



2021
Annual **INCOSE**
international workshop
Virtual Event
January 29 - 31, 2021

Systems Security Engineering

www.incose.org/IW2021

CHAIR

Rick Dove (PSI)

CO-CHAIRS

Beth Wilson (Retired Raytheon)
Kennith Kepchar (Eagleview Associates)
Keith Willett (US DoD)

INCOSE WEB PAGE



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

INCOSE CONNECT ADDRESS



www.incose.org/incose-member-resources/working-groups/analytic/systems-security-engineering

Charter Summary



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WG PURPOSE/MISSION

This working group (WG) believes that system engineering cannot succeed without accepting core responsibility for enabling and facilitating effective system security ? partly in system requirements, partly in system trade space recognition, but mainly in system thinking applied to concepts of operations and systems architecture. Sustaining system functionality in the face of intelligent determined attack requires self preservation capabilities that adapt and evolve with intelligence, proactive innovation, and strength of community equal to the adversary as a minimum. This requires full system awareness and adaptability, and system-of-system relationships. Security engineering alone cannot accomplish this.

WG GOAL(S)

- Goal: Establish and foster the responsibility for security within Systems Engineering, with effective system security accepted and practiced as a fundamental part of system engineering.
- Goal: Establish and foster self-sustaining cross- community involvement between systems engineers, security engineers, and system security standards.
- Goal: Establish and foster systems engineering guidance for enabling effective systems security in the face of evolving system security needs.
- Goal: Attract an international cadre of engaged participants to broaden the understandings and effectively deal with multi national interests and differences.
- Customer(s)/Stakeholder(s): Systems engineering educators, systems engineering process and standards developers, defense systems engineering acquisition procedure developers, systems engineering leaders and managers, customers of systems that require effective security, systems engineers, and security engineers.

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WG SCOPE

This WG will address and foster system engineering design concepts, processes, enabling-support (such as standards and certifications), and community understanding and acceptance of the roles that systems engineering must play in enabling effective systems security in the face of evolving systems complexity and systems security threat.

OUTCOMES (PRODUCTS/SERVICES)

- Outcome: Fundamental responsibility accepted within systems engineering for effective security practices established by SE processes and standards.
- Product Category: Systems engineering guidance on needs, roles, and methods that enable effective system security in an evolving threat environment.
- Product Category: Effective security process integration with system engineering processes.
- Product Category: System security standards compatible with systems engineering standards, with both encouraged to keep effective pace with evolving system security and systems engineering realities.

IW Outcomes



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IW OUTCOMES

Saturday: 2-hour interactive workshop. WG overview followed by workshop on eleven foundation concepts identified in the FuSE System Security project.

PLANNED ACTIVITIES AFTER IW

- Move the eleven FuSE Security foundation concepts into socialization, development, and deployment activities.
- Collaborate with NDIA in defining System Security Engineering.
- Complete final drafts for two security-related sections in the version 5 handbook.

PLANNED WORK PRODUCTS AFTER IW

- Two sections in the version 5 handbook
- Various final papers for IS21 related to FuSE Security project work