



TCCOE Summit Technical Program

May 15-16, 2025

Theme: Technology Advances, Trust and Trustworthiness, and Software Ecosystems

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Thursday May 15, 2025	Chair & Time
	Dr. Ray Richards
Keynote – Dr. Bill Scherlis, Carnegie Mellon University Grounding and social process: Verification isn't enough	08:45AM – 09:45AM
Break (15 minutes)	09:45AM – 10:00AM
	Dr. Stuart Card
MonT: Toward Real-time Model Checking, Dr. Sukarno Mertoguno, Georgia Tech	10:00AM – 10:30AM
Secure High-Assurance Aberdeen Architecture RISC-V Compiler and Softcore (SHAAARCS), Dr. Michael Doran, DornerWorks	10:30AM – 11:00AM
Hardware Attacks and Defenses for High Assurance Systems, Dr. Sean Zhou, Trusted Science and Technology	11:00AM – 11:30AM
Kry10 OS - Trustworthy, Dynamic, and Easy To Use, Dr. Ihor Kuz, Kry10	11:30AM – 12:00PM
Lunch (on your own)	12:00PM – 13:30PM
	Patrick Hurley
LITESHIELD: A Lightweight Userspace μ Kernel Architecture for Secure Container Isolation, Dr. Hui Lu, University of Texas at Arlington	13:30PM – 14:00PM
Unikernels: A DevSecOps alternative to containers, Robbie VanVossen, DornerWorks	14:00PM – 14:30PM
Mobile Software Understanding for Compound Vulnerabilities Using Knowledge Graph (KG) and Graph Neural Network (GNN), Fei Sun, Leidos	14:30PM – 15:00PM
Secure Robotic Operating System (seROS), Nathan Studer, DornerWorks	15:00PM – 15:30PM
Break (30 Minutes)	15:30PM – 16:00PM
Panel Discussion – Technology Advances, Trust, and Trustworthiness (Moderator: Dr. Ray Richards)	16:00PM – 17:00PM
<ul style="list-style-type: none"> • Dr. Evan Austin, Leidos • Dr. Trent Jaeger, UC Riverside • Dr. Steve Kuhn, DARPA • Dr. Sandeep Neema, Vanderbilt University 	
Adjourn for the day	17:00PM

Friday, May 16, 2025	Chair & Time
	Dr. David Musliner
Keynote – Towards Comprehensive Memory Safety Using Memory Safety Validation, Dr. Trent Jaeger, UC Riverside	08:45AM – 09:45AM
Break (15 minutes)	09:45AM – 10:00AM
	Dr. Jason Li
Building a Memory Safe Software Ecosystem with CHERI, Brooks Davis, SRI	10:00AM – 10:30AM
Fine-Grained Security Control through Combined Memory Access Protection and Isolation, Dr. Thomas Wahl, Trusted Science and Technology	10:30AM – 11:00AM
Exploring Next-Generation Hardware Platforms to Harness the Benefits of CHERI Experimental Implementations, Dr. Hui Zeng, PJR Corp	11:00AM – 11:30AM
SWITCHing to CHERI – Smoothing the Path to Cyber Security, Dr. David Musliner, Smart Information Flow Technologies (SIFT)	11:30AM – 12:00PM
Updates from TCCOE, Patrick Hurley, TCCOE	12:00PM – 12:15PM
Closing Remarks (Dr. Ray Richards, Leidos)	12:15PM – 12:30PM