

William E. Gest, P.E.
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Augspurger Komm Engineering, Inc.
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EDUCATION

B.M.E. Mechanical Engineering, General Motors Institute, Flint, Michigan
MBA Marketing/Finance, Wayne State University, Detroit, Michigan

PRINCIPAL AREAS OF RESEARCH, DEVELOPMENT AND INDUSTRIAL MANAGEMENT

Automotive-Chassis, brakes, body structure, sun roofs, interior, bumper systems, power train, airbag and seat belt design and development. Vehicle crash analysis, regulatory compliance. Emissions including California Air Resource Board (CARB). Consumer products-outdoor products, including string trimmers and blower/vacuums. Small engine design expertise. Mobility and limousine industry vehicle conversions. Lift devices manned and unmanned. Human factors and occupant sensing systems. Laboratory safety, including handling of Class 1.1 explosives. Quality systems for manufacturing. Lean manufacturing

ENGINEERING EXPERIENCE

2004- Senior Engineering Consultant, AKE/BTI Consultants, Phoenix, Arizona
2004-2008 Vice President, Business Development, ESG Engineering, Phoenix, Arizona
2000-2003 Vice President, Engineering and Quality, Vantage Mobility International, Phoenix, Arizona
1999-2000 Vice President, of Engineering, MTD Ryobi Outdoor Products, Incorporated, Chandler, Arizona
1995-1998 Director of Engineering Services, TRW, Mesa, Arizona/Washington, Michigan
1992-1995 Director of Passenger Inflator and Module Engineering, TRW, Mesa, Arizona/Washington, Michigan
1989-1992 General Manager and Director, CDI Corporation/Modern Engineering, Warren, Michigan
1969-1989 Engineer to Manager, General Motors Corporation, CPC Car Group and Chevrolet Division, Warren, Michigan

PROFESSIONAL REGISTRATIONS

State of Arizona, Mechanical Engineer #49972
State of Texas, Mechanical Engineer #105440
State of Nevada, Mechanical Engineer #020675

SPECIFIC AUTOMOTIVE EXPERIENCE

General Motors Corporation –Chevrolet Division/CPC
Automatic transmissions & driveshaft

Brake system validation for disk brake systems.

Value engineering of transmission, engines, seats and other components

Responsible for pilot line and launch activities

Chassis design for luxury cars for General Motors

Bumper & Exterior sheet metal design responsibly

Interior design responsibly including seats, instrument panel, interior trim and restraints

Vehicle development of chassis systems for ride and handling

Body structure design

HVAC & Engine Cooling

Modern Engineering

Responsible design and manufacturing engineering of a complete mid size vehicle

Limousine design and validation

Chassis Design for CPC of General Motors

TRW

Responsible design and development of vehicle inflatable restraint systems (airbags) for both frontal and side impact systems for car companies worldwide

Responsible for low volume production facilities and laboratories for division

MTD/Ryobi

Responsible for design and development of two and four cycle engines and complete line of outdoor products including trimmers, blowers, cultivators and chain saws.

Vantage Mobility International

Design, crash and emission validation of drop floor mini and full size vans for handicap

Auto reverse & slide out ramp system

Design of complete line of lifts for power wheel chairs

ESG Engineering

Seat design and analysis for major car supplier

Motorcycle design and analysis

Design of GM full size conversion van

Infant safety seat system

Alternative energy- Solar and wind

Defense and aerospace products

Consumer products

Design of occupant sensing systems for wheelchair lifts

CONSULTING AND TEACHING EXPERIENCE

Consultant to mobility industry on crash worthiness, structure and regulations

Consultant to limousine manufactures on design and safety.

Arizona State University

Adjunct Professor – Senior Engineering Profession Capstone Course

Typical Cases

Electric transport cart

RV parking brake

Go Kart engine malfunction

Semi Trailer cargo shift

Taxi car fires

Semi Truck Steering malfunction

CNG Bus Fires

Unrestraint child in van collision

Electric pallet truck – accident reconstruction

Truck airbrakes

Engine Failure

Restraints in van rollover

Low speed impacts

SEMINARS AND TRAINING

The Role of Engineering Analysis in Transportation Accident Investigation, Phoenix AZ, April 9, 2010

International Association of Arson Investigators, Inc., “Investing Motor Vehicle Fires,” October 31, 2009

The TASA Group Presents: “The Life of a Lawsuit,” Web Seminar, April 21, 2009

Forensic Photography Techniques, Michael Wilson, Phoenix, AZ, December 18, 2008

Arizona National Safety Council, Machine Guarding Class, September 22, 2008

Trucking Litigation and D.O.T Regulations seminar May 30, 2008

John Powell Racing School, Mosport Speedway, Canada (3 day) June 1988

PRINCIPAL PROFESSIONAL PUBLICATIONS AND PRESENTATIONS

“Spotting an Airbag Claim,” North Carolina Advocates for Justice, Raleigh, North Carolina

“Integrated Engineering for Increased Productivity,” Body Engineering Journal

“Camaro and Preparing it as an Indy Pace Car,” Society of Automotive Engineers, Indianapolis, Indiana

“Design and Development of the New Camaro, Society of Automotive Engineers, Tampa, Florida

“Computer Aided Design and Analysis Trends,” DataTech Conference, Chicago, Illinois

“Inflatable Restraint Technology Design and Development,” Society of Automotive Engineers, Washington, DC

“Mobility Products Design and Development,” Shopper’s Home National Conference, Toronto, Canada

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“New Generation of Automated Ramp Systems,” National Sales Conference for VMI, Phoenix, Arizona

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL SOCIETIES

Society of Automotive Engineers-

SAE Restraint Systems Standards Steering Committee, TEVBESF

Board member and Past Chair of Arizona-Nevada SAE Section

Past Member of Lift Standard Committee

Past Member of the Handicapped Vehicle Standard Group

American Society of Mechanical Engineers

The Accident Reconstruction Network, Member #1439

Order of the Engineer, Member, Tempe, AZ

PATENTS

U.S. Patent 4,548,166 - All Plastic Air Cleaner

U.S. Patent 4,830,418 - Bumper Energy Absorber

U.S. Patent 5,531,475 - Curled end Airbag Inflator

U.S. Patent 5,527,065 - Shear Tab Mechanism for Airbag Module Door

U.S. Patent 5,562,304 - Corrugated Filter for Air Bag Inflator

U.S. Patent 6,273,035 - Carburetor Heat Sink for Small Gas Engine

U.S. Patent 6,547,507 - Wheelchair Lift

U.S. Patent 6,887,027 - Scooter Lift Load Detection Device

U.S. Patent 7,033,127 - Folding Ramp for mini-van

AWARDS, HONORS AND SCHOLARSHIPS

Chairman's Award for Innovation from TRW

President's Recognition for New Products Launch at VMI

Speaker's awards from Washington DC and Indianapolis SAE groups

Rev. 05/10