W3  **Scientific Working Group on Digital Evidence (SWGDE) and Digital Evidence: The Look of Modern Criminal Investigations**

**Monday**

**February 15, 2021**

8:00 a.m. – 12:00 p.m.  
3.75 CE Hours

**Learning Overview:** The goal of this presentation is to provide attendees with an overall view of the various types of digital forensic examinations and technical work being performed by members of SWGDE that can be applied in the attendees’ day-to-day work.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by increasing awareness among the general population of forensic scientists of the work in digital forensics and by making digital forensic practitioners aware of the useful resources, guidance, and best practices available from SWGDE.

**Chair:**  
Mary F. Horvath, MFS  
Fort Myers, FL

**Faculty:**

**James Darnell, BS**
United States Secret Service  
University of Tulsa, Fisher Hall  
Tulsa, OK

**Matthew Domanic, BA**
VTO, Inc  
Broomfield, CO

**Virginia Franqueira, PhD**
University of Kent  
School of Computing  
Canterbury, UNITED KINGDOM

**Catalin Grigoras, PhD**
National Center for Media Forensics  
University of Colorado Denver  
Denver, CO

**Barbara Guttman, BA**
National Institute of Standards and Technology  
Gaithersburg, MD

**Graeme Horsman**
Teesside University  
Middlesbrough, UNITED KINGDOM

**James Howe, BA**
Columbus Division of Police  
Columbus, OH

**James R. Lyle, PhD**
National Institute of Standards and Technology  
Gaithersburg, MD

**Bertram Lyons, MA**
Medex Forensics  
Brooklyn, NY

**Patricia Mullaney, BS**
Virginia Department of Forensic Science  
Richmond, VA

**Nicole R. Odom, MSFS**
Virginia Department of Forensic Science–Central  
Richmond, VA

**Joseph Remy, JD**
Burlington County Prosecutor’s Office  
Mount Holly, NJ

**Steven B. Watson, BA**
VTO, Inc  
Broomfield, CO

**Cole Whitecotton, MSc**
National Center for Media Forensics  
University of Colorado Denver  
Denver, CO

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All times are in the U.S. Central Time Zone
WORKSHOPS

Registration Fee: $50 through Jan. 18; $100 effective Jan. 19

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Targeted Audience: Digital & Multimedia Sciences, General, Jurisprudence
Knowledge Level Required: Intermediate (some knowledge of subject presented)
Expected Handout Length: 60 pages

Program Description: This presentation will provide an overview of topical and fundamental work taking place in multiple digital forensic technical areas, including social media, geolocation, audio, video, cloud acquisitions, and software validation, by members of SWGDE.

Program:

8:00 a.m. - 8:15 a.m. SWGDE Introduction and Update
Mary F. Horvath, MFS; Brandon Epstein, BS

8:15 a.m. - 8:40 a.m. Demonstrating Confidence in the Reliability of Digital Forensic Tools
Barbara Guttman, BA; James R. Lyle, PhD

8:40 a.m. - 9:05 a.m. Validating Software Results: An Example of Why It Is Necessary and How to Mitigate a Problem
James Darnell, BS; Steven B. Watson, BA

9:05 a.m. - 9:30 a.m. The Use of Structured Argumentation to Support Conclusions: A Video Authentication Case Study
Patricia Mullaney, BS; Virginia Franqueira, BS; Graeme Horsman; Joseph Remy, BS

9:30 a.m. - 9:50 a.m. Break

9:50 a.m. - 10:15 a.m. Advances on Microphone Attribution in Audio Forensics
Catalin Grigoras, PhD; Cole Whitecotton, MSc

10:15 a.m. - 10:40 a.m. Teardown Methods of Internet of Things (IoT) Devices
Nicole R. Odom, MSFS; Matthew Domanic, BA

10:40 a.m. - 11:05 a.m. Video Acquisition From Social Media and the Cloud
Brandon Epstein, BS; Bertram Lyons, BS

11:05 a.m. - 11:30 a.m. Using Google® Location Data for Investigative Purposes
James Howe, BS; Mary F. Horvath, MFS

11:30 a.m. - 12:00 p.m. Closing Remarks and Questions
Mary F. Horvath, MFS; Brandon Epstein, BS

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