



CURRICULUM VITAE  
**PAUL T. SEMONES, M.S.M.E.**  
**FORENSIC ENGINEER**  
[psemones@enginist.org](mailto:psemones@enginist.org)

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**AREAS OF EXPERTISE**

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- Forensic Traffic Accident Investigation
- Vehicle Dynamics
- Tread Separation-Induced Loss of Control Events
- Tire Failure Analysis

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**PROFESSIONAL EDUCATION**

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M.S.M.E., Mechanical Engineering, University of Arkansas, Fayetteville, Arkansas. 2003  
 B.E., Engineering, Mechanical Concentration, John Brown University, 1999 (with honors)  
 B.S., Mathematics, John Brown University, 1999

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**PROFESSIONAL EXPERIENCE**

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2006 – Present	Forensic Engineer, Ei Consultants, LLC., (formerly known as The Engineering Institute, LLC.), Farmington, Arkansas
2004 – 2006	Temporary Associate Professor, Dept. of Engineering, John Brown University
2003 – 2005	Newspaper Reporter/Editor, Benton County Daily Record
2002 – 2003	Adjunct Instructor, John Brown University
2001 – 2003	Graduate Student and Research Assistant, University of Arkansas, Fayetteville, Arkansas
1999 – 2001	Acquisition Workforce Engineer, Dept. of the Navy, MARCORSSCOM, Quantico, Virginia, C4ISR, Team Sensors, AN/TPS-59 Section
1998	Student Engineer, Southwest Research Institute
1995 – 1999	Supplemental Instructor, John Brown University

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**LICENSES & CERTIFICATES**

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Arkansas Engineer Intern # 7134



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## PUBLICATIONS AND PRESENTATIONS

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- Semones, Paul T. "Reconstruction Essentials for Tread Separation Accidents Involving Axle Tramp." Collision: The International Compendium for Crash Research Vol. 7, Issue 2 (Fall 2012).
- Semones, Paul T. (Presenter), David A. Renfroe, H. A. Roberts, Don Y. Lee. "Mechanism for the Reduction of Lateral Friction Capabilities of a Delaminated Tire." ASME 2012 International Mechanical Engineering Congress and Exposition IMECE2012. Houston, Texas. November 9-15, 2012. IMECE2012-85412.
- Semones, Paul T. (Presenter) and D.A. Renfroe. "Magnitude of Axle Tramp Response to Partially Detreaded Tire Imbalance in Highway-Speed Driving." Proceedings of the 14<sup>th</sup> International Conference on Advanced Vehicle Technologies. Chicago, Illinois, August 14, 2012. DETC2012-70287
- Semones, Paul T. (Presenter). "Case Studies and Reconstruction Essentials for Tread Separation Accidents Involving Axle Tramp." 2012 ARC-CSI Crash Conference. Las Vegas, NV, June 5, 2012.
- Batzer, Stephen A., G. G. Herndon, P. T. Semones, C. Thorbole, M. Ziejewski, and R. Hooker. "Automotive Side Glazing Ejection Mechanisms Part II - Review of Recent Glazing Literature." ASME International Mechanical Engineering Congress. Boston, Massachusetts, 2008. IMECE 2008-68483.
- Batzer, Stephen A., G. G. Herndon, P.T. Semones, C. Thorbole, M. Ziejewski, and R. Hooker. "Automotive Side Glazing Ejection Mechanisms Part I - Model Development." ASME International Mechanical Engineering Congress. Boston, Massachusetts, 2008. IMECE 2008-68482.
- Renfroe, David A., P. Semones, and H. A. Roberts. "Quantitative Measure of Transient Oversteer of Road Vehicles." ESV Conference. Lyon, France, June 2007. Paper No. 07-0217.
- Semones, Paul T., S. Andrews, M. Partain, C. Guthrie, and S. A. Batzer. "Angular Velocity Analysis of SUV Rollover Collisions Using PC-Crash." European Association for Accident Research and Analysis Conference. Krakow, Poland, November 10, 2007.
- Semones, Paul T. (Presenter). "Angular Velocity Analysis of SUV Rollover Collisions Using PC-Crash." 2007 ARC-CSI Crash Conference. Las Vegas, NV, June 6, 2007.
- Semones, Paul T., V. M. Bedekar, D. G. Bhat, and S. A. Batzer. "Tool/Workpiece Chemical Transfer on Standard WC-Co Tool Inserts in Turning on Ti-6Al-4V." Journal of the Mechanical Behavior of Materials Vol. 15, Nos. 1-2 (2004).
- Semones, Paul T. (Presenter). "A Comparative Study of Machining Performance and Chemical Wear of Cemented Carbide and a New, Experimental Boride-Based Ceramic Cutting Tool in the Turning of Ti-6Al-4V." Memphis Area Engineering & Sciences Conference (MAESC 2003); Science & Engineering: The Foundation for Success in Economic Development. Memphis, Tennessee, May 15, 2003.
- Semones, Paul T. "A Study of Tool Wear Phenomena on Commercially Available Tungsten Carbide Tool Inserts Used to Cut Ti-6Al-4V." University of Arkansas. Fayetteville, Arkansas, 2003. *Master's thesis*.

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## PROFESSIONAL DEVELOPMENT

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- 2007 SAE Seminar: Applied Vehicle Dynamics, James Walker – instructor, SAE, Spartanburg, SC, September 17-19.
- 2007 MEA Forensic Engineers & Scientists: PC-Crash Advanced Training Workshop, William E. Cliff – Instructor, Las Vegas, Nevada, January 10-13.
- 2000 Defense Acquisition Workforce LEVEL 2 (coursework completed), Ft. Belvoir, Virginia.



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## PROFESSIONAL ACTIVITIES & HONORS

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- Society of Automotive Engineers
- Design Award, James F. Lincoln Arc Welding Foundation, "Vehicle/Work Palette for Use With Injection Manifold of Foam Molding Machine," 1998.
- Who's Who List of Students in American Colleges and Universities, 1998.

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## UNIVERSITY LEVEL COURSES TAUGHT

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<u>Course</u>	<u>School</u>	<u>Title (Semesters or Terms Taught)</u>
EN 1112	JBU	Concepts and Design I (Fall 2002)
MTH 1133	JBU	Discrete Mathematics (Fall 2004)
EN 2112	JBU	Introduction to Microcomputers (Fall 2004; Fall 2005)
ME 2123	JBU	Mechanical Systems (Spring 2005; Spring 2006)
EN 2222	JBU	Instrumentation Laboratory (Spring 2003; Spring 2005; Spring 2006)
EN 2322	JBU	Engineering Economics (Spring 2005)
EN 3002	JBU	Technology and Society (Summer 2004; Fall 2004; Spring 2005; Fall 2005; Spring 2006)
ME 3114	JBU	Statics and Strength of Materials (Fall 2005)

NOT YET RETRAINED