

WORKSHOP SESSION TITLES, SUMMARIES AND SPEAKER BIOS



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.

Speaker Bio: Dr. Waleed Farag is the Director of Indiana University of Pennsylvania's (IUP) Institute for Cybersecurity and a full professor of Computer Science. He oversees the IUP Cybersecurity program, which has been a designated Center of Academic Excellence in Cyber Defense since the early 2000s. He has made several contributions in these areas and has published/presented over 70 articles in recognized journals, conferences, and workshops. His work was recognized with the Best Paper Award at the ACM SIGITE'2012. Dr. Farag has outstanding records of securing funds to support his research and is currently the PI of several major federally funded grants. His work in many of these funded projects has led to the establishment of unique programs that have contributed to the enhancement of cybersecurity education and research across Pennsylvania and beyond. Furthermore, Dr. Farag has served on many technical program committees and as a reviewer for several international journals, conferences, and federal agencies.



Dr. Xin-Wen Wu

Associate Professor of
Computer Science
University of Mary Washington

Session Title: Beyond Confidentiality: How Modern Cryptography is Used to Protect Our Data and Cyberspace.

Session Summary: Modern cryptography, including symmetric ciphers, asymmetric crypto algorithms, and secure hash algorithms, provides powerful tools to protect cyberspace as well as users. When being used properly, advanced cryptography ensures confidentiality, integrity, and beyond. In this workshop, we will introduce algorithmic concepts of the most commonly used cryptographic protocols. Interesting examples and hands-on activities will be offered to help understand the concepts.

Speaker Bio: Xin-wen Wu, Ph.D., 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 in reputable journals and international conferences. Dr. Wu is a faculty member at the University of Mary Washington currently. He was also affiliated with Indiana University of Pennsylvania, extending his academic experience at several research-focused universities including the University of California at San Diego and the University of Melbourne in Australia.



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.

Speaker Bio: James has been with MVCC, starting as an adjunct professor in 2011 and becoming a full-time cybersecurity instructor at the beginning of 2017. 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 has 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.

VISIT WWW.PC4A.ORG FOR MORE INFORMATION

WORKSHOP SCHEDULE

9:00 - 9:20 am

Dr. Waleed Farag
The PC4A Project and
Workshop Logistics

9:25 - 11:55 am

Dr. Xin-Wen Wu
Network Defense with
the Zero-Trust Model

11:55 - 12:30 pm
Lunch Break

12:30 - 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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FACULTY PROFESSIONAL DEVELOPMENT WORKSHOP



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