

"It may be the warriors who get the glory, but it's the engineers who build societies."

-Chief Engineer, Lieutenant B'Elanna Torres, Star Trek Voyager



November / December 2022



A System is an integrated set of elements, subsystems, or assemblies that accomplish a defined objective (INCOSE 2015). Systems include: Hardware, Software, Firmware, Processes, People, Information, Techniques, Facilities, Services and Support. As systems thinking is nonlinear, interconnections need to be

identified. Those connections can change system behavior. That change could be positive, or negative.

Systems thinking is an ongoing process to identify boundaries, dependencies, and relationships.

Systems thinking is the behavior of the whole.

"Parachuting Cats into Borneo": <u>https://amzn.to/2wBfSD0</u>



Board of Directors

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Membership & Newsletters Cheryl Kinchen, CSEP (SAIC) cakinchen@gmail.com

CHAPTER ELECTION RESULTS

2023 OFFICERS:

President Cheryl Bolstad Vice-President Jose Rafael Parga (Effective 1/1/2023) Secretary Ann Hodges Treasurer Mary Compton Past President Steve Denman

2023 DIRECTORS AT LARGE:

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UTEP Student Division Advisor

Eric Smith

For Bios and pictures of our Board of directors and officers go to the Enchantment Chapter website: <u>https://www.incose.org/incose-</u> <u>member-resources/chapters-</u> <u>groups/ChapterSites/enchantment/about-this-chapter/2023-board-</u> <u>of-directors</u>

ENCHANTMENT EVENTS



November 9, 2022 the Enchantment Chapter hosted a networking social to meet the new officers and each other at O'Niells Pub on Juan Tabo, Albuquerque. The Chapter provided appetizers and drinks and was attended by 20 members and guests.

CHAPTER MEETINGS

Date: Every 2nd Wednesday each month, Time: 4:45-6:00pm Location: via Zoom Contact: Ann Hodges, CSEP, ann.hodges@incose.net Register: email the contact for the event

INCOSE TIPS:

UPDATE YOUR MEMBER INFORMATION

If you started a new job, or moved in the past year, go to <u>www.incose.org</u>, sign in, click on your name and select 'Profile'

1) Review, if needed select 'Edit My Information'

2) Select 'Renew' if membership expires soon Use your phone to scan it and check it out!

Enchantment Chapter Quick Response (QR) Code.



Chapter Website www.incose.org/enchantment

NOVEMBER CHAPTER MEETING SYSTEM OF SYSTEMS OVERVIEW: IF YOU THOUGHT SYSTEMS ENGINEERING WAS FUN, WAIT UNTIL YOU TRY SYSTEM OF SYSTEMS ENGINEERING!

On November 9, 2022 the Enchantment Chapter held an afternoon Chapter meeting which featured UK speaker, Duncan Kemp (Senior Fellow for Systems Engineering in Defence Equipment and Support (DE&S) within the UK Ministry of Defence, Visiting Professor, Loughborough). Topics included:

- Recap on Systems and Systems Engineering
- What is a System of Systems
- System of Systems Engineering Approaches
- Rail and Defence examples

If you are interested in knowing more, see the Chapter website: <u>https://www.incose.org/incose-member-resources/chapters-groups/ChapterSites/enchantment/resources</u>

DECEMBER CHAPTER MEETING ORGANIZATIONS AS SYSTEMS: PRINCIPLES OF THINKING TO IMPROVE ORGANIZATIONAL PERFORMANCE

Presenters: Eric van der Meulen, Marcelino Sanchez **Location**: via Zoom, December 14, 2022, 4:45 PM – 6:00 PM MT **Contact**: Ann Hodges, ann.hodges@incose.net **Register**: email the contact for the event

ABSTRACT: Human organizations are human systems just like technical systems. The relationships, interactions, interfaces, and behaviors are all connected. Unlike technical systems, however, human systems are not 100% predictable and they tend to exhibit higher degrees of variation. During this interactive session we will explore key principles of systems thinking applied to human systems to gain insights on how to achieve desired results, better collaboration, more satisfying relationships, and sustained improvement. Outline of Principles to Explore:

- Human interfaces: Oshry's model of human systems
- Psychological Safety: Trust, Collaboration, Innovation
- Simplification and Agility
- Systemic Reinforcement Model

MEMBERSHIP

ACTIVE CHAPTER MEMBERS:113

Welcome to our newest members!

Haiqing Schwarz, joined INCOSE on 10/12/2022 and works at Sandia National Laboratories **Mohammad Rahman**, joined INCOSE on 10/26/2022 and works at Sandia National Laboratories

Companies represented by membership: Aerospace Corp; Boeing; CSU; Leidos; LANL; NG; Raytheon; SAIC; Sandia National Labs (40%); Stellar Solutions; UTEP (10%); DOD

CHAPTER CERTIFIED MEMBERS:25% ASEPs: 9 CSEPs: 18 ESEPs: 1

MEMBER SPOTLIGHT 2023 INCOMING CHAPTER PRESIDENT



Dr. Cheryl Bolstad is a Principal Systems Research and Analysis Engineer for the Human Factors department at Sandia National Laboratories in Albuquerque, NM. Dr. Bolstad is a Fellow of the Human Factors and Ergonomics Society and Certified Professional Ergonomist. She has a Ph.D. in Psychology specializing in cognition and human factors from North Carolina State University. Dr. Bolstad has over 30 years of experience

working with the Department of Defense and within the commercial sector. She has worked extensively in situation awareness (SA) research, human automation integration, user interface design, and team performance. Currently Dr. Bolstad is the Vice-President for the Enchantment INCOSE chapter and on the Technical Program Committee for the Human Factors and Ergonomics Society.

RESOURCE RECOMMENDATIONS



The Professional Development Portal (PDP) Now Available at incose.org/pdp

Your source for systems engineering professional development



Job Openings

OPEN-RANK FACULTY POSITION IN COMPUTER SCIENCE AT THE UNIVERSITY OF TEXAS AT EL PASO (UTEP)

The Department of Computer Science at UTEP invites applications for an open-rank faculty position starting fall 2023 with a preference for candidates in the area of Software Engineering. To view the full ad and apply, please visit https://www.utep.edu/employment.

https://utep.interviewexchange.com/jobofferdetails.jsp;jsessionid=09 56CDB2B9C984821EA4A2841458B6EE?JOBID=155066

VISITING PROFESSOR IN SYSTEMS ENGINEERING AT THE UNIVERSITY OF TEXAS AT EL PASO (UTEP)

The University of Texas at El Paso (UTEP) is seeking to fill a <u>visiting faculty position</u> at the Assistant, Associate, or Full Professor level for its growing, dynamic Department of Industrial, Manufacturing, and Systems Engineering. Applications are solicited from candidates whose professional experience and interests are focused on Systems Engineering. To view the full ad and apply, please visit https://www.utep.edu/employment. Questions about the position should be directed to the Search Committee email: IMSEvisitingprofessor2022@utep.edu.

https://utep.interviewexchange.com/jobofferdetails.jsp?JOBID=1504 87

Future 2023 Events

JANUARY CHAPTER MEETING COLLABORATIVE SYSTEMS THINKING CULTURE: A PATH TO SUCCESS FOR COMPLEX PROJECTS

Presenter; Raymond Wolfgang **Date**: Jan 11, 2023 - 04:45 PM - 06:00 PM MT **Location**: Online, Zoom Contact: Ann Hodges Email: ann.hodges@incose.net Phone: 505-951-7067

FEBRUARY CHAPTER MEETING MODEL BASED SYSTEMS ENGINEERING

Presenter; Casey Medina (https://www.studiose.design) Date: Feb 8, 2023 - 04:45 PM - 06:00 PM MT Location: Online, Zoom Contact: Ann Hodges Email: ann.hodges@incose.net

REGISTER NOW FOR IW23



START MAKING PLANS FOR IS23



Questions? Contact Chapter President Steve Denmam <u>sddenma@sandia.gov</u>

For Newsletter Information or Submissions Contact Chapter VP Cheryl Bolstad <u>cbolsta@sandia.gov</u>

WISHING EACH OF YOU A WONDERFUL HOLIDAY SEASON



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