SHAWN HARRINGTON, B.S.E.S.M., ACTAR

CURRICULUM VITAE Principal & Founder

Forensic Rock sharrington@forensicrock.com Tel: (215) 620 1288 Headquartered in Pennsylvania Providing Clients National Service

BACKGROUND

Mr. Harrington earned a Bachelor of Science degree with Honors in Engineering Science and Mechanics from the Pennsylvania State University. He is accredited as a Traffic Accident Reconstructionist by the Accreditation Committee for Traffic Accident Reconstruction (ACTAR #2570). He is an instructor for SAE International and cotaught the "Accident Reconstruction, the Autonomous Vehicle and ADAS" course to engineers and industry personnel. He is actively researching, testing, and publishing on Advanced Driver Assistance Systems (ADAS) and Accident Reconstruction (AR) in passenger and commercial vehicles.

Mr. Harrington has a Commercial Driver's License (CDL) and operates and inspects Heavy Trucks. In addition, he is certified by the Society of Automotive Engineers (SAE) to Access and Interpret Heavy Vehicle Event Data Recorders in commercial vehicles and is certified as a BOSCH Crash Data Retrieval (CDR) Technician and Data Analyst. He is also certified to acquire and analyze data from Vehicle Infotainment and Telematics systems and specializes in documenting evidence utilizing three-dimensional laser scanning and photogrammetric techniques. In addition, he is a Federal Aviation Administration (FAA) certified Remote Pilot of Small Unmanned Aircraft Systems (sUAS).

Mr. Harrington has been the lead author on multiple peer-reviewed technical articles published by the Society of Automotive Engineers (SAE) in the fields of accident reconstruction, Advanced Driver Assistance Systems (ADAS), aerial imaging, photogrammetry, and three-dimensional laser scanning. In addition, he has been honored by the SAE as a subject-matter expert to peer-review his colleagues' work for potential publication in the SAE Journal. Mr. Harrington has been selected to present to his peers at the Event Data Recorder Summit on the topics of Advanced Driver Assistance Systems (ADAS), Event Data Recorders (EDR), Accident Reconstruction, and Infotainment systems. He has been published in Collision Magazine and has presented his ADAS and AR research at WREX 2023 in Orlando.

Mr. Harrington is a nationally certified firefighter and emergency first responder (NFPA 1001). He assists local police officers with their on-scene investigations of passenger and commercial vehicle collisions. He receives ongoing driver training on the operation of emergency commercial vehicles and commercial vehicle dynamics, and has completed the Emergency Vehicle Driver Training course.

Mr. Harrington is an experienced test engineer who has led multiple static and dynamic testing programs, including testing sponsored by the National Institute for Occupational Safety and Health (NIOSH). This testing was used to develop an SAE Surface Vehicle Recommended Practice (J3043) to improve occupant survivability within the patient compartment of ambulances during collision events. In addition, Mr. Harrington consulted with the National Hockey League as an investigator on a Research & Development program to evaluate player safety within the sport. Mr. Harrington and his firm partnered with Georgia Public Safety Training Center personnel at WREX 2023 to fully instrument three (3) three-vehicle live crash tests during the crash conference using Racelogic VBOX data acquisition systems.

Mr. Harrington's academic, professional, and emergency first responder experience represents a unique combination of knowledge in the fields of accident reconstruction and ADAS. Currently, he specializes in the investigation of all types of motor and commercial collisions, including, but not limited to, commercial vehicle accident reconstruction, Advanced Driver Assistance Systems (ADAS), pedestrian impact trajectory analysis, imaging of event data recorders in commercial and passenger vehicles, automotive fraud, and determination of liability.



AREAS OF SPECIALTY

- Accident Reconstruction
- EDR (Black Box) Imaging & Analysis
- Advanced Driver Assistance Systems (ADAS)
- Photogrammetry & Aerial Imaging using sUAS
- Pedestrian/Bicycle Accident Analysis
- Roadway/Highway Design & Transportation
- Seat Belts and Inflatable Restraints
- Occupant Kinematics and Injury Mechanisms

- Heavy Truck Accident Reconstruction
- Heavy Truck EDR (Black Box) Imaging & Analysis
- Heavy Truck Inspections & Maintenance
- Commercial Vehicle Driver Behavior
- Infotainment/Telematics/Fleet Management
- Emergency Vehicle Accident Reconstruction
- Crashworthiness and Occupant Crash Protection
- 3D Laser Scanning, Visuals & Animations

EDUCATION / TRAINING / CERTIFICATIONS

- Bachelor of Science with Honors in Engineering Science and Mechanics, Pennsylvania State University
- Toyota Techstream User's Course, Houston, Texas
- EDR User's Summit 2024, Houston, Texas (Tesla CAN Bus Data, GM FCM/ASCM Data, HVEDR Update, and more)
- WREX 2023, Orlando, Florida (Motorcycle Reconstruction, Chip-Off Techniques, Nighttime Pedestrian Collision Investigation, Perception/Response, Video of a Surveillance Video Analysis, and more)
- Heavy Vehicle Forensic Mechanical Inspection for Collision Investigators, Northwestern University Center for Public Safety, Poland, Maine
- Federal Aviation Administration (FAA) Part 107 Small UAS Recurrent, Course Number ALC-677
- Pennsylvania Certified Vehicle Safety Inspector, Trucks Over 17,000 Pounds/Trailers Over 10,000 Pounds/Buses, ID Number 92017464
- Pennsylvania Certified Vehicle Safety Inspector, Passenger Cars/Trucks 17,000 Pounds or Less/Trailers 10,000 Pounds or Less, ID Number 92017464
- Pennsylvania Safety Inspection Mechanic Training Program, Lehigh Career & Technical Institute
- EDCRASH Reconstruction Course, Engineering Dynamics Corporation
- Pix4DMapper Essentials Course & Certification, Pix4D
- Advanced Photogrammetry for Collision Reconstruction, Lightpoint Scientific, Orlando, Florida
- Federal Aviation Administration (FAA) Part 107 Remote Pilot Training, Drone Launch Academy
- Forensic Photography, Pennsylvania Center for Photography, Penns Park, Pennsylvania
- Introduction to Highly Automated Vehicles, Society of Automotive Engineers, Detroit, Michigan
- Commercial Vehicle Driver's License, Pennsylvania
- Vehicle System Forensics, Berla Corporation, Annapolis, Maryland
- Accessing and Interpreting Heavy Vehicle Event Data Recorders, Society of Automotive Engineers, Oxnard, California
- Event Data Recorder Use in Traffic Crash Reconstruction, Institution of Police Technology and Management, University of North Florida
- Traffic Crash Reconstruction, Institution of Police Technology and Management, University of North
- Firefighter 1 National Pro Board Certification (NFPA 1001), Department of Public Safety, Bucks County Community College



- Emergency Vehicle Driver Training (EVDT) VFIS, Department of Public Safety, Bucks County Community College
- Emergency Vehicle Driver Training (EVDT) VFIS Refresher, Department of Public Safety, Bucks County Community College
- Dynamics of Emergency Vehicle Response, Bucks County Community College
- Drive to Survive: Fire Apparatus Crash Avoidance, Pennsylvania Department of Health
- Propane Autogas Vehicles: What Emergency Responders Need to Know, Rhoads Energy & ROUSH CleanTech
- Front Seat Rider-Fire Unit Officer, Harrisburg Area Community College
- Basic Vehicle Rescue Awareness, Pennsylvania Department of Health
- Basic Vehicle Rescue Operations, Pennsylvania Department of Health
- Basic Vehicle Rescue Technician, Pennsylvania Department of Health
- Basic Vehicle Rescue Technician Certification, Certification Number: 225019, Pennsylvania Department of Health
- Basic Vehicle Rescue Refresher Practical, Bucks County Community College
- Hazardous Materials Awareness Level (NFPA 472), Pro Board Certified
- Hazardous Materials Operations Level (NFPA 472), Pro Board Certified
- Hazmat Ops. Level Annual Refresh (HMOR), Bucks County Community College
- Rescue Winch Awareness, ESI Equipment, Inc.
- Pump Operations 1, Bucks County Community College

PROFESSIONAL EXPERIENCE

June 2019 - Present | Forensic Rock | Principal Accident Reconstructionist & Founder

- Founder of AR & ADAS firm in 2019
- Principal Accident Reconstructionist who trains and mentors AR's, testing personnel, and field technicians
- Investigates and reconstructs motor and commercial vehicle collisions
- Conducts ADAS testing and research on passenger and commercial vehicles
- Images Event Data Recorders in commercial and passenger vehicles
- Studies pedestrian and bicyclist interactions with motor and commercial vehicles
- Documents and analyzes evidence utilizing 3D Laser Scanning hardware and software
- Documents and analyzes evidence using small Unmanned Aerial Systems & photogrammetry software
- Animates 3D visuals from accident reconstruction analyses
- Assesses occupant motion and vehicle dynamics in response to applied crash forces
- Utilizes reconstruction software such as Pix4D, Virtual Crash, HVE, PhotoModeler, and Recap Pro
- Analyzes occupant crash protection systems relating to crashworthiness
- Evaluates restraint system usage and exposure to injury mechanisms in collisions
- Performs vehicle, site, and evidence inspections
- Acquires and analyzes data from vehicle infotainment and telematics systems
- Investigates enhanced damages, staged collisions, and phantom vehicle cases
- Conducts static push/pull tests, dynamic sled tests, and full-scale vehicle crash testing
- Evaluates collisions in the context of roadway/highway design and transportation engineering



April 2023 - Present | SAE International | Instructor of AR & ADAS Course

- Co-taught the SAE course: "Accident Reconstruction, the Autonomous Vehicle and ADAS", C1869
- Summarizes what technology exists, both in current production and older systems
- Reviews and explains pedestrian detection by collision mitigation systems (CMS), forward collision warning (FCW), lane departure warning (LDW), lane keeping assist systems (LKAS), automatic emergency braking (AEB), blind spot monitoring, and additional ADAS concepts to students on passenger vehicles and heavy trucks
- Defines performance parameters based on currently available standards and protocols
- Works with students on real-world testing using different targets and barriers during the class
- Explains data acquisition methodologies to students based on the peer-reviewed research conducted

March 2012 - Present | Lingohocken Fire Company | Volunteer Firefighter & Officer

- Current and past positions include Captain, Vice President, Training Officer, Lieutenant, Secretary, Building Committee, Standard Operating Procedures (SOP) Committee
- Responds to emergency situations as a company officer and/or driver
- Operates commercial apparatus at emergency speeds and in emergency conditions
- Conducts inspections and performs maintenance for a fleet of six heavy trucks
- Promoted to Training Officer and oversaw and designed training for members
- Participates in ongoing training in relation to firefighting, heavy vehicle operation, emergency vehicle driving, pump operations, vehicle rescue, and heavy vehicle incident safety

January 2007 - June 2019 | ARCCA, Incorporated | Director of Accident Reconstruction

- Investigated and reconstructed motor and commercial vehicle collisions
- Imaged Event Data Recorders in commercial and passenger vehicles
- Acquired and analyzed data from vehicle infotainment and telematics systems
- Documented and analyzed evidence utilizing 3D Laser Scanning hardware and software
- Animated 3D visuals from accident reconstruction analyses
- Assessed occupant motion and vehicle dynamics in response to applied crash forces
- Utilized reconstruction software such as EDCRASH, EDSMAC, and SCENE
- Studied pedestrian and bicyclist interactions with motor and commercial vehicles
- Analyzed occupant crash protection systems relating to crashworthiness
- Evaluated restraint system usage and exposure to injury mechanisms in collisions
- Performed vehicle, site, and evidence inspections
- Investigated enhanced damages, staged collisions, and phantom vehicle cases
- Conducted static push/pull tests, dynamic sled tests, and full-scale vehicle crash testing
- Evaluated collisions in the context of roadway/highway design and transportation engineering

May 2006 – August 2006 | Advent Design Corporation | Engineering Intern

- Designed and assembled machines for a robotics project for the United States Mint
- Worked with mechanical, electrical, and software engineers on a variety of projects
- Troubleshot and debugged pharmaceutical, mechanical, and robotic machines
- Utilized computer-aided design software to design machine components



PROFESSIONAL AFFILIATIONS

- Society of Automotive Engineers (SAE)
- National Association of Professional Accident Reconstruction Specialists (NAPARS)

PUBLICATIONS

Harrington S., Martin, N., Leiss, P. *An Evaluation of the Performance of the Bendix® Wingman® Fusion™ Collision Mitigation System in a 2017 Kenworth T680* (2024-01-2893). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Nagarajan, S.N., Lau, J. *An Assessment of the Tesla Model 3's Forward Collision Warning and Automatic Emergency Braking Systems Against a Stationary Pedestrian Target* (2024-01-2482). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington, S., Aguirre, R., *Comparing the Forward Collision Warning Response of a 2020 Toyota Camry and 2020 Toyota RAV4* (2024-01-2471). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Ward, B. *An Evaluation of the Performance of the WABCO OnGuardACTIVE Collision Mitigation System in a 2019 Freightliner M2 106* (2023-01-0011). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Lieber, V. An Evaluation of the Performance of the Bendix Wingman Advanced Collision Mitigation System in a 2018 & 2019 International 4300 (2023-01-0013). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Martin, N. *An Evaluation of the Automatic Emergency Braking and Forward Collision Warning System in a 2014 Subaru Forester* (2023-01-0621). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Nagarajan, S.N., Lau, J. *An Evaluation of the Sensitivity of the User-Selected Forward Collision Warning Distance in a 2017 Honda CR-V* (2023-01-0622). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Handzic, D. *An Evaluation of the Forward Collision Warning System and Avoidance Steering Maneuvers using a 2016 Volvo XC90* (2023-01-0627). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington, S. *An Overview of the Subaru Eyesight Advanced Driver Assistance System.* Collision: The International Compendium of Crash Research, Volume 15, Issue 1, 2021.

Harrington, S. *Identifying Infotainment Systems for Use in Accident Reconstruction.* Collision: The International Compendium of Crash Research, Volume 13, Issue 2, 2019.

Harrington S., Lebak, G. *The Placement of Digitized Objects in a Point Cloud as a Photogrammetric Technique* (09-06-02-0007). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington S., Teitelman, J., et al. *Validating Google Earth Pro As a Scientific Utility for Use in Accident Reconstruction* (2017-01-9750). Society of Automotive Engineers, Warrendale, Pennsylvania.

Harrington, S., Sicher, L.A., Brem, W.J. (2014, September). Lights, Camera, Crash – The Story of a Staged Crash. *Claims Magazine*, 62 (9), 24-28.

SAE J3043, Ambulance Equipment Mount Device or Systems, Ground Vehicle Standard J3043_201407, Truck Crashworthiness Committee, July 14, 2014.

Eisentraut, D. K., Markushewski, M. L., **Harrington, S.**, (2012). *Investigating Vehicle-Pedestrian Collisions with Accident Reconstruction*. The Legal Intelligencer, Philadelphia, PA.

Green, J. (NIOSH), Moore, P. (NIOSH), Current, R. (NIOSH), **Harrington, S.** (ARCCA), Sicher, L. (ARCCA), Whitman, G. (ARCCA) and Shultz, J. (ARCCA). *Civilian Ambulance Patient Compartment Delethalization*.



COURSE INSTRUCTION

Harrington, S. *An Update on ADAS Testing & Research.* SAE International, 2024 Accident Reconstruction Digital Summit, February 2024.

Harrington, S., Cullen, J. *Commercial Vehicle Accident Reconstruction.* Bucks County Bar Association, January 2024. (For CE Credits)

Harrington, S. Overview of Tesla Model 3 Pedestrian FCW & AEB Testing. WREX 2023, Orlando, FL, April 2023.

Harrington, S. High Speed Testing of FCW and AEB Systems. WREX 2023, Orlando, FL, April 2023. (For CEU Credits)

Harrington, S. Accident Reconstruction & Forensic Engineering. The Pennsylvania State University, Engineering Science & Mechanics, State College, PA, April 2023.

Harrington, S. Autonomous Vehicles: Driving Change to Coverage & Liability Exposure. Freeman, Mathis & Gary Symposium, Webinar, October 2022. (For CE Credits)

Harrington, S. & Hefflefinger, M. A Primer on the Newest Area in Trucking Litigation: Collision Mitigation Systems. American Trucking Association (ATA) Litigation Center Trucking Legal Forum, Austin, TX, July 2022.

Harrington, S., Wohltmann, D., Hefflefinger, M., & Hartman, M. When Your Trucking Case Turns into a Products Case. Defense Research Institute (DRI), Austin, TX, April 2022.

Harrington, S. An Update on CAT Testing & Performance. Attorneys Information Exchange Group, Asheville, NC, July 2021.

Harrington, S. Infotainment in Passenger Vehicles. Attorneys Information Exchange Group, Webinar, March 2021.

Harrington, S. *Using Advanced Driver Assistance Systems in Passenger & Commercial Vehicles as a Subrogation Technique.* National Association of Subrogation Professionals, Webinar, November 2020. (For CE Credits)

Harrington, S. An Update on Advanced Driver Assistance Systems in Commercial Vehicles. Freeman, Mathis & Gary Trucking & Transportation Symposium, Webinar, November 2020. (For CE Credits)

Harrington, S. *Collision Avoidance Technology Testing.* Attorneys Information Exchange Group, Webinar, October 2020.

Harrington, S. *An Overview and Testing of Subaru Advanced Driver Assistance Systems.* Event Data Retrieval (EDR) Summit, Houston, TX, March 2020. (For CE Credits)

Harrington, S. *Accident Reconstruction & Forensic Engineering.* The Pennsylvania State University, Engineering Science & Mechanics, State College, PA, October 2019.

Harrington, S. *Infotainment & EDR Correlation.* Event Data Retrieval (EDR) Summit, Houston, TX, March 2019. (For CE Credits)

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Esurance, Tampa, FL, November 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Erie Insurance, Erie, PA, November 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. International Association of Insurance Professionals, Pittsburgh, PA, October 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Alabama IASIU, Birmingham, AL, October 2018.



Harrington, S. *Accident Reconstruction, EDR (Black Box), and Infotainment Systems.* Ohio IASIU, Columbus, OH, October 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Sentry Insurance, Stevens Point, WI, September 2018.

Harrington, S. Automotive Technology & Distracted Driving. Drive Smart Virginia, Richmond, VA, September 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. International Association of Auto Theft Investigators, Pittsburgh, PA, August 2018.

Harrington, S. *Accident Reconstruction, EDR (Black Box), and Infotainment Systems.* International Association of Financial Crimes Investigators, Montville, CT, June 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. New Jersey State Police, Central NJ, June 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Timoney Knox Seminar, Valley Forge, PA, June 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. FIFEC, Orlando, FL, June 2018. (For CE Credits)

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. New Jersey Manufacturer's Insurance, West Trenton, NJ, April 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. USAA, Tampa, FL, May 2018. (For CE Credits)

Harrington, S. Reconstructing Heavy Truck Collisions. ARCCA Transportation Seminar, Penns Park, PA, May 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Texas IASIU, Dallas, TX, May 2018. (For CE Credits)

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Iowa/Nebraska IASIU, Des Moines, IA, April 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Pennsylvania IASIU, Pocono Manor, PA, April 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Westfield Insurance, Westfield, OH, April 2018.

Harrington, S. Autonomous Vehicles & an Update in Vehicle Technology. Erie Insurance, Warrendale, PA, April 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Liberty Mutual, Lake Mary, FL, March 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Liberty Mutual, Dallas, TX, March 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Liberty Mutual, Marlton, NJ, March 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Georgia IASIU, Kennesaw, GA, March 2018.

Harrington, S. Your Vehicle Has an Infotainment System – Now What? Event Data Retrieval (EDR) Summit, Houston, TX, March 2018. (For CE Credits)

Harrington, S. *Accident Reconstruction, EDR (Black Box), and Infotainment Systems.* Pittsburgh IASIU, Pittsburgh, PA, February 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Jacksonville Claims Association, Jacksonville, FL, January 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. GEICO, Virginia Beach, VA, January 2018.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. National Insurance Crime Bureau, Ocala, FL, January 2018.

Harrington, S. Accident Reconstruction and EDR (Black Box). Liberty Mutual, Webinar, January 2018.

Harrington, S., Kline, S.K. *Reconstructing Heavy Truck Collisions*. Citadel Risk Management, Fairfield, NJ, December 2017.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Progressive Insurance, Iselin, NJ, December 2017.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Auto-Owner's Insurance, Stuart, FL, December 2017. (For CE credits)

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. NICB, Rocky Hill, CT, November 2017.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Acceptance Insurance, Nashville, TN, November 2017. (For CE credits)

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. NJSIA, Atlantic City, NJ, October 2017.

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. IASIU, New Orleans, LA, September 2018. (For CE credits)

Harrington, S. *Investigating & Reconstructing Motor Vehicle Accidents.* Erie Insurance, Warrendale, PA, August 2017. (For CLE and CE credits)

Harrington, S. Accident Reconstruction, EDR (Black Box), and Infotainment Systems. Jacksonville Claims Association, Jacksonville, FL, July 2017.

Harrington, S. Black Box, Infotainment and Telematics Vehicle Systems Forensics. Florida Insurance Fraud Education Committee Conference, Orlando, FL, June 2017. (For CLE and CE Credits)

Harrington, S. *Black Box, Infotainment and Telematics Vehicle Systems Forensics.* NEIASIU, Boxborough, MA, June 2017.

Harrington, S. *Infotainment and Telematics Vehicle Systems Forensics.* TT&H Claims Symposium, Harrisburg, PA, May 2017. (For CE and CLE Credits)

Harrington, S. Accident Reconstruction – Automotive Fraud, Black Box, and Infotainment and Telematics Systems. Progressive Insurance Group, Plymouth Meeting, PA, May 2017.

Harrington, S. Accident Reconstruction – Automotive Fraud, Black Box, and Infotainment and Telematics Systems. Allstate Insurance Group, Doral, FL, May 2017.

Harrington, S. Heavy Trucking, Heavy Trucking EDR, Automotive Fraud, Biomechanics, and Black Box. Criterion Insurance, Omaha, NE, May 2017.

Harrington, S. Accident Reconstruction – Automotive Fraud, Black Box, and Infotainment and Telematics Systems. Donagel Insurance Group, Lancaster, PA, May 2017.

Harrington, S. Top Ten Seminar: Autonomous Vehicles. NJAJ Boardwalk Seminar, Atlantic City, NJ, April 2017.

Harrington, S. Accident Reconstruction – Infotainment and Telematics Systems & Autonomous Vehicles. NJAJ Boardwalk Seminar, Atlantic City, NJ, April 2017.

Harrington, S. Accident Reconstruction – Automotive Fraud, Black Box, and Infotainment and Telematics Systems. American Family Insurance Webinar, Philadelphia, PA, April 2017.

Harrington, S. *Accident Reconstruction – Automotive Fraud, Black Box, and Infotainment and Telematics Systems.* IASIU Webinar, Philadelphia, PA, April 2017.

Harrington, S. Accident Reconstruction – Automotive Fraud, Black Box, and Infotainment and Telematics Systems. P.A.C.I.A, Philadelphia, PA, January 2017.

Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Selective Insurance Company, Richmond, VA, January 2017.

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. Capitol Insurance, King of Prussia, PA, December 2016.

Harrington, S. *Autonomous Vehicles: Driverless, But Not Lawless.* Northampton County Bar Association, Easton, PA, December 2016. (For CLE Credits)

Harrington, S. *Accident Reconstruction, Automotive Fraud and the Black Box.* Progressive Insurance Company, Riverview, FL, December 2016.

Harrington, S. Accident Reconstruction, Automotive Fraud and the Black Box. MNIASIU, Eagen, MN, November 2016.

Harrington, S. Biomechanics, *Accident Reconstruction, Enhanced Damages and Black Box.* Lyft and York Risk Management, Sacramento, CA, October 2016.

Harrington, S. "Lights, Camera, Crash" – The Story of Staged Collisions & Automotive Fraud. NJSIA, Atlantic City, NJ, October 2016.

Harrington, S., Fijalkowski, R.J., et al. *A Panel on Biomechanics & Heavy Trucking.* Energi Risk Management Summit, Las Vegas, NV, October 2016.

Harrington, S. *Heavy Trucking & ARCCA*. Association of Truck Accident Attorneys, 2016 Annual Symposium, Nashville, TN, September 2016.

Harrington, S. Getting Your Jury to the Scene without Leaving the Courtroom: The Powerful Impression of 3D Visuals & Animations. PAJ Litigation Summit, Philadelphia, PA, September 2016. (For CLE Credits)

Harrington, S. A Study of Enhanced Damages and Staged Collisions. IASIU, Las Vegas, NV, September 2016. (For CLE and CE Credits)

Harrington, S. The Staged Accident – "Lights, Camera, Crash". Florida Insurance Fraud Education Committee Conference, Orlando, FL, June 8, 2016. (For CLE and CE Credits)

Harrington, S. 3D Laser Scanning & Heavy and Passenger Vehicle Event Data Retrieval. Buckingham Police Department, Buckingham, PA, May 4, 2016.

Harrington, S. What Type of Engineer Do I Need? The Cincinnati Insurance Companies, Washington, PA, April 27, 2016.

Harrington, S. Vehicle Crash Data Retrieval. NASP, Warrendale, PA, April 26, 2016.



Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Plymouth Rock Insurance Company, Hatboro, PA, January 29, 2016.

Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Traveler's Insurance Company, Morristown, NJ, January 28, 2016.

Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Plymouth Rock Insurance Company, Mt. Laurel, NJ, December 4, 2015. (For CE Credits)

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. GEICO Insurance Company, Lakeland, FL, November 19, 2015. (For CE Credits)

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. Weber Gallagher, Cape Coral, FL, November 18, 2015. (For CLE Credits)

Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Plymouth Rock Insurance Company, Parsippany, NJ, November 13, 2015. (For CE Credits)

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. Styliades, Mezzanotte, Hasson & Rubinate, Philadelphia, PA, November 11, 2015. (For CLE Credits)

Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Plymouth Rock Insurance Company, Red Bank, NJ, November 6, 2015. (For CE Credits)

Harrington, S. Accident Reconstruction – Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. NJSIA, Atlantic City, NJ, October 20, 2015.

Harrington, S., Sherry, D. *Accident Reconstruction: Case Studies.* PAJ Litigation Summit, Philadelphia, PA, September 10, 2015. (For CLE Credits)

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. Esurance Insurance Company, Tampa, FL, July 22, 2015. (For CE Credits)

Harrington, S. Accident Reconstruction — Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Plymouth Rock Insurance Company, Wall, NJ, June 10, 2015.

Harrington, S. Accident Reconstruction — Fraud: Enhanced Damages, Staged Collisions & Phantom Vehicles. Allstate Insurance Company, Wall, NJ, May 14, 2015.

Harrington, S. *Accident Reconstruction.* New Jersey Attorney General's Advocacy Institute, Trenton, NJ, April 23, 2015. (For CLE Credits)

Harrington, S. *Vehicle Data Recorder – Information Recovery & Reconciliation.* City of Waterbury, Meriden, CT, March 3, 2015.

Harrington, S. *Desktop Reviews, Fraud, Black Box Data & 3D Laser Scanning.* Oregon Chapter iasiu, Lake Oswego, OR, November 11, 2014.

Harrington, S. Accident Reconstruction & Fraud. Statewide Motor Vehicle Theft & Insurance Fraud (MVT&IF) Advisory Group, Saratoga Springs, NY, June 18, 2014.

Harrington, S. *Vehicular Accident Analysis: The Big Picture.* Florida Insurance Fraud Education Committee Conference, Orlando, FL, June 11, 2014. (For CLE and CE Credits)

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. Baginski, Mezzanotte, Hasson & Rubinate, Philadelphia, PA, January 17, 2014. (For CLE Credits)

Harrington, S. Biomechanics, *Accident Reconstruction, Enhanced Damages and Black Box.* Energi Insurance Services, Inc., Peabody, MA, October 16, 2013.



Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud, Black Box Imaging and 3D Laser Scanning. Weber Gallagher, Mt. Laurel, NJ, September 25, 2013. (For CLE Credits)

Harrington, S. Accident Reconstruction: Desktop Reviews, Fraud and Black Box. Cure Auto Insurance, Princeton, NJ, August 22, 2013.

Harrington, S. Biomechanics, *Accident Reconstruction, Enhanced Damages and Black Box*. Progressive Insurance, Miami, FL, May 29, 2013.

Harrington, S. Low Speed Impact, Accident Reconstruction, Enhanced Damages and Event Data Recorders. PA Lumbermans Mutual Insurance Company, Philadelphia, PA, April 12, 2013.

Harrington, S. *Accident Reconstruction, Enhanced Damages and Fraud.* Progressive Insurance, Iselin, NJ, March 28, 2013.

Markushewski, M.L., **Harrington, S.** Low Speed Impact, Accident Reconstruction and Enhanced Damage. Progressive Insurance, Iselin, NJ, January 24, 2013.

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