

CARR ENGINEERING, INC.
12500 CASTLEBRIDGE DRIVE HOUSTON, TX 77065-4532
TELEPHONE: 281-894-8955

Amanda R. Duran

- Registered Professional Engineer, Texas Board of Professional Engineers (2008-Present)

Specialized Professional Competence

- Automotive crash analysis and reconstruction
- Mechanical design analysis and failure analysis

Professional Experience

- Principal Engineer, Carr Engineering, Inc. (2022-Present)
Senior Engineer, Carr Engineering, Inc. (2008-2021)
Graduate Engineer (2003-2007)
Engineer responsible for crash reconstructions including: vehicle and scene inspections utilizing Laser Survey equipment; Bosch Crash Data Retrieval (CDR) download; vehicle crush digitization using FARO 3D scanner; computer-aided crash analysis with HVE Programs such as EDCRASH and EDSMAC; photogrammetric analysis.
- Bachelor of Science (Mechanical Engineering), with highest honors, The University of Texas (2002)

Other

- SAE Courses: “Vehicle Dynamics for Passenger Cars and Light Trucks” and “Introduction to Brake Control Systems: ABS, TCS, and ESC” (2010), “Accessing and Interpreting Heavy Vehicle Event Data Recorders” (2014), “Applying Automotive EDR Data to Traffic Crash Reconstruction” (2015), “Introduction to Highly Automated Vehicles” (2017), “Reconstruction and Analysis of Rollover Crashes in Light Vehicles” (2018), “ADAS Application: Automatic Emergency Braking” (2018), “Applied Vehicle Dynamics” (2019), “Accident Reconstruction, the Autonomous Vehicle and ADAS” (2020), “Driver Distraction from Electronic Devices: Insights and Implications” (2021)
- Small Unmanned Aircraft Systems (sUAS) – Part 107 Drone License (2017) & Recurrent (2019, 2021)
- Crash Data Retrieval (CDR) Technician and Analyst Course (2009)
- Northwestern University Center for Public Safety Traffic Accident Reconstruction Course (2006)
- Engineering Dynamics Corporation- Reconstruction Course (2004) & Simulations Course (2003)
- Member – Society of Automotive Engineers

Publications

- “Effectiveness of NADS Evaluating the Effect of Tire Tread Belt Detachments” – SAE 2013-01-0467
- “Evaluation of Suspension Characteristics in Response to Cyclical Vertical Accelerations” - SAE 2010-01-0106
- “A Three-Dimensional Crush Measurement Methodology Using Two-Dimensional Photographs” – SAE 2008-01-0163