



Exponent®
Engineering & Scientific Consulting

Don Halimunanda, P.E.

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Professional Profile

Mr. Halimunanda is a licensed Mechanical Engineer specializing in failure analysis, mechanical equipment design analysis, automotive parts design analysis, stress analysis, fatigue, fracture mechanics, metallurgy, mechanical and material testing. He has evaluated vehicular component failures, heavy equipment failures, fastener failures, weld failures, and medical devices failures.

Mr. Halimunanda has extensive experience in performing destructive and non-destructive custom mechanical testing using strain gauges, load cells, pressure transducers, accelerometers, LVDT and other measuring devices. He also has experience in performing material inspections with Scanning Electron Microscope (SEM), Electrochemical Impedance Spectroscopy (EIS), optical microscope, mechanical testers as well as chemical etching. Mr. Halimunanda has conducted numerous research and studies that were very useful for the conclusion of investigations.

Prior to joining Exponent, Mr. Halimunanda was employed as a Mechanical Engineer at Metallurgical Consulting where he conducted many accident investigations and served both industrial and litigation clients. He also worked as a contract Structural Engineer at Austal-USA, where he conducted research.

Academic Credentials & Professional Honors

M.S., Mechanical Engineering, University of South Alabama, 2002

B.S., Mechanical Engineering, University of South Alabama, 1998

Licenses and Certifications

Certified Crash Data Retrieval (CDR) Analyst

Certified Crash Data Retrieval (CDR) Technician (CO)

FAA Part 107 Certified Commercial Drone Pilot

Prior Experience

Austal – USA, Contract Ship Structural Engineer, 2018-2019

Metallurgical Consulting, Mechanical Engineer, 2000-2018

Patents

Clarke, CK, Halimunanda D. Imperfections in Tree Stand Failures. Journal of Failure Analysis and Prevention 2006; 06(6): 24-30.

Clarke, CK, Halimunanda D. Failure Analysis of Induction Hardened Automotive Axles. Journal of Failure Analysis and Prevention 2008; 08(8): 386-396.

Project Experience

Semi-Truck Door Latching System Evaluation by Impact Testing

Fracture Analysis of Ball Joints by Impact Testing

Prediction of Fatigue Life of Chemical Reactors Using Software

Materials Research for Proposed Ship Hull

Strain Gauge Testing on Medical Walkers, Tree Stands and Thrust Reversers

Design of Allowable Spacing of Hull Stiffeners

Evaluation of Broken Fin Head Bolts

Evaluation of Spot Weld Failure in Vehicles

Evaluation of Bollard Bolt Fractures

Estimation of Stresses and Crack Growth Predictions by Fatigue Striations Measurements Using SEM

Evaluation of Propeller Shaft Failure

Evaluation of Leaks in Pipe Flanges

Evaluation of Broken Crane Outrigger Rod

Design and Construction of Test Frame for Destructive Axle Tests