

JACOB A. STEGEMANN, P.E. SENIOR CONSULTANT

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Mr. Jacob Stegemann is a Mechanical Engineer and a Senior Consultant for Engineering Systems Inc (ESi). Mr. Stegemann is a licensed Professional Engineer. He specializes in automotive accident investigation and reconstruction for recreational, commercial and passenger vehicles. He is also experienced in vehicle and biomechanical instrumentation, imaging and interpreting event data recorders, scene documentation, 3D laser scanning and drone photography. Mr. Stegemann handles artifact chain of custody documentation for the Michigan office.

Mr. Stegemann has extensive experience in the inspections of vehicles, buildings, accident sites and fire scenes. He is experienced in generating 2D and 3D computer aided models and vehicle and pedestrian crash simulations.

Areas of Specialization

3-Dimensional Modeling
Artifact Handling
Automotive Accident Investigation/Reconstruction
Certified FARO Operator
Data Acquisition & Data Analysis
FAA Certified sUAS Pilot
Imaging & Analyzing Event Data Recorders for Light & Heavy Vehicles
Mechanical & Biomechanical Testing

Education

B.S.E., Mechanical Engineering, University of Michigan, Ann Arbor, MI, 2016

Professional Licensures

State of Michigan Professional Engineers, License No. 6201070428 FAA UAS Remote Pilot

Professional Affiliations/Honors

Society of Automotive Engineers (SAE)
Member

January 2025

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Engineering Systems Inc., Ann Arbor, MI
Senior Consultant, 2024 – Present
Senior Staff Consultant, 2023 – 2024
Staff Consultant, 2020 – 2023
Associate Consultant, 2016 – 2019
Engineering Intern, 2016

RLE International, Ann Arbor, MI Engineering Intern, 2015 – 2016

Fiat Chrysler Automobiles, Detroit, MI Engineering Intern, 2015

Germain Honda of Ann Arbor, Ann Arbor, MI Service Department Porter, 2013 – 2014

Continued Education

DroneU sUAS Flight and 3D Photogrammetry Training DroneU, Loveland, CO, 2024

Bendix Brake School Training

Certificate of Virtual Training, Bendix, 2024

Accessing and Interpreting Heavy Vehicle Event Data Recorders

Certificate of Achievement, SAE International, Fontana, CA, 2023

SAE Accident Reconstruction Certificate Program, Required Course

Event Data Recorder Update and Analysis Ruth Consulting, Atlanta, GA, 2023

Accident Reconstruction, The Autonomous Vehicle and ADAS Certificate of Achievement, SAE International, 2022

Bosch© CDR Tool Technician Training by IPTM – Online
Institute of Police Technology and Management, University of North Florida, 2022

Applying Automotive EDR Data to Traffic Crash Reconstruction Certificate of Achievement, SAE International, 2021

Traffic Signal Timing Records Interpretation and Analysis
Traffic Signal Academy, University of Tennessee, 2020

HVE Forum

Certificate of Completion, Engineering Dynamics Corporation, Austin, TX, 2020



Sunbelt Rentals, Aerial Work Platforms
Certificate of Training, Ypsilanti, MI, 2019

Traffic Crash Reconstruction I
Northwestern University for Public Safety, Ann Arbor, MI, 2019
Applied Vehicle Dynamics Course
Autobahn Country Club, Joliet, IL, 2018

Photogrammetry and Analysis of Digital Media
SAE International, Certificate of Achievement, Troy, MI, 2018

FARO Focus 3D Operator

Certificate of Training, Ann Arbor, MI, 2018

Human Factors in Traffic Crash Reconstruction
Institute of Police Technology Management, University of North Florida, Fort Myers, FL, 2017

Vehicular Crash Reconstruction Methods Seminar, SAE International

Certificate of Achievement, Troy, MI, May 2016, Timron Scientific Consulting, Inc.

Publications/Presentations

"Inclusion of Tire Forces into Low-Speed Bumper-to-Bumper Crash Reconstruction Simulation Models," R.M. Brach, **J. A. Stegemann**, E.J. Manuel, N.E. Civitanova. SAE International 2024-01-2479, Published 09 Apr 2024.

Technical Review, "CPSC All-Terrain Vehicle Research," Consumer Product Safety Commission Presentation. June 2019.

"The Kinematic Analysis of Occupant Excursions and Accelerations During Staged Low Speed Far-Side Lateral Vehicle-to-Vehicle Impacts," P.A. Shibata, J.M. Roberts, J.K. Sprague, A.E. Light, **J.A. Stegemann**, M. Meza-Arroyo, S.P. Capser. SAE Technical Paper 2019-01-1030, 2019.

"Analysis of an Unexpected Impact to the Crown of the Head," P.A. Shibata, A.L. Stern, J.M. Roberts, **J.A. Stegemann**, Proceedings of The XXVIIIth Annual International Occupational Ergonomics and Safety Conference, Chicago, IL, pp. 126-131, June 9-10, 2016.