



VICEROY NORTHWEST INSTITUTE FOR CYBERSECURITY EDUCATION AND RESEARCH



CySER Virtual Seminar

Dr. Shereen Ismail

Research Scientist, University of Michigan

Network Telescope at Merit Network:

Advancing Cybersecurity Research and Internet Measurement

Oct. 7, 2026, 11:10 AM – 12 PM Pacific

Team Link: [Click here to join the meeting](#)

Meeting ID: 255 137 746 648 012 | Passcode: mF6yr9yn

Abstract:

The rapid growth and increasing complexity of the Internet have created new challenges for understanding large-scale cyber threats and emerging security risks. Network telescopes provide a unique vantage point for observing unsolicited Internet traffic and identifying patterns associated with scanning, malware propagation, denial-of-service attacks, misconfigurations, and other anomalous activities.

This seminar will introduce the network telescope infrastructure at Merit Network and discuss its role in advancing cybersecurity research. We will describe the architecture and capabilities of the telescope, the types of Internet-scale data it captures, and approaches for analyzing these observations to better understand the evolving threat landscape. The presentation will also highlight research opportunities enabled by the telescope, including Internet measurement, threat detection, anomaly analysis, and longitudinal studies of large-scale cyber events.

Finally, we will discuss how network telescope data can complement other cybersecurity data sources and support collaboration between researchers, network operators, and the broader cybersecurity community.

Bio:

Dr. Shereen Ismail is a Research Scientist in Networking and Cybersecurity at Merit Network, University of Michigan, in Ann Arbor, Michigan. Her research focuses on wireless networks and cybersecurity.

Dr. Ismail earned her Ph.D. in Computer Science from the University of North Dakota in Grand Forks, North Dakota, where she also served as a Graduate Research Assistant in both the School of Electrical Engineering and Computer Science and the Department of Biomedical Engineering.



Dr. Ismail has received several awards recognizing her contributions to research and education, including Best Paper Awards at IEEE EIT 2023 and IEEE UEMCON 2025, as well as Best Presenter Awards at IEEE CCWC 2022 and IEEE UEMCON 2021. In recognition of her contributions, Dr. Ismail received scholarship awards from Women in Services Computing (2023 IEEE WISC) and Women in CyberSecurity (WiCyS 2024), and was selected for the SC26 Workforce in IT Networking Systems (WINS26) program.

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