

## **CARR ENGINEERING, INC.**

12500 CASTLEBRIDGE DRIVE HOUSTON, TEXAS 77065-4532

Telephone: 281/894-8955

Fax: 281/894-5455

**ROBERT H. LIEBBE, III**

**Senior Consultant**

### **Specialized Professional Competence**

- Crash Analysis and Reconstruction – vehicle and scene inspection including Nikon Total Station Laser Survey; exemplar vehicle analysis; speed analysis; rollover analysis; computer-aided crash analysis including EDCrash, EDSmac, H-Smac; vehicle crush stiffness analysis.
- Vehicle Dynamics Analysis – application of physics, background knowledge and experience to the analysis and understanding of vehicle dynamics and the effect of driver, vehicle and environment on vehicle performance.
- Vehicle Testing and Instrumentation – planning, implementation, and analysis of testing programs including vehicle load condition, vehicle preparation, tire selection, test procedure familiarity, test-driving, data acquisition system operation, and data analysis.

### **Professional Qualifications**

- Bachelor of Science Mechanical Engineering, University of Texas at Arlington, 1991
- Senior Consultant, Carr Engineering, Inc. – 1/2008 - present  
Graduate Engineer, Carr Engineering, Inc. – 7/2000 – 1/2008  
Engineer responsible for crash reconstruction and vehicle testing. Activities include scene inspections, vehicle inspections, crash analysis, vehicle dynamics analysis, vehicle dynamics testing, test procedures, test planning and logistics, vehicle instrumentation, brake system analysis, tire analysis, data analysis.
- Driver Engineer, The Goodyear Tire and Rubber Company – 1997 – 2000  
Driver Engineer responsible for tire evaluations including noise, ride, steering, handling, maximum dry handling, maximum wet handling, objective noise, and off-road performance of passenger car and light truck tires. Accounts included Goodyear and Kelly Springfield renewal market tires, Dodge Truck OEM tires, Plymouth Prowler OEM tires and Goodyear police tires.
- Vehicle Development Engineer, Ford Motor Company – 1992 – 1997  
Vehicle Development Engineer responsible for tire development, brake development and vehicle dynamics development for passenger car programs. Activities included target setting, supplier coordination, system tuning, vehicle performance evaluation, and vehicle sign-off evaluation.
- Argonne National Laboratory, Center for Transportation Research – 1991 – 1992  
U.S. Department of Energy representative for the execution of numerous student engineering research competitions including; Natural Gas Vehicle Challenge, Formula SAE, SAE Mini-Baja, SAE Micro-Baja, NESEA Solar-Electric Car Race, and Core Team membership on Ford Team Concept for the Hybrid Electric Challenge.

## Other

- Co-Author “Motor Vehicle Driver Characteristics - Crash Avoidance Behavior” – SAE 2007-01-0449
- Co-Author “An Analysis of Yaw Inducing Drag Forces Imparted During Tire Tread Belt Detachments” – SAE 2007-01-0836
- Northwestern University Center for Public Safety Traffic Accident Reconstruction Course – 5/2006
- Co-Author “Analysis of Axle Shaft Failures for Use in Crash Reconstruction” – SAE 2005-01-1193
- Engineering Dynamics Corporation Reconstruction Training Course – 1/2002
- Bondurant School of High Performance Driving – 12/1999, 10/1998 & 9/1997
- “Fundamentals of Vehicle Dynamics” – Thomas D. Gillespie
- Formula SAE Team Captain, 1990-1991
- Racing Experience - Open-Track Events, High Performance Driving Instruction, and N.A.S.A. Road Racing