



B. Michael Aucoin, D.Engr., P.E., PMP-Retired

President, Electrical Expert, Inc.

Electrical Engineering Litigation Support

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SUMMARY

Recipient of awards as individual and member of team. Electrical engineer and highly experienced expert witness. Texas A&M University and Gonzaga University faculty member and former member of University of Maryland faculty. Member of NASA-Johnson Space Center Mishap Investigation Board. Investigator on research projects for NASA, NSF, US Navy, Electric Power Research Institute. Author. Five U.S. patents. Unique experience in improving safety with fallen power lines. Reviewed 200+ cases over 30+ years. Testified in dozens of depositions and trials.

SPECIALTY FOCUS AREAS

Electric power, electrical contact injuries, arc flash injuries, fires of electrical origin, patents, equipment and device operation, impact of outages, taxes related to electric utilities.

EDUCATION

- **Doctor of Engineering**, Engineering Management
Texas A&M University, College Station, TX (1982)
- **Master of Arts**, Organizational Leadership
Gonzaga University, Spokane, WA (2016)
- **Master of Engineering**, Electrical Engineering
Texas A&M University, College Station, TX (1978)
- **Bachelor of Science**, Engineering
University of New Orleans, New Orleans, LA (1976)
Magna Cum Laude

PROFESSIONAL EXPERIENCE

Electrical Expert, Inc.

College Station, TX

President

1992-present

- Consulting and testifying expert in electrical engineering. I have been engaged on over 200 cases and have testified on dozens of occasions in Federal and State Courts throughout the U.S.

Texas A&M University

College Station, TX
Senior Lecturer
2020-present

- Instructor for undergraduate and pioneering course in Engineering Leadership. Students have provided excellent evaluations of the course and my engagement.

Gonzaga University

Spokane, WA
Adjunct Instructor
2019-present

- Instructor for online graduate course in Organizational Leadership for early- and mid-career professionals. I have earned excellent evaluations from students.

Univ. of MD Univ. Coll.

Adelphi, MD
Adjunct Asst. Professor
2010-16

- Instructor for online graduate course in Project Management for early- and mid-career professionals located throughout the world. I earned excellent evaluations from students.

Leading Edge Mgmt., LLC

College Station, TX
President
2007-19

- Management and leadership consultant in engineering and projects. I successfully delivered several workshops and facilitated dramatic improvement for a troubled technical team.

Emprend, Inc.

Los Altos, CA
Mgr., Community Activities
1999-2000

- Founding partner and manager for online membership-based community in project management, ProjectConnections. I helped facilitate events and generate business.

Energy Systems Lab

Texas A&M University
Research Engineer
1995-99

- Manager for project on power system operation at Texas A&M and energy conservation systems. Instructor for introductory undergraduate engineering course.

Electrical Engr. Dept.

Texas A&M University
Research Assoc. Professor
1982-84, 1988-95

- Manager of power system research for intelligent system to detect fallen power lines. Involved from concept to commercialization. Instructor for graduate course in systems engineering, and undergraduate course in engineering economics.

Power Solutions, Inc.

Bryan, TX
Project Manager
1992-93

- Project manager for commercial design of the Digital Feeder Monitor, a product-based technology developed at Texas A&M and licensed to General Electric.

Micon Engineering

College Station, TX
VP of Marketing
1988-91

- Marketed capabilities for engineering design company. I wrote project proposals resulting in five awards totaling \$775,000, including three Federal SBIR projects.



Technology Bus. Devel.

College Station, TX
Assistant Director
1984-88

- I developed business and technology plans, and business strategies and financial projections for technology business start-ups.

PROFESSIONAL AWARDS AND LECTURES

- IEEE Third Millennium Medal, 2000.
- Development and commercialization of Digital Feeder Monitor recognized for *R&D 100* Award as one of the top 100 new products of the year by *R&D Magazine*, 1996.
- Research on Arcing Fault Detector recognized by the National Society of Professional Engineers as an Outstanding Engineering Achievement, 1982.
- IEEE Power Engineering Society Working Group Recognition Award, Technical Report, Tutorial Course Co-Editor, 1992.
- IEEE Distinguished Lecturer, Regina, Saskatchewan, CANADA, 1990; and Atlanta, Georgia, 1992.

RESEARCH PROJECT MANAGEMENT

- Principal Investigator or Co-Principal Investigator on four projects with funding totaling over \$600,000 for Electric Power Research Institute, U. S. Naval Surface Warfare Center, and U. S. Army Construction Engineering Research Laboratory.

RESEARCH PROJECTS

- Researcher on eleven projects in electric power, energy management, and energy strategy.

PROFESSIONAL LICENSES, CERTIFICATIONS

- Registered Professional Engineer in Texas, Number 61,401.
- Project Management Professional (PMP Retired), Number 48,790, Project Management Institute.

PROFESSIONAL SERVICE

- Board of Governors, IEEE Engineering Management Society, 1996-99.
- Vice President of Education, IEEE Engineering Management Society, 1998-99.
- Coordinator of Student Activities, IEEE Engineering Management Society, 1996-97.
- Editorial Advisory Panel, *Electric Power Systems Research* Journal.
- Series Editor, Technical Management and Professional Development, Artech House Publishers, 2019-present.
- Associate Editor, *Engineering Management Review*.
- Member, IEEE Task Group on High Impedance Faults.

PROFESSIONAL MEMBERSHIPS

- IEEE (Life Senior Member).
- American Society for Engineering Education.

SELECTED CONSULTING CLIENTS



- City of Cleveland, OH
- Server Technologies, Inc.
- Wisconsin Public Service
- Bell South Telecommunications
- SPARTA, Inc.
- Caterpillar
- Michigan Department of Attorney General
- Georgia Office of Attorney General
- Schweitzer Engineering Laboratories
- Cooper Technologies
- Stewart & Stevenson
- ICS Group

BOOKS, BOOK CHAPTERS

- Aucoin, B. M. (2018). *From engineer to manager: Mastering the transition*, 2nd ed., Boston, MA: Artech House.
- Aucoin, B. M. (2007). *Right-brain project management: A complementary approach*, San Francisco, CA: Berrett-Koehler.
- Aucoin, B. M. (1998). Total quality management, in R. Dorf (Ed.), *The handbook of technology management*, Boca Raton, FL: CRC Press.

TUTORIALS, SEMINARS, WORKSHOPS

- Right-brain project management. (2007, 2008). PMI Houston, TX; PMI Regina, SK.
- From engineer to manager: Mastering the transition. (2003, 2007, 2010). IEEE Cedar Rapids, IA Section; Stewart & Stevenson, Houston, TX; SPARTA, Inc., Colorado Springs, CO.
- Project mastery: Delivering the best on time and on budget. (1999). Texas A&M University; IEEE Professional Development Conference, Dallas, TX.
- Project management and leadership. (1999). IEEE Region 1 Meeting, Piscataway, NJ.
- Detection of downed conductors on utility distribution systems. (1991). IEEE Power Engineering Society Minneapolis, MN, and Atlanta, GA, Co-organizer.
- EPRI high impedance fault detection workshop (1988). New Orleans, LA, Co-organizer.

REFEREED PUBLICATIONS

- Aucoin, B. M. (2018). Missing pieces in strategic planning and execution: The talent development perspective, *IEEE Engineering Management Review*, 46(4), 1-6.
- Aucoin, B. M. & Jones, R. H. (1996). High impedance fault detection implementation issues, *IEEE Transactions on Power Delivery*, 11(1), 139-148.
- Kezunovic, M., Watson, K. Russell, B. D. Heller, P. & Aucoin, M. (1991). Expert system applications to protection, substation control and related monitoring functions, *Electric Power Systems Research*, 21(1), 71-86.
- Narendorf, M., Russell, B. D. & Aucoin, M. (1987). Microcomputer based feeder protection and monitoring System - utility experience, *IEEE Transactions on Power Delivery*, PWRD-2(8), 1046-1052.
- Aucoin, M. & Russell, B. D. (1987). Detection of distribution high impedance faults using burst noise signals near 60 Hz, *IEEE Transactions on Power Delivery*, PWRD-2(2), 342-348.
- Aucoin, M. (1985). Status of high impedance fault detection, *IEEE Transactions on Power Apparatus and Systems*, PAS-104(3), 638-644.
- Aucoin, M., Zeigler, J. C. & Russell, B. D. (1985). Feeder protection and monitoring system, part II: Staged fault test demonstration, *IEEE Transactions on Power Apparatus and Systems*, PAS-104(6), 1456-1462.
- Aucoin, M., Zeigler, J. C. & Russell, B. D. (1985). Feeder protection and monitoring system, part I: Design, implementation and testing, *IEEE Transactions on Power Apparatus and Systems*, PAS-104(4), 873-880.
- Aucoin, M. & Russell, B. D. (1982). Distribution high impedance fault detection utilizing high frequency current components, *IEEE Transactions on Power Apparatus and Systems*, PAS-101(6), 1596-1604.

CONFERENCE PUBLICATIONS



- Aucoin, B. M. & Salazar, M. F. (2023). Student perceptions about professional networking: An initial exploration. *Proceedings of the ASEE Gulf Southwest Section 2023 Annual Meeting and Conference*, Denton, TX.
- Aucoin, B. M. & Bowen, B. (2021). Engineering leadership: Transitioning from “soft skill” to hard data, *Proceedings of the ASEE Gulf Southwest Section 2021 Annual Meeting and Conference*, Waco, TX.
- Aucoin, B.M. & Conners, D. A. (2019). Systems thinking concepts and applications for engineering leadership development, *Proceedings of the ASEE 125th Annual Conference and Exposition*, Tampa, FL.
- Aucoin, B. M. (2019). Exploring paradigms: Leadership development for engineers using the engineering skill set, *Proceedings of the ASEE Gulf Southwest Section 2019 Annual Meeting and Conference*, Tyler, TX.
- Aucoin, B. M. (1998). Lessons from the front: Managing a Skunk Works design team. *Proceedings of ProjectWorld*, Atlanta, GA and San Jose, CA.
- Aucoin, B. M. (1997). A multi-organizational ‘Skunk Works’ for product design in a small business. *Proceedings of Portland International Conference on Management of Engineering and Technology*, Portland, OR.
- Aucoin, B. M. & Russell, B. D. (1996). Challenges in technology development and commercialization: A case study of fallen power line detection. *Proceedings of International Engineering Management Conference*, Vancouver, BC.
- Aucoin, B. M. (1996). Content selection for a course in total quality management. *Proceedings of International Engineering Management Conference*, Vancouver, BC.
- Tyska, W. Z., Patterson, R. C., Russell, B. D. & Aucoin, B. M. (1993, 1994). A microprocessor based digital feeder monitor with high impedance fault detection. *Proceedings of Western Protective Relay Conference*, Spokane, WA, 1993; *Proceedings of EPRI Substation Diagnostics Conference*, New Orleans, LA, 1993; *Proceedings of Texas A&M Conference for Protective Relay Engineers*, College Station, TX, 1994; *Proceedings of Georgia Tech Protective Relay Conference*, Atlanta, GA.
- Aucoin, M., Russell, B. D. & Benner, C. L. (1991). Characteristics of distribution faults. *Proceedings of Utility Fault and Disturbance Analysis Conference*, Texas A&M University, College Station, TX.
- Aucoin, M. & Heller, R. P. (1990). Functional requirements for an intelligent RPC. *Proceedings of Intersociety Energy Conversion Engineering Conference*, Reno, NV.
- Russell, B. D., Aucoin, M. & Benner, C. (1989). Computer relaying techniques for the detection of high impedance faults using signal processing and pattern recognition methods. *Proceedings of Power System Protection '89 Conference*, Singapore.
- Aucoin, M. & Russell, B. D. (1989). Detection of incipient and low current faults in electric distribution systems. *Proceedings of Intersociety Energy Conversion Engineering Conference*, Washington, DC.
- Aucoin, M. (1989). Downed conductor fault detection: Next step, research and development. *Proceedings of Western Protective Relay Conference*, Spokane, WA.
- Heller, R. P. & Aucoin, M. (1989). Expert systems data requirements for analysis of faults and disturbances. *Proceedings of Utility Fault and Disturbance Analysis Conference*, New Orleans, LA.
- Aucoin, M., Russell, B. D. & Benner, C. L. (1989). High impedance fault detection for industrial power systems. *Proceedings of IEEE Industry Applications Conference*, San Diego, CA.
- Aucoin, M. (1989). Research on high impedance fault detection. *Proceedings of Georgia Tech Protective Relaying Conference*, Atlanta, GA.
- Aucoin, M. (1986). Detection of high impedance faults using arcing-generated burst noise signals. *Proceedings of IEEE Power Engineering Society Transmission and Distribution Conference*, Anaheim, CA.
- Aucoin, M. (1986). Operational, economic and legal considerations of high impedance fault detection. *Proceedings of IEEE Power Engineering Society Transmission and Distribution Conference*, Anaheim, CA.
- Russell, B. D. & Aucoin, M. (1981). Development of a low-current relay for high impedance faults on distribution feeders. *Proceedings of Conference for Protective Relay Engineers*, Texas A&M University, College Station, TX.
- Russell, B. D. & Aucoin, M. (1978). Algorithm for the detection of noise frequencies generated by high impedance faults. *Proceedings of Control of Power Systems Conference*, Oklahoma City, OK.

OTHER PUBLICATIONS



- Aucoin, B. M. & Russell, B. D. (1992). Fallen conductor faults: The challenge to improve safety, *Public Utilities Fortnightly*, 129(3), 38-40.

PRESENTATIONS

- Team engagement: Critical elements for project effectiveness. (2015). Engineers Without Borders USA South Central Region Conference, College Station, TX.
- Team re-building: Positive shifts for broken or uninspired teams. (2014). PMI Austin, TX; PMI Tampa, FL; Texas A&M University Project Management Exchange.
- Right-brain project management. (2007, 2008). PMI Houston, TX; PMI Calgary, AB; Banff Centre, Banff, AB; PMI Regina, SK; KPM Symposium, Tulsa, OK.
- Fallen power lines: New developments affecting risk management. (1995). American Public Power Association. New Orleans, LA.
- Field experience with high impedance fault detection. (1993). IEEE Vancouver Section, Vancouver, BC.
- High impedance fault detection research and development. (1992). Pacific Gas and Electric, Pleasanton, CA.
- Detection of distribution high impedance faults. (1990). Texas Rural Electric Cooperative Association, San Antonio, TX.
- Strategy for winning an SBIR. (1990). SBIR Workshop, College Station, TX.
- Research on high impedance fault detection. (1989). Georgia Tech Protective Relaying Conference, Atlanta, GA.
- Detection of high impedance faults. (1982). IEEE Power Engineering Society, Philadelphia, PA.

PATENTS

- Five U. S. patents, one European patent, one European German patent, one Australian patent, and one Canadian patent, for electrical engineering technologies.

