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Professional Profile

Dr. Glover specializes in issues pertaining to electrical engineering, particularly as they relate to failure analysis of electrical systems, subsystems, and components, including causes of electrical fires. His expertise covers electric power systems, generation, transmission, distribution, power system planning, extra high voltage design, power system dynamics assessment, and computer-aided design. Dr. Glover is experienced in analyzing such elements as control systems, power electronics, motor drives, inverters, rectifiers, rotating electric machinery, switchgear, and transformers, as well as residential and commercial appliances.

Prior to forming Failure Electrical, Dr. Glover was a Principal Engineer at Exponent Failure Analysis Associates, a tenured Associate Professor in the Electrical and Computer Engineering Department of Northeastern University, and held several engineering positions with companies that include the International Engineering Company, Commonwealth Associates, Inc., and American Electric Power Service Corporation.

Credentials and Professional Honors

Ph.D., Electrical Engineering, Massachusetts Institute of Technology, 1971
M.S., Electrical Engineering, Massachusetts Institute of Technology, 1968
B.S., Electrical Engineering, University of Massachusetts, 1966

Registered Professional Electrical Engineer, Massachusetts, #30136
Registered Professional Electrical Engineer, South Carolina, #26367

Tau Beta Pi; Eta Kappa Nu; Phi Eta Sigma
Institute of Electrical and Electronics Engineers (Life Senior Member); Rotating Machinery Committee, Institute of Electrical and Electronics Engineers (former member)

National Fire Protection Association (Member)

Books

Power System Analysis and Design, 6th edition, Cengage Learning, Boston, MA, 2017 (with T. Overbye and M. Sarma).

Power System Analysis and Design Software, 2nd edition, PWS Publishers, Boston, MA, 1994 (with G. Digby).

Book Chapters

“Failure Analysis of Printed Wiring Assemblies”(with R. Blanchard et al.), “ Switches and Relays”(with P. Martin et al.), “Failure Analysis of Components” (with D. Galler et al.), In: *Electronic Failure Analysis Handbook*, McGraw Hill Publishing Company, 1999.

“Electric Power Distribution,” In: *Encyclopedia of Energy Technology and The Environment*, John Wiley & Sons, New York, NY, 1995.

“Transmission Planning,” In: *The Electrical Engineering Handbook*, Section 58.8, CRC Press, Boca Raton, FL, 1993.

Publications

“Computer-Aided Design of PM Stepper Motor Drives,” Proceedings, 23rd Annual Incremental Motion Control Systems and Devices Symposium, San Jose, CA, June 1994 (with E. Voiculescu and A. Laszlo).

“Computer-Aided Design of a Stepper Motor Driver,” Proceedings, 22nd Annual Incremental Motion Control Systems and Devices Symposium, San Jose, CA, June 1993 (with E. Voiculescu and A. Laszlo).

“State Estimators with Forecasting Capability,” Proceedings, 11th Power Systems Computation Conference, Avignon, France, August 1993 (with M.B. Coutto Filho and A.M. Leite da Silva).

“A Zoom Feature for a Dynamic Programming Solution to Economic Dispatch Including Transmission Losses,” *Transactions on Power Systems*, Institute of Electrical and Electronics Engineers, Vol. 7(2), pp. 544–551, May 1992 (with Z.X. Liang).

“Improved Cost Functions for Economic Dispatch,” *Transactions on Power Systems*, Institute of Electrical and Electronics Engineers, Vol. 6(2), pp. 821–829, May 1991 (with Z.X. Liang).

“The Personal Computer in Electrical Engineering,” *Electrosoft*, special issue on Software for Electrical Engineering Education, pp. 3–5, March 1991.

“Student Design Projects in Power Engineering,” *Transactions on Power Systems*, Institute of Electrical and Electronics Engineers, Vol. 5(4), pp. 1390–1400, November 1990 (with L. Dow).

“A Personal Computer Software Package for Power Engineering Education,” *Transactions on Power Systems*, Institute of Electrical and Electronics Engineers, Vol. 3(4), pp. 1864–1872, November 1989.

“Train Voltage Analysis for AC Railroad Electrification,” *Transactions on Industry and Applications*, Institute of Electrical and Electronics Engineers, Vol. IA-20(4), pp. 925–934, July/August 1984 (with A. Kusko and S. Peeran).

“State Estimation of Interconnected HVDC/AC Systems,” *Transactions on Power Apparatus and Systems*, Institute of Electrical and Electronics Engineers, Vol. PAS-102(6), pp. 1805–1811, June 1983 (with M. Sheikholeslami).

“Batteries and Fuel Cells - Alternative Traction Power for Locomotives and Self-Powered Railcars,” Transportation Systems Center Report DOT-TSC-TR, March 1983 (with F.L. Raposa).

“Identifiability of Unknown Covariance Matrices for Some Special Cases of a Linear, Time-Invariant, Discrete-Time Dynamic System,” *Transactions on Automatic Control*, Institute of Electrical and Electronics Engineers, Vol. AC-26(4), pp. 970–974, August 1981 (with W. Tsang and R. Bach).

“Grounding Practices for Electric People Mover Vehicles,” Proceedings, Institute of Electrical and Electronics Engineers Industrial Applications Society, Cincinnati, OH, September/October 1980 (with A. Kusko and J. LaMarca).

“Advanced Load Frequency Control,” *Transactions on Power Apparatus and Systems*, Institute of Electrical and Electronics Engineers, Vol. PAS-91(5), pp. 2095–2104, September/October 1972 (with F. Schweppe).

“Control of Linear Dynamic Systems with Set Constrained Disturbances,” *Transactions on Automatic Control*, Institute of Electrical and Electronics Engineers, Vol. AC-16(5), pp. 411–423, October 1971 (with F. Schweppe).

“The Linear Estimation of Completely Unknown Signals,” *Transactions on Automatic Control*, Institute of Electrical and Electronics Engineers, Vol. AC-14(6), p. 766, December 1969.

Additional Publications

“Impact of Power Harmonics on Electric Power System Equipment,” Institute of Electrical and Electronics Engineers Power Engineering Society (Boston Chapter) Seminar, Power Quality in the Electric Utility Industry, Watertown, MA, May 1994 (with A. Kusko).

“Effect of Geomagnetic-Induced-Current on Power Grids and Communications Networks,” North American Power Symposium, Auburn, AL, October 1990 (with M. Sarma and J. Kolawole).

“Energy and Public Policy, a Liberal Arts Course for Power Engineering and Political Science Students,” 1980 American Society of Engineering Educators Conference, Amherst, MA, June 1980 (with P. Hopper).

“Load Frequency Control of Electric Power Systems,” Electric Power Systems Engineering Laboratory, School of Engineering, Massachusetts Institute of Technology, February 1971.

“Modeling of Hydroelectric Power Systems,” Bonneville Power Administration, Portland, Oregon, January 1970.
