NASA's
Office of Safety and Mission Assurance
Software Assurance Research Program
Software Assurance Symposium (SAS)
September 22-23, 2009

NASA IV&V Facility, Fairmont, WV

Rooms 225A/B, 226, and 230

Tuesday, September 22, 2009			
9:00 AM	9:15 AM	State of SARP	Lisa Montgomery
9:15 AM	9:30 AM	OSMA Perspective	Melissa Bodeau
9:30 AM	9:40 AM	Product-Line Verification of Safety-Critical Software	Robyn Lutz
9:40 AM	9:50 AM	Assurance and Re-Certification of Safety-Critical Software in Legacy Systems	Janie Hill
9:50 AM	10:00 AM	Software Reliability Techniques Applied to Constellation	Allen Nikora
10:00 AM	10:10 AM	Automated Tool and Method for System Safety Analysis	Jane Malin
10:10 AM	10:20 AM	Architectural Analysis of Complex Evolving Systems of Systems	Mikael Lindvall

Wednesday, September 23, 2009			
9:00 AM	9:10 AM	Safety Case for NASA Ares Abort Fault Detection, Notification & Response	Martin Feather, Larry Markosian, and Tom Pressburger
9:10 AM	9:20 AM	Using Auto-Generated Diagnostic Trees To Support Verification of Safety-Critical Test Procedures	Ann Patterson-Hine & Robyn Lutz
9:20 AM	9:30 AM	Required Assurance and Reliability Estimator	Donna Smith
9:30 AM	9:40 AM	NASA Software Safety Risk Metrics Initiative	Vic Basili
9:40 AM	9:50 AM	Technology Infusion of CodeSonar into the Space Network Ground Segment	Markland Benson
9:50 AM	10:00 AM	Formal Methods for Systems and Software Specifications	Caroline Wang, Michael Hinchey, and Josh McNeil

Software Assurance Symposium

Tuesday, September 22, 2009			
10:50 AM	11:00 AM	Model-Based Software Assurance with the SAE Architecture Analysis & Design Language	Michael Facemire, Dave Gluch, Kathryn Weiss
11:00 AM	11:10 AM	Integrating Model-Based SA using AADL into System Development V&V Process	Kathryn Weiss
11:10 AM	11:20 AM	Model-Validation in Model-Based Development	Don Ohi, Jim Dabney, Mats Heimdahl
11:20 AM	11:30 AM	Classifying Software Faults to Improve Fault Detection Effectiveness	Allen Nikora
11:30 AM	11:40 AM	Supporting Model-Based Systems and Software Engineering with SpecTRM	Kathryn Weiss
11:40 AM	11:50 AM	Inspections for Systems and Software	Forrest Shull

Wednesday, September 23, 2009			
10:30 AM	10:50 AM	NASA Safety Center SMA Technical Excellence Program (STEP)	Karen Meinert
10:50 AM	11:10 AM	Technical Update - Critical Software S.A.	Nuno Silva
11:10 AM	11:30 AM	Technical Update - JAXA	Tsutomu Matsumoto , Ryo Ujiie
11:30 AM	11:50 AM	Technical Update - ESA	TBD

Each initiative presenting in the morning also provides a detailed technical presentation in the afternoon.

Schedule is subject to change.

Registration: http://www.zoomerang.com/Survey/?p=WEB229FQR5V9HL

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Tuesday, September 22, 2009			
Time		Afternoon Technical Presentations	Principle Investigator
1:20 PM	2:00 PM	Model-Based Software Assurance with the SAE Architecture Analysis & Design Language (AADL)	Michael Facemire, Dave Gluch, Kathryn Weiss
1:20 PM	2:00 PM	Automated Tool and Method for System Safety Analysis	Jane Malin
1:00 PM	1:40 PM	Product-Line Verification of Safety-Critical Software	Robyn Lutz and Nicolas Rouquette
1:40 PM	1:50 PM		
2:10 PM	2:50 PM	Integrating Model-Based Software Assurance using AADL into System Development V&V Process	Kathryn Weiss
2:10 PM	2:50 PM	Model-Validation in Model-Based Development	Don Ohi and Jim Dabney
2:10 PM	2:50 PM	Software Reliability Techniques Applied to Constellation	Allen Nikora
2:30 PM	3:00 PM	**30 MINUTE BREAK**	
3:00 PM	3:40 PM	Supporting Model-Based Systems and Software Engineering with SpecTRM	Kathryn Weiss
3:00 PM	3:40 PM	Inspections for Systems and Software	Forrest Shull
3:00 PM	3:40 PM	Classifying Software Faults to Improve Fault Detection Effectiveness	Allen Nikora
3:40 PM	3:50 PM		
3:50 PM	4:30 PM	Architectural Analysis of Complex Evolving Systems of Systems	Mikael Lindvall
3:50 PM	4:30 PM	Assurance and Recertification of Safety-Critical Software in Legacy Systems	Janie Hill
3:50 PM	4:30 PM		

Software Assurance Symposium

Wednesday, September 23, 2009			
Time		Afternoon Technical Presentations	Presenter
1:10 PM	1:50 PM	Technical Update - JAXA	Tsutomu Matsumoto Ryo Ujiie
1:10 PM	1:50 PM	Safety Case for NASA Ares Abort Fault Detection, Notification & Response	Martin Feather, Larry Markosian, and Tom Pressburger
1:10 PM	1:50 PM	NASA Software Safety Risk Metrics Initiative	Vic Basili
1:50 PM	2:00 PM		
2:00 PM	2:40 PM	Technical Update - Critical Software S.A.	Nuno Silva
2:00 PM	2:40 PM	Using Auto-Generated Diagnostic Trees To Support Verification of Safety-Critical Test Procedures	Ann Patterson-Hine, and Robyn Lutz
2:00 PM	2:40 PM	Required Assurance and Reliability Estimator	Donna Smith
2:40 PM	3:20 PM	**40 MINUTE BREAK**	
3:20 PM	4:00 PM	Technology Infusion of CodeSonar into the Space Network Ground Segment	Markland Benson
3:20 PM	4:00 PM	Formal Methods for Systems and Software Specifications	Caroline Wang, Michael Hinchey, and Josh McNeil
3:20 PM	4:00 PM	Technical Update—ESA	TBD

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