



Curriculum Vitae

**Paul J. Montalbano, P.E.**



**Professional Profile**

Mr. Montalbano is a Professional Engineer and consultant with experience, education, and training in the fields of mechanical engineering and forensic engineering. He holds a Bachelor of Science in Mechanical Engineering and a Master of Science in Mechanical Engineering, specializing in computational analysis, physics, kinematics (study of the motion of objects), kinetics (study of forces and impacts) and dynamics. He has advanced training in crash investigation, accident reconstruction, human factors and vehicle dynamics.

Specific areas of expertise include passenger vehicle collision reconstruction; commercial vehicle crash investigation and analysis; pedestrian, bicycle, motorcycle, ATVs and other transportation mode analysis and reconstruction; vehicle dynamics modeling; vehicle system components; 3-D imaging and animation technology; and human factors engineering evaluation of the needs and responses of drivers and other users in a transportation environment.

Mr. Montalbano's current professional practice focuses on providing engineering consulting services for legal, insurance, and corporate clients in the areas of vehicular accident reconstruction, human factors, automotive safety and mechanical engineering analysis. From on-scene investigation, to determining causes and countermeasures, Mr. Montalbano employs proven scientific methodologies and advanced technology for data collection, engineering evaluation, and comprehensive communication. He has provided expert witness testimony in criminal proceedings and civil litigation at deposition, mediation and jury trial levels in multiple states.

**Licensure and Professional Certification**

Professional Engineer, State of Alabama, # 39202  
Professional Engineer, State of Florida, # 82443  
Professional Engineer, State of Georgia, # PE-045710  
Professional Engineer, State of Mississippi, # 30902

Accredited Accident Reconstructionist, #2727  
*Accreditation Commission for Traffic Accident Reconstruction (ACTAR)*

Certified Accident Reconstructionist  
*Society of Automotive Engineers*

Florida Motorcycle Endorsement  
*Motorcycle Training Institute*

Remote Pilot – Small Unmanned Aircraft System  
*Federal Aviation Administration*

**Contact Information**

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St. Cloud, FL 34771

**West Palm Beach Office**

2656 Greenway Drive  
Jupiter, FL 33458

**Education**

Master of Science in Mechanical Engineering  
University of South Florida  
*Tampa, Florida*

Bachelor of Science in Mechanical Engineering  
Summa Cum Laude (with highest honor)  
University of South Florida  
*Tampa, Florida*

**Work Experience**

Focus Forensics, LLC  
Senior Engineer: 2014-Present

Armstrong Forensic Engineers, Inc.  
Consultant: 2013-2014

MainSafe® Corporation  
Mechanical Design Engineer: 2012

University of South Florida  
Graduate Research Assistant: 2011-2012  
Teacher Assistant: 2011-2012  
Undergraduate Research Assistant: 2010-2011



## Professional Affiliations

American Society of Mechanical Engineers (ASME)

Society of Automotive Engineers (SAE)

Human Factors and Ergonomics Society (HFES)

Tau Beta Pi, Engineering Honor Society, (FL Gamma Chapter), 2009

## Professional Development

### Axiom Forensic

- Motorcycle Collision Reconstruction, 2018

### Collision Safety Institute / ARC

- EDR Summit, 2017
- Annual Crash Conference and Full Scale Crash Testing, 2017
- EDR Summit, 2020

### Crash Safety Solutions (Human Factors)

- Nighttime Recognition on Unlit Roads, 2019
- Nighttime Recognition on Lighted Roads, 2020
- Recognition of Closing Speed and Closing Threshold, 2021
- Path Intrusion Reaction Time Studies, 2021
- IDRR User Forum, 2022

### Drone Launch Academy

- FAA Part 107 Remote Pilot Course, 2018

### Engineering Dynamics Corporation

- Collision Reconstruction using HVE Simulation Modeling (EDC Simulations), 2015

### EOS Systems, Inc.

- Collision Reconstruction using Photogrammetry, 2015

### FARO Technologies, Inc.

- FARO Laser Scanner Training and Operation, 2015
- FARO Reality for Crash Reconstruction, 2016

## Forensic Pieces

- Low Light & Night Time Photography, 2017

## Lightpoint Scientific

- Point Clouds in Collision Reconstruction: Speed from Video and Crush from Photos, 2022

## Miami-Dade Public Safety Training Institute

- Forensic Video Analysis Training, 2019

## Motorcycle Training Institute, Inc.

- Basic Rider Course, 2015

## Northwestern University Center for Public Safety

- Crash Investigation 1, 2013
- Crash Investigation 2, 2013
- Traffic Crash Reconstruction 1, 2013
- Traffic Crash Reconstruction 2, 2013
- Advanced Crash Reconstruction Utilizing Human Factors, 2014
- Motorcycle Crash Reconstruction, 2015

## PDH

- Florida Engineers: Professional Ethics, 2019
- Florida Laws and Rules for Engineers, 2019
- Florida Engineers: Professional Ethics, 2021
- Florida Laws and Rules for Engineers, 2021

## Society of Automotive Engineers (SAE)

- Applying Automotive EDR Data to Crash Reconstruction, 2013
- Applied Vehicle Dynamics, 2017
- Brake Control Systems, 2018
- Reconstruction and Analysis of Motorcycle Crashes, 2018
- Reconstruction and Analysis of Rollover Crashes of Light Vehicles, 2018
- Vehicle Crash Reconstruction: Principles and Technology, 2019
- Accident Reconstruction, The Autonomous Vehicle and Advanced Driver-Assistance Systems, 2020



## Professional Development Continued

### University of Tulsa

- Digital Forensics of Heavy Vehicle Event Data Recorders, 2014

### U.S. DOT Transportation Safety Institute

- U.S. Dot CMV Periodic Inspection and Maintenance, 2016

### Virtual Crash

- Collision Simulation and Reconstruction, 2021

### World Reconstruction Exposition (WREX)

- Crash Conference and Full Scale Crash Testing, 2016
- Vehicle Rollover Crash Testing Applied to Accident Reconstruction
- Motorcycle Collision Reconstruction
- Motorcycle and Speed Estimation Methods
- Distracted Driving Investigation
- Autonomous Driving
- Pedestrian Collision Reconstruction
- Crash Data Retrieval Update
- Driver Response

## Seminar and Course Presentations

“Evidence Collection Technology and Digital Data Sources in Forensic Engineering Reconstruction”, Luks, Santaniello, Petrillo, Cohen & Peterfriend, Orlando, FL 2021

“Accident Reconstruction in the Criminal Courts”, *Florida Association of Criminal Defense Lawyers Conference*, Melbourne, FL 2018

“Accident Reconstruction and Claims Management”, *Fleet Safety Risk Control Workshop*, Jupiter, FL 2017

“Beating Vehicular Fraud with Forensic Investigation”, *Florida Insurance Fraud Education Committee (FIFEC) Conference*, Orlando, FL 2016

“Maintenance of Traffic and Roadway Design Analysis”, *World Reconstruction Exposition*, Orlando, FL 2016

“Hit-and-Run/ Uninsured Motorist Claims: The Proof is in the Damage” *Florida Insurance Fraud Education Committee (FIFEC) Conference*, Orlando, FL 2015

“Beating Fraud with Accident Reconstruction in Conjunction with the ‘Black Box’” *Florida Insurance Fraud Education Committee (FIFEC) Conference*, Orlando, FL 2014

“Forensic Engineering – Beyond the Speed Limit”, *GEICO Insurance Company*, West Palm Beach, FL 2014

## Publications

Montalbano, P., Melcher, D., Keller, R., Rush, T., Przybyla, J., “Testing Methodology to Evaluate Reliability of a “Frozen” Speedometer Reading in Motorcycle/ Scooter Impacts with Pre-Impact Braking.” SAE Technical Paper 2016-01-1482, 2016

Melcher, D., Rush, T., Przybyla, J., Keller, R., Montalbano, P., "Photogrammetric Reconstruction Methodology and Engineering Validation for Video-Captured Pedestrian Collisions", Proceedings of the 24th Annual Congress of the European Association for Accident Research and Analysis (EVU), 2015

“Design Concepts for Shape-Shifting Surfaces” Proceedings of the ASME 2011 International Design Engineering Technical Conferences, Washington, DC, Aug 29-31, 2011, DETC2011-47402

“Multistable Shape-Shifting Surfaces” Proceedings of the ASME 2012 International Design Engineering Technical Conferences, Chicago, IL, Aug 12-15, 2012, DETC2012-71159

“Multistable Shape-Shifting Surfaces (MSSSS)” University of South Florida Scholar Commons, Tampa, FL, Jan 1, 2012, <http://scholarcommons.usf.edu/etd/4169/>

## Patents

- “Multistable shape-shifting surfaces” United States Patent 20120234508 A1, September 21, 2011
- “Ground Fault Circuit Interrupter” United States Patent D733,054, June 30, 2015