



2019

Annual **INCOSE**
international workshop

Torrance, CA, USA

January 26 - 29, 2019

Systems of Systems Engineering

www.incose.org/iw2019

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MEMBERS

12 Core, 30 Regular

CO-CHAIRS

Judith Dahmann (jdahmann@mitre.org)

Alan Harding (alan.d.harding@baesystems.com)

INCOSE CONNECT ADDRESS



<https://connect.incose.org/WorkingGroups/SystemofSystems/Pages/Home.aspx>

INCOSE WEB PAGE



<https://www.incose.org/incose-member-resources/working-groups/analytic/system-of-systems>

Charter Summary



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WG PURPOSE/MISSION

The purpose of the working group is to advance and promote the application of Systems Engineering to Systems of Systems (SoS), often referred to as SoS Engineering (SoSE).

BKCASE describes SoS Engineering as *“an opportunity for the systems engineering community to define the complex systems of the 21st Century. While systems engineering is a fairly established field, SoSE represents a challenge for the present systems engineers at the global level. In general, SoSE requires considerations beyond those usually associated with engineering to include socio-technical and sometimes socio-economic phenomena.”*

SoS and SoSE are topics that interest a significant number of INCOSE members globally, both individuals and organizations. Therefore we believe that a WG forum to share understanding of SoS and SoSE issues, good practice and background, and contribute to maturing BKCASE will provide a service to the wider INCOSE community.

WG GOAL(S)

The goal of the working group is to expand and promote the body of knowledge of SoS and SoSE its benefits within the Systems Engineering community.

WG SCOPE

This WG addresses the application of Systems Engineering to all types of Systems of Systems (SOS) in all domains. We see diversity

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as particularly important in this knowledge area, as do the WG members.



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Activities will generally cover the following:

- Understand and share what we mean by SoS in our various contexts
- Develop guidance and advice
- Inform and up-skill practitioners
- Exert influence on BKCASE, Standards, SE Vision 2025 etc.
- Develop the practice of SE for SoS.
- Work in partnership with other groups addressing aspects of SoS (e.g. INCOSE WGs, IEEE, NDIA).
- Understanding and applying insights from relevant research

Planned Work for IW



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System of Systems Working Group

Sun 27 : 13:00-17:00

1300-1500 SOS Business Meeting to review SoSWG progress since IS18 1. Webinars (Hoehne) 2. Case Studies (Wilson, Cook (remote?)) 3. SoS value to INCOSE (Harding) 4. Update on Cooperation with Automotive (Hoehne) 5. Mission Engineering (Miller) 1500-1530 Break 1530-1700 SEBOK Update Discussion (Dahmann, lead)

System of Systems Working Group

Mon 28 : 09:00-17:00

SoSWG Working sessions 0900-1000 SoS Standards (Yokell, lead) 1000-1200 Reserve 1300-1500 SoS Competencies (Harding lead, Wilson support) 1530-1700 Assurance (Kemp/Wilson co-lead, with safety and security)

Automotive WG: Cross WG about ITS architecture frameworks

Mon 28 : 13:00-15:00

ITS standards (Architecture Frameworks) like CVRIA: Adoption by industry domains (awareness, position -pros&cons-, ease, ...). Working meeting with Transportation WG, Infrastructure WG and System of Systems WG

System of Systems Working Group

Tue 29 : 08:00-12:00

0800-1000 Ontology (Nillson) 1030-1200 Closing Business Meeting and Planning (Dahmann/Harding)