

## **CURRICULUM VITAE OF FRED B. SEMKE, P.E.**

February 2019

### **I. General Information**

A. Position                      Principal Engineer - Mechanical  
Semke Forensic  
154 Hughes Lane  
St. Charles, Missouri  
Telephone: 636-896-9995

### **II. Professional Summary**

A. Education:                      Master of Science  
Engineering Mechanics  
University of Missouri  
Rolla, Missouri  
1986

Bachelor of Science - Magna Cum Laude  
Mechanical Engineering  
University of Missouri  
University Scholar  
Columbia, Missouri  
1983

St. Charles R-5 High School  
St. Charles, Missouri  
Valedictorian  
1978

B. Experience:

January 2003 to Present

Position: Principal Engineer - Mechanical  
Semke Forensic  
154 Hughes Lane  
St. Charles, Missouri

Responsible for mechanical engineering projects with emphasis in vehicular accident reconstruction, failure analysis, mechanical design analysis, fire suppression systems and fuel-fired equipment.

March 1997 to January 2003

Position: Senior Project Engineer - Mechanical  
FTI/S.E.A. Consulting  
St. Louis, Missouri

Responsible for mechanical engineering projects with emphasis in vehicular accident reconstruction, failure analysis, mechanical design analysis, fire suppression systems and fuel-fired equipment.

May 1983 to March 1997

Position: Mechanical Engineer  
McDonnell Douglas Corporation  
St. Louis, Missouri

Responsible for aircraft design and analysis.

C. Hold a Class A Commercial Vehicle Driver's License (CDL) with all endorsements.

**III. Seminars and Technical Courses Attended**

1984 - Strength and Mass Properties  
1985 - Ethical Decision Making Workshop  
1986 - Hazardous Materials Communication  
1987 - Effective Writing  
1987 - Structural Analysis - Laminated Composites  
1987 - Metal Matrix Composites  
1988 - Respirator Training  
1988 - Fatigue/Fracture Mechanics  
1993 - Time Management  
1998 - SAE Technical Session, Accident Reconstruction  
1999 - SAE Technical Session, Accident Reconstruction  
1999 - SAE Seminar, Braking Performance of Heavy Commercial Vehicles  
2000 - World Reconstruction Exposition  
2001 - SAE Technical Session, Accident Reconstruction  
2002 - SAE Technical Session, Accident Reconstruction  
2002 - MTC Truck Driver Training Course  
2003 - SAE Technical Session, Accident Reconstruction  
2004 - SAE Technical Session, Accident Reconstruction  
2005 - SAE Seminar - Vehicle Accident Reconstruction Methods  
2006 - Crash Data Retrieval (CDR) Technician Certification Course  
2006 - Crash Data Retrieval (CDR) Data Analyst Certification Course  
2007 - SAE Technical Session, Accident Reconstruction  
2008 - Crash Data Retrieval User's Conference  
2008 - SAE Seminar - Applied Vehicle Dynamics  
2008 - BMW Performance Driving School - SAE Driving Event  
2009 - SAE Technical Session, Accident Reconstruction / EDR's  
2009 - Midwest Association of Technical Accident Investigators (MATAI) Seminar  
2009 - Bendix Air Brake Class  
2009 - Heavy Vehicle Crash Reconstruction Conference  
2010 - Commercial Vehicle Event Data Recorders (University of Tulsa)  
2010 - SAE Technical Session, Accident Reconstruction / EDR's  
2010 - J. J. Keller, Forklifts: FAQs on OSHA's Standard  
2010 - Accessing and Interpreting Heavy Vehicle Event Data Recorders (SAE)  
2011 - SAE Highway Vehicle Event Data Recorder Symposium  
2012 - SAE Technical Session, Accident Reconstruction / EDR's  
2013 - Advanced Crash Reconstruction Utilizing Human Factors (NUCPS)  
2013 - Midwest Association of Technical Accident Investigators (MATAI) Seminar  
2014 - Midwest Association of Technical Accident Investigators (MATAI) Seminar  
2015 - Digital Forensics of Heavy Vehicle Event Data Recorders (Univ. of Tulsa)  
2016 - World Reconstruction Exposition

**IV. Professional Affiliations**

Society of Automotive Engineers (SAE)  
Society of Accident Reconstructionists (SOAR)  
National Assoc of Professional Accident Reconstruction Specialists (NAPARS)  
Midwest Association of Technical Accident Investigators (MATAI)  
European Association for Accident Research and Analysis (EVU)  
American Society of Mechanical Engineers (ASME)  
American Society of Agricultural and Biological Engineers (ASABE)  
National Fire Protection Association (NFPA)  
American Society of Heating, Refrigerating and Air-Conditioning Engr (ASHRAE)

**V. Professional Registration**

Registered Professional Engineer in the States of Missouri, Illinois, Arkansas,  
Kentucky, Kansas, Oklahoma, Iowa, Alabama and Idaho.

**VI. Civic Involvement**

President, Board of Education, St. Charles R-5 Schools, January 1997 to April 2015.