
IVAN RUMAN COLLINS

PROFESSIONAL ENGINEER

North Carolina
39179

ACCIDENT RECONSTRUCTION ANALYSIS, PLLC

5801 Lease Lane, Raleigh, NC 27617
(919) 787-9675

EDUCATION

NORTH CAROLINA STATE UNIVERSITY

Bachelor of Science in Mechanical Engineering, May 2007

Raleigh, NC

EXPERIENCE

Accident Reconstruction Analysis, PLLC

Principal Engineer:

April 2016 to Present

Perform failure analysis and accident investigations on mechanical, material science, electrical, and structural engineering systems

Raleigh, NC

Accident Reconstruction Analysis, Inc.

Staff Engineer:

July 2007 to March 2016

Perform failure analysis and accident investigations, including auto, aviation, fire, medical, mechanical and industrial equipment and metallurgical failure analysis; perform material, mechanical and equipment testing; write technical reports; proficient with computer simulations and vehicle analysis packages; and prepare cases for court trial.

Raleigh, NC

Accident Reconstruction Analysis, Inc.

Scanning Electron Microscopist/Engineer:

July 2007 to March 2016

Analyze components, parts or materials in the SEM and produce technical report of data.

Raleigh, NC

Accident Reconstruction Analysis, Inc.

Assistant Engineer:

August 2005 to June 2007

Assist in analyzing accidents involving fire, auto, electrical, water and construction. Use CAD to analyze components. Design and fabricate test fixtures and scenarios to replicate accidents. Survey accident scenes. Set-up data acquisition.

Raleigh, NC

North Carolina State University

NCSU Engineering Program Leader: 2003-2004 and Office Assistant for Housing: 2004

Organize and lead an engineering/motorsports summer program.

Raleigh, NC

Botham Construction

Construction Crew Member: May-August 2003

Black Mountain, NC

PROFESSIONAL SERVICES

Failure Analysis

Material Science

Computer aided design and analysis

Product testing and evaluation

Metallurgical testing and evaluation
Accident reconstruction
Fire and explosion analysis
Vehicle fire analysis
Heavy equipment analysis
Accident scene and topographical analysis with laser scanning equipment
Scanning Electron Microscopy
3D modelling and animations

SOCIETIES/HONORS

Member, Society of Automotive Engineering
Wolfpack Motorsports, Engine Team Captain, Formula SAE Team 2006-2007
Wolfpack Motorsports, Safety Systems -Team Captain and Driver, Formula SAE Team 2005-2006
Wolfpack Motorsports, Member, Formula SAE team, 2003-2005
NCSU Deans List, School Year 2006-2007

REGISTRATIONS

Professional Engineer - North Carolina 39179
Professional Engineer – Arizona 63739

CONTINUING EDUCATION

Brittle Fracture of Materials - Instructor: Frank Li, Ph.D.
Welding Technology and Inspection Procedures – AWS D1.1 - Instructor: Jurandir Primo, PE
Rock Blasting Fundamentals - Instructor: Daniel A. Vellone, M.S., P.G.
Human Factors in Forensic Analysis of Accidents - Instructor: Peter Chen, P.E., CFEI, ACTAR
Coping with Murphy's Law - Instructor: Michael J. Hamill, PE
FARO Laser Scanning Training – Instructor: Ro Sasser
Hazard Assessment of Lithium Ion Battery Energy Storage System Webinar - NFPA
Understanding Battery & Electrical Fire – Instructor Greg Barnett
Storage Battery Maintenance and Principles – Instructor Bijan Ghayour, PE
Stationary Battery Areas – Instructor Robert E. Merton, PE
Introduction to Truck Fires – Instructor Peter Chen, P.E., CFEI, ACTAR
Diesel Engine Fundamentals – Instructor Lawrence J. Marchetti, P.E.
Cost, Performance, and Maturity of Battery and Other Electricity Storage Technologies –
Instructor Mark Rossow, Ph.D, PE Retired
Electric Vehicles 101 – Instructor John Huang, Ph. D., P.E.
Relays and Contactors - Instructor: Joseph E. Fleckenstein, PE
2008 National Electric Code - Instructor: Thomas Mason, P.E.
Basic Electrical Theory & Fundamentals - Instructor: A. Bhatia, B.E.
Introduction to Wiring Techniques – Instructor: A. Bhatia, B.E.

SEMINARS/LECTURES PRESENTED

MAE 442 Automotive Engineering course lecture – “Forensic Engineering”
SCCJA Traffic Safety Officer's Conference lecture/seminar - “Motorcycle Dynamics and its Effect on Motorcycle Accidents”
Accident Reconstruction – Using Solidworks Simulation
MSE 580 Materials Forensics and Degradation – “Failure Analysis”