**Speaker Bios and Abstracts**

Keynote Speaker:

“The Code of Trust – An American Counterintelligence Expert’s Five Rules to Lead and Succeed” – Robin Dreeke

Abstract:

The Code of Trust - Five steps for creating trust and strong healthy relationships for all aspects of life, both personal and professional.

Bio:

Robin Dreeke is passionate about the power of building healthy professional relationships by inspiring TRUST. Whether it is a C-suite executive who is leading an international firm, or account manager building a client base and community relationships... prosperity and mutual success can be achieved with Robin's cognitive and action-based approach to what most think is an elusive art form.

Robin is a best-selling author, professional speaker, trainer, facilitator, and retired FBI Special Agent and Chief of the Counterintelligence Behavioral Analysis Program. Robin has taken his life's work of recruiting spies and broken the art of leadership and relationship building into Five Steps to TRUST. Since 2010, Robin has been working with large corporations as well as small companies in every aspect of their business. Whether it is newly promoted leaders, executives, sales teams, or customer relations, Robin has crafted his Code of Trust for quick results and maximum success.

Upon entering service as an FBI Special in 1997, Robin began his journey as a counterintelligence specialist and behaviorist in the agency's efforts to thwart the efforts of our country's greatest adversaries. Serving in New York City, Norfolk VA, FBI Headquarters, Quantico VA, and Fredericksburg VA, Robin received advanced training and experience in the area of social psychology and the practical application of the science behind relationship development and trust, ultimately leading the FBI's elite Behavioral Analysis Program.

Shelly Brazelle, Document Analyst - US Secret Service

Title : What’s in Your Wallet?

Abstract

Did you know that the US Secret Service was originally created to suppress counterfeit currency within the United States? Understanding what should be in your wallet is the first step to identifying counterfeit currency. This presentation will cover the security features in US currency, counterfeit statistics within the US and what you should do if you find a counterfeit note.

Bio

Shelly Brazelle is a Document Analyst with the US Secret Service Counterfeit Forensic Section in Washington, DC. She holds a Master’s of Science degree in Chemistry from the University of Minnesota Duluth. Her current duties include the evaluation of authenticity of US Treasury obligations and other financial documents through physical, optical and chemical examinations.

Jessica J. Davis, Forensic Scientist Supervisor DFS, Mary Hood Latent Print Examiner DFS, Richard Smith, VP Products and Services, Dr. Donald Gantz, Professor Emeritus of Statistics

Title of Presentation: Sciometrics LatentSleuth - Validation for Accuracy & Evaluation of Efficiency in Casework and Statistical Error Estimation for an Objective Measure of Similarity to a Latent Image

Abstract:

Sciometrics LatentSleuth technology uses a ridge-skeleton matching algorithm to automate latent print searching. Incorporating all useable information within a latent print, rather than traditional minutia-only based approaches, enables the more challenging latent prints to be searched. Overlays of a latent print, including those that are distorted, contain discontinuous ridges, are of an unknown orientation and/or anatomical aspect and contain limited minutia points, are created from the continuous segments of a ridge, or the ridge geometry. The technology includes automated processing of a latent print and reference images, creation of a geometric overlay, determination of accuracy between overlay and section of reference image and production of a prioritized reference list. Each reference print is searched separately and is placed on the reference list; a standard print card will contain fourteen results. To determine the accuracy and validity of the software for use in casework, 600 automated searches were completed using 200 latent prints with true-mated reference prints. Latent print and comparison complexity were tested. Fifty latent prints of four different quality levels (high, medium high, medium low, and low) were searched against reference lists consisting of three, five and ten exemplars. Medium low and low latent prints were searched with and without manual post processing of the images while high and medium high were only searched with software processing. Overall accuracy for high, medium high, medium low and low latent prints was 98%, 95.3%, 98.7% and 86.7% respectively. Results were considered accurate if the true-mated image was in the first five of the reference list. The LatentSleuth software provided accurate results in all latent print quality levels against all three references groups and was determined to be suitable to use in casework. The technology was then implemented into casework to determine if it improved the efficiency of the comparison workflow and/or the accuracy of results.

A team of George Mason University statisticians is working on an NIJ Office of Justice Programs Grant titled "Statistical Error Estimation for an Objective Measure of Similarity to a Latent Image." The research exploits the Latent to Reference Image WARP technology of the LatentSleuth Workstation. Through largely automated modeling of the similarity of non-mate images to a Latent Image, the model is used to detect True Similarity of a Reference Image to the Latent. The goal of the research project is to put a firm theoretical foundation to the quantification of the degree of similarity that a reference image has to a Latent. The benefits of the research work include increasing the utilization of latents by crime solvers and providing Latent Print Examiners with an objective measure of a reference image's similarity to a Latent.

Bios:

**Jessica J. Davis** received her Bachelor of Arts degree in Biology with a minor in Chemistry from the University of St. Thomas, St. Paul Minnesota and her Masters in Forensic Science in May 2017 from the University of Florida. Jessica has been employed with DFS as a Forensic Scientist Supervisor in the Latent Print Section since September 2011. Her primary responsibilities include processing evidence for latent prints, digital preservation, enhancement, analysis and comparison of latent prints and supervising the latent print section of the Northern Laboratory. Jessica also is a member of the DFS Latent Print Technical Resource Team, which makes recommendations for policy and procedure changes. Jessica has been an IAI Certified Latent Print Examiner since 2007 and has been a member of the IAI since 2001. Jessica is an ASCLD/LAB technical assessor and has served as such for an external audit. She has provided training to new latent print examiners and in a deployed environment instructed soldiers, law enforcement personnel, and Iraqi police in tactical site exploitation, biometric capabilities, and latent print processing and comparison techniques.

**Mary M. Hood** received her Bachelor of Science degree in Forensic Identification in May 2003 from West Virginia University located in Morgantown, WV. Mary has been employed with DFS as a Forensic Scientist in the Latent Print section since July 2011. Her primary responsibilities include, but are not limited to, processing evidence to develop latent prints, digitally preserving any visible or developed latent prints, analyzing and comparing latent prints to known exemplars, and testifying in court as an expert witness. Prior to being employed with DFS, Mary was employed with the City of Portsmouth Police Department as a Fingerprint Examiner in the Forensic Services Unit. Throughout her career, she has provided training to new latent print examiners, law enforcement personnel, citizens, college students, and children in grades five through twelve.

**Richard Smith** – Mr. Smith is the VP of Products and Services at Sciometrics, LLC. Mr. Smith has 34 years of experience in software development. In his role at Sciometrics, Mr. Smith is responsible for all software development and product support. Previously, Mr. Smith has developed software in the defense electronics, command and control, e-commerce, and natural language processing domains.

**Dr. Gantz** is Professor Emeritus of Statistics at George Mason University. He has been working with Sciometrics LLC since 2009 on FBI-sponsored research projects to apply graph-based technologies to latent fingerprint examination. Latent-to-reference print Warps provide a visual frame for an examiner and also are the basis for a scoring algorithm that ranks the reference prints according to the accuracy of the match to the latent print. Related research has been reported at IPES 2012, EAFS 2012, AAFS 2015, EAFS 2015 and IPTES 2018.

Rebecca Walls, Sales Support Specialist, Foster and Freeman

Title: Detect More Evidence: Extend Your Search Beyond the Visible

Abstract

Various types of evidence are often overlooked at a crime scene because they are not visible to the naked eye. When using an alternate light source with the proper corresponding filter, it is still possible to miss items of evidence due to background interference or improper angle of illumination. The purpose of this workshop will be to introduce attendees to various methods utilized in detecting evidence beyond the visible range. An introduction to light theory and techniques utilizing wavelengths of light beyond the visible range on notoriously difficult surfaces will be discussed. This will include ultra-violet and infrared examination to detect the presence of biological fluids, gunshot residue, and fingerprints on difficult backgrounds. Novel oblique lighting techniques will be explored to detect evidence on raised surfaces and footwear impressions. Bandpass filtering techniques will also be explored to aid in the detection of evidence at crime scenes. Attendees will be introduced to non-visible lighting techniques and digital capture of fingerprints developed using various treatment methods including cyanoacrylate fuming and IR fluorescent fingerprint powders. A new technique for developing fingerprints on fired cartridge casings and other difficult surfaces will also be introduced in this workshop.

Bio

Rebecca is a Sales Support Specialist at Foster + Freeman USA. She received a Bachelor of Science degree in Forensic and Investigative Science and a Bachelor of Art degree in Criminology from West Virginia University. She also received a Master of Science degree in Forensic and Fraud Investigations from West Virginia University as well. She completed a comprehensive internship with the Bureau of Alcohol, Tobacco, Firearms, and Explosives. Her roles at Foster + Freeman include sales, installation, and training for various company products. She specializes in crime scene investigation, laboratory analysis and processing of evidence, and latent impression development and capture. She has presented at multiple divisional International Association for Identification educational meetings on the topic of crime scene investigation and latent fingerprint imaging.

Kelly Ayers West Virginia University & Rebecca Wood Lead Forensic Investigator DC Office of the chief Medical Examiner

Title: Best Practices at the Intersection of Crime Scene and Death Investigations

Abstract

This workshop will reinforce the cooperation that takes place between crime scene investigators and medicolegal death investigators at a death scene. Participants will be provided with cases studies and have an opportunity to learn from experts in the field. Best practices as well as pitfalls will be discussed as participants broaden their understanding beyond the classroom and television fallacies.

Bios

Rebecca Wood completed her Bachelor of Arts Degree in Psychology with a minor in Chemistry from The George Washington University.  During undergrad Ms. Wood interned for Congressmen Steve Israel on Capitol Hill as well as with the Naval Criminal Investigative Service for two semesters.  Her intrigue for forensic science and investigations was reinforced through the internship with NCIS and after graduation she continued at GW and completed her Master of Forensic Sciences in Crime Scene Investigation. After receiving her Masters she interned for both the Alexandria Police Department as a Civilian Fingerprint Technician and the Prince George’s County Crime Scene Unit before beginning with the Virginia OCME in 2012. She spent a little over two years in Northern Virginia before starting at the Washington, DC OCME where she is currently employed as the Lead Forensic Investigator.

Ms. Wood is a Past President of the Chesapeake Bay Division of the International Association for Identification and a certified diplomat through the Board of Medicolegal Death Investigators.

Kelly Ayers Kelly Ayers, MS, CSCSA, joined the staff in the West Virginia University Office of Student Conduct as their investigator in 2018. In this role she works closely with local law enforcement to conduct investigations involving students that may be charged criminally, but also sanctioned through the University. Prior to this position, Kelly served as the Director of the WVU Forensic Science Academy for Professionals, as faculty in the WVU Department of Forensic and Investigative Science, and as an instructional coordinator with the Forensic Science Initiative. Prior to coming to WVU, Kelly was employed as a crime scene investigator with the Asheville, NC Police Department. She has an undergraduate degree with a double major in Philosophy and Biology and was the first graduate of the West Virginia University Forensic Identification Program in 2001. Shortly after coming to WVU, she was awarded an MS in Forensic Science Administration from Oklahoma State University.

Ms. Ayers is an International Association for Identification (IAI) Certified Senior Crime Scene Analyst, serves on the editorial board of IDNews, and is the immediate Past President of the Chesapeake Bay Division IAI, now serving as the 2018-19 Chair of the Board. Ms. Ayers has been most recently appointed the Division Representative of the International Association for Identification.

Mallory McCormick CLPE US Secret Service Fingerprint Specialist

Title - Interview Room to Court Room: The Basics You Need to Succeed

Abstract

Interviewing for a position in the forensic field requires an applicant to clearly communicate their knowledge, experience, and qualifications in a forensic discipline. Sound familiar? At the most basic level, the same is asked of experts when testifying in court. This lecture is designed to draw a parallel between interviewing for a job in the forensic field and testifying. First, we will cover the fundamentals of good communication and public speaking. Then, we will dive deeper and discuss some of the more challenging questions you may face in an interview or on the stand.

Bio

Mallory McCormick, CLPE – is a Fingerprint Specialist with the United States Secret Service Forensic Services Division in Washington, D.C. Her career began with the Indiana State Police Laboratory followed by two counter terrorism laboratories located abroad and domestically, before joining the US Secret Service team where her current duties include latent print casework, updating laboratory SOP, co-developing and organizing training, and testifying in court when called upon. She has experience teaching fingerprint courses to practitioners, law enforcement, military and coalition forces, and attorneys. Mallory has been a member of the CBD Board of Directors for three years and also serves on the Student Development Committee.

Carlie Hayes, Graduate Student GWU

Title: Bloody Surfaces: The Effects of Fabrics on the Surface of Wounds and Their Bloodstain Patterns

Abstract:

A 30 year-old woman was found stabbed in her home. She was found lying face down and the stab entrance wounds were found in the back of her denim jacket. There were slight bloodstain patterns on the wall next to her but due to the placement of the stab wound in the jacket; the bloodstain pattern analysis did not match. Bloodstain pattern analysis (BPA) is the interpretation of bloodstains at a crime scene to piece together the events following up to the blood being shed. There are many factors that go into distinguishing a certain bloodstain, such as size, shape and location of the stain. Bloodstains are classified into three basic types: passive stains, transfer stains and impact stains. The type of pattern that this study will be focusing on is the impact stain, which is distinctive of blood projecting through the air and landing as a “spatter” on a surface. As for the surfaces, the texture on which blood lands matters significantly, however, for the 30 year old woman, it was not what the blood landed on that mattered but where the blood could not go through. More so, this experiment will focus on the cast-off bloodstain that comes from the weapon the person is pulling away from the object. This project will be analyzing the different textures that may be found on a person, specifically when they are stabbed. These different textures such as cloth, denim, leather, etc. will be placed on a blood soaked sponge with a perimeter surrounding it, and differences should arise. The aspects explored will be the type of impact spatter that is acquired from various textures on a bloody sponge, the velocity of the force impacting a bloody surface and the effect of the amount of blows, and finally the effect of the size of the weapon

Bio:

Carlie Hayes; graduate student at George Washington University obtaining a M.S. in Crime Scene Investigation. Originally from a small farm town in DeKalb County, Illinois. Went to Palm Beach Atlantic University in West Palm Beach, Florida and acquired a dual degree in Forensic Science and Psychology. During her time at PBAU, she interned at Palm Beach County Sheriff's Office in the crime scene investigation unit at headquarters, as well as the mental health unit in the Detention Center. There she assisted in over 30 investigation and assessed more than 15 inmates. It was then that she realized how important the field of forensics is to each community. More recently, she has interned at the Office of the Chief Medical Examiner in Washington, D.C. under the supervision of Lead Investigator Rebecca Wood. She will be graduating in May of 2019 and is open to any and all advice!

Normann Kreuter, CEO - German eForensics GmbH

Title: Experience a new technology in latent print detection

Abstract

Forensic experts have initiated and been part of the development of a unique, innovative technology: a contactless detection, enhancement and digital preservation of latent fingerprints and latent print evidence from non-porous surfaces at just one workstation. No prior treatment is necessary, a purely optical inspection. Thus, substrates, fingerprints and DNA remain in their original condition and can be re-examined even years later. Results are ready for examination or AFIS-upload in a comparably short period of time.

Let us take you to the lab of German eForensics for a presentation and demonstration of this EVISCAN technology.

Bio

Normann Kreuter received his Masters (hons.) degree in Business and Economics from WHU Vallendar after studying in Germany, Mexico and Canada. Supported by his economic background and his experience in public healthcare and safety ecosystems he pursued the idea of how technology and innovation can help create safer societies. Normann worked as a consultant for major consulting firms and manufacturers in the industry for several years before he got enthusiastic about the much-awarded EVISCAN project in 2011. Ever since then, he worked with German police, public safety and science organizations to turn the vision of contactless evidence detection into reality.

Today, Normann is Co-Founder and CEO of German eForensics GmbH, the company behind the scientific engineering team based in Koblenz, Germany.

John P. Black, Forensic Consultant

Title : Working for the “Other Side”: Thoughts from a Defense Expert (Workshop Thurs)

Abstract

The majority of my casework and courtroom experiences throughout my career have been for the prosecution. However, much of my work today as a forensic consultant is at the request of the defense. In this presentation I'll offer some insight into working for the defense, and will share both good and bad aspects of some defense cases I've worked.

Bio

John P. Black is the owner of Black & White Forensics, LLC in South Carolina. His focus is to assist various criminal justice system stakeholders in understanding the value of forensic evidence within his areas of expertise, which include latent print examination, crime scene investigation, footwear/tire track examination and bloodstain pattern analysis. John has conducted over 250 presentations throughout North America, Africa, Asia, Europe and Central America. He enjoys reading the Bible, spending time with family, playing golf and trying to stay fit as he gets older.

Victoria Ann Stegle – Physical Scientist/Forensic Examiner Federal Bureau of Investigation

Title: To Microburst or not to Microburst: An Evaluation of Cyanoacrylate Fuming Procedures and Glue Optimization

Abstract:

Research was conducted to determine whether the Microburst Method, currently used at the Federal Bureau of Investigation (FBI) Laboratory, is the most efficient and effective way to process non-porous and semi-porous substrates using the cyanoacrylate fuming technique. During this study, the Microburst Method was compared to an alternate method. Eight different glues, both forensically and commercially made, were also evaluated using both fuming methods to determine which glue would produce the best latent print development results. Several glues excelled more than others. However, overarching results indicate that there is not a huge difference between the two methods when it comes to latent fingerprint development.

Bio:

Victoria Ann Stegle is a Physical Scientist/Forensic Examiner Trainee with the Latent Print Operations Unit (LPOU) at the Federal Bureau of Investigation (FBI) Laboratory. She earned her Bachelor’s Degree in Biology and her Master’s Degree in Forensic Science from George Mason University in Fairfax, Virginia. Before joining the FBI Laboratory, Victoria had the opportunity to work for the United States Patent & Trademark Office for 10 years as well as intern at the National Center for Missing & Exploited Children (NCMEC) and the Public Defender’s Service for the District of Columbia.

Sabrina Tishko Physical Scientist/Forensic Examiner Trainee in the Latent Print Operations Unit for the Federal Bureau of Investigation

Title: Latent Print Heat Application method for Indanedione

Abstract

The presentation will first discuss the FBI's Hazardous Evidence Analysis Team (HEAT) and the value it provides for investigations and intelligence. When working with chemical, biological, radiological, and nuclear (CBRN) contaminated evidence at partner laboratories, HEAT must take considerations regarding limited space, the importance of time and contamination issues. Existing laboratory techniques for latent print development are not always practical in this setting. The second part of the presentation will discuss a research project that explores the use of a hair straightener as an alternate heat application method to accelerate latent print development on evidence processed with Indanedione.

Bio:

Sabrina Tishko is a Physical Scientist/Forensic Examiner Trainee in the Latent Print Operations Unit for the Federal Bureau of Investigation. She earned her Bachelor of Arts degree in Biochemistry and her Master's degree in Forensic Science and Law from the Bayer School of Natural and Environmental Sciences at Duquesne University. During her time at Duquesne, she had the opportunity to intern with the Pittsburgh Bureau of Police Mobile Crime Unit and the Allegheny County Office of the Medical Examiner.

Andrew McNeill, MFS - Director of Training L-Tron

Title: Case Study: The Use of Spherical Photography in a Greece, NY Murder Case

Abstract

This presentation was originally given at the IAI's 103rd Annual Educational Confer- ence and repeated by invitation at the 2018 NYIAI/CTIAI Educational Conference. It examines the use of 360-degree spherical photography at the scene of a domestic- related homicide where the presenter provided technical assistance to the investi- gating agency. The presentation will include a brief overview of available forensic spherical imaging technologies and explain how spherical images can be used to preserve, organize, and present other digital evidence for case management and the courtroom. Evidence collection challenges and recommended scene procedures will be discussed, as will the advantages of adding spherical photography to the crime scene investigator's toolbox.

Bio

Andrew McNeill is the Director of Training for L-Tron Corporation. He retired from the Monroe County (NY) Sheriff's Office in 2018 after spending the majority of his career in the Technical Services Unit, where he was responsible for crime scene investigation, collision reconstruction, and latent print examination. He was also the lead forensic instructor at the regional Public Safety Training Facility and a photography in- structor at the New York State Academy of Fire Science. Andrew holds a MFS degree from George Wash- ington University and is an IAI-certified CSCSA and ACTAR-accredited Traffic Accident Reconstructionist. He has spoken on a variety of forensic-related topics at various colleges and conferences.

John P. Black, Forensic Consultant & Maggie Pitts, Senior Trial Attorney

Title : “Not Guilty” – A Fingerprint Case Review

Abstract

This case review will address issues from the perspectives of the defense attorney and the examiner she retained to assist her in understanding the evidence against her client. Topics will include the process of deciding to retain a defense expert, examination of the evidence, pre-trial conferences and testimony, and ultimately the verdict.

Bio (See Johns above, Maggies Below)

Maggie Pitts is currently employed as a Senior Trial Attorney with the Virginia Indigent Defense Commission. She is a graduate of the University of New Brunswick, where she recevied a Bachelor’s of Science in Civil Engineering. Her draw towards public interest work took her to Vermont Law School where she found her passion in indigent defense. Post graduation in 2013 she joined the Richmond Public Defender’s Office, after internships with the Federal Defender’s Office in Richmond and Marsicovetere Law Group in White River Junction, Vermont. As a Senior Trial Attorney with a specialty in forensics, Maggie is a resource for public defenders throughout the Commonwealth of Virginia in cases involving forensic evidence. She also serves as adjunct faculty in the Forensic Science Department at Virginia Commonwealth University, teaching forensic science undergraduate students about criminal law and procedure.

Rebecca Walls, Sales Support Specialist, Foster and Freeman

Title Student Lunch : Technology Through the Ages: How Yesterday’s Equipment Led to Breakthrough’s Today

Abstract

A lot of technological advances have been made over the last 40 years in the field of forensic science. This presentation will show students how old technology was developed, how technology advances and adapts with changing need in the field, and how new technology is developed. Students will learn how ideas, research, and user feedback evolve into new techniques and products. Students will also gain insight into some of the latest technology available for forensic practitioners.

Bio – See above

John R. Vanderkolk, Unique Forensics, LLC

Bio:

John R. Vanderkolk received a Bachelor or Arts degree in forensic studies and psychology from Indiana University in 1979. He became an Indiana State Police trooper in 1979 and then a crime scene technician in 1983. In 1984, he was assigned as a criminalist in the laboratory, where he was trained in the disciplines of latent print, shoe/tire print, firearm/tool mark, and fracture/physical comparative examinations. He was promoted to laboratory manager in 1996. He retired as a police officer in 2005, was rehired as a civilian, and is currently the manager at the Indiana State Police Laboratory in Fort Wayne.

John has provided many lectures and workshops related to forensic comparative science for many international or regional seminars, criminal justice agencies, and universities. Some of his other professional activities include having been a member of the Scientific Working Group on Friction Ridge Analysis, Study and Technology, the NIST/NIJ Expert Working Group on Human Factors in Latent Print Analysis, is currently a member of the editorial board for the *Journal of Forensic Identification*, and the Physics/Pattern Scientific Area Committee for the NIST Organization of Scientific Area Committees.

Vanderkolk was awarded ‘Distinguished Member’ in the International Association for Identification (IAI), was a member of the IAI’s Standardization II committee, was the chair of the IAI’s Forensic Identification Standards Committee, and is the chair of the IAI’s Forensic Comparative Examination Committee.

Vanderkolk has authored or co-authored numerous journal articles on topics related to forensic comparative science, plus he authored the ‘Examination Process’ chapter of *The Fingerprint Sourcebook* and the book, *Forensic Comparative Science – Qualitative Quantitative Source Determination of Unique Impressions, Images, and Objects*. He has been collaborating with Dr. Tom Busey of Indiana University Department of Psychological and Brain Sciences since 2002 studying expertise in latent print examiners. He has been collaborating with Drs. Ashraf Bastawros and Barbara Lograsso of Iowa State University on fractured metal examinations. Plus, he was a consultant for the US Department of Justice, Office of the Inspector General, reference the erroneous determination that Brandon Mayfield was the source of a finger print in the Madrid bombing case.

**Crease and 3rd Level Ridge Details Workshop**

**Presenter: John R. Vanderkolk**

Natural patterns are unique, including the crease and ridge texture patterns on friction skin. By examining the sequences and configurations of all types of details in impressions of the features of friction skin, the source of a questioned impression can be determined if sufficient quality and quantity of details are present in both the questioned and known images. This workshop will include a discussion of unique natural patterns, the examination process, and then conducting practical exercises emphasizing friction skin crease and third level ridge details in impressions.

**Workshop Title: Making Optimal Decisions in Latent Print Examinations**

**Presenters: Dr. Tom Busey (recorded on video), Indiana University, Department of Psychological and Brain Sciences**

**and John R. Vanderkolk**

In this workshop, participants will work through a variety of comparison exercises to improve their perceptual and decision-making abilities in latent print examinations. As part of their jobs, examiners must construct their own internal thresholds in relation to their peers for what constitutes an identification or exclusion determination. However, as an examiner improves his or her abilities, these thresholds will need to be updated. The exercises in this workshop will help each participant develop a principled technique to discover where the thresholds need to be to match their current and improving abilities. The workshop will present examples of how to avoid erroneous exclusions, which may occur in casework more often than is realized, and erroneous identifications.

Kelly Ayers, MS, CSCSA, Investigator

Title - CCSI Test Prep: The Abbreviated Version

Abstract

This workshop is intended for practitioners considering certification as an IAI Certified Crime Scene Investigator. The full version of this course covers material from the required text books. This abbreviated version will review general information about the test, present multiple-choice test taking strategies, and allow time for participants to take a practice exam given under test conditions. Participants will leave this workshop with a better knowledge of the test, an assessment of their level of preparedness, and take-home study materials.

Bio – See previous

John Hirt, Forensic Scientist, Virginia Department of Forensic Science

Title: Digital & Multimedia Evidence: What it is, capabilities, and limitations

Abstract:

The area of digital forensics includes a broad range of methodologies applicable to a wide variety of devices. This presentation provides an overview of digital forensics, and it will have you thinking of the different types of devices that could be storing data. You will learn about the capabilities and limiting factors in digital forensics as well as how to think beyond your tools and manually parse data. This presentation is intended for first responders and beginner digital forensic practitioners.

Bio:

John Hirt is a certified Forensic Scientist in the Digital and Multimedia Evidence section at the Virginia Department of Forensic Science in Richmond, VA with 7 years of experience in computer and mobile device forensics.

Mr. Hirt is proficient with a variety of commercial and specialized digital forensic examination equipment, as well as advanced data acquisition methods and analysis techniques. He has provided expert witness testimony and provided training to law enforcement officials.”

Bronwyn McMaster, Forensic Scientist, Virginia Department of Forensic Science

Title: Firearm and Toolmark Identification

Abstract:

This presentation will provide an overview of the discipline of Firearm and Toolmark Identification, including the basis of the science, typical examinations conducted, and current advances in instrumentation and technology. In addition, several case studies involving the use of firearm and toolmark evidence will be discussed.

Bio:

Bronwyn McMaster is a Forensic Scientist in the Firearm and Toolmark Section at the Virginia Department of Forensic Science in Manassas, Virginia.

Henry Pietrewicz Product Manager

IDEMIA

Title : Advancements in Technology for Latent Print Examiners

Abstract

Among law enforcement agencies, the increased awareness of the alarming rate of erroneous exclusions has created an opening for AFIS technology to aid the Latent Print Examiner. Identifications are often made without the use of a traditional AFIS during manual comparisons. However, we propose a method to use the power of AFIS technology to increase the efficiency of the Latent Print Examiner, while reducing the probability of erroneous exclusions.

The purpose of this proposed session is to demonstrate for attendees the benefits of adding a case-specific AFIS to the Latent Print Examiner workflow. In addition, the presentation will focus on best practices for achieving the essential benefits – accuracy, time savings, and fewer errors – by including a case-specific AFIS in the latent workflow.

At the conclusion of this session, attendees will understand how a case-specific AFIS can be implemented into the latent examination process, how to use the AFIS to significantly reduce case backlog, and how to minimize erroneous exclusion and missed identification opportunities.

Bio

Henry Pietrewicz serves as Product Manager for the IDEMIA Multi-Biometric Identification System (MBIS) product platform, as well as the IDEMIA Case AFIS offering. Henry has worked in the biometrics and AFIS industry for 23 years, in a variety of capacities, including field service, sales engineering, solutions engineering, systems engineering and product management. Henry has supported IDEMIA clients at the state, local and federal level, and has also supported commercial and international clients. He was employed as a Face Examiner at the NYPD Facial Identification Section for three years, and is an IEEE Certified Biometrics Professional (CBP), a Scrum Alliance Certified ScrumMaster® (CSM®) and Certified Scrum Product Owner® (CSPO®). He holds Pragmatic Marketing IV certification. Henry graduated from the Chubb Institute of Technology in Parsippany, New Jersey with honors. He holds degrees in Data Center Support and Network Engineering.

Michael P Czernicki, Detective, Blacksburg PD

Title : Case Study, Nicole Lovell Murder (2016)

Abstract

This goes into the investigation of the murder of Nicole Lovell, a 13 year old girl lured away from home by two Virginia Tech college students. Lovell is murdered in a remote area and her body is later moved to a location in North Carolina. Evidence associated with the crime is scattered multiple locations in three states. The case was investigated by my department with assistance of other localities, the Virginia State Police and federal assets through the FBI Child Abduction Rapid Deployment Team. The investigation resulted in arrests within 72 hours but evidence took months to fully process. For an act the offenders planned with the idea of it being the perfect crime, we were able to locate evidence through physical and digital searches that showed just how far we can go in the forensic field.

Bio

Det Michael Czernicki is the Forensic Investigator for the Blacksburg Police Department, a small agency in southwest Virginia that came to national prominence following the 2007 Virginia Tech shooting. Det Czernicki assumed the role of forensic detective in 2008. Det Czernicki is a 2009 graduate of the Virginia Forensic Science Academy (75th Session) and was granted certification as a Crime Scene Analyst by the IAI in 2012. He holds a Bachelor of Science degree from Radford University and currently teaches crime scene forensics to officers attending basic and advanced training sponsored by the Cardinal Criminal Justice Training Academy.