



Résumé of
DAVID A. PENTECOST, M.S., P.E.

Kineticorp™

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EXPERIENCE: **Engineer** - Kineticorp, LLC, Denver, Colorado, February 2012 to Present
Field Engineer - Schlumberger Overseas S.A., WireLine, Worldwide, June 2007 to August 2009

EDUCATION: **M.S. Mechanical Engineering** (2011), University of Colorado at Denver, Colorado
B.S. Mechanical Engineering (2007), University of Colorado at Boulder, Colorado

REGISTRATIONS: **Professional Engineer** (2015), State of Colorado

CERTIFICATIONS: **CDR Technician Level I and II** (2015), Bosch
Certified Associate in Project Management (2007), CAPM - Project Management Institute

FORENSIC ENGINEERING: At Kineticorp, Mr. Pentecost investigates and reconstructs vehicular accidents as well as performs product liability investigations and testing. He analyzes evidence, performs calculations using engineering and principles of physics, and uses computer simulations to analyze vehicular motion. Mr. Pentecost has investigated accidents involving mechanical component failure, hoses and fittings, infant chairs, passenger vehicles, commercial vehicles, motorcycles, bicycles, and pedestrians. His experience includes the following:

- Mr. Pentecost has designed, conducted, and participated in full-scale motorcycle dynamics and passenger tire disablement testing/analysis that resulted in peer-reviewed publications.
- Mr. Pentecost has experience analyzing physical evidence related to vehicular crashes and product failures using his education and training in engineering and physics.
- Mr. Pentecost has experience reconstructing crashes involving vehicle handling and stability, tire failures, rollovers, trailer load shifting, roadside safety barriers, and pedestrians using specialized physics-based software along with industry-wide and state-of-the-art methodologies.
- Mr. Pentecost has conducted and assisted with testing involving vehicle dynamics, tire disablements, motorcycle dynamics, nighttime lighting and visibility, and pedestrian collisions.

RESEARCH: Mr. Pentecost has coauthored 7 technical articles pertaining to vehicular accident reconstruction. These articles have been published in the *Society of Automotive Engineers Technical Paper Series* and *Journal of Transportation Safety*, as well as *Collision – The international Compendium of Crash Research*.

FIELD ENGINEERING: Prior to joining Kineticorp in 2012, Mr. Pentecost was a Field Engineer in the WireLine segment of Schlumberger Overseas S.A.. Mr. Pentecost was the lead engineer on dozens of multi-million dollar projects with clients such as Chevron, Conoco-Phillips, and BP. This engineering position required him to be responsible for all aspects of the service execution and product delivery including client meetings, tool and crew preparation, logistics, and data analysis. His fundamental tasks included evaluating formation lithology for the presence of hydrocarbons using advanced tools and equipment. These duties required him to be versed in petrophysics and geology when compiling and analyzing data. He was also tasked with the use, maintenance, and accounting of radioactive materials, explosives, and high-pressure equipment, holding certifications in multiple countries.

AFFILIATIONS: Society of Automotive Engineers (SAE) – Mr. Pentecost acted as a peer-reviewer for technical papers published by the Society of Automotive Engineers. He has also participated as a presenter at the annual SAE World Congress; American Society of Mechanical Engineers (ASME)

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Peer-Reviewed Publications:

- Daniel Koch, Gray Beauchamp, **David Pentecost**, “Deceleration of Vehicles During Tire Disablement Testing,” Society of Automotive Engineers Paper Number 2017-01-1427. Society of Automotive Engineers, March 2017.
- Rose, Nathan, Neal Carter, **David Pentecost**, Alireza Hashemian, “Video Analysis of Motorcycle and Rider Dynamics During High-Side Falls,” Society of Automotive Engineers Paper Number 2017-01-1413. Society of Automotive Engineers, March 2017.
- Gray Beauchamp, **David Pentecost**, Nathan A. Rose, “The Relationship Between Tire Mark Striations and Tire Forces,” *International Journal of Transportation Safety* Article Number 2016-01-1479, Society of Automotive Engineers, April 2016.
- Neal Carter, Nathan A. Rose, **David Pentecost**, “Validation of Equations for Motorcycle and Rider Lean on a Curve,” *International Journal of Transportation Safety* Article Number 2015-01-1422, Society of Automotive Engineers, April 2015.
- Nathan A. Rose, Neal Carter, **David Pentecost**, “Vehicle Acceleration Modeling in PC-Crash,” Technical Paper Number 2014-01-0464, Society of Automotive Engineers, April 2014.
- Nathan A. Rose, Neal Carter, **David Pentecost**, Tilo Voitell, William Bortles, “Using Data from a DriveCam Event Recorder to Reconstruct a Vehicle-to-Vehicle Impact,” Technical Paper Number 2013-01-0778, Society of Automotive Engineers, April 2013.

Technical Articles:

- Nathan A. Rose, Neale Carter, **David Pentecost**, “Analysis of Motorcycle and Rider Limits on a Curve,” *Collision: The International Compendium for Crash Research*, Volume 9, Issue 1.

Funded Research:

- “Using Data from a DriveCam Event Recorder to Reconstruct a Vehicle-to-Vehicle Impact,” funded, in part, by DriveCam - The Driver Science Company, 2012-13.

Technical Training:

- Applied Vehicle Dynamics – SAE Course at the BMW Performance Center, South Carolina, 2016
- Reconstruction and Analysis of Rollover Crashes of Light Vehicles – SAE World Congress, Michigan, 2015
- Reconstruction and Analysis of Motorcycle Crashes – SAE World Congress, Michigan, 2015
- Bosch CDR Technician Level I and II – Parker Police Department, Colorado, 2014
- Formal QHSE training in Radiation, H₂S Gas, Explosives, Pressure Equipment, and Physical Labor - British Training Centre, Scotland, 2007, and Middle East Learning Centre, Abu Dhabi, 2009

- Fundamentals of Radioactive Materials, Explosives and Pressure Equipment. - British Training Centre, Scotland, 2007, and Middle East Learning Centre, Abu Dhabi, 2009
- Tropical Basic Offshore Safety Induction and Emergency Training, Qatar International Safety Centre W.L.L., Qatar, 2008
- Fundamentals of Well Logging and Life Cycles – British Training Centre, Scotland, 2007
- Data Segregation, Refinement, Client Confidentiality, Analysis, and Delivery – British Training Centre, Scotland, 2007
- Sea Survival, Helicopter Underwater Escape Training, Heat Exhaustion, and Fire Fighting – Technical Petroleum Training Institute, Thailand, 2007