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10th Annual Systems Engineering in Healthcare Conference

Tutorials

Tuesday, April 29th, 2025
Crown Plaza Suites MSP Airport, 3 Appletree Square
Bloomington, MN

While the main conference on April 30th and May 1st consists of tracks composed of 30 or 60-minute talks, Tuesday, April 29th contains in-depth tutorials, each focused on one specific topic.

TUTORIAL DAY OVERVIEW

Time	Ballroom 1	Ballroom 2	Wright	Runway	Apollo
7:00	Breakfast				
8:00	**Fundamentals of SE**	**Digital SE (MBSE, Simulation)**	**Agile and Lean Methods**	**Safety and Risk Management**	
9:00					
10:00	The basic principles of Systems Engineering, from User Needs to System Requirements, with practical exercises	Applying Model-Based Systems Engineering (MBSE) for Medical Devices – Sean Densford, Dassault Systemes	Introduction to Lean/Agile Methods for Systems Engineers – Kelly Weyrauch, Agile Quality Systems, LLC	Integrating Assurance Cases into Medical Device Systems Engineering – Fubin Wu, GessNet	
11:00					
12:00	Lunch				
13:00	**Fundamentals of SE (cont.)**	**Digital SE (MBSE, Simulation) (cont.)**	**Digital SE (MBSE, Simulation)**	**Digital SE (MBSE, Simulation)**	
14:00					
15:00					INCOSE Paper Knowledge Exam
16:00	Dave Walden, Sysnovation; Joseph Green, Medtronic; John Vantuno, Eli Lilly; Mike Celentano, SOS LLC; Chris Unger, Practical SE LLC		Tutorial on MBSE for developing an effective humidification system for mechanical ventilators – Pourash Patel - MathWorks	SysML v2 – Chris Armstrong, Armstrong Process Group	

Systems Engineering Professional (SEP) Certification Exam

A SEP certification exam will be offered at 3 PM by the INCOSE NorthStar Chapter. Separate exam registration is required.

Register for Exam

Full Day Tutorials

Fundamentals of SE: The basic principles of Systems Engineering, from User Needs to System Requirements, with practical exercises. Taught by: Dave Walden, Sysnovation; Joseph Green, Medtronic; John Vantuno, Eli Lilly; Mike Celentano, SOS LLC; Chris Unger, Practical SE LLC

Digital SE: Applying Model Based Systems Engineering (MBSE) for Medical Devices. Taught by: Sean Densford, Dassault Systems

Half Day Tutorials

Morning (8:00am-12:00pm):
Agile and Lean Methods: Introduction to Lean/Agile Methods for Systems Engineers. Taught by Kelly Weyrauch - Agile Quality Systems, LLC
Safety and Risk Management: Integrating Assurance Cases into Medical Device Systems Engineering. Taught by: Fubin Wu - GessNet.

Afternoon (1:00pm-5:00pm):
Digital SE: Tutorial on MBSE for developing an effective humidification system for mechanical ventilators. Taught by: Pourash Patel, MathWorks
Digital SE: SysML v2. Taught by Chris Armstrong, Armstrong Process Group

Related (3:00pm):
INCOSE Knowledge Exam- Paper Exam: while this is a separate registration, we are happy to offer this opportunity to any INCOSE members who are interested- (exam registration page; instructions to register)

Evening Social

Related (5:00pm)
INCOSE North Star Chapter hosted social: while this is a separate registration (registration link forthcoming), we are happy to offer the opportunity for Tutorial participants to join the North Star Chapter social.

Registration

Registration for a full-day tutorial is $250 and for each half-day tutorial is $150.

Conference Homepage

Register now! Early registration ends March 30th