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DZIAE.COM

David L. Zedonis, P.E.

Mr. Zedonis's **MECHANICAL ENGINEERING** experience includes over fifteen years in **product design and testing** in the areas of automotive and aerospace systems in the corporate environment before starting a career in forensic engineering in 1997. Since 1997, he has applied his engineering education and experience to perform technical investigations, evaluations, and failure analysis.

Independent Product and System Engineering Consulting: Mr. Zedonis has experience in mechanical design, testing, manufacturing, and with several clients involving new product designs involving electronics, telematics, gps, electronics packaging, and human interfaces. He has consulted in system engineering with wiring routing connections, human interfaces, interior and exterior LED lighting and entertainment systems for the trucking industry. He has consulted on high current switching gear rebuilding for the locomotive industry.

Property Losses and Fire: Mr. Zedonis has experience in a wide variety of cases involving property losses and fire. Water intrusion source and affects investigations. **Construction** defect assessments. Mechanical, plumbing, pumps, HVAC, and electrical system failure analysis and product liability investigations. Fire and life safety systems investigations involving sprinklers, fire suppression equipment, gas fuels, and heating systems. Code research as applicable to the loss.

Casualty Losses: Mr. Zedonis has experience in the areas of human factors and also investigates industrial and assorted accidents.

Accident Reconstruction, Vehicular Systems: Mr. Zedonis has experience in reconstruction of vehicular collisions of all types. He also performs vehicle systems assessments for passenger and commercial vehicles. He has failure analysis experience with safety systems, throttle systems, brake systems, steering systems, vehicle electronics, trailering, and vehicle repairs.

Pro-Active Consutling: Consulting for the purposes of future casualty and damage prevention are offered on a custom approach to your circumstances. Consulting for system final inspections and comissioning, construction progress, and critical risk inspection services are offered on a custom approach to your circumstances. Mr. Zedonis can be engaged and become a part of your team(s) in the areas of design, testing, safety, risk analysis, and risk mitigation.

Mr. Zedonis can be contacted via telephone or email: dave@dziae.com / **317-408-7690**

E N G I N E E R I N G

Credentials:

Employment History

1999 – present
Z*Tech, Inc., Fishers Indiana
Independent Product Development Engineer, System Engineer, Consulting Engineer

2003 - 2016
Forensic Services Group, Inc., Indianapolis, Indiana
Consulting Engineer

1997 - 2003
Wolf Technical Services, Inc., Indianapolis, Indiana
Consulting Engineer
- Responsible for management of assigned cases. The principal investigator on approximately 150 cases at Wolf Technical Services and has teamed up with other professionals on more than 100 additional cases.

1994 - 1997
Delco Electronics Corp., Kokomo, Indiana
Senior Design Engineer
- Responsible for advanced chassis systems mechanical design and development including a power steering controller design and a low tire pressure warning system for 1998.

1990 - 1994
Allison Engine Company, Indianapolis, Indiana
Senior Design Engineer
- Mechanical Design of gas turbine engine components
- Design criteria selection, coordination of design support specialists, engineering drawings, cost management, and schedule management.

1982 - 1990
Allison Engine Company, Indianapolis, Indiana
Test Project Engineer
- Management of gas turbine engine and component testing projects. Scheduled and managed activities of departmental support groups from assembly instrumentation of the test article through test direction and reporting.

Education

Bachelor of Science in Mechanical Engineering	1982
University of Illinois; Champaign-Urbana Illinois	

Training

Design and Materiel Conderations for Elastomeric Seals	1 hour	2/21
Wind Loads through a Wood Frames Structure	1 hour	2/21
GeoConstruction Problems - What Went Wrong	1 hour	2/21
Plastics for Water Service Applications	1 hour	12/20
Design Considerations for Injection molded parts	1 hour	11/20
Environmental Stress Cracking	1 hour	10/20
Concrete Slabs on Grade	4 hour	10/20
Power Enginnering Fundimentals	3 hour	10/20
Arc Flash	1 hour	10/20

Fatigue in Plastics	1 hour	9/20
Indiana Statutes and Rules: Building Codes	1 hour	5/20
2020 ISEA Spring Conference	7.5 hour	3/20
Divsys – ICAPE , PCB Manufacturing Process	6 hour	6/19
Avnet Technology Showcase	6 hour	5/19
Practical Forensic Engineering – Property, Pt 1	4 hour	4/19
Practical Forensic Engineering – Property, Pt 2	4 hour	4/19
Septic System Design	4 hour	4/19
NFPA 14	1 hour	1/19
Foundation Seminar (Site, Soils, Design, Diagnosics, Repair)	6 hours	11/18
Indiana Statutes Rules and Ethics	3 hour	5/18
Air Conditioning Lab Class	16 hours	5/18
Heat Transfer in Structure Fires	5 hour	2/18
Advanced CDR Training	24 hour	1/18
OSHA updates	1 hour	12/17
Electrical Safety NFPA 70	1 hour	10/17
Indiana Fire Investigation Conferrence	21 hour	8/17
Truss Repair 1	4 hour	6/17
Truss Repair 2	4 hour	6/17
Roadway Intersection Design	4 hour	5/17
Forensic Engineering – Failure Analysis Metallic Materials A	2 hour	5/17
Forensic Engineering – Failure Analysis Metallic Materials B	4 hour	5/17
Analysis and Design of Bolted Connections	4 hour	4/17
Practical Design Guide for Welded Connections 1	2 hour	4/17
Practical Design Guide for Welded Connections 2	2 hour	4/17
Contract Review – Key Provisions	1 hour	2/17
Interior Lighting Design	4 hour	12/16
Building Mechanical Integrity Programs	3 hour	12/16
Foundation Design	4 hour	12/16
Piping Engineering	4 hour	12/16
Pipe Support Failures	4 hour	12/16
Lifecycle Pipe System Inegrity	4 hour	12/16
Fundamentals of Steel part B	4 hour	8/16
Fundamentals of Steel part A	4 hour	8/16
Electrical Enginering Fundamentals	4 hour	6/16
Intorduction To Small Scale Wind Project Design	4 hour	5/16
What Every Engineer should know about Fire Protection	3 hour	5/16
Indiana Statutes, Rules and Ethics for Professional Enginners	3 hour	5/16
OSHA Construction Site Safety	1 hour	5/16
Life Safety Code Common Descrepancies	2 hour	5/16
Structural Design Criteria for Structures other than Buildings	3 hour	5/16
Tribology Science	1 hour	11/15
Fundamentals of Site Grading Design	2 hour	8/15
Fundamentals of Helical Anchors / Piles	4 hour	8/15
Lighting: LED codes and standards	1 hour	7/15
Intorduction to the Design of Wood Trusses	2 hour	1/15
Welding Technology	4 hour	12/14
Forensic Analysis involving Fugative Natural Gas and Propane	4 hour	10/14
Introduction to Metallurgical Failure Analysis	3 hour	7/14
Fundamentals of Concrete	3 hour	7/14
NFPA 110 Standard for Emergency Power	1 hour	7/14
Designing Electrical Rooms	1 hour	7/14
Ethics II for Professional Engineers	1 hour	7/14
Law and Rules for Professional Engineers in Indiana	1 hour	7/14

Wood Steel and Concrete Deterioration	1 hour	11/13
Wind Design with the 2001 WFCM	1 hour	11/13
Adhesive Anchor Installation	½ hour	10/13
Mechanical Anchor Installation	½ hour	10/13
High Wind Design	2 hour	10/13
Fire Protection & Suppression Systems; Codes & Technology Update	1 hour	9/12
Engineering Ethics	1 hour	7/12
Laws and Rules for Professional Engineers	1 hour	7/12
Inspecting and Testing for the Sprinkler Industry	21 hours	12/11
Fiber Reinforced Composite Materials for Existing Structures	1 hour	10/11
Design Considerations for Pedestrian Truss Bridge Structures	1 hour	10/11
Seismic Design for Wood Frame Construction	3 hours	10/11
2011 / 2012 Pipeline Safety	2 hours	1/11
Gas Furnace Service Procedures	24 hours	1/11
EPA Section 608 Universal Certification		2009
Fire Sprinkler Options and Life Safety Code	6 hours	2/09
CO and Combustion Analysis	4 hours	12/08
Continious Load Path – Wood Frame Structures	7 hours	11/08
Propane Pressure, Leak, Performance, and Vapor Systems Operations	32 hour s	10/07
Society of Automotive Engineers – World Congress	16 hours	4/06 & 4/07
Job Safety Analysis	8 hours	11/05
Vehicle Fire Investigations	24 hours	6/03
Commerical Brake Systems	8 hours	9/02
Accident Reconstruction: State-of-the-Art.	24 hours	12/99
Engineering Dynamics Corporation – HVE Users Conference	40 hours	4/99
Society of Automotive Engineers – World Congress	24 hours	3/98

Affiliations

Society of Automotive Engineers / National Fire Sprinkler Association / Indiana Structural Engineers Association / National Association of Professional Accident Reconstruction Specialists

Professional Registrations

Registered Professional Engineer in Indiana / Registered Professional Engineer in Illinois