

Farheen Khan, Ph.D.
Manager**Professional Profile**

Dr. Farheen Khan is a Manager in Exponent's Human Factors practice. Dr. Khan's work focuses on applying human factors principles to understanding human error and risk-taking behavior. She has studied decision-making, human perception and response to risk, as well as stress and fatigue, and their effects on behavior and accident causation. She has performed investigations to determine exposure to physical hazards from a wide range of consumer products, industrial tools, and heavy construction machinery, and has applied her knowledge to the assessment of incidents involving these products, as well as to evaluate warnings and instructions for these products. Dr. Khan has also conducted inspections of work locations such as manufacturing plants and construction sites to assess risk and OSHA compliance. She has investigated issues related to work procedures/tasks and worker behavior such as machine guarding, lockout/tagout, slips, trips and falls, training, as well as other relevant safety issues. Dr. Khan has worked on the development of safety-related information, warnings, and training and instruction materials for a wide range of consumer products. Dr. Khan has conducted dosimeter studies at organizations to analyze noise levels. Dr. Khan had conducted psychoacoustic analysis of sound in an environment (fire alarms, backup alarms, train horns, equipment/industrial noise, etc) with respect to understanding what an individual within that environment could have heard. Dr. Khan has also evaluated fall protection equipment and fall protection roofing material to determine their efficacy in worker protection and helped investigate transportation accidents related to visibility issues.

Prior to joining Exponent, Dr. Khan completed her Ph.D. in Industrial Engineering, focusing on occupational safety and health, more specifically, safety climate and safety culture and their effect on safety-related behavior at work. Dr. Khan's doctoral dissertation studied the effects of perceived management commitment to safety on safety climate at work. She examined employee perceptions and attitudes and their effect on safety-related behavior. During her academic career, she worked for the Wisconsin Department of Administration's Bureau of State Risk Management.

Dr. Khan is the Secretary of the local chapter for the American Society of Safety Engineers.

Academic Credentials and Professional Honors

Ph.D., Industrial Engineering, University of Wisconsin, Madison, 2007

M.S. Industrial Engineering, University of Wisconsin, Madison, 2001

B.S., Industrial Engineering University of Wisconsin, Madison, 2001

Richard S. and Harriet K. Fein Scholarship recipient, 2003; Polygon Engineering Council's Outstanding Teaching Assistant in Industrial Engineering award, 2003

Licenses and Registrations

Certified Qualified Individual for Fall Protection; OSHA – Qualified Individual for Construction Industry Standards (OSHA 510); OSHA Crane Safety Training for Engineers and Supervisors; HEAD Acoustics HEAD Measurement System Training (Artificial Head Technology and Binaural Sound Data Acquisition/Playback)

Languages

English, Hindi, Urdu, Arabic

Publications

Heckman GM, Kim RS, Khan FS, Bare C, Yamaguchi GT. Auditory localization of backup alarms: The effects of alarm mounting location. SAE Paper No. 11B-0302/2011-01-0086, SAE World Congress 2011, Detroit, MI.

Weaver, B., Ruberte, L., Khan, F., and Arndt, S. Normal pedal activation in real world situations. SAE Paper No. 11B-0291/2011-01-0551, SAE World Congress 2011, Detroit, MI.

Khan FS, Sala JB, Arndt SR. Considerations in the textless presentation of warning and safety information. Proceedings, 15th Annual International Conference on Industrial Engineering Theory, Applications and Practice, Mexico City, Mexico, 2010.

Khan FS, Sala, JB, Arndt SR. Reducing subjectivity when attempting auditory scene recreation in accident reconstruction. Proceedings, Human Factors and Ergonomics Society 54th Annual Meeting, San Francisco, CA, 2010.

Khan FS, Sala JB, Arndt SR. Psychoacoustic response to auditory warnings. Proceedings, 14th Annual International Conference on Industrial Engineering Theory, Applications and Practice, Anaheim, CA, 2009.

Khan FS, Arndt SR, Krauss DA. Understanding the relationship between safety climate and warning compliance in occupational settings. Proceedings, 14th Annual International Conference on Industrial Engineering Theory, Applications and Practice, Anaheim, CA, 2009.

Krauss DA, Arndt SR, Lakhiani SD, Khan FS. Additional considerations when applying the “Safety Engineering Hierarchy” in industrial work settings. Proceedings, 13th Annual International Conference on Industrial Engineering: Theory, Applications and Practice, Las Vegas, NV, 2008.

Khan FS. Understanding the impact of work-related national cultural values and religiosity on work-related safety perceptions and behavior. Ph.D. Dissertation, University of Wisconsin-Madison, 2007.

Khan FS, Smith MJ. Macroergonomic issues in call center work—Implications for the Indian IT industry. Proceedings, Human Computer Interaction International Conference (HCII), 2005.

Khan FS, Lakhiani SD, Smith MJ. A macroergonomic look at call center workers in India. National Conference on Humanizing Work and Work Environment, Mumbai, India, 2004.

Lakhiani SD, Khan FS Smith MJ. Electronic performance monitoring: Effect on productivity, employee health, and well-being. National Conference on Humanizing Work and Work Environment, Mumbai, India, 2004.

Khan FS, Smith MJ. Building social development through education: Applying the principles of community ergonomics in an industrially developing country. Proceedings, International Ergonomics Association Congress (IEA), Seoul, South Korea, 2003.

Professional Affiliations

- American Society of Safety Engineers
- Human Factors and Ergonomic Society
- Society of Automotive Engineers