WORKSHOP SESSION TITLES & SUMMARIES

Dr. Waleed Farag
PC4A PI, ICS Director & Professor of Computer Science Indiana University of PA

Session Title: PC4A Updates & Workshop Logistics

Session Summary: This session provides an overview of the PC4A Project and its three major objectives. It will discuss our efforts to promote collaboration among seven institutions of higher education across the Commonwealth of PA in order to advance cybersecurity and STEM education.

Dr. Xin-Wen Wu
Associate Professor of Computer Science University of Mary Washington

Session Title: Network Defense with the Zero-Trust Model.

Session Summary: As networking technologies including the Internet of Things continue to evolve, securing networked systems remains a challenge. The proliferation of disruptive technologies and irreversible trends, such as "Bring Your Own Device" and "work from home", have made the digital boundaries of corporates and organizations disappear. With boundaries diminishing, traditional perimeter-based security solutions have become ineffective in meeting increasing demands for access from literally everywhere and for using every device. To respond to these problems, the zero-trust security model was proposed by researchers and endorsed by the National Institute of Standards and Technology (NIST). In this workshop, we will discuss some current issues and challenges and explore some mechanisms of defending networks with the zero-trust model.

Dr. Balaji Palanisamy
Associate Professor of Computing and Information University of Pittsburgh

Session Title: Introduction to Blockchains

Session Summary: This talk will provide an introduction to distributed ledger technologies. We will discuss the fundamentals of a decentralized ledger and the functioning of a blockchain. We will also introduce the basics of the Ethereum blockchain and the notion of smart contracts in Ethereum.

Mr. James Rice
Lead Cybersecurity Instructor Mohawk Valley Comm. College

Session Title: Interactive Journey Developing the NCAE Cyber Sandbox and Beyond

Session Summary: Leading up to the NCAE National Competition grant and upon MVCC receiving the award, James spearheaded the effort to have an educational environment as a priority alongside the delivery of the competitions themselves. In this workshop session, James walks through a brief history of working in this space, leveraging the NCAE Cyber Sandbox in the classroom, and unveils other new collaborative learning platforms coming to the Sandbox and beyond the NCAE grant.

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WWW.PC4A.ORG
FOR MORE INFORMATION

SPEAKER BIOS

Dr. Waleed Farag
Waleed Farag is the director of IUP Institute for Cybersecurity and a professor of computer science. His research interests include IoT security, autonomous systems, and CS education and he has published and/or presented over 70 articles. His work was recognized with the Best Paper Award at the ACM SIGITE and others. Farag has secured over $10M to support his research and his work has led to the establishment of unique programs that contribute to the enhancement of cybersecurity research and education in the region.

Dr. Xin-Wen Wu
Dr. Wu has been working in cybersecurity and various related areas as a researcher and educator over the last two decades. He has published two books, a monograph, and numerous research articles. Dr. Wu is a faculty member at the University of Mary Washington. He was also affiliated with IUP, extending his academic experience at several research-focused universities including the University of California at San Diego and the University of Melbourne in Australia.

Dr. Balaji Palanisamy
Dr. Palanisamy is an Associate Professor in the School of Computing and Information at the University of Pittsburgh. His research interests include data privacy, privacy-preserving system design and scalable and resource management. He is a recipient of an IBM Faculty Award in 2017 and is a co-recipient of the Best Paper Awards in various conferences. He is currently an Associate Editor for the IEEE Transactions on Dependable and Secure Computing, and the IEEE Transactions on Services Computing journal.

Mr. James Rice
Mr. Rice has been with MVCC since 2011. While teaching as an adjunct for MVCC, James worked full-time as a cybersecurity analyst for Quanterion Solutions Inc., a cybersecurity and reliability engineering-focused Department of Defense contractor. During this time, he focused on delivering dynamic learning content and environments via various forms of media, including scenarios and games. He holds a bachelor's degree in mathematics from SUNY Albany and a master's degree in cybersecurity from Utica University.

WORKSHOP SCHEDULE

9:00 - 9:10 am
Dr. Waleed Farag
The PC4A Project and Workshop Logistics

9:10 - 10:50 am
Dr. Xin-Wen Wu
Network Defense with the Zero-Trust Model

10:50 - 11:00 am
Morning Break

11:00 - 12:40 pm
Dr. Balaji Palanisamy
Introduction to Blockchains

12:40 - 1:20 pm
Lunch Break

1:20 - 3:00 pm
Mr. James Rice
Interactive Journey Developing the NCAE Cyber Sandbox and Beyond

ABOUT PC4A

IUP, in partnership with six community colleges across Pennsylvania has been awarded a substantial grant from the US Department of Defense with the increasingly important goal of supporting and strengthening the cybersecurity workforce in our country.

Project Objectives
- Increase Certification Rates
- Increase Transfers to 4 Year Institutions
- Increase Interest in DoD/DIB Employment

Contact Information:
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PC4A
PA Community College
Consortium Cooperative Agreement

FACULTY PROFESSIONAL DEVELOPMENT WORKSHOP

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