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CySER Virtual Seminar

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Cyber-physical system recovery from sensor attacks
Sep. 30, 2025, 1:10 – 2 PM Pacific

Team Link: **Click here to join the meeting**
Meeting ID: 296 991 453 941 7 | Passcode: mt2np9wT
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Abstract:

Cyber-Physical Systems (CPS) increasingly rely on sensor data to enable real-time decision making and safe control. However, their dependence on sensor inputs makes them vulnerable to malicious attacks that can compromise data integrity, leading to unsafe or unstable behavior. The key challenges lie in the real-time diagnosis of compromised sensors, the quantification of trust in redundant or alternative measurements, and the design of robust fallback strategies that ensure graceful degradation or safe control under degraded observability. Therefore, it is important to make sure the recovery method balances the control performance and timing constraints at the same time.

Bio:

Dr. Mengyu Liu is an assistant professor of computer science and cybersecurity at Washington State University Tri-Cities. He received his B.S. from University of Toronto and his Ph.D from University of Notre Dame. Dr. Liu published over 20 papers in leading journals and conferences and is the recipient of several prestigious honors, including the NSF CPS Rising Star, ESWEEK SRC 1st place and DAC young fellow. For more details, please check https://mengyuliu0520.github.io/.

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