



Carnegie Mellon University Software Engineering Institute (SEI)

Lunch and Learn Series

Session 5 of 12

Wed Sept 21, 2022
12:00 – 1:30 PM EDT

Nataliya Shevchenko
Carnegie Mellon University



Realizing the Benefits of Integrating Requirements Engineering into Your Digital Modeling (MBSE) Environment



A FREE Virtual Event – Registration Required

Abstract. Model-based systems engineering (MBSE) is a formalized methodology that supports the requirements, design, analysis, verification, and validation associated with the development of complex systems. MBSE in a digital-modeling environment provides advantages that document-based systems engineering cannot. Even though these advantages make MBSE digital modeling a desirable strategy, adopting it is a challenging task.

This presentation will provide an overview of how MBSE digital modeling addresses the first of system engineering domains: requirements. The objective of bringing requirements into the MBSE digital model is to combine the benefits of a digital-modeling environment and systems engineering practices in support of requirements engineering, requirements traceability through conceptual and solution architectures, and testing. Also, the presentation will show how to model requirements for a socio-technical or process-based system, such as DevSecOps.

Mrs. Nataliya Shevchenko is Senior Member of Technical Staff at Carnegie Mellon University (CMU) Software Engineering Institute (SEI) CERT division. She specializes in system engineering, Model-Based System Engineering (MBSE) and Threat Modeling Methods.

Nataliya has a breadth of experience across Software Development Life Cycle for 20+ years. Prior to joining SEI, she worked in teleconferencing, rail, and banking industries. Mrs. Shevchenko holds MS degrees in Software Engineering from Carnegie Mellon University, and BS/MS degrees in Mathematics from Donetsk State University in Ukraine.



CHICAGOLAND

REGISTER

This lunch 'n learn session is organized by the INCOSE Three Rivers Chapter and hosted by the INCOSE Chicagoland Chapter. The Three Rivers Chapter, founded in 2010, serves the Greater Pittsburgh Metro Area, and western/central Pennsylvania. Carnegie Mellon SEI, Pittsburgh, PA, is an INCOSE CAB member organization.



The International Council on Systems Engineering (INCOSE) is a not-for-profit membership organization founded in 1990 to develop and disseminate trans-disciplinary 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.