

Stein E. Husher, M.S.
Curriculum Vitae

POSITION:

Research Engineer consulting in the analysis and reconstruction of automotive collisions and vehicle safety.

AREAS OF EXPERTISE:

- Reconstruction of accidents involving passenger cars, trucks, motorcycles, and recreational vehicles
- Vehicle dynamics and kinematics
- Performance analysis of vehicle systems
- Occupant kinematics and restraint systems
- Computer reconstruction and simulation
- Vehicle and component testing and analysis
- Photogrammetry and 3D measurement technology
- Photography and videography

EXPERIENCE:

Previously a research engineer with the consulting firm of motion+momentum forensics from 2018 through 2023, responsible for conducting research, engineering analysis, and reconstruction of automotive crashes. Principal scientist and consultant with the firm of Keva Engineering, responsible for conducting research, engineering analysis and reconstruction of automotive crashes from 1999 to 2018. Research Engineer with the consulting firm of Noble Engineering from 1991 to 1999. Research Engineer with the consulting firm of Collision Research & Analysis from 1987 to 1991. Various engineering positions with the consulting firm of Severy Incorporated from 1979 to 1987, performing safety research, reconstruction, and analysis of numerous accidents throughout the country.

Conducted research and analysis involving: full scale crash testing, impact dynamics, occupant kinematics, occupant restraint systems, vehicle dynamics, crashworthiness, seat strength, door/latch performance, rollover/roof strength, day and night visibility, and component performance.

Research activities have included conducting various types of collision experiments, instrumented vehicle handling and performance tests, as well as research into various aspects of automotive collision safety and accident reconstruction. These activities have also included formal presentations and publication of results in conjunction with various scientific and technical organizations.

While at motion+momentum forensics, Keva Engineering, Noble Engineering, as well as at Collision Research and Analysis, performed reconstruction of single-vehicle, multiple-vehicle, auto-pedestrian, and rollover accidents. Analysis included occupant kinematics and correlation to test data, performed and analyzed various dynamic and static vehicle and component tests, as well as basic research.

While at Severy Incorporated, worked on development and analysis of numerous test procedures and tests to evaluate collision performance. In addition, participated in the analysis of numerous transportation and industrial accidents. In conjunction with Severy Inc. and a UCLA engineering course, designed, conducted, and analyzed a series of vehicle sled tests with regard to restraint system performance and occupant kinematics.

Prepared training materials while working with the Head Protection Research Laboratory in preparation of a large-scale motorcycle study conducted in Thailand. Additionally, worked on quality control of the reconstruction and data gathering for selected cases. Participated in developing accident reconstruction documentation and methodology for the Motorcycle Accident In-Depth Study (MAIDS) sponsored by the European Commission, and in selected case reviews. Participated in a quality control evaluation of the accident reconstruction and investigation centers in Paris, France and Delft, Netherlands as part of MAIDS.

In conjunction with JP Research conducted a large-scale research project looking into various aspects of vehicle rollover crashes, injuries, and roof performance. This study was based on analyzing and refining individual NASS-CDS case data. The resulting research was presented at two SAE-Government Industry meetings, AAAM, and IRCOBI conferences. The comprehensive study was added to the NHSTA's rollover roof performance docket as part of the Alliance of Automotive Manufacturer's response to rule making. Additionally, the research identified several areas that the NASS-CDS coding could be improved. These recommendations were made and have been implemented in the current data collection protocol.

Nominated by the American National Standards Institute (ANSI) to the U.S. Delegation to the International Standards Organization, ISO TC22 SC12 WG7 (TC22 - road vehicles, SC12 - passive safety crash protection systems, WG7 - traffic accident analysis methodology) developing international standards related to improving vehicle safety and analysis of crash data. Participated in the development of ISO 12353-1, -2 and -3 Road Vehicle Traffic Accident Analysis - Guidelines for the use of Impact Severity Measures and Guidelines for the Interpretation of Recorded Crash Pulse Data to Determine Impact Severity. In 2024 confirmed as chairman of ISO TC22/SC36 Impact Testing and Safety. Also a member of ISO TC22 and the US-TAG (technical advisory group) to ISO.

EDUCATION:

Master of Science - Mechanical Engineering, California State University, Long Beach, 1993.

Bachelor of Arts - Mathematics, University of California, Los Angeles, 1985.

Associate of Science - Engineering, Santa Monica College, 1981.

Various courses related to accident reconstruction and biomechanics.

PROFESSIONAL MEMBERSHIPS:

Society of Automotive Engineers (SAE). Association for the Advancement of Automotive Medicine (AAAM). American Society of Mechanical Engineers (ASME). Society of Motion Pictures and Television Engineers (SMPTE).

PUBLICATIONS:

ACTIVE DAMPING OF A CANTILEVER BEAM SYSTEM, with H. Vu and D. Zimmerman. Proceedings of Damping '91 Sponsored by The Wright Laboratory Flight Dynamics Directorate, Wright Patterson AFB, OH 1991.

SURVEY OF PHOTOGRAMMETRIC METHODOLOGIES FOR ACCIDENT RECONSTRUCTION, with M. Varat and J. Kerkhoff. Proceedings of the Canadian Multidisciplinary Road Safety Conference VII, Vancouver, Canada 1991.

ABSTRACT: A STUDY OF PARTIAL SYSTEM VEHICLE BRAKING, with M. Varat. Proceedings of the Canadian Multidisciplinary Road Safety Conference VII, Vancouver Canada 1991.

BH2VK CRASH TESTING PROJECT SEMINAR NOTES, with J. Kerkhoff, M. Varat, A. Busenga and K. Hamilton, BH2VK Engineering, CA, 1992.

AN INVESTIGATION INTO VEHICLE FRONTAL IMPACT STIFFNESS, BEV AND REPEATED TESTING FOR RECONSTRUCTION, with J. Kerkhoff, M. Varat, A. Busenga and K. Hamilton. Accident Reconstruction: Technology and Animation III, SP-946, SAE Warrendale, PA, 1993.

ANALYSIS OF THE COLLAPSED ROOF STRUCTURE OF THE GERALD R. DANIELS RECITAL HALL CSULB, Master's Thesis, CSULB, 1993.

AN ANALYSIS OF TRENDS OF VEHICLE FRONTAL IMPACT STIFFNESS, with M. Varat and J. Kerkhoff. Accident Reconstruction: Technology and Animation IV, SP-1030, SAE Warrendale, PA, 1994.

AN ANALYSIS OF ATD SEATING POSITIONS IN NHTSA FRONTAL CRASH TESTING, with M. Noble, M. Varat and J. Kerkhoff. Advances in Occupant Protection for the Mid-Nineties, SP-1077, SAE Warrendale, PA, 1995.

PARAMETRIC STUDY OF AUTOMOBILE IMPACT SEVERITY IN A DIVERSE VEHICLE POPULATION, with M. Varat. International Symposium on Automotive Technology and Automation - Road and Vehicle Safety, ISATA Conference, Florence, Italy, 1996.

VEHICLE CRASH SEVERITY ASSESSMENT IN LATERAL POLE IMPACTS, with M. Varat. Accident Reconstruction: Technology and Animation IX, SP-1407, SAE Warrendale, PA, 1999.

PRESENTATION: ROLLOVER RECONSTRUCTION, SAE TOPTec Seminar: Accident Reconstruction: State of the Art, December 1999.

PRESENTATION: REAR COLLISION PERFORMANCE, SAE TOPTec Seminar: Accident Reconstruction: State of the Art, December 1999.

VEHICLE IMPACT RESPONSE ANALYSIS THROUGH THE USE OF ACCELEROMETER DATA, with M. Varat. Accident Reconstruction: Analysis, Simulation, and Visualization, SP-1491, SAE, Warrendale PA, 2000.

PRESENTATION: RECONSTRUCTION AND ANALYSIS OF REAL WORLD ACCIDENTS, SAE TOPTec Seminar: Heavy Vehicle Rollover: Prevention, Analysis and Reconstruction, July 2000.

PRESENTATION: MOTORCYCLE ACCIDENT RECONSTRUCTION, SAE TOPTec Seminar: Accident Reconstruction: Special Topics, May 2001.

PRESENTATION: ROLLOVER RECONSTRUCTION, with M. Varat. SAE TOPTec Seminar: Passenger Vehicle Rollover: Causes, Prevention and Injury Prevalence TOPTec, April 2002.

COMPUTATIONAL ANALYSIS OF MOTORCYCLE CRASH TESTS – A BASIS FOR MOTORCYCLE ACCIDENT RECONSTRUCTION, with T. Smith and T. Hermitte. Proceedings of the 2002 International Motorcycle Safety Conference, Munich, Germany, September 2002.

THE ANALYSIS AND DETERMINATION OF TIRE-ROADWAY FRICTIONAL DRAG, with M. Varat, J. Kerkhoff, C. Armstrong, and K. Shuman. Accident Reconstruction 2003, SP-1773, SAE, Warrendale PA, 2003.

CRASH PULSE MODELING FOR VEHICLE SAFETY RESEARCH, with M. Varat. 18TH International Technical Conference on the Enhanced Safety of Vehicles, Nagoya, Japan, May 2003.

RIDER INPUTS AND POWERED TWO WHEELER RESPONSE FOR PRE-CRASH MANEUVERS, with J. Kerkhoff, K. Shuman, M. Varat. International Motorcycle Safety Conference, Munich, Germany, September 2004.

THE ALLIANCE ROLLOVER STUDY OF NASS AND FARS DATA: PHASE I NASS INJURY STATISTICS, with J. Padmanaban and J. Marsh. NHTSA-1999-5572-115, October 2004.

THE ALLIANCE ROLLOVER STUDY OF NASS/CDS DATA: PHASE II PRELIMINARY REPORT, with J. Padmanaban and J. Marsh. SAE/NHTSA Government Industry Meeting, Washington, DC, May 2005.

OCCUPANT INJURY EXPERIENCE IN ROLLOVER CRASHES: AN IN-DEPTH REVIEW OF NASS/CDS DATA, with J. Padmanaban. AAAM Annual Conference, Boston, September 2005.

THE ALLIANCE ROLLOVER STUDY OF NASS AND FARS DATA: PHASE II IN-DEPTH NASS-CDS CASE REVIEWS, with J. Padmanaban and J. Marsh. NHTSA-2005-22143-194, February 2006.

DO I BRAKE OR DO I SWERVE- MOTORCYCLE CRASH AVOIDANCE MANEUVERING, with K. Shuman, M. Varat. International Motorcycle Safety Conference, Long Beach, March 2006.

THE ALLIANCE ROLLOVER STUDY OF NASS/CDS DATA: PHASE II FINAL REPORT, with J. Padmanaban and J. Marsh. SAE/NHTSA Government Industry Meeting, Washington, DC, May 2006.

MODELING OF TRUCK-CAR SIDESWIPE COLLISIONS USING LUG PATTERNS, with M. Varat, J. Kerkhoff, C. Armstrong, and J. Steiner. Accident Reconstruction 2008, SP-2160, SAE, Warrendale PA, 2008.

FORENSIC EVIDENCE RELATING TO MOTORCYCLE PRE-CRASH MANEUVERS, with M. Varat, C. Armstrong and J. Steiner. International Motorcycle Safety Conference, Cologne, Germany, October 2008.

MOTORCYCLE DYNAMICS AND ROADWAY IRREGULARITIES, with M. Varat. International Motorcycle Safety Conference, Cologne, Germany, October 2010.

DRIVER RESPONSE TO ROADWAY INTRUSION AT NIGHT, with J. Grindey, M. Varat, and J. Steiner. 22nd European Association for Accident Research and Analysis Conference, Florence, Italy, October 2013.

MOTORCYCLE VELOCITY DETERMINATION FROM IMPACT DAMAGE, with T. Kress, R. Kress, M. Varat, and J. Steiner. International Motorcycle Safety Conference, Cologne, Germany, October 2014.

MEDIUM DUTY NORTH AMERICAN DELIVERY VAN FRONTAL BARRIER CRASH TEST DATA FOR CRASH RECONSTRUCTION, with J. Steiner, J. Olsen, T. Walli, T. Kress, C. Armstrong, R. Gallagher, and J. Kyes. SAE Technical paper 2015-01-1420, SAE, Warrendale PA, 2015.

ANALYSIS OF ROADWAY AND TIRE EVIDENCE RESULTING FROM AGGRESSIVE BRAKING MANEUVERS WITH ABS-EQUIPPED MOTORCYCLES, with Louis R. Peck, Eloy Rubio, Andre Doria, Karl Shuman. SAE Technical paper 2023-01-0635, SAE, Warrendale PA, 2015.

OTHER PUBLICATION & RESEARCH RELATED ACTIVITIES:

SAE Accident Investigation Practices Committee Member

SAE Occupant Protection Committee Member

SAE Seat Standards Committee Member

SAE Impact and Rollover Standards Committee

Technical Paper Reviewer for the Accident Analysis and Prevention Journal

Technical Paper Review Committee: SAE SP-925 Automotive Safety: Present and Future Technology, 1992

Technical Paper Review Committee: SAE SP-1030 Accident Reconstruction: Technology and Animation IV, 1994

Technical Paper Review Committee: SAE SP-1083 Accident Reconstruction: Technology and Animation V, 1995

Co-Organizer SAE TOPTEC Seminar: Seat Design for Safety August 1995

Technical Paper Review Committee: SAE SP-1150 Accident Reconstruction: Technology and Animation VI, 1996

Technical Paper Review Committee: SAE SP-1237 Accident Reconstruction: Technology and Animation VII, 1997

Technical Paper Review Committee: SAE SP-1319 Accident Reconstruction: Technology and Animation VIII, 1998

Technical Paper Review Committee: SAE SP-1407 Accident Reconstruction: Technology and Animation IX, 1999

Co-Organizer SAE TOPTEC Seminar: Accident Reconstruction: State of the Art, December 1999

Technical Paper Review Committee: SAE SP-1491 Accident Reconstruction: Analysis, Simulation, and Visualization, 2000

Organizer and Co-chairman Technical Paper Sessions: SAE SP1572 Accident Reconstruction 2001

Co-Organizer SAE TOPTEC Seminar: Accident Reconstruction: Special Topics, December 2001

Organizer and Co-chairman Technical Paper Sessions: SAE SP-1666 Accident Reconstruction 2002

Organizer and Co-chairman Technical Paper Sessions: SAE SP-1773 Accident Reconstruction 2003

AAAM Membership and Credential Committee Member, 2003 - 2006

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 1873 Accident Reconstruction 2004

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 1930 Accident Reconstruction 2005

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 1999 Accident Reconstruction 2006

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 2063 Accident Reconstruction 2007

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 2160 Accident Reconstruction 2008

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 2224 Accident Reconstruction 2009

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 2267 Accident Reconstruction 2010

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 2267 Accident Reconstruction 2011

Organizer and Co-chairman Technical Paper Sessions: SAE SP- 2267 Accident Reconstruction 2012

Invited presentation on the application of laser scanning and total station measurements to the Human Factors Workshop at Transportation Research Board, Annual Meeting, Washington DC, January 2012

Technical Paper Review Committee SAE Accident Reconstruction

International Standards Organization, various working groups related to vehicle safety and analysis

PROFESSIONAL ACTIVITIES:

Association for the Advancement of Automotive Medicine; Injury Scaling: Uses and Techniques, University of California at Davis July 1989.

Association for the Advancement of Automotive Medicine; Biomechanics of Impact Trauma, Orlando Florida March 1990.

Association for the Advancement of Automotive Medicine; Crash Reconstruction: Purposes and Techniques, Orlando Florida March 1990.

Association for the Advancement of Automotive Medicine; Annual Conference, Scottsdale Arizona, November 1990.

Canadian Multidisciplinary Road Safety Conference VII, Vancouver, British Columbia, Canada, June 1991.

University of California, San Diego School of Medicine; Accidental Injury: Biomechanics and Prevention, San Diego California, November 1991.

Society of Automotive Engineers, Stapp Car Crash Conference, San Diego California, November 1991.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1992.

BH2VK Crash Testing Seminar; San Bernardino California, July 1992.

Association for the Advancement of Automotive Medicine; Annual Conference, Portland Oregon, November 1992.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1993.

Society of Automotive Engineers, Stapp Car Crash Conference, San Antonio Texas, November 1993.

Association for the Advancement of Automotive Medicine; Annual Conference, San Antonio Texas, November 1993.

21st International Workshop on Human Subjects for Biomechanical Research, November, 1993.

Association for the Advancement of Automotive Medicine and the Society of Automotive Engineers; Child Occupant Protection, San Antonio Texas, November 1993.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1994.

Society of Automotive Engineers, Seminar Low Speed Rear Impact Collision TOPTEC, July 1994.

Association for The Advancement of Automotive Medicine; Annual Conference, Lyon France, September 1994.

Association for The Advancement of Automotive Medicine & The International Research Council on the Biomechanics of Impact; Advances In Occupant Restraint Technologies, Lyon France, September 1994.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1995.

Society of Automotive Engineers, Seminar Passive Restraint TOPTEC, May 1995.

Society of Automotive Engineers, Seminar Seat Design for Safety TOPTEC, August 1995.

Society of Automotive Engineers, Stapp Car Crash Conference, San Diego California, November 1995.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1996.

Society of Automotive Engineers, Stapp Car Crash Conference, Albuquerque New Mexico, November 1996.

NATO-AGAARD Conference, Impact Head Injury: Responses, Mechanisms, Tolerance, Treatment and Countermeasures, Alamogordo New Mexico November 1996.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1997.

Lecturer AAAM Course Car Crashes and Occupant Injuries: A Team Approach to Crash Investigation, 1997.

Society of Automotive Engineers, Seminar Airbag Design and Performance TOPTEC, August 1997.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1998.

Lecturer AAAM Course Car Crashes and Occupant Injuries: A Team Approach to Crash Investigation, 1998.

Society of Automotive Engineers, Stapp Car Crash Conference, Phoenix Arizona, November 1998.

26th International Workshop on Human Subjects for Biomechanical Research, November, 1993.

Society of Automotive Engineers, Passenger Car Rollover TOPTEC: Cause and Prevention, January 1999.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, February 1999.

Lecturer AAAM Course Car Crashes and Occupant Injuries: A Team Approach to Crash Investigation, 1999.

Co-Organizer and Lecturer Society of Automotive Engineers, Seminar Accident Reconstruction: State of the Art TOPTEC, December 1999.

Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2000.

Lecturer AAAM Course Car Crashes and Occupant Injuries: A Team Approach to Crash Investigation, 2000.

Lecturer Society of Automotive Engineers, Seminar Heavy Vehicle Rollover TOPTEC: Prevention, Analysis and Reconstruction, July 2000.

Motorcycle Accident In-Depth Study (MAIDS) - Accident Reconstruction Quality Control Program, 2001.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2001.

Lecturer and Organizer Society of Automotive Engineers, Seminar Accident Reconstruction: Special Topics TOPTEC, May 2001.

17th International Technical Conference on the Enhanced Safety of Vehicles, Amsterdam, The Netherlands, June 2001.

Sessions Co-Organizer Accident Reconstruction Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2002.

Lecturer Society of Automotive Engineers, Seminar Passenger Vehicle Rollover: Causes, Prevention and Injury Prevalence TOPTEC, April 2002.

International Motorcycle Safety Conference, Munich, Germany, September 2002.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2003.

18th International Technical Conference on the Enhanced Safety of Vehicles, Nagoya, Japan, May 2003

Association for the Advancement of Automotive Medicine; Annual Conference, Lisbon, Portugal, September 2003.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2004.

Society of Automotive Engineers, Electronic Data Recorder Symposium, NTSB Academy, Ashburn, Virginia, June 2004.

International Motorcycle Safety Conference, Munich, Germany, September 2004.

Association for the Advancement of Automotive Medicine; Annual Conference, Miami, Florida, October 2004.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2005.

Society of Automotive Engineers, Government-Industry Meeting, Washington, DC, May 2005

Association for the Advancement of Automotive Medicine; Annual Conference, Boston, Massachusetts, September 2005.

Co-Organizer and Lecturer Society of Automotive Engineers, Accident Reconstruction Symposium, November 2005.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, March 2006.

Society of Automotive Engineers, Government-Industry Meeting, Washington, DC, May 2006.

International Motorcycle Safety Conference, Cologne, Germany, October 2006.

Association for the Advancement of Automotive Medicine; Annual Conference, Chicago, Illinois, October 2006.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2007.

Society of Automotive Engineers, Electronic Data Recorder Symposium, NTSB Academy, Ashburn, Virginia, September 2007.

Association for the Advancement of Automotive Medicine; Annual Conference, Melbourne, Australia, October 2007.

Transportation Research Board, Annual Meeting, Washington DC, January 2008.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2008.

International Motorcycle Safety Conference, Cologne, Germany, October 2008.

Engineering Dynamics HVE Forum, Orlando Florida, February 2009.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2009.

Institute of Traffic Accident Investigators and European Association for Accident Research and Analysis, Joint Conference, Hinkley England, September 2009.

Engineering Dynamics HVE Forum, San Antonio Texas, March 2010.

International Motorcycle Safety Conference, Cologne, Germany, October 2010.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2010.

Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2011.
International Standards Organization TC22/SC12/WG7 meeting at Bureau de Normalisation de l'Automobile, Paris, France May 2011.
Assessing and Interpreting Heavy Vehicle Event Data Recorders, Society of Automotive Engineers, Oxnard CA, May 2011.
Transportation Research Board, Annual Meeting, Washington DC, January 2012.
Co-Organizer Accident Reconstruction Sessions Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2012.
International Standards Organization TC22/SC12/WG7 meeting at Bureau de Normalisation de l'Automobile, Paris, France May 2012.
International Motorcycle Safety Conference, Cologne, Germany, October 2012.
22nd European Association for Accident Research and Analysis Conference, Florence, Italy, October 2013.
International Motorcycle Safety Conference, Cologne, Germany, October 2014.
International Standards Organization TC22/SC12 meeting at San Diego, CA, November 2014.
Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2016.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Detroit, Michigan, April 2015.
International Standards Organization TC22/SC36/WG7 meeting at Ecole des Arts et Métiers Paristech, Paris, France June 2015.
Motorcycle Dynamics and Suspension Seminar, Tony Foale and Escola Tècnica Superior d'Enginyeria Industrial de Barcelona, Spain, October 2015.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Tucson, Arizona, November 2015.
Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2016.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Detroit, Michigan, April 2016.
International Standards Organization TC22/SC36/WG7 meeting at Swedish Institute of Standards, Stockholm, Sweden June 2016.
International Motorcycle Safety Conference, Cologne, Germany, October 2016.
Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2017.
Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2018.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Detroit, Michigan, April 2018.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, El Segundo, California, October 2018.
International Motorcycle Safety Conference, Cologne, Germany, October 2018.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Detroit, Michigan, April 2019.
Society of Automotive Engineers, Annual Congress, Detroit Michigan, April 2019.
International Standards Organization TC22/SC36/WG7 meeting at British Standards Institute, London, England June 2019.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Denver, Colorado, September 2019.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Detroit, Michigan, April 2020.
Instructor Society of Automotive Engineers: Reconstruction and Analysis of Motorcycle Crashes, Camarillo, California, December 2021.
Society of Automotive Engineers, Photography for Accident Reconstruction, Product Liability and Testing, Troy Michigan, April 2