



Exponent[®]
Engineering & Scientific Consulting

Elizabeth Lu, P.E.

Senior Managing Engineer | Health Sciences
Houston
+1-832-325-5714 | ELu@exponent.com

Professional Profile

Ms. Elizabeth Lu brings more than twenty years of professional experience spanning environmental remediation, occupational health consulting, and management consulting with a focus on supporting oil and gas and United States Department of Defense (DoD) clients as a technical project manager, organizational change manager, IT design lead, and subject matter expert for training and communications teams. She has spent the majority of her consulting career on large-scale, multi-year projects supporting them from the conceptual development phase through deployment and fielding phases.

At Exponent, Ms. Lu tailors and leads multidisciplinary, collaborative teams to bring all parts of a client's project together and meet their vision. For each client, she translates their vision into specific deliverables and outcomes that define success. She then articulates the narrative for the target stakeholder groups to reach consensus and move forward to implementation. Colleagues and clients rely on her skills in integrating disparate technical work streams and on her ability to transform complex project information to support broader audiences with decision-making.

Ms. Lu's projects cover a wide range of subjects related to environmental health and safety, including management of change, serious injury and fatality prevention, incident investigation, loss prevention, contractor environment, health and safety management, occupational safety, and environmental compliance. She was involved in updating a major oil company's operational excellence management system and in developing workflow and governance processes for digital transformation efforts. Most recently, Ms. Lu has been Exponent's lead supporting the United States Joint Program Executive Office in Chemical, Biological, Radiological and Nuclear Defense and the Army Rapid Critical Capabilities Technology Office in their multi-year efforts to field wearables systems.

Prior to joining Exponent, Ms. Lu was a Senior Engineer at Geomatrix Consultants in Oakland, California, where she was responsible for the development, design, and implementation of environmental investigations and remediation systems. Her knowledge of environmental forensics, risk-based decision-making, and regulatory compliance, combined with her understanding of clients' business goals, brought together landowners, developers, construction crews, and the regulatory community. These efforts prioritized health and safety risks, resolved environmental and public health issues, and succeeded in a cost-effective and timely manner.

Academic Credentials & Professional Honors

M.S., Geotechnical Engineering, University of California, Berkeley, 1993

B.S., Civil Engineering, University of California, Berkeley, 1990

Licenses and Certifications

Professional Engineer Civil, California, #52522

Professional Affiliations

American Society of Civil Engineers (member)

American Association for the Advancement of Science (member)

Publications

Kelsh MA, Fordyce TA, Lau EC, Mink PJ, Morimoto LM, Lu E, Yager JW. Factors that distinguish serious versus less severe strain and sprain injuries: An analysis of electric utility workers. *Am J Ind Med* 2009; 52:210-220.

Fordyce TA, Kelsh MA, Lu E, Sahl JD, Yager JW. Thermal burn and electric shock injuries among electric utility workers 1995-2004. *Burns* 2007; 33:209-220.

Hicks JB, Lu E, De Guzman R, Weingart M. Fungal types and concentrations from settled dust in normal residences. *J Occup Environ Hyg* 2005; 2:481-492.

Kelsh MA, Lu E, Ramachandran K, Jesser C, Fordyce T, Yager JW. Occupational injury surveillance among electric utility employees. *J Occup Environ Med* 2004; 46:974-984.

Paustenbach DJ, Finley BL, Lu E, Brorby GP, Sheehan PJ. Environmental and occupational health hazards associated with the presence of asbestos in brake linings and pads (1900 to present): A "State-of-the-Art" review. *J Toxicol Environ Health (Part B)* 2004; 7:33-110.

Park G, Lu E, Lester M, Pye J, Sullivan R, Riccio G. Technology survey and assessment for the U.S. Army's Objective Force Warrior Program. Proceedings, 8th Annual International Conference on Industrial Engineering, Theory, Applications, and Practice, Las Vegas, Nevada, November 10-12, 2003.

Presentations

Cyr J, McLean S, Morris H, Balcius J, Kingsley D, Lu E, Claypool K, Sarathi T. System Readiness Assessment Methodology for Wearable Physiological Monitoring Systems. Presented at the Military Health System Research Symposium, Kissimmee, Florida, August 26-29, 2024.

DiCesare C, Knodel N, McLean S, Lu E. Benchmarking Viable Ground Truth Devices for Wearable Heart Rate Validations. Presented at the Military Health System Research Symposium, Kissimmee, Florida, August 26-29, 2024.

McLean S, DiCesare C, Knodel N, Lu E. Standardizing and Contextualizing Real-World Wearable Validations. Presented at the Military Health System Research Symposium, Kissimmee, Florida, August 26-29, 2024.

von Tersch, RL, Skow E, Lu E, Teague EB, Hart SC. West Point Proximity Logging Limited User Test: User Feedback on a Wearable Technology. Presented at the Military Health System Research Symposium, Kissimmee, Florida, September 12-15, 2022.

McLean S, Eschbach C, Lu E. Framework for Wearable Sensor Data Characterization and Validation in Naturalistic Real-World Military Settings. Presented at the Military Health System Research Symposium, Kissimmee, Florida, September 12-15, 2022.

Hicks JB, Lu E. Culturable Fungi in Settled Dust from Normal Residences. Presented at the 2005 American Industrial Hygiene Conference and Exposition, Anaheim, California, May 21-26, 2005.

Kelsh MA, Lu E, Fordyce T. EPRI Occupational Health and Safety Database (OHSD): Update of Ongoing 2004 Activities. Invited presentation at EPRI Occupational Health and Safety Area Council Meeting, Boston, Massachusetts, September 30, 2004.

Kelsh MA, Lu E, Ramachandran K, Jesser C, Fordyce T, Yager JW. Occupational Injury Surveillance among Electric Utility Employees. Poster presentation at the 37th Annual Meeting of the Society for Epidemiologic Research, Salt Lake City, Utah, June 15-18, 2004.

Sheehan PJ, Finley BL, Lu E, Brorby GP. Environmental and Occupational Health Hazards Associated with the Presence of Asbestos in Brake Linings and Pads (1900 to Present). Invited presentation at the Society of Automotive Engineers (SAE), 21st Annual Brake Colloquium and Exhibition, Hollywood, Florida, October 19-21, 2003, and at the SAE 2004 World Congress, Detroit, Michigan, March 8-11, 2004.

Kelsh MA, Lu E, Ramachandran K, Jesser C, Fordyce TA, Yager JW. Workplace Injuries and Illness Trends in the Electric Energy industry: Initial Results from a Comprehensive Occupational Health and Safety Surveillance System. Presented at the Centers for Disease Control and Prevention (CDC) National Occupational Injury Research Symposium, Pittsburgh, Pennsylvania, October 2003.