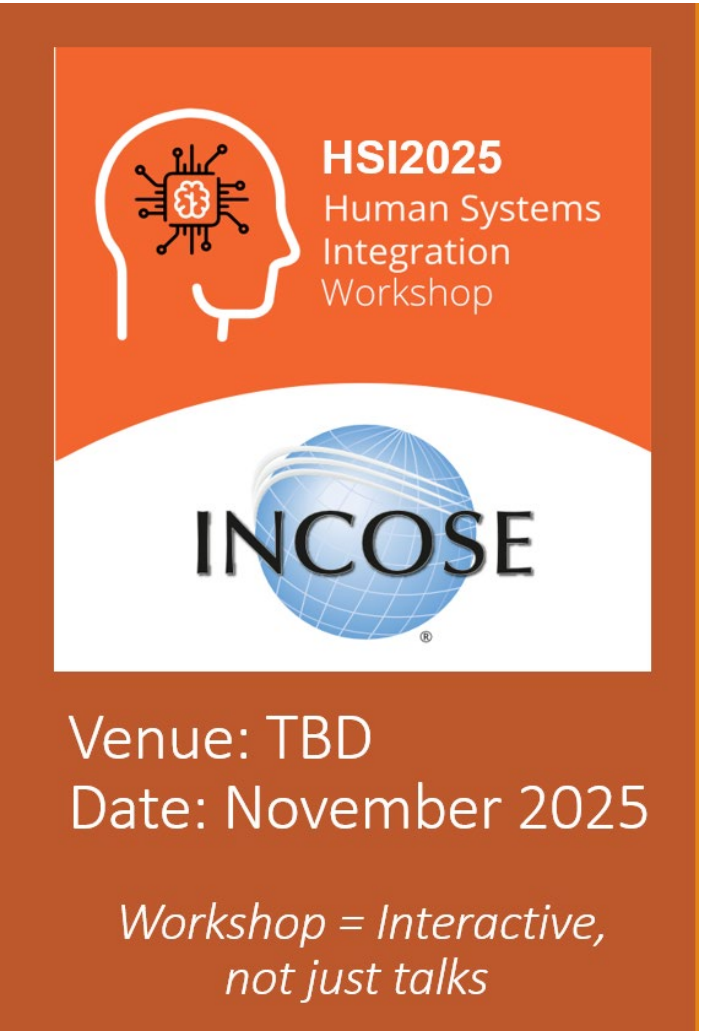
The Future of Human Systems Integration



- Integration of artificial intelligence, Human and AI teaming
- Integration of Human Readiness Levels with Technology Readiness Levels
- Organizational Readiness Levels
- Relationships of the systems Vee to HSI
- Integration of the human as part of the system



Collaborations/Upcoming Events



International Ergonomics Association

- At IEA/HSI 2024 agreed to establish a HSI technical committee between INCOSE and IEA
- Building links between the technical community and working group
- Host INCOSE HSI Workshop with the inclusion of IEA

SEBOK - HSI

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Connecting

Email us on:
hsi@incose.net
comes to the HSI WG chair & co-chairs

Join our community on Viva Engage
note this is available only to INCOSE members,
If you're already a member and need help accessing Viva engage contact helpdesk@incose.net

Join the private LinkedIn Group:
https://www.linkedin.com/groups/13944319/

It's quiet, but it's there for you!

Email me:
paul.lambertson@incose.net

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“Systems design must include not only the design of innovative technologies but their artful integration with the rest of the social and Material world”

LUCY SUCHMAN