
ERICKSON FORENSIC

Mark S. Erickson, P.E.

Erickson Forensic LLC
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Education

M.S., Oregon State University Mechanical Engineering Focus: Dynamics / Control Systems	2002
B.S., Oregon State University Mechanical Engineering Honors: Magna Cum Laude	2001

Employment

Erickson Forensic LLC; West Linn, OR Forensic Engineer – Accident Reconstructionist	2017-
Hayes + Associates, Inc.; Corvallis, OR Forensic Engineer – Accident Reconstructionist	2002-17
Department of Mechanical Engineering, Oregon State University; Corvallis, OR Graduate Research Assistant	2001-02
Oregon State University; Corvallis, OR Undergraduate Researcher	2000-01

Certifications

Licensed Professional Engineer (OR #65442PE – WA #50999)
Certified Accident Reconstructionist. Accreditation Commission for Traffic
Accident Reconstruction (ACTAR #1345)
Certified Crash Data Retrieval Technician & Data Analyst
CXLT – Certified XL Tribometrist
Laser Scanner/Scan Data Interpretation Certification (FARO Focus 3D)
FAA Remote Pilot – small Unmanned Aircraft Systems rating (sUAS Cert. 3909705)

Specialized Training

Northwestern University – Center for Public Safety: Evanston, IL Accident Reconstruction - Driving Strategy and Tactics; Reconstruction Physics.	Oct 2002
Human Vehicle Environment (HVE) Forum: Las Vegas, NV Dynamic Vehicle Simulation; Biomechanical Occupant Simulation.	Apr 2003
California Association of Accident Reconstruction Specialists: Anaheim, CA Biomechanical Injury Causation; Bicycle Crash Reconstruction; Vehicle Code.	Oct 2003
Forensic Accident Reconstructionists of Oregon (FARO): Hillsboro, OR Tire Mark Interpretation; Vault Analysis; Head Lamp Examination; Yaw Analysis.	Jul 2004
University of Oregon: Eugene, OR	Dec 2004

Investigation of Head Injury Mechanism; Validation of Brain Injury Models.	
FARO: Eugene, OR Biomechanics in Vehicle Collisions; Occupant Kinematics; Injury Mechanisms.	Apr 2005
Accident Reconstruction Network/Collision Safety Institute: Las Vegas, NV Crash Testing and Reconstruction; Commercial Vehicle EDR; Airbag Systems.	Jun 2005
FARO: Hillsboro, OR Drag Factor & Coefficient of Friction Validation Testing.	Aug 2005
FARO: Salem, OR Pedestrian/Bicycle Crash Testing and Reconstruction Validation.	Aug 2006
Society of Automotive Engineers (SAE): Detroit, MI World Congress.	Apr 2007
SAE International: Detroit, MI Occupant and Vehicle Kinematics in Rollovers.	Apr 2007
FARO: Portland, OR Narrow Object Collision and Motorcyclist Ejection Kinematics.	Aug 2007
FARO: Portland, OR Low Speed Collision & Water Related Crash Reconstruction.	Nov 2007
FARO: Hillsboro, OR Forensic Analysis of Seat Belts & Traffic Signal Theory.	May 2008
Collision Safety Institute: Glendale, AZ Crash Data Retrieval (CDR) Technician Certification Course.	Jul 2008
Collision Safety Institute: Glendale, AZ CDR Data Analyst Certification Course.	Jul 2008
FARO: Hillsboro, OR Motorcycle Crash Reconstruction; Heavy Vehicle ECM Data Retrieval.	Oct 2008
FARO: Eugene, OR Damage-Energy Methods; Heavy Vehicle Brake Systems/Elec. Stability Control.	Mar 2009
Association for the Advancement of Automotive Medicine (AAAM): Seattle, WA Injury Scaling and AIS.	Jun 2009
SAE: Portland, OR Tire Testing and Modeling for Vehicle Dynamics.	Apr 2010
FARO: Eugene, OR Road Evidence; Human Perception/Reaction; Crash Data Retrieval.	May 2011
Oregon State University: Corvallis, OR Advanced Human Anatomy and Physiology (1)	Jun 2011
Oregon State University: Corvallis, OR Advanced Human Anatomy and Physiology (2)	Jul 2011
FARO: Salem, OR Motorcycle Crash Reconstruction - Injury Analysis from Motorcycle Crashes.	Feb 2012
SAE: Portland, OR Wheel Separation; Warnings; Loss Prevention.	May 2012
SAE International: Fairview, OR Heavy Vehicle Dynamics.	Jun 2012
Oregon State University: Corvallis, OR Biomechanics of Musculoskeletal Injury	Fall 2012

FARO: Salem, OR Heavy Vehicle Acceleration/Deceleration Testing.	Jun 2013
Bendix: Tacoma, WA Heavy Vehicle Brake Systems.	Jun 2014
FARO: Kirkland, WA 3D Laser Scanning Certification – Data Acquisition; Registration & Interpretation	Mar 2015
PPI – FARO: Portland, OR NW Forensic Scanning Conference – Crash/Crime Scenes – Inclement Weather.	Nov 2015
SAE International: Charlotte, NC Accessing and Interpreting Heavy Vehicle Event Data Recorders.	May 2016
Society of Automotive Engineers (SAE) International Driver Distraction from Electronic Devices: Insights and Implications.	May 2016
SAE Oregon, Portland Autonomous Vehicle Systems: Sensor Hardware, Software/Control Systems	Apr 2017
Occam – Forensic Video Solutions: Post Falls, ID Video Examinations for the Police Investigator	Jan 2018
Crash Data Group; Texas Assoc of Accident Reconstruction Spec: Houston, TX EDR Summit. Autonomous Vehicle Systems/Performance, Crash Data Research, Collection & Analysis	Mar 2018

Professional Affiliations

Association for the Advancement of Automotive Medicine (AAAM)
Society of Automotive Engineers (SAE International)
American Society for Testing and Materials (ASTM International)
National Assoc. of Traffic Accident Reconstructionists & Investigators (NATARI)
Forensic Accident Reconstructionists of Oregon (FARO)

Publications

1. Lee, E.L., Lee, P.J., Erickson, M.S., and Hayes, W.C.: Increase in Vehicle Front, Rear and Side Stiffness Coefficients in the Past Twenty Years Necessitates New Representative Database. SAE International, 2014-01-0351, 2014.
2. Erickson, M.S., Bauer, J.J., and Hayes, W.C.: The accuracy of photo-based three-dimensional scanning for collision reconstruction using 123D Catch. SAE International, 2013-01-0784, 2013.
3. Erickson, M.S.: Fidelity of biodynamic simulation models for low speed collinear rear crash conditions. SAE International, 2012-01-0570, 2012.
4. Erickson, M.S. and Hayes, W.C.: Drag factor attenuation for rotating vehicles. Accident Reconstruction Journal, vol. 18, no. 3, 2008.
5. Erickson, M.S. and Hayes, W.C.: The implications of active control technology for crash reconstruction. Accident Reconstruction Journal, vol. 18, no. 1, 2008.
6. Erickson, M.S. and Hayes, W.C.: Damage-based collision severity reconstruction technique. Collision - The International Compendium for Crash Research, vol. 2, issue 1, 2007.
7. Hayes, W.C., Erickson, M.S., and Power, E.D.: Forensic injury biomechanics. Annual Review of Biomedical Engineering, vol. 9, 2007.

8. Erickson, M.S. and Costello, M.: Production line calibration for sensors on actively controlled bullets. *Journal of Manufacturing Science and Engineering*, vol. 126, pp. 368 – 376, 2004.