

BIO INFO CONTINUED

Amanda Marshall, Director, Project Management, IUP



Amanda L. Marshall, director, Project Management, Indiana University of Pennsylvania. Marshall received her BS in management information systems from IUP in 1996. She began her career as a help desk technician for Commonwealth Systems Corporation. Amanda has held several technology positions at IUP, including technology support analyst, coordinator of user services, and, most recently, director of project management for IT Services. One of the most recent projects Amanda has been tasked with is the implementation of DUO, IUP's multifactor authentication service. She is also instrumental in IUP cybersecurity initiatives. Amanda communicates regularly with the IUP community by alerting users to phishing and scam alerts and by providing information and tips to educate users on the importance of cybersecurity.

Dan Yuhas, Director, IT Compliance and Administration, IUP



Daniel J. Yuhas, director, IT Compliance and Administration, Indiana University of Pennsylvania. Yuhas received his BS in computer science from IUP in 1988. He began his career as a software engineer for Vitro Corporation designing tactical weapons systems for the US Navy. He has held a variety of technology positions at IUP for 32 years, including director of Research and Development and director of Instructional and Research Technologies. He currently serves as director of IT Compliance and Administration focusing on IT compliance, cybersecurity, IT strategy, IT governance, IT policy, contracting, and personnel and financial management.

Bill Balint, Chief Information Officer, IUP



Bill Balint has 34 years of IT experience and became IUP's chief information officer in 2006. Bill has presented at more than 50 industry events at the regional, state, national, and international levels and has authored, co-authored, or been interviewed for more than 35 publications and websites via written, audio, and video formats. He is also a member of the Pittsburgh Executive CIO governing board.

GUEST SPEAKER TITLES AND ABSTRACTS

Rita Doerr, Academic Outreach Lead, National Security Agency

Title: Countermeasures and Risk Management: A Principled Approach

Abstract: Countermeasures are any actions, devices, procedures, techniques, or other measures that reduce the vulnerability of any information system. In this presentation, we provide a principled approach to using countermeasures when attempting to thwart cyber adversarial attacks. We will address several techniques that will help to reduce and mitigate impact through the principles of Defense in Depth and Least Privilege, and briefly speak to how one must remain ever vigilant.

Mackenzie Monarko, Special Agent & Private Sector Coordinator, FBI

Title: From Gang Busters to Ransomware Gangs: Evolution of FBI Investigations

Abstract: This talk will explore the history of the FBI and walk the participants through the progression of FBI investigations from traditional criminal matters to modern day cyber and counterintelligence investigations. Criminals, regardless of their level of sophistication, are leveraging technological advances to evade detection by law enforcement. Some actors, whether they are financially motivated or nation-states, use a vast array of skills to hide within corporate networks to steal data or intellectual property. This talk will highlight how knowledge and understanding of computer science and information systems and being "tech savvy" are useful to advance investigations.

Christopher May, Technical Director, Cyber Workforce Development, CERT® Division, Software Engineering Institute, Carnegie Mellon University

Title: Become a Cyber Warrior for Free, courtesy of Uncle Sam!

Abstract: This talk will showcase and demonstrate technologies and methods for rapidly enhancing and assessing the skills and experience-level of aspiring cyber operators and defenders. The CERT® division of Carnegie Mellon University's Software Engineering Institute develops cutting-edge cyber training platforms, simulators, and hands-on content in support of the U.S. Department of Defense and the U.S. Cybersecurity and Infrastructure Security Agency (CISA). These capabilities were recently released as open-source software and are used for U.S. Indo-Pacific Command's Cyber Endeavor exercise, the U.S. Army's Gaining Cyber Dominance program and the White House sponsored President's Cup Cybersecurity Competition. The presenter will discuss how organizations can easily leverage these freely-available tools to jump start or enhance their own training, testing or security research programs.

Bryant Wysocki, Senior Level executive, Technical Advisor for C4I and Cyber Systems for the Air Force and Associate Director, Information Directorate, Air Force Research Laboratory, Rome, NY

Title: Information Warfare

Abstract: Technology is advancing at speeds beyond previous human experience and nowhere is this more evident than in cyber information systems. The resulting information flow fuels our global economy, has altered world cultures, and serves as critical infrastructure within society and national security. Our information dependencies go deep making the assurance of cyber dependent missions a national priority. This talk examines the evolving challenges connected to protecting information in an increasingly fast paced and complex landscape where cyber capabilities converge with other more traditional means of national defense. The material introduces operational concepts related to information assurance and the four pillars of information warfare while considering the attributes of a stable and resilient information infrastructure.

Nigel Wright, Director of Product for Locomotion

Title: Designing Systems for Security: Walls are only as secure as they are designed

Abstract: In any industry, proper system design will be the difference between success and failure. Allocation of system features, design of data elements, and thoughtful consideration of tradeoffs must occur to ensure that the product is secure, robust and reliable at the end of the day. Participants will learn about historical failures of secure system designs made by teams choosing the wrong incentives and understand how these factors will impact them in the real world in this engaging presentation

Panel Discussion: Amanda Marshall, Dan Yuhas, Bill Balint

Title: Multi-Factor Authentication: A Cybersecurity Difference Maker

Abstract: This panel discussion will provide attendees with a working knowledge of multifactor authentication (MFA) and to explain its purpose as part of a cybersecurity program. Attendees will learn why MFA is helpful, how it works, its benefits and challenges and various other related information

For more information about Cybersecurity Day at IUP, please contact Dr. Waleed Farag, Director, Institute for Cybersecurity, at farag@iup.edu, 724-357-7995.

THE 15TH ANNUAL
**CYBERSECURITY
DAY AT IUP**

OCTOBER 18, 2022

OHIO HUB
IUP MAIN CAMPUS

IUP



CYBERSECURITY DAY AT IUP

TIME SLOT	SPEAKER	TOPIC TITLE
9:00 – 9:05 am	Waleed Farag, Director, Institute for Cyber Security and Professor of Computer Science	Introduction
9:05 – 9:10 am	Lara Luetkehans, IUP's Provost and Vice President for Academic Affairs	Provost Remarks
9:10 – 9:15 am	Steven Hovan, Dean, Kopchick College of Natural Sciences and Mathematics	Opening Remarks
9:15 – 9:20 am	Francisco E. Alarcon, Chair, Department of Mathematical and Computer Sciences	Welcome Message
9:20 – 9:30 am	Waleed Farag, Director, Institute for Cyber Security and Professor of Computer Science	Event history, ICS work, and recent achievements, and logistics
9:30 – 10:15 am	Dr. Rita Doerr, Academic Outreach Lead, National Security Agency	Countermeasures and Risk Management: A Principled Approach
10:20 – 11:05 am	Ms. Mackenzie Monarko, Special Agent & Private Sector Coordinator, FBI Pittsburgh	From Gang Busters to Ransomware Gangs: Evolution of FBI Investigations
11:10 – 11:55 am	Mr. Christopher May, Technical Director, Cyber Workforce Development, CERT@ Division, Software Engineering Institute, Carnegie Mellon University	Become a Cyber Warrior for Free, Courtesy of Uncle Sam!
12:00 – 1:15 pm	Lunch Break	
1:15 – 2:00 pm	Dr. Bryant Wysocki, Senior Level Executive, Technical Advisor for C4I and Cyber Systems for the Air Force and Associate Director, Air Force Research Laboratory, Rome NY	Information Warfare
2:00 – 2:10 pm	Afternoon Break	
2:10 – 2:55 pm	Mr. Nigel Wright, Director of Product for Locomation	Designing Systems for Security: Walls are Only as Secure as They are Designed
2:55 – 3:05 pm	Afternoon Break	
3:05 – 3:50 pm	Panel Discussion, Amanda Marshall, Dan Yuhas, Bill Balint	Multi-Factor Authentication: A Cybersecurity Difference Maker
3:50 – 4:00 pm	Waleed Farag, Director, Institute for Cyber Security and Professor of Computer Science	Conclusions

BIOGRAPHICAL INFORMATION ON GUEST SPEAKERS

Rita Doerr, Academic Outreach Lead, National Security Agency



Rita Doerr has been employed as a Computer Scientist with the National Security Agency (NSA) for over 37 years. She is currently the Academic Outreach Lead for the Cybersecurity Directorate's (CSD) Cybersecurity Collaboration Center. Prior to her arrival in CSD, she was a Cyber Instructor within NSA's National Cryptologic School's College of Cyber. During this assignment, Dr. Doerr completed a 3 year technical development program focusing on cybersecurity education and training where she toured in NSA's Red Team and Academic Engagement Offices. Her external tours included teaching at Archbishop Spalding High School and the University of Maryland, Baltimore County's CSEE Graduate Program, and serving as a cyber consultant for the Maryland Air National Guard's 175th Cyberspace Operations Group.

Mackenzie Monarko, Special Agent & Private Sector Coordinator, FBI



Special Agent Mackenzie Monarko joined the FBI in 2006 and is currently assigned to the FBI Pittsburgh Division. Her previous office assignments included Albuquerque and Philadelphia, and she has worked a variety of investigations to include violent gangs, organized crime, international and domestic terrorism, and criminal cyber matters. In January 2021, SA Monarko took on the role of Private Sector Coordinator where she works closely with Cyber and Counterintelligence Agents and Intelligence Analysts to keep organizations apprised of priority threat intelligence.

Christopher May, Technical Director, Cyber Workforce Development, CERT@ Division, Software Engineering Institute, Carnegie Mellon University



Christopher May is a technical director within the CERT@ Division of Carnegie Mellon University's Software Engineering Institute. In this role, he leads a team of over 60 cybersecurity researchers in developing the technical abilities of the U.S. military's cyber operators. Additionally, he founded the Cyber Forensics and Incident Response curriculum track within CMU's Information Security master's degree program, and taught courses therein for 17 years. Prior to joining Carnegie Mellon, May served 7-years as a US Air Force communications officer.

Bryant Wysocki, Senior Level Exec, Technical Advisor for C4I and Cyber Systems for the Air Force, Associate Director, Information Directorate, Air Force Research Laboratory.



As the recognized national/international authority on C4I and cyber systems, Wysocki provides technical oversight of these areas for the Air Force and advice on C4I and cyber systems to the highest level Air Force and government officials. Wysocki evaluates technical approaches and develops transition strategies for directorate technologies and serves as the senior scientist liaison to external national and international partners across government, academia, and industry. Wysocki started his active duty career with the Air Force as a nuclear weapons technician in 1991 and served in numerous technical and operational positions throughout his service as a development engineer and later as a civilian scientist. Wysocki is a retired Air Force officer with experience in industry, academia and government. He has a broad span of technical leadership experience with a diverse background in military operations, acquisitions, logistics, maintenance, program management, systems engineering, engineering physics, fundamental research, and technology development.

Nigel Wright, Director of Product for Locomation



Nigel Wright is an alumnus of California University of Pennsylvania and an advocate for reliable, safe, and secure automated systems. Wright has spent his career developing safety critical autonomous systems and currently serves as Director of Product for Locomation. Responsible for Product initiatives & strategy, Wright works with the team to ensure that the human lead convoy delivers safe, consistent, reliable performance generating value for the end customers. Wright also supports the advisory boards for Indiana University of Pennsylvania and Pennwest at California, providing support for curriculum development. Wright holds a Bachelor's Degree in Computer Engineering Technology from California University of Pennsylvania, a Master's Degree in Business Administration from Point Park, and has completed executive post graduate education in Software Architecture (Carnegie Mellon University Software Engineering Institute), Model Based System Engineering with (MITX), Innovation Management (Villach, Austria) and Leadership and Culture (Harvard University in partnership with Uber).