



CYBERSECURITY INITIATIVE

# MINI WORKSHOP ON CYBER-PHYSICAL SYSTEMS AND CYBER-RESILIENCE - *ZOOM EDITION*

UNIVERSITY OF DELAWARE | NEWARK, DELAWARE

## MARCH 11, 2021

Bringing together public, private and international partners  
to discuss interdisciplinary cybersecurity and resilience  
strategies across our critical cyber-physical systems

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## 8:00AM - WELCOME

**CONFERENCE CHAIR: Nii Attoh-Okine** | *Interim Academic Director, University of Delaware, Cybersecurity Initiative: "Workshop Goals and Objectives"*

## 8:10AM - OPENING REMARKS

**Charles Riordan** | *Vice President for Research, Scholarship and Innovation, University of Delaware*

**Levi Thompson** | *Elizabeth Inez Kelley Professor of Chemical Engineering, Dean of Engineering, University of Delaware*

**Jamie Phillips** | *Professor and Chair, Electrical and Computer Engineering, University of Delaware*

## 8:35AM - PLENARY SPEAKER

**Franco Cappa** | *Cybersecurity Advisor, Cybersecurity and Infrastructure Security Agency, US Department of Homeland Security | Homeland Security Perspectives for Building Cyber Security Capacity, Capability and Resilience*

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## 9:10AM - KEYNOTE SPEAKER

**Anton Dahbura** | *Co-Director, Johns Hopkins University Institute for Assured Autonomy*

*"Autonomous Systems: What Can Possibly Go Wrong?"*

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## 9:45AM - STATE OF DELAWARE

**Solomon Adote** | *CSO, State of Delaware: "Cyber Risk Management in a highly Targeted Smart City Threat Landscape"*

## 10:15AM - CYBER SECURITY EDUCATION AT THE UNIVERSITY OF DELAWARE

**Chase Cotton** | *University of Delaware: Cyber Security programs at the University of Delaware*

## 10:40AM - CYBER-PHYSICAL SYSTEMS

**Ambrose Kam, Arlanda Johnson, Katrina Bergman, and**

**Charles Johnson-Bey** | Lockheed Martin: "Quantifying Cyber Resilience"

**Avani Dave, Nilanjan Banerjee, Ryan Robucci and Chintan Patel** | UMBC: "CARE: Lightweight Attack Resilient Secure-Boot Architecture for Cyber-Physical Systems on RISC-V"

**Justin Smith** | Collins Aerospace: "Threat Modeling: An Essential but Practical Exercise – Railway Perspective"

## 11:40AM - CYBER RESILIENCE AND RISK

**Ambrose Kam, Arlanda Johnson, Katrina Bergman, and**

**Charles Johnson-Bey** | Lockheed Martin: "Quantifying Cyber Resilience"

**Andrian Barb and Nil Kilicay-Ergin** | Penn State: "Knowledge Elicitation Methodology for System Analysis of Privacy Risks in Smart Cities"

**Anna Bogdanova, Akira Imakura, Tetsuya Sakurai** | University of Tsukuba, Japan: "Federated Learning System without Model Sharing through Integration of Dimensional Reduced Data Representations"

## 12:40 - BREAK

## 1:00 PM - LUNCH & LUNCHEON SPEAKER

**Kevin Kornegay** | School of Electrical and Computer Engineering, Morgan State University: "Reducing the IoT Cybersecurity Attack Surface"

## 1:30 PM - BLOCKCHAIN APPLICATIONS

**Collin Meese and Mark Nejad** | University of Delaware: "Blockstack – Inspired Information Sharing Architecture for Two-Sided Ridesharing Mechanisms"

**Nii Attoh-Okine** | University of Delaware: "Blockchain Technology and Digital Delaware-Partnership between State of Delaware and University of Delaware"

**Wanxin Li and Mark Nejad** | University of Delaware: "A Blockchain and Zero-Knowledge Proof Inspired Approach for Privacy-Preserving Traffic Management"

## 2:30PM - OTHER PERSPECTIVES

**Lenka Brumarová** | VSB – Technical University of Ostrava: "Cyber Security in the Czech Republic"

**Darren Wilkins** | University of Liberia: "Investigation of the Cybersecurity Aspects of GovNet as a Critical Infrastructure in Liberia"

**Brian Croteau, Nilanjan Banerjee, Saad Rahman, and Ryan Robucci** | UMBC: "Dynamic Rudder Actuation and Ship Path Planning"

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