

Preliminary Program

WSRC 2020 CONFERENCE PROGRAM, September 17-19, 2020

Systems Engineering Professional Development Day (SE PDD) Program

The SE PDD program is a set of presentations that will be delivered at Seattle Pacific University on Friday and broadcast to satellite sites. PowerPoint Audio recordings of the presentations will also be provided to satellite sites. The recordings will enable satellite sites to rearrange the program to suit their respective time zones and to segue in the event of technical difficulties.

Tracks and Track Chairs

	Education- Workforce Development, Training-Rick Hefner: 4, 32, 33, 34, 35 [PDD-31]
	MBSE-Model-Based Systems Engineering-Steve Spangler: 9, 11, 15, 19, 21 [PDD-2, 29]
	Applications-Susan Ronning: 3, 7, 17, 20, 36 [PDD-6, 13]
	V&V-Verification & Validation: V Jhaveri: 24, 27
	Tools-Applications of Specific SE Tools: TBD: 8, 14, 22
	Security- Christina Mastrangelo: 23 [PDD-25]
	SEPM- SE Processes & Methods: Christina Mastrangelo: 5, 10, 26, 30
Various colors	Tutorials (Saturday) & Workshops (Friday/Saturday) - 1, 12, 16, 18, 28

Session Titles

Session Type	<p>Purpose of the session:</p> <p>Panel Discussion -- 90 -minute panel discussion - "<i>Panel-#</i>"</p> <p>Plenary -- Conference sessions for all attendees</p> <p>Presentation -- 45-minute presentation - "<i>[Track]-#</i>"</p> <p>SE-PDD Presentation -- Presentation that is part of SE-PDD program - "PDD: "</p> <p>Tutorial -- 2, 4, 8, or 16-hour educational session - "Tutorial-#"</p>
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Paper Number	Number that is used to uniquely identify the paper in the conference proceedings and INCOSE Events smartphone application.
"Title"	Title of the session
Name(s)	Presenter name(s)

Room Descriptions	
Room Name	Purpose
Demaray Hall 150	Keynote Speakers, SE PDD Track, Larger Sessions, Plenaries
Demaray Lobby	Exhibitors and Poster session, Registration, Coffee breaks
Demaray Classrooms	Papers, panels, tutorials
Gwinn Commons (TBD)	Lunch (2 minute walk)
Courtyard by Marriott Hotel	Friday evening Reception, Banquet, and Keynote

Preliminary Program

Thursday September 17, 2020

Time(s)	Duration	Rooms		
		Demaray 150	Demary 261 (49)	Demaray 254 (30)
		Registration and Orientation open from 7:30 AM - 11:00 AM (Demaray Hall Lobby)		
7:00 AM - 8:30 AM		Breakfast on your own		
7:45 AM - 8:15 AM	30 min	<i>Presenter & Session Chair Orientation Demaray Room 261 - Presenters & Session Chairs only; coffee</i>		
8:30 AM - 8:45 AM	15 min	Welcome and Plenary (Demaray 150)		
8:45 AM - 9:45 AM	60 min	Keynote Speaker: Christi Gau Pagnanelli, Boeing Defense, Space and Security, "Transition to Model-Based Systems Engineering"		
9:45 AM - 10:15 AM	30 min	Mid-morning Break - Demaray Lobby		
10:15 AM - 11:00 AM	45 min	Session Chair: Susan Ronning Applications-35, Comparison of FDA Quality System Regulation and INCOSE Systems Engineering Handbook, Daniel Piraino	Session Chair: Christina Mastrangelo Security-23, Automated Risk Classification of Information Assets, Andrew Carson	Session Chair: V Jhaveri V&V-24, INCOSE's Guide to Verification and Validation: Progress, Context, and Content, Raymond Wolfgang
11:00 AM - 11:45 PM	45 min	Applications-17, Applying Systems Engineering to Critical Communications, Susan Ronning	SEPM-10, Introduction to Uncertainty Quantification and Industrial Challenges, Gavin Jones	V&V-27, Flight Test: The Ill-regarded Tail-End-Charlie of a Project, Jorg Largent
11:45 PM - 1:00 PM	75 min	Lunch - Gwinn		
1:00 PM - 1:45 PM	45 min	Session Chair: Susan Ronning Applications-20, Complexity of Dynamic Systems in Mining Operations, Michael Do	Session Chair: Christina Mastrangelo SEPM-30, Distributed, Data-centric Collaborative Information Management (DDCIM) for Project Management and SE&I, Jennifer Devolites, et al.	Session Chair: Rick Hefner Education-4, Systems Engineering Problem Solving for Undergraduates, Dr. Ron Carson

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Time(s)	Duration	Rooms		
		Demaray 150	Demary 261 (49)	Demaray 254 (30)
1:45 PM - 2:30 PM	45 min	Applications-7, Perspectives on the Boeing 737MAX MCAS, Ron Carson	SEPM-26, Customer Analytics for Service Excellence in Systems Engineering, Dr. Kenneth Preston	Education-32, The Powerful Advantages of Developing a "Failure Resume", Tim Boyd
2:30 PM - 3:00 PM	30 min	Afternoon break - Demaray Lobby		
3:00 PM - 3:45 PM	45 min	Session Chair: Susan Ronning Applications-36, Systems Engineering for Small and Medium Nuclear Projects, Jared Harper	Session Chair: Steve Spangler MBSE-11, The Role of Analytics in the Digital Twin, Gavin Jones	Session Chair: Rick Hefner Education-33, The Surprising Benefits of Virtualizing Traditional In-Person Training for Complex Engineering Subjects, Tim Boyd, Rick Hefner
3:45 PM - 4:30 PM	45 min	Applications-3, What to do about global warming: Examining problem and solution alternatives, Ron Carson	MBSE-15, Model of Models Methodology, Aleczer Jackson	Education-34, A Geek's Perspective on Unconscious Bias: What It Is, What It Does, and How to Mitigate It, Tim Boyd

Preliminary Program

Friday, September 18, 2020

Time(s)	Duration	Rooms		
		Demaray 150 <i>PDD Track</i>	Demaray 261 (49)	Demaray 255 (24)
		Registration and Orientation open from 7:30 AM - 11:00 AM (Demaray Hall Lobby)		
7:00 AM - 8:30 AM		Breakfast on your own		
8:00 AM - 8:30 AM	30 min	<i>Presenter & Session Chair Orientation Demaray Room 261 - Presenters & Session Chairs only; coffee</i>		Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 1
8:30 AM - 8:45 AM	15 min	Welcome and Plenary (Demaray 150)		
8:45 AM - 9:45 AM	60 min	Keynote Speaker: Peter Brown, Sound Transit, "Engineering America's Most Ambitious Regional Transit Expansion"		
9:45 AM - 10:15 AM	30 min	Morning Break (30 minutes) - Demaray Lobby		
10:15 AM - 11:00 AM	45 min	Session Chair: Paul van Tulder PDD: Applications-13, An Agile-Like Approach to Hardware Development: The Ejectable Data Recorder (EDR) for Orion's Ascent Abort 2 (AA-2) Test Flight, Kristina Rojdev, et al.	Session Chair: Tools-14, ModelCenter MBSE: The Bridge Between Systems Engineering and Multi-Fidelity Analytical Models, Correa & Lies	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 1
11:00 AM - 11:45 AM	45 min	PDD: MBSE-2, Using Architecture and MBSE to Develop Validated Requirements, Ron Carson	Tools-22, How to Realign Engineering Teams for Remote Work with Minimal Disruption, Perillat & Merino	
11:45 PM - 1:00 PM	75 min	Lunch - Gwinn		

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Time(s)	Duration	Rooms		
		Demaray 150 <i>PDD Track</i>	Demaray 261 (49)	Demaray 255 (24)
1:00 PM - 1:45 PM	45 min	Session Chair: PDD: MBSE-29, Transitioning Legacy Systems to Model-based Systems Engineering, Paul White	Session Chair: Steve Spangler Tools/MBSE-8, Early System V&V Using SysML Simulation, Saulius Pavalkis	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 1
1:45 PM - 2:30 PM	45 min	PDD: Applications-6, On Track to Sounder Requirements at Sound Transit - A Light Rail Vehicle case study, Scott & Rubin	MBSE-9, A Model-Based Approach for System Verification and Validation, Raymond Wolfgang	
2:30 PM - 3:00 PM	30 min	Afternoon Break (30 minutes) - Demaray Lobby		
3:00 PM - 3:45 PM	45 min	Session Chair: PDD: Security-25, Systems Engineering and the Insider Threat Problem, Carson & Kaleta	Session Chair: Steve Spangler MBSE-21, Model Based Systems Engineering to Architecting Production System – A Pathfinder for Human System Integration, St. Pierre & Chan	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 1
3:45 PM - 4:30 PM	45 min	PDD: Education-31, Equipping Tomorrow's Systems Engineering Workforce, Rick Hefner	MBSE-19, The Future of Performance Design with MBSE: Electric Powertrain Example, Saulius Pavalkis	
5:00 PM - 6:00 PM	60 min	Hors d'oeuvres & Networking - Courtyard - South Lake Union		
6:00 PM - 9:00 PM	3 hr	Conference Banquet & Keynote Speaker: Geoff Austin, UW Medical Chief Operating Officer, "Never Let a Good Crisis Go to Waste: The significant opportunities for healthcare improvement through the wake of the COVID-19 pandemic" Sponsor Recognition, Committee Recognition, Entertainment (TBD)		

Preliminary Program

Saturday, September 19, 2020

Time(s)	Duration	Rooms			
		Demaray 150	Demaray 261 (49)	Demaray 255 (24)	Demaray 254 (30)
		Registration and Orientation open from 7:30 AM - 11:00 AM (Demaray Hall Lobby)			
< 8:00 AM		Breakfast on your own	Breakfast on your own	Breakfast on your own	Breakfast on your own
7:30 AM - 8:00 AM	30 min	<i>Tutorial, Presenter & Session Chair Orientation Demaray Room 254 - Presenters & Session Chairs only; coffee</i>			
8:00 AM - 10:15 AM	135 min	Session Chair: 0930: SEPM-5, Hardware-Inclusive DevOps: Applying DevOps Principles & Practices to Cyber-Physical System Engineering, Bryan Smith	Tutorial-16, Daniel Cobb, "DE/MBSE for Management Training"	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 2	Tutorial-28, Al Hoheb, "Model-Based Capabilities Assessment Workshop"
10:15 AM - 10:30 AM	15 min	Morning Break	Morning Break	Morning Break	Morning Break
10:30 AM - 11:45 PM	75 min	Closing Plenary and Keynote: Eric Williams, TerraPower, "Nuclear Technology Development with Systems Engineering"	Tutorial-16, Daniel Cobb, "DE/MBSE for Management Training"	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 2	NA
12:00 PM - 1:00 PM	60 min	Box Lunch	Box Lunch	Box Lunch	Box Lunch
1:00 PM - 3:00 PM	120 min	Tutorial-12, Mark Sampson, "Systems Engineering MBSE implementation in your organization"	Tutorial-1, Ron Carson, "Correcting Misperceptions of Systems Engineering Practices"	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 2	Boeing-Everett Factory Tour
3:00 PM - 3:15 PM	15 min	Afternoon Break	Afternoon Break	Afternoon Break	

Preliminary Program

Time(s)	Duration	Rooms			Demaray 254 (30)
		Demaray 150	Demaray 261 (49)	Demaray 255 (24)	
3:15 PM - 5:00 PM	105 min	Tutorial-12, Mark Sampson, "Systems Engineering MBSE implementation in your organization"	Tutorial-1, Ron Carson, "Correcting Misperceptions of Systems Engineering Practices"	Tutorial-18, Coughenour & Tolle, "Systems Engineering Bootcamp", day 2	