

Curriculum Vitae

Paul J. Montalbano, P.E.



#### **Professional Profile**

Mr. Montalbano is a forensic engineer with a background in mechanical engineering, vehicle dynamics, collision reconstruction and driver factors. He is a specialist in mechanical systems with an emphasis on analytic analysis including kinematics, kinetics, dynamics, and failure methods. He has advanced training in crash investigation and accident reconstruction of automobiles, commercial vehicles, motorcycles, bicycles, pedestrians and other transportation modes.

Mr. Montalbano has experience with design for manufacturing, including parametric CAD modeling and the proprietary mechanical design of safety equipment for industrial and consumer markets in the US and Europe. In addition, he has been involved in research-based conceptual designs for the National Science Foundation (NSF), American Society of Mechanical Engineers (ASME) and Society of Automotive Engineers (SAE).

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 trial for criminal and civil cases.

#### **Licensure and Professional Certification**

Professional Engineer, State of Florida, #82443

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

Florida Motorcycle Endorsement

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

### **Contact Information**

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**West Palm Beach Office** 11847 162<sup>nd</sup> Place North Jupiter, FL 33478

#### 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 Engineer: 2017-*Present* Consultant: 2014-2016

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

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#### **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**

### **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

### 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

### Society of Automotive Engineers (SAE)

- Applying Automotive EDR Data to Crash Reconstruction, 2013
- Applied Vehicle Dynamics, 2017

## **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**

"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, 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

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#### **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, <a href="http://scholarcommons.usf.edu/etd/4169/">http://scholarcommons.usf.edu/etd/4169/</a>

#### **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