

# 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, vehicle dynamics and human factors.

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; 3-D imaging and animation technology; driver performance and avoidance capabilities; and vehicle system components.

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, 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. Mr. Montalbano has testified as an expert witness at deposition and jury trial levels for criminal and civil cases 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* 

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#### **Contact Information**

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**Orlando Office** 4417 13<sup>th</sup> Street, Suite 191 St. Cloud, FL 34769

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)

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**

• Nighttime Recognition on Unlit Roads, 2019

#### 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

#### Miami-Dade Public Safety Training Institute

• Forensic Video Analysis Training, 2019

#### Motorcycle Training Institute, Inc.

• Basic Rider Course, 2015

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#### 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, 2018
- Florida Laws and Rules for Engineers, 2018

#### 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

#### 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

#### 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

"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 MINNEAPOLIS ORLANDO SALT LAKE CITY TALLAHASSEE TAMPA WEST PALM BEACH Please Respond to Administrative Address: 133 East 143rd Avenue Tampa, FL 33613

"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