

# IVDS 2022 Workshop Program and Rules of Engagement

Chuck Weinstock

Principal Researcher, Software Engineering Institute

June 24, 2022

Friday, June 24	
08:00-08:25	<b>Welcome to IFIP IVDS 2022 Workshop</b> <i>Marco Vieira, Universidade de Coimbra</i> <i>Chris Walter, WW Technology Group</i>
08:25-08:50	<b><u>Workshop Introduction and Objectives</u></b> <i>Jay Lala, Raytheon Technologies</i>
08:50-09:00	<b><u>Workshop Program and Rules of Engagement</u></b> <i>Chuck Weinstock, Software Engineering Institute</i>
<b>Session 1</b> <i>Session Chair: Paulo Verissimo, King Abdullah University of Science and Technology, Rapporteur: John Meyer, University of Michigan</i>	
09:00-09:45	<b><u>Automotive Cyber-Security - from standards to regulations</u></b> <i>Christoph Schmittner, Austrian Ins of Tech (ATI)</i>
09:45-10:30	<b><u>Cyber-Attacks against AI Stack in Autonomous Driving and Intelligent Transportation</u></b> <i>Alfred Chen, UC Irvine</i>
10:30-11:00	<b>Discussion</b>
11:00-11:30	<b>Break</b>

<b>Session 2: Panel: Cyber Attacks on Safety-Critical AV Functions: Technology &amp; Policy</b>	
<i>Session Chair: T. Basil Smith, Rapporteur: Wilfried Steiner, TTTech Group</i>	
11:30-11:40	<b>Panel Introduction</b>
11:40-11:50	<b><u>Title TBD</u></b> <i>Kristie Pfosi, Director, Cybersecurity, Aptiv</i>
11:50-12:00	<b><u>Managing Legal Consequences from Cyber Attacks on Safety-Critical Functions of Intelligent Vehicles</u></b> <i>William Widen, Professor of Law, Univ of Miami School of Law</i>
12:00-12:20	<b><u>Cross-Collaborating to Secure Autonomous Ground Vehicles and Other Emerging Technologies Against the Threats of Tomorrow</u></b> <i>Benjamin Gilbert, Cybersecurity Advisor (CSA) in US Department of Homeland Security.</i>
12:20-12:45	<b>Panel Discussion</b>
12:45-15:30	<b>Lunch/Break</b>
15:30-16:00	<b>Coffee</b>

<b>Session 3</b>	
<i>Session Chair: Lisa Spainhower, Rapporteur: Carl Landwehr, University of Michigan</i>	
16:00-16:45	<b><u>Security for Software-defined Vehicle</u></b> <i>Robert Kaster, Bosch</i>
16:45-17:30	<b><u>CyberShield - An Approach to Defeat Malware in Edge Computers using Hardware Diversity</u></b> <i>Brock LaMeres, Montana State Univ</i>
17:30-18:00	<b>Discussion</b>
18:00	<b>Adjourn for the day</b>

<b>Saturday, June 25</b>	
<b>Session 4</b>	
<i>Session Chair: Andrea Ceccarelli, University of Florence, Rapporteur: Homa Alemzadeh, University of Virginia</i>	
08:00-08:45	<b><u>How to defend connected intelligent vehicles: Transferring established Information Security best practices to the vehicular world</u></b> <i>Miriam Gruber and Jan Lange, Volkswagen</i>
08:45-09:30	<b><u>Detection is not enough: Low-cost Attack Recovery for Autonomous Robotic Vehicles</u></b> <i>Karthik Pattabiraman, Univ of British Columbia</i>
09:30-09:45	<b>(Short) Coffee Break</b>
09:45-10:30	<b><u>Design and Assessment of Safe Autonomous Vehicles</u></b> <i>Saurabh Jha, IBM Research</i>
10:30-11:00	<b>Discussion</b>
11:00-11:15	<b>(Short) Coffee Break</b>
Workshop Wrap-up <i>Workshop Chair &amp; Rapporteurs</i>	
11:15-12:15	<b>Session Outbriefs by Rapporteurs and Discussion</b>
12:15-12:30	<b><u>Concluding Remarks</u></b> <i>Jay Lala, Raytheon Technologies</i>
12:30	<b>Adjourn for Lunch</b>

- Over 45 active attendees IN PERSON: great to see you all after three years!
- If you have not attended a WG10.4 meeting before: we have long discussion periods after each session. We encourage an active dialog between the speakers and all attendees. Here are the ground rules.
  - During talks please limit questions to only those of clarification without follow up
  - During the discussion period please raise your hand when you want to comment. The session chair will be the arbiter of who gets to talk and in what order
  - Please wait for the microphone before making your comments
  - Please do not monopolize the conversation. Again there are over 45 of us here!
  - Try not to go off-topic: “Discuss design solutions, quantitative cyber-survivability measures, and verification and validation with regard to impact on AV safety”
  - If necessary, organizers and session chairs will move the discussion along
- **Speakers:** Please email your slides to Chuck Weinstock <[weinstock@conjelco.com](mailto:weinstock@conjelco.com)> and [Jay\\_Lala@raytheon.com](mailto:Jay_Lala@raytheon.com)