

## Integrating Systems Engineering, Project Management and Quality Management: Lessons Learned and Recommendation

## Led by **Heidi Hahn and Ann Hodges**

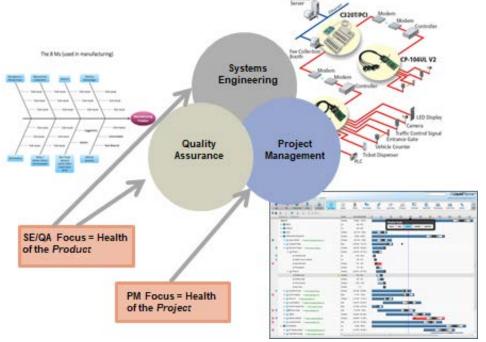
Friday, 22 September 2017, 8:00 a.m. – 5:00 p.m. UNM Continuing Education Conference Center, Albuquerque, NM

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## Tutorial: Integrating Systems Engineering, Project Management and Quality Management

Recently there has been growing interest in applying systems engineering (SE) and project management (PM) to complex engineering projects in an integrated way – INCOSE has formed an alliance with the Project Management Institute (PMI) and chartered a SE-PM Working Group for this purpose, for example.

Both Sandia National Laboratories and Los Alamos National Laboratory have taken up this quest, and have each developed what they call their Mission Assurance Framework, which describes the integrated application of SE, PM, and engineering quality and rigor (which is one area of overlap in the specializations claimed by both disciplines, along with topics such as stakeholder analysis and configuration management) to achieve mission success.



The presenters will describe their organizations' Mission Assurance Framework, including similarities and differences, and discuss what factors drove the decisions that were made. Participants will work through a series of questions to consider in making integration decisions for their own organizations.

The goal of the tutorial is to instill an appreciation for the benefits of a graded approach to applying a mission assurance framework, and how to apply the ideas discussed in the participants' organization.



Heidi Ann Hahn is Senior Executive Advisor to the Associate Director for **Engineering Sciences at Los** Alamos National Laboratory. She is responsible for development of processes and

tools to promote engineering capability; professional engineering-related part of the NSP PMU Mission development of R&D engineers and technicians; and engineering capability assessment.

She is the author of LANL's Mission Assurance Framework for the integrated application of systems engineering, project management, and engineering quality and rigor and has experience in tailoring those processes for projects of various scales.

She holds a Ph. D. in Industrial Engineering and Operations Research (Human Factors Option) from Virginia Tech and is an Expert Systems Engineering Professional with the Acquisition extension (ESEP-Acq) as well as a certified Project Management Professional (PMP).



**Ann Hodges** is the National Security Programs (NSP) Program Management Unit's (PMU) Mission Assurance systems engineering lead at Sandia National Laboratories as well as lead for the systems

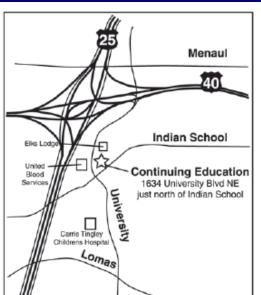
Assurance framework, and is currently a deputy program manager and systems engineer for a complex exploratory-phase project.

She is a primary author of the Mission Assurance framework, which is a risk-informed graded approach to the application of project management, systems engineering and quality management.

She has worked over 40 years at Sandia National Laboratories and is a Distinguished Member of Technical Staff.

Ann holds an M.S. in Computer Science and a B.B.A., both from UNM. Her certifications include Certified Systems Engineering Professional, CMII, and SAFe SPC4.

## **MEETING DETAILS**



**Time**: Sign-in is 7:30 – 8:00 am; Tutorial is 8:00 am - 5:00 pm.

**Date**: Friday, September 22, 2017.

Place: UNM Continuing Education Conference Center, 1634 University Blvd. NE, Albuquerque, NM 87131, http://ce.unm.edu/about-unmce/conference-center.html.

**Directions**: Traveling North on I-25, take exit 225 (Lomas). Go East on Lomas, left on University, pass Indian School, Center is on your right. --- Traveling South on I-25, take exit 227 (Comanche). Go south on Frontage Road, left on Menaul, right on University, pass under I-40, Center is on your left.

**Free Parking:** Front lot on University. Back lot on Indian School.

Package: The tutorial cost includes soft-copy downloadable tutorial notes, lunch and snacks.

Registration & Payment: Register via EventBrite at

www.eventbrite.com/e/integrating-systems-engineering-project-management-and-quality-management-lessons-learned-and-tickets-35746810673 INCOSE members: \$125; non-members: \$175; students: \$0. You will receive an email receipt from EventBrite,

which will act as your confirmation. If you do not receive a confirmation, have trouble registering or paying, or to register and pay by check, contact Mary Compton at <a href="mlcompt@sandia.gov">mlcompt@sandia.gov</a>.

**Contact:** Other questions? Contact Ann Hodges at alhodge@sandia.gov.