



Presentation by Visiting Distinguished Researcher

Dr. Dongyan Xu Purdue University

Samuel Conte Professor of Computer Science
Director, Center for Education and Research
Information Assurance and Security (CERIAS)

- A leading researcher in computer systems and cyber-physical security
- Award-winning contributions in kernel malware defense, memory forensics, APT analytics, and CPS/IoT vulnerability mitigation
- Focuses on autonomous vehicles, industrial control systems, and supply chain networks

**25
March
2026**

9:30 – 10:30 AM: Presentation

10:30 – 11:00 AM: Coffee & Collegial Exchange

Grand Challenges Research Bldg. , 750 N Cherry Ave, Rm 130
Zoom link provided at registration.

Presentation: *Towards a Cross-Plane Methodology for Cyber-Physical Security*

Register to join Dr. Xu

Register for the hybrid presentation. Join Dr. Dongyan Xu on campus as he explores research collaborations and strategic partnerships in cybersecurity and cyber-physical systems.



bit.ly/4a3dRjs

Abstract: The landscape of cybersecurity has undergone significant changes in the past decade, with its coverage expanding from “cyber-only” systems such as compute job execution, web services, and mobile apps, to “cyber-physical” systems such as smart grids, autonomous vehicles, and manufacturing systems. Today, any system with a cyber component faces threats from cyber attacks, calling for new security approaches and solutions to secure not just the cyber components (i.e., computers and networks), but the overall cyber-physical systems (CPS). I will discuss new challenges in cyber-physical security that did not exist in traditional computer security, as well as opportunities to secure CPS via an interdisciplinary cross-plane (cyber and physical) methodology. I will also report our ongoing efforts in CPS vulnerability discovery and confirmation, as concrete instantiation of the cross-plane methodology.