

Gerald W. Jackson, P.E.
Senior Managing Engineer

Professional Profile

Mr. Gerald Jackson is a Senior Managing Engineer in Exponent's Vehicle Engineering practice. His areas of expertise include machine dynamics, automatic transmissions and controls, accident reconstruction, and vehicle performance including analysis of automotive engineering issues of passenger, commercial, agricultural, and military vehicles and their components. He is skilled in non-destructive testing, data acquisition, spatial analysis, and instrumentation. His consulting experience includes accident reconstruction, vehicle testing, machine dynamics, intellectual property analysis, and computer simulations of complex mechanisms. Additionally, Mr. Jackson is adept at visual presentation of scientific concepts and the applications of computer animation and digital video. He is also an accomplished computing systems expert, software programmer, and computer hardware integrator.

Academic Credentials and Professional Honors

M.S., Mechanical Engineering, University of Iowa, 1982
B.S., Mechanical Engineering, University of Iowa, 1981

Pi Tau Sigma; U.S. Army Commander's Award for Civilian Service Medal, U.S. Army Meritorious Service Medal, U.S. Army Commendation Medal; U.S. Army Achievement Medal; U.S. Army Humanitarian Service Medal

District Governor, July 2006–June 2007, Rotary International District 6380, Southeastern Michigan, USA and Southwestern Ontario, Canada

Licenses and Certifications

Licensed Professional Engineer, Alabama, #28057
Registered Professional Mechanical Engineer, Arizona, #45493
Registered Professional Engineer, Arkansas, #12648
Licensed Professional Engineer, Illinois, #062.059627
Licensed Professional Engineer, Iowa, #17739
Licensed Professional Engineer, Michigan, #52564
Licensed Professional Engineer, New York, #084631
Licensed Professional Engineer, North Carolina, #037577
Licensed Professional Engineer, Texas, #99689

Patents

Patent 4,689,998: Wheeled Vehicle Test Fixture Connector, September 1987 (with D.S. Rohweder).

Publications and Presentations

Heckman GM, Jackson GW, Keefer RE, Ray R, Harley EM, Young DE. Mechanisms of automatic transmission console shift selection and driver egress. Society of Automotive Engineers 2009 World Congress, April 2009. Paper judged to be among the most outstanding SAE Technical Papers of 2009 and thus further published in the SAE International Journal of Engines, Volume 2, September 15, 2009.

Jackson GW, Henry AC. Visual communication of engineering and scientific data in the courtroom. OE/Fibers '92, September 1992.

Jackson GW, Henry AC, McMillan DG. Application of Wavefront software in the simulator and real-time visual simulation market. Applied Visual Computing Technical Report, Los Angeles, CA, December 1990.

Jackson GW. Soldier/machine interaction dynamics via TACOM's motion base simulators. American Association for the Advancement of Science 1990 Annual Meeting, New Orleans, LA, February 1990.

Jackson GW, Zywiol Jr. H. Motion base simulator control via analytical based motion prediction. Proceedings, Army Science Conference, Ft. Monroe, VA, October 1988.

Jackson GW. Dynamic simulation in military vehicle development. Regional Applied Dynamics International Users Society for Central/Northeastern Areas, Ann Arbor, MI, October 1987.

Jackson GW. TACOM's animation of simulation capability. Invited presentation to Technical Management Committee of the NATO Reference Mobility Model, NATO Headquarters, Brussels, Belgium, June 1986.

Jackson GW. Animation, an insight to simulation. North American Meeting of the International Society for Terrain Vehicle Systems Conference, Tucson, AZ, February 1986.

Jackson GW, Ricketts MK. Interfacing CAD to Dynamic Simulation and Analysis. CAD/CAM, Robotics and Automation Conference, Tucson, AZ, February 1985.

Beck RR, Jackson GW. Dynamics and controls in design and development. Institute of Environmental Sciences, May 1984.

Haug EJ, Jackson GW, Beck RR. Computer aided analysis of large scale, constrained, mechanical systems. 4th Meeting of Coordinating Group on Modern Control Theory, Rochester, Michigan, October 1981.

Selected Continuing Education

Certificate, Wet Brake and Clutch Technology, Society of Automotive Engineers

Certificate, Fundamentals of Modern Vehicle Transmissions, Society of Automotive Engineers

Certificate, Traffic Accident Reconstruction, Northwestern University

Prior Experience

Vice President and Co-Founder, Animated Technologies, Inc., 1990

Research Experimental Engineer, Systems Simulation & Technology Division, U.S. Army Tank Automotive Command, 1987–1990

Deputy Director, U.S. Army Captain, Systems Simulation & Technology Division, U.S. Army Tank Automotive Command, 1985–1986

Deputy Director, U.S. Army First Lieutenant & Captain, Survivability Research Division, U.S. Army Tank Automotive Command, 1983–1985

Commander, U.S. Army Reserve Center, Muscatine, Iowa, 1981–1982

Professional Affiliations

- Society of Automotive Engineers
- Engineering Society of Detroit
- National Society of Professional Engineers
- Michigan Society of Professional Engineers