

IOWA STATE UNIVERSITY

Agricultural and Biosystems Engineering

Nir Keren

Associate Professor

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Education

Ph.D. Interdisciplinary Engineering (Chemical Engineering Dept.) Mary Kay O'Connor Process Safety Center
Texas A&M University, 2003

M.S. Management and Safety Engineering
Ben Gurion University, Israel, 1998

B.S. Mechanical Engineering
Ben Gurion University, Israel, 1990

Honors and Awards

Iowa Labor Commissioner Recognition of Service on the Iowa Occupational Safety and Health Advisory Council (2011)

ISU Miller Faculty Fellow (2007-08 & 2008-09)

Magna Cum Laude, Ben Gurion University, Israel

Recent Publications

Mosher, G. A., **Keren, N.**, Freeman, S. A., & Hurburgh, C. R. (2014). Development of Safety Decision-Making Scenario to Measure Worker Safety in Agriculture, *Journal of Agricultural Safety and Health*, 20(2): 91-107

Mosher, G. A., **Keren, N.**, & Hurburgh, C. R. (2013). Development of quality decision-making scenario to measure how employees handle out-of-condition grain, *Applied Engineering in Agriculture*, 29(5): 807-814.

Mosher, G. A., **Keren, N.**, & Freeman, A. S. (2013). Measurement of Worker Perceptions of Trust and Safety Climate in Managers and Supervisors at a Commercial Grain Elevator, *Journal of Agricultural Safety and Health*, 19(2). 125-134.

Mosher, G. A., **Keren, N.**, & Hurburgh C. R. (2013). Employee trust and its influence on quality climate at two administration levels, *Journal of Technology Management and Applied Engineering*, 29(2).

Mosher, G. A., **Keren, N.**, Freeman, S. A., Hurburgh C. R. (2012). Management of safety and quality and the relationship with employee decisions in the country grain elevator, *Journal of Agricultural Safety and Health*, 18(3): 195-215.

Zhang, W., Gkritza, K., **Keren, N.**, & Nambisan, S. (2011). Age and gender differences in conviction and crash occurrence subsequent to being directed to Iowa's driver improvement program, *Journal of Safety Research*, 42(5): 359-365.

Teaching

Dr. Keren teaches TSM 370 Occupational Safety; TSM 376 Fire Protection and Prevention; TSM 470 Fundamentals of Industrial Hygiene; TSM 471 Safety Laboratory; and TSM 477/577 Risk Analysis and Management.

Current Research Projects

Dr. Keren is an Associate Professor of Occupational Safety in the department of Agricultural and Biosystems Engineering. His research interests fall into two broad categories: Behavioral Safety and Harnessing Incident Databases to enhance Loss Prevention.

In Behavioral Safety Dr. Keren's interest is in Safety Decision Making. As a graduate faculty in the Human Computer Interaction program he develops Virtual Reality Applications to research decision making. Among his current studies are modeling the effect of consequence severity on process and choice, the effect of stress on decision making processes among emergency responders, and the effect of safety climate on safety decision making.

In harnessing incident databases Dr. Keren is developing novel applications to support loss prevention efforts. In his research he utilizes publicly available and privately owned incident datasets. Recent works in this area include risk assessment of hazardous material transport, and development of calibration values for equipment failure rates in chemical processes.

