



CyRF@C: Cybersecurity Research Forum at The Citadel

Sunday, April 2nd
The Opal Room
Charleston Marriott (170 Lockwood Blvd.)

6:00 PM to 8:00 PM

Conference Check-in / Welcome Reception

Monday, April 3rd: Day 1
Holliday Alumni Center (69 Hagood Ave.)

7:30 AM to 8:30 AM

Registration / Continental Breakfast

8:30 AM to 8:45 AM

Welcome Address

Dr. Shankar Banik, Director, Citadel DoD Cyber Institute
Professor and Head of Dept. of Cyber and Computer Sciences,
The Citadel

Opening Remarks

GEN Glenn M. Walters '79, USMC (Retired),
President, The Citadel

Welcome / Keynote Introduction

Dr. Sally Selden, Provost and Dean of the College, The Citadel

9:00 AM to 9:30 AM

Keynote Address (*Introduced by Dr. Sally Selden*)

MG John H. Phillips '90, Military Deputy, US Army DCS G-6 &
Director, Program Resource Integration HQDA-G6

9:30 AM to 9:50 AM

Q&A with MG John H. Phillips

9:50 AM to 10:00 AM

Break

10:00 AM to 11:00 AM

Session 1: Malware and Forensics **denotes presenter*
Chair: Dr. William Johnson (The Citadel)

Nathan Gavriiliuc.

*To Baseline or Not to Baseline: Cybersecurity for Home
Networks. University of North Georgia. (10 min. / 5 min.)*

Rohan Viswanathan.

*Malware Classification Through Subgraphs and Machine
Learning. Texas A&M University. (10 min. / 5 min.)*

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| 11:00 AM to 12:00 PM | <p>Sarah Lawhorn* and Matthew Bovee. <i>Memory Forensic Analysis of Web Browser-Integrated Password Managers</i>. Norwich University. (15 min. / 5 min.)</p> <p>Session 2: Data Analysis and Threatcasting *denotes presenter Chair: Dr. Deepti Joshi (The Citadel)</p> <p>Jacob Wood* and Deepti Joshi. <i>Arabic Text Classification using Weak Supervision</i>. The Citadel. (15 min. / 5 min.)</p> <p>Joshua Ryan. <i>Norwich University Cyber Institute's Threatcasting</i>. Norwich University. (10 min. / 5 min.)</p> <p>Lena Anchordoquy. <i>Detecting Propaganda Memes: A Preliminary Review of Existing Methods, Models, and their Gaps</i>. Norwich University. (10 min. / 5 min.)</p> |
| 12:00 PM to 1:00 PM 1:00 PM to 1:30 PM | <p>Luncheon and Networking</p> <p>Keynote Address (Introduced by Dr. Shankar Banik)</p> <p>Mr. Neal Ziring, Technical Director, National Security Agency (NSA)</p> |
| 1:30 PM to 1:50 PM | <p>Q&A with Mr. Neal Ziring</p> |
| 1:50 PM to 2:00 PM | <p>Break</p> |
| 2:00 PM to 3:00 PM | <p>Session 3: Cryptography, Cyber Warfare, and IoT *denotes presenter Chair: Dr. Michael Verdicchio (The Citadel)</p> <p>Sahay Harshvardhan, Sanil Jain, James McClure, Caleb McIrvine, and Ngoc Quy Tran*. <i>Simulating Noisy Quantum Circuits for Cryptographic Algorithms</i>. Virginia Tech. (15 min. / 5 min.)</p> <p>Matthew Brenningmeyer*, Christopher Kildea, Charles B. Male, Parker Rice, Bijon Bose*, Isaac Kersey, Denis Gracanic, and Mohamed Azab. <i>Extended Reality Ready Immersive Experience for Cyber Warfare Training: Virginia Cyber Range Case Study</i>. Virginia Military Institute and Virginia Tech. (15 min. / 5 min.)</p> <p>Maximillian Tiberghien*, Nicolas Harpey, and Zachary Schellinger. <i>Collective Remote Attestation with a Focus on Industrial Internet of Things</i>. The Citadel. (10 min. / 5 min.)</p> |

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| 3:00 PM to 3:30 PM | Dismiss Day 1 / Break Dr. Shankar Banik, Director, Citadel DoD Cyber Institute Professor and Head of Dept. of Cyber and Computer Sciences, The Citadel |
| 3:30 PM to 4:00 PM | Visitors board bus at Holliday Alumni Center/ Depart to IOP |
| 4:30 PM to 7:30 PM | Evening Reception and Dinner <i>Citadel Beach Club, Isle of Palms, SC</i> |
| 6:30 PM to 7:00 PM | Guest Speaker: Mr. Rich Scalco, Senior Cyber Engineer U.S. Navy, Naval Information Warfare Center (NIWC) Atlantic |
| 7:30 PM to 8:00 PM | <i>Travel back to Hotel/HAC</i> |

Tuesday, April 4th: Day 2

Holliday Alumni Center (69 Hagood Ave.)

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| 8:00 AM to 8:50 AM | Continental Breakfast |
| 8:50 AM to 9:00 AM | Day 2 Welcome / Keynote Introduction Dr. Darin Zimmerman, Dean of Swain Family School of Science and Mathematics, The Citadel |
| 9:00 AM to 9:30 AM | Keynote Address (<i>Introduced by Dr. Darin Zimmerman</i>) Mr. Matthew Isnor, Chief, DoD Cyberspace Workforce Development, U.S. Department of Defense |
| 9:30 AM to 9:50 AM | Q&A with Mr. Matthew Isnor |
| 9:50 AM to 10:00 AM | Break |
| 10:00 AM to 10:40 AM | Session 4: Security for IoT Devices <i>*denotes presenter</i> <i>Chair: Dr. Michael Verdicchio (The Citadel)</i> Jacob Gross* and Huw Read. <i>iPhone Virtualization Forensics: A First Look Using Corellium.</i> Norwich University. (15 min. / 5 min.) Evan Williams. <i>IoMT Devices and Vulnerable Data.</i> Norwich University. (15 min. 5 min) |
| 10:40 AM to 11:25 AM | Session 5: Poster Presentations <i>*denotes presenter</i> <i>Chair: Dr. Shankar Banik (The Citadel)</i> Grayson Clark. <i>NetHunter: On the Go Penetration Testing.</i> University of North Georgia. (5 min.) |

Nathanael Ling and Nathanael King*.
Application of STPA-DFSec on an Elevator. The Citadel.
(5 min.)

Daniel Cornett.
Badexe: The Power Behind Remote Access Trojans. University
of North Georgia. (5 min.)

Jackson All*, Trey Stevens, Lydia Freeman and Christopher
Shorkey.
Anti-Sandboxing Malware Analysis and Countermeasures. The
Citadel. (5 min.)

Slateon Frederick*, George Ayers Honiotes, and Shankar
Banik.
*Context-Aware Access Control for Internet of Things (IoT)
Networks*. The Citadel. (5 min.)

Dominick Lalena.
*Enterprise Security Data Augmentation for Analyst Training
and Security Dashboard Validation*. Virginia Military Institute.
(5 min.)

Svetlira Van Jakovich*, Alexandre Robic, Byungkak Samuel
Jeon, Danny Hernandez, Jake Leible, Michael Silva, John
Hamilton, and Damian Lall.
Black Box Entropy Estimation. Texas A&M University. (5 min.)

Jordan Jean.
Digital Forensics Investigation of the Xbox Series S. Norwich
University. (5 min.)

Dalton Hazelwood* and Deepti Joshi.
*Discovering Influencing Factors for Social Unrest Using
Clustering*. The Citadel. (5 min.)

11:25 AM to 12:00 PM

Poster Viewing / Q&A in Grand Foyer and Courvoisie Hall

12:00 PM to 1:00 PM

Lunch and Networking

1:00 PM to 2:00 PM

Panel: DoD Cyber Workforce
Panel Moderator: Dr. William Johnson (The Citadel)

Ms. Ashley Greeley, NSA / National Centers of Academic
Excellence in Cybersecurity (NCAE-C)

Mr. Hank Osborne, Naval Information Warfare Center (NIWC)
Atlantic

CW2 Yolanda Surrency and Ms. Danielle Phelps, U.S. Army
Cyber Command

2:00 PM to 2:30 PM

Award Ceremony
Best Paper

Best Presentation

Best Poster

2:30 PM to 2:45 PM

Concluding Remarks

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