

# **RICKY L. NGUYEN, M.S., P.E., DFE**

## **EDUCATION:**

M.S. Engineering, Mechanical Engineering, University of Colorado Denver  
B.S. Engineering, Mechanical Specialty, Minor in Economics, Colorado School of Mines, with High Scholastic Honors

## **REGISTRATION:**

Registered Professional Engineer in the States of Colorado (P.E.), Registration No. 53261, Arizona (P.E.), Registration No. 77073, and California (P.E.), Registration No. 42404  
Accredited Traffic Accident Reconstructionist (ACTAR), Registration No. 3046



## **EXPERIENCE:**

Subject Matter Expert, January 2024 to Present Knott Laboratory LLC, Project Manager, Knott Laboratory, LLC January 2020 to December 2023, Mechanical Engineer, Knott Laboratory, LLC, Centennial CO, April 2012 to December 2019  
Completions Engineer, BP, Houston TX, August 2011 to April 2012  
Engineering Intern, BP, Houston TX, Summer 2010  
Engineering Intern, The Boeing Company, St. Louis MO, Summer 2009  
Engineering Intern, United Launch Alliance, Littleton CO, Summer 2008

## **ACCIDENT RECONSTRUCTION:**

Mr. Nguyen has performed investigations and reconstructions of high and low-speed motor vehicle accidents involving passenger cars, motorcycles, pedestrians, bicycles, and commercial vehicles. His experience includes the use of conservation of energy and conservation of momentum analysis to determine the speed of vehicles involved in accidents, crashworthiness of vehicles, occupant compartment intrusion, driver reaction, and time/space relationships and analysis. Mr. Nguyen's investigations often involve analysis of vehicle dynamics, vehicle safety, human factors and visibility studies. Frequent aspects of these investigations also involve the evaluation of the performance of brakes, tires, seat belts, and airbags. He also has working experience with engine, drivetrain, and suspension failure analysis. Mr. Nguyen has also employed reconstruction techniques to analyze injury incidents and industrial accidents.

## **ACCIDENT RECONSTRUCTION TECHNOLOGIES:**

Mr. Nguyen frequently utilizes the latest technologies available in accident reconstruction throughout all analysis stages, from gathering evidence through accident reconstruction and accident simulation. As a technician certified in Bosch crash data retrieval, Mr. Nguyen has retrieved and analyzed crash data from electronic data recorders in numerous passenger vehicles. In addition, Mr. Nguyen frequently surveys accident sites and vehicles using high definition 3-D laser scanning, total stations, and/or photogrammetry. After gathering survey data, Mr. Nguyen uses computer-aided drafting software packages to view the evidence and gather detailed measurements in virtual space. During the reconstruction process, Mr. Nguyen frequently develops and utilizes advanced computer scripts to solve complex and/or iterative calculations. After reconstructing an accident, Mr. Nguyen often simulates the accident using advanced crash simulation software, PC-Crash.

## **SAFETY ENGINEERING:**

Mr. Nguyen has been involved in extensive investigation and analysis of the safety of mechanical products. Mr. Nguyen has applied the principles of safety engineering to the investigation of accidents in the areas of consumer products, window covering products, and material handling equipment such as stand-up lift trucks, sit-down lift trucks, pallet trucks, racking systems, and warehouses. Mr. Nguyen has investigated numerous incidents involving hazards associated with lift trucks, such as stand-up lift trucks and pallet trucks, including hazards that led to operator foot crush injuries and injuries caused by horizontal intrusion of rack back beams and other objects. In addition to investigating incidents involving lift trucks, Mr. Nguyen has co-authored peer-reviewed publications, in regard to analysis and testing of hazards associated with lift trucks, for the American Society of Mechanical Engineers ("ASME") and the National Academy of Forensic Engineers ("NAFE").

Mr. Nguyen has also been involved in liability investigation involving construction equipment such as cranes, aerial lifts, front loaders, motor graders, skid steers and various other pieces of equipment. Mr. Nguyen has also been involved in liability investigation involving heavy machinery, such as wood chippers and material bailing equipment. Frequent aspects of these investigations include maintenance, safety engineering, human factors, and incident reconstruction. Mr. Nguyen is fluent in the safety engineering aspects of CFR, FMVSS, ANSI, ASME, SAE, and other standards applicable in product cases.

## **PROFESSIONAL AFFILIATIONS:** Mr. Nguyen is a member of the following technical and professional societies:

SASE	Society of Asian Scientists and Engineers	TBP	Tau Beta Pi
NAFE	National Academy of Forensic Engineers	ASME	American Society of Mechanical Engineers
NSPE	National Society of Professional Engineers		