

## **CARR ENGINEERING, INC.**

12500 CASTLEBRIDGE DRIVE HOUSTON, TX 77065-4532

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### **Robert P. Rucoba**

#### **Specialized Professional Competence**

- Accident analysis and reconstruction.
- Mechanical design and failure analysis.
- Mechanical testing.
- Computer programming and modeling.

#### **Professional Qualifications**

- Bachelor of Science (Mechanical Engineering), University of Houston, 1984
- Senior Engineer,  
Carr Engineering, Inc.- 1986 to Present
- Project Engineer,  
T. H. Hill Associates - 1985  
(Mechanical/metallurgical engineering evaluations, specifications development,  
and computer modeling.)
- Laboratory Technician,  
Failure Analysis Associates - 1980-1984  
(Mechanical/metallurgical failure analyses; design, fabrication, and operation  
of test equipment.)
- Member, Society of Automotive Engineers
- Member, American Society of Mechanical Engineers
- Member, Tau Beta Pi, National Engineering Honor Society
- Member, Pi Tau Sigma, National Mechanical Engineering Honor Society
- Registered Professional Engineer, State of Texas, 1991

#### **Publications**

- SAE Paper 2005-01-1193 – Analysis of Axle Shaft Failures for Use in Crash Reconstruction, Carr Engineering, Inc., 2004
- SAE Paper 2008-01-0163 - A Three-Dimensional Crush Measurement Methodology using Two-Dimensional Photographs, Carr Engineering, Inc., Studio Works, 2008
- An Analysis Of Driver Reactions To Tire Failures Simulated With The National Advanced Driving Simulator (NADS), Carr Engineering, Inc., 2011
- Control Loss Following A Simulated Tire Tread Belt Detachment, Carr Engineering, Inc., 2012
- SAE Paper 2013-01-0467 – The Effectiveness of the National Advanced Driving Simulator (NADS) in Evaluating the Effect of Tire Tread Belt Detachments, Carr Engineering Inc., 2013
- SAE Paper 2015-01-1448 – EDR Pulse Component Vector Analysis, Carr Engineering, Inc., 2015
- SAE Paper 2019-01-0412 – Brake Vacuum Booster Characterization, Carr Engineering, Inc., 2019