



RAMS 2025

The 71st Annual Reliability & Maintainability Symposium

Program Matrix

Time	#	Track A	Track B	Track C	Track D	Track E	Track F	Date	
		Coastal A	Coastal B	Coastal C	Coral A, B	Coral C, D	Emerald A, B		
08:30 - 10:00	General Chair's Welcome & Keynote (Location: Emerald C, D, E)								
10:15 - 12:15	1	Introduction to Probability Models in Reliability & Maintainability (Core Tutorial)	Best Practices of Reliability Testing: Overcoming Pitfalls	Reliability Modeling - 1	Real-World Model-Based RAMS in Aerospace (Panel)	Physical Reliability Models	CRE - BoK Topic #1 (Reliability Fundamentals)	Monday January 27	
13:30 - 15:30	2		Introduction to Covariate Software Reliability Models	Risk Analysis and Management - 1	Integrating R&M and Safety (Panel)	R&M Applications in Aerospace	CRE - BoK Topic #2 (Risk Management)		
15:45 - 17:45	3	Introduction to R&M Management (Core Tutorial)	Dynamic Reliability & Artificial Intelligence	Practical Applications in R&M - Hosted by RAMS 2025 Patron - PHM Patron Presentations - Location - Emerald C, D, E (New for RAMS 2025!)					
07:45 - 08:00	General Chair's Corner (Location: Emerald Foyer)								
08:00 - 10:00	4	Introduction to Life Data Analysis (Core Tutorial)	AI-Based Prognostics & Health Management for Predictive Maintenance	Accelerated Life Testing	Women Shaping R&M: Bridging the Past & Future (Panel)	Repairable Systems	CRE - BoK Topic #3 (Probability & Statistics for Reliability)	Tuesday January 28	
10:15 - 12:15	5		Simulation-based Probabilistic Risk Assessment	Diagnostics and Prognostics 1	Autonomous Systems and AI 1	Software Reliability and Testing	CRE - BoK Topic #4 (Reliability, Planning, Testing, and Modeling)		
13:30 - 15:30	6	Understanding and Applying the Fundamentals of FMEAs (Core Tutorial)	Design of Experiments for the Modern World	Life Data Analysis - 1	Safety and Reliability of Autonomous Systems (Panel)	Reliability Modeling - 2	CRE - BoK Topic #5 (Life-Cycle Reliability)		
15:45 - 17:45	7	Introduction to Fault Tree Analysis (Core Tutorial)	Reliability Modelling Toolkit: Training & Development for Reliability Analysis	FMEA	Autonomous Systems and AI 2	Big Data and IoT Applications in R&M	CRE - Open Q&A		
17:00 - 19:00	Attendee/Exhibitor Reception (Location: Coastal & Emerald Foyer)								
07:45 - 08:00	General Chair's Corner (Location: Emerald Foyer)								
08:00 - 10:00	8	Automatic Differentiation & Machine Learning Software Engineering	Deep Learning for Prognostics & Health Management (Plait Winner)	Fault Tree Analysis	Autonomous Systems and AI 3	System Safety Analysis	R&M Applications in Supportability	Wednesday January 29	
10:15 - 12:15	Advisory Board Panel (Location: Emerald C, D, E)								
13:30 - 15:30	9	Quantum-based Fault Tree Analysis	Risk Management for Complex Projects in Regulated Industries	Prognostics and Health Management	DoD Reverse Panel: AI's Role in Revolutionizing R&M (Panel)	Design Optimization Using R&M Techniques	R&M Management		
15:45 - 17:45	10	Determining Right Sample Sizes for Reliability Tests: Theory & Application	Bayesian Machine Learning A/B Testing Techniques for Reliability Practitioners	Maintenance Models and Methodologies	DoD & Industry: R&M Challenges & Opportunities (Panel)	Discrete Event Modeling & Simulation	Poster Colloquial Session (Located in Foyer)		
18:30 - 21:30	General Reception & Banquet (Location: Emerald Foyer & A, B, C, D, E)								
07:45 - 08:00	General Chair's Corner (Location: Emerald Foyer)								
08:00 - 10:00	11	Space Hazard Analysis — The 1st Component of High Dependability for Spacecraft	Introduction to Maintenance Models	Reliability Growth Analysis	Product Sustainability and Durability (Panel)	R&M Applications in Infrastructure Management	Fault Tolerance and Safety Critical Systems	Thursday January 30	
10:15 - 12:15	12	Design for Reliability & Testing for Products Operating in Harsh Environments	Probabilistic Programming for Predictive Maintenance & Logistics	Risk Analysis and Management - 2	Autonomous Systems and AI 4	Life Data Analysis - 2	Diagnostics and Prognostics - 2		

Legend

(T) = Tutorial

(PN) = Panel

(PS) = Paper Session

(CRE) = CRE BoK Topics