



Cybersecurity Workshop

Exploring Cyber Test Ranges:
Past, Present, and Future Perspectives



September 17-20, 2024

ABOUT ITEA

The premier professional association of the international test and evaluation community.

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SCHEDULE-AT-A-GLANCE



EVENTS

TIME

Wednesday, September 18

Exhibitor Hours & Capture-the-Flag	8:00 a.m. – 5:00 p.m.
Opening Ceremony & Keynotes	8:00 a.m. – 10:15 a.m.
Break with Exhibitors	10:15 a.m. – 10:45 a.m.
Technical Tracks	10:45 a.m. – 12:45 p.m.
Lunch	12:45 p.m. – 1:45 p.m.
General Session	1:45 p.m. – 2:15 p.m.
Panel Discussion	2:15 p.m. – 3:45 p.m.
General Session	4:15 p.m. – 5:15 p.m.
Networking Reception	5:15 p.m. – 6:45 p.m.

Thursday, September 19

Exhibitor Hours & Capture-the-Flag	8:00 a.m. – 5:00 p.m.
Welcome and General Session	8:00 a.m. – 9:45 a.m.
Break with Exhibitors	9:45 a.m. – 10:15 a.m.
Panel Discussion	10:15 a.m. – 11:45 a.m.
General Session	11:45 a.m. – 12:30 p.m.
Lunch	12:30 p.m. – 1:30 p.m.
Technical Tracks	1:45 p.m. – 3:45 p.m.
Break with Exhibitors	3:45 p.m. – 4:15 p.m.
General Session	4:15 p.m. – 5:30 p.m.

Friday, September 20

Tour of National Cyber Range Complex (NCRC)	9:00 a.m. – 1:00 p.m.
<i>Pre-registration and Visit Requests required</i>	

THANK YOU TO OUR SPONSORS



DIAMOND



GOLD



SMALL BUSINESS



EXHIBITORS

Ad Hoc Research

TSI Technical Systems Integrators
Scientific Research Corporation (SRC)

AGENDA



Workshop Day 1

Wednesday, September 18

- 8:00 a.m. – 5:00 p.m. Exhibitors and Capture-the-Flag
- 8:00 a.m. – 8:15 a.m. **Opening Ceremony and Welcome**
Scott Bisciotti, Program Chair
- 8:15 a.m. – 8:45 a.m. **Senator Rick Scott** (FL), Member of the Senate Armed Services Committee (invited)
- 8:45 a.m. – 9:30 a.m. **Arjuna (AJ) Pathmanathan**, Executive Manager, National Cyber Range Complex
- 9:30 a.m. – 10:15 a.m. **Christopher C. Collins, SES**, Executive Director, DTE&A
- 10:15 a.m. – 10:45 a.m. Break with Exhibitors
- 10:45 a.m. – 12:45 p.m. Technical Tracks

TRACK 1: Fuzzing to Find Unknown Vulnerabilities

Track Chair: **Michael Shields, Ph.D.**, Vigilant Cyber Systems

Start Time:	10:45 a.m.
Presenter(s):	Josh Weader , Deputy PM and Technical Director, Draper Lab
Presentation:	<i>Vader Modular Fuzzer (VMF) Now and in the Future</i>
Start Time:	11:15 a.m.
Presenter(s):	Josh Weader , Deputy PM and Technical Director, Draper Lab
Presentation:	<i>G-QEMU (GQ) Now and in the Future</i>
Start Time:	11:45 a.m.
Presenter(s):	Kaleb Senator , Research Scientist, GTRI
Presentation:	<i>Hybrid Fuzzing</i>
Start Time:	12:15 p.m.
Presenter(s):	Dan Koch , TRMC T&E S&T CTT Fuzzing SME, Vigilant Cyber Systems
Presentation:	<i>Measuring Fuzzer Performance</i>

Ad-Hoc Meeting Space Available

If you would like a private meeting room to host a small side bar meeting, please see Jenna at the registration desk to reserve your time.

TRACK 2: Cyber Resilience

Track Chair: **Sarah Standard**, Cybersecurity/Interoperability Technical Director, DASD, DTE&A

Start Time:	10:45 a.m.
Presenter(s):	Charles T. Reynolds , Technical Systems Integrators, Inc.
Presentation:	<i>Why you need Cyber Range as a Service</i>
Start Time:	11:15 a.m.
Presenter(s):	Dylan Harbaugh , Vigilant Cyber Systems
Presentation:	<i>The Strategic Value of Capture the Flag Competitions for Government Red Teams and Penetration Testers</i>
Start Time:	11:45 a.m.
Presenter(s):	Jaewon Kim, Ph.D. , Texas A&M Global Cyber Research Institute
Presentation:	<i>Secure and Resilient Cyber Test Ranges against Potential Cyber-Attacks</i>
Start Time:	12:15 p.m.
Presenter(s):	Rachelle McMullin , Researcher, Western Governors University
Presentation:	<i>TSA's Cyber Resilience Approach</i>

TRACK 3: Modeling Cybersecurity and Resilience

Track Chair: **Peter Firey**, Senior Principal, MITRE Corporation

Start Time:	10:45 a.m.
Presenter(s):	Bill "Data" Bryant, Ph.D. , Support Contractor, DOT&E
Presentation:	<i>Using Modeling and Simulation to Determine Cyber Survivability</i>
Start Time:	11:15 a.m.
Presenter(s):	Lee Lisle , Postdoctoral Associate, Virginia Tech National Security Institute
Presentation:	<i>Glanceable Augmented Reality for Cybersecurity Analysts</i>
Start Time:	11:45 a.m.
Presenter(s):	Nick Tsamis and Peter Kalorourmakis , MITRE Corporation
Presentation:	<i>Using ATT&CK and D3FEND to Measure Human Response to Active Cyber Threats - Virtual Participation</i>
Start Time:	12:15 p.m.
Presenter(s):	Kira Lindke , COLE T&E Lead, Applied Research Associates
Presentation:	<i>Leveraging Cyber Operations Lethality and Effectiveness for Risk Assessments against Cyber-Physical Systems</i> CUI Requirement to attend

12:45 p.m. – 1:45 p.m.	Lunch
1:45 p.m. – 2:15 p.m.	Keith Joiner, Ph.D. , CSC, CPEng, CPPD, Adjunct Associate Professor, Engineering Management and Systems Engineering, Old Dominion University (Fall 2024) and Senior Lecturer Test, Evaluation and Aircraft Design, University of New South Wales, Australia
2:15 p.m. – 3:45 p.m.	<p>Panel Discussion on Industry Cyber Ranges</p> <p>Moderator: Michael Shields, Ph.D., Vigilant Cyber Systems</p> <p>Jason Minto, Principal Technical Director, Cybersecurity Software Engineer, IBM</p> <p>Rahul Parwani, Deputy Product Cybersecurity Officer, RTX Corporation</p> <p>Pritesh Patel, Founder and CEO, AdHoc Research</p> <p>Gary M. Deckard, PhD, CISSP, PMP, Strategy Senior Advisor, Peraton Labs</p>
3:45 p.m. – 4:15 p.m.	Break with Exhibitors
4:15 p.m. – 5:15 p.m.	<p>General Session</p> <p>Chris Paust, Program Manager, TRMC, Central Test and Evaluation Investment Program (CTEIP) CTEIP Cyber Goals, Objectives and Investments</p> <p>CUI Requirement to attend</p>
5:15 p.m. – 6:45 p.m.	Networking Reception with Exhibitors

CAPTURE-THE-FLAG

The National Cyber Range Complex (NCRC) Orlando team is proud to present a hands-on demonstration of its capture-the-flag training event, Cyber Red Zone (CRZ)! Each year, NCRC designs CRZ with custom objectives to address the most pressing cyber needs, allowing service members to practice their Offensive Cyber Operations (OCO) skills. From intel documents to objective creation, the NCRC staff has worked with the training and cyber community to build campaigns and flags relevant to cyber workforce training needs and gaps. ITEA attendees can try their own capture-the-flag skills with NCRC Event Staff providing guidance as needed.



Workshop Day 2

Thursday, September 19

8:00 a.m. – 5:00 p.m.	Exhibitors and Capture-the-Flag
8:00 a.m. – 8:15 a.m.	Welcome
8:15 a.m. – 9:00 a.m.	Robert N. Tamburello, Ph.D. , Chief Information Officer Deputy Executive Agent for DoD Cyber Test Ranges RMF Authorizing Official, Test Resource Management Center, Strategic Initiatives DOD Cyber Ranges
9:00 a.m. – 9:45 a.m.	Mitch Crosswait, Ph.D. , SES, Deputy Director, Operational Test & Evaluation, Net-centric, Space and Missile Defense Systems
9:45 a.m. – 10:15 a.m.	Break with Exhibitors
10:15 a.m. – 11:45 a.m.	Panel Discussion: Cyber Ranges: Enabling Capabilities for Cyber Test, Training and Experimentation Moderator: Scott Bisciotti , Command Post Technologies Jeff Minor , Director of Operation, Joint IO Range, Director Operations, 318 COG OL-B Benjamin Pryor , Product Manager, Cyber Resiliency and Training, Persistent Cyber Training Environment (PCTE) Sarah Standard , Cybersecurity/Interoperability Technical Director, Deputy Assistant Secretary of Defense for Developmental Test, Evaluation and Assessments Rob Tamburella, Ph.D. , CIO, TRMC, Cyber EA for T&E Christa Pettie, Ph.D. , National Cyber Range Complex (NCRC) Enterprise Operations and Outreach Lead
11:45 a.m. – 12:30 p.m.	Christa Pettie, Ph.D. , NCRC, “Cyber Table Top”
12:30 p.m. – 1:30 p.m.	Lunch
1:45 p.m. – 4:15 p.m.	Technical Tracks

TRACK 4: TRMC T&E/S&T Cyberspace Test Technology Projects

Track Chair: **Jeong Min Kim, CISSP**, Executing Agent, TRMC T&E/S&T Cyberspace Test Technology

Start Time:	1:45 p.m.
Presenter(s):	Donald Anthony Pellegrino Jr., Ph.D. , DeciSym, LLC
Presentation:	<i>Measure and Share Data Fabric</i>
Start Time:	2:15 p.m.
Presenter(s):	Steve Durst , R&D Engineer, Skaion Corp.
Presentation:	<i>[ACE²] Activity and Content Enhancement for an Advanced Cyber Environment</i>
Start Time:	2:45 p.m.
Presenter(s):	Gordon Stewart , Associate Director, Secure and Resilient Systems, Riverside Research Institute
Presentation:	<i>Formal Methods: Past Successes, Current Challenges, Future Opportunities</i>
Start Time:	3:15 p.m.
Presenter(s):	Marc Bohler , TRMC T&E S&T CTT, Vigilant Cyber Systems, Inc.
Presentation:	<i>Overview of TRMC's VM Creation Project</i> CUI Requirement to attend

TRACK 5: Cyber T&E

Track Chair: **Sarah Standard**, Cybersecurity/Interoperability Technical Director, DASD, DTE&A

Start Time:	1:45 p.m.
Presenter(s):	Scott Fogarty , CEO, Ridgeback Network Defense, Inc.
Presentation:	<i>Flip the Script: Impose your will on the Adversary</i>
Start Time:	2:15 p.m.
Presenter(s):	Lance Fiondella , Associate Professor, University of Massachusetts Dartmouth
Presentation:	<i>Covariate Software Vulnerability Discovery Model to Support Cybersecurity Test & Evaluation</i>
Start Time:	2:45 p.m.
Presenter(s):	Timothy Chase , STAT COE/ALPI
Presentation:	<i>Impact of Cybersecurity in DevSecOps</i>
Start Time:	3:15 p.m.
Presenter(s):	Gary Deckard, Ph.D. , Peraton Labs
Presentation:	<i>CyberVan</i>

TRACK 6: AI and Cybersecurity

Track Chair: **Bruce T. Einfalt**, Applied Research Laboratory, Penn State

Start Time:	1:45 p.m.
Presenter(s):	Grant Deffenbaugh Ph.D. , Software Engineering Institute
Presentation:	<i>Evaluation Methodology of AI/ML Network Analysis Tools</i>
Start Time:	2:15 p.m.
Presenter(s):	Andrew Mahyari, Ph.D. , AlVault Inc.
Presentation:	<i>The Ultimate Antivirus Platform for AI</i>
Start Time:	2:45 p.m.
Presenter(s):	Zander Connor , Scientific Research Corporation
Presentation:	<i>Cloud Scalable Docker Range - How Containerization Can Be Used to Create a Cyber Range Environment</i>
Start Time:	3:15 p.m.
Presenter(s):	Benjamin Smith , Scientific Research Corporation
Presentation:	<i>Command & Control - How Advanced Adversaries Take Over Your Network</i>

3:45 p.m. - 4:15 p.m.

Break with Exhibitors

4:15 p.m. - 4:45 p.m.

Bradley R. Horton, Director, US Army Threat Systems Management Office (TSMO)

4:45 p.m. - 5:30 p.m.

The Honorable Douglas C. Schmidt, Director, Operational Test & Evaluation



Friday, September 20

9:00 a.m. - 1:00 p.m.

Post-Workshop Tour of National Cyber Range Complex (NCRC)
Pre-registration and Visit Requests required
Visit the ITEA registration desk on Wednesday to confirm your scheduled time.

Annual International Test & Evaluation Symposium



T&E Challenges of Evolving Digital Ecosystems

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TUTORIALS

- T&E Fundamentals and CTEP Foundations (Part 1 & 2)
- Incorporating T&E into Acquisition Contracts
- Data Management Beyond Relational Database
- Current Topics in STAT
- Operational Design of Experiments
- T&E of AI Enabled Systems
- Human Systems Integration and Test and Evaluation

SPEAKERS

- Academia
- Department of Defense
- Department of Homeland Security
- Federal Aviation Administration
- Industry
- Ministry of Defence UK
- NASA
- Program Executive Officers
- Royal Australian Navy

PANEL DISCUSSION TOPICS

- An Acquisition View of T&E
- Attracting the Next Generation T&E Workforce
- Digital Twin
- Hackathon 2.0 Out-brief
- Impact of Federal AI Mandates
- Senior T&E Leaders, Challenges of Emerging Technology

Exhibit & Sponsor

Golf Tournament

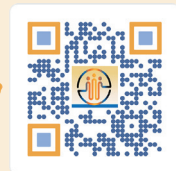
Networking

T&E Professional Award Ceremony

Steam And Poster Competition

Technical Tracks

Tours



Learn More



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