

REVIEWER FOR

International Journal of Industrial Ergonomics
Occupational Ergonomics
Journal of Safety Health & Environmental Research
Safety and Health at Work

COMMISSIONER AND PROGRAM EVALUATOR FOR

ABET Applied and Natural Science Accreditation Commission

PUBLICATIONS

Peer-Refereed Journal Publications

Yuan L, Buchholz B, Punnett L, Kriebel D. (2016) An integrated biomechanical modeling approach to the ergonomic evaluation of drywall installation. *Applied Ergonomics*. 53: 52-63.

Choi S, Yuan L, Borchardt J. (2016) Musculoskeletal disorders in construction: practical solutions from the literature. *Professional Safety*. January 2016: 26-32.

Yuan L. (2015) Ergonomic Evaluation of Scaffold Building. *Procedia Manufacturing*. 3: 4338-4341.

Yuan L. (2015) Reducing ergonomic injuries for librarians using a participatory approach. *International Journal of Industrial Ergonomics*. 47: 93-103.

Yuan L, Buchholz B, Dale AM. (2011) Knee disorders among carpenters in the St. Louis area. *The Open Occupational Health & Safety Journal*. 3: Suppl 1-M4, 31-38.

Rosenberg B, Yuan L, Fulmer S. (2006) Ergonomics of abrasive blasting: a comparison of high pressure water and steel shot. *Applied Ergonomics*. 37: 659-667.

Book Chapters

Yuan L. (2013) Validation of an integrated biomechanical modeling approach to the ergonomic evaluation of drywall installation. In *Digital Human Modeling and Applications in Health, Safety, Ergonomics, and Risk Management: Human Body Modeling and Ergonomics (Part II)*, edited by Duffy V, pp. 159-168, Springer-Verlag Berlin Heidelberg.

Yuan L. (2012) Reducing ergonomic injuries for librarians using a participatory approach. In *Advances in Usability Evaluation Part I*, edited by Soares MM and Rebelo F, pp. 161-170, CRC Press.

Publications Submitted/in Preparation

Yuan L, Buchholz B. The effects of position and size of drywall on the physical demands for installers. *Applied Ergonomics*. (in preparation)

Peer-Reviewed Conference Proceedings

Yuan L. (2017) A Real-World Ready (RWR) initiative to engage students in conducting construction safety research. Proceedings of the XXIXth Annual Occupational Ergonomics and Safety Conference, Seattle, WA.

Yuan L. (2015) Engaging OSH&E Students in Research through a Research and Development Course. The American Society of Safety Engineers' Professional Development Conference & Exposition 2015 (Safety 2015), Dallas, TX.

Yuan L, Buchholz B. (2014) The effects of position and size of drywall on the physical demands for installers. The HFES (Human Factors and Ergonomics Society) 2014 International Annual Meeting, Chicago, IL.

Choi S, Yuan L, Borchardt J. (2014) Critical analyses of work-related musculoskeletal disorders and practical solutions in construction. The HFES 2014 International Annual Meeting, Chicago, IL.

Yuan L., Bonnette J. (2014) Value of Industrial Internship in the Occupational Safety, Health, and Environment Program. The American Society of Safety Engineers' Professional Development Conference & Exposition 2014 (Safety 2014), Orlando, FL.

Yuan L. (2013) Developing a framework for comprehensive assessment of the OSH&E program outcomes. The American Society of Safety Engineers' Professional Development Conference & Exposition 2013 (Safety 2013), Las Vegas, NV.

Yuan L. (2012) Learning OSHA construction standards through a participatory approach. Proceedings of the American Society of Safety Engineers' Professional Development Conference & Exposition 2012 (Safety 2012), Denver, CO.

Yuan L, Culberson G. (2011) Effectiveness of a library ergonomics training program. Proceedings of the 55th Annual Meeting of Human Factors and Ergonomics Society, Las Vegas, NV.

Fulmer S, Jing X, Yuan L, Dasgupta PS, Schugardt B, Dale AM, Buchholz B. (2010) Biomechanical risk factors for knee disorders in carpenters. Proceedings of the 54th Annual Meeting of Human Factors and Ergonomics Society, San Francisco, CA.

Jing X, Fulmer S, Dasgupta PS, Yuan L, Buchholz B. (2010) Quantitative ergonomics exposure assessment for floor coverers in the greater Boston area. Proceedings of the 54th Annual Meeting of Human Factors and Ergonomics Society, San Francisco, CA.

Yuan L, Buchholz B, Fulmer S, Jing X. (2009) Knee disorders among union carpenters. Proceedings of the 17th World Congress on Ergonomics (IEA 2009), Beijing, China.

Jing X, Parikh, PJ, Yuan L, Trudeau M, Dennerlein JT, Buchholz, B. (2009) Biomechanical evaluation of the air stretcher as an alternative for the carpet knee kicker. Proceedings of the 17th World Congress on Ergonomics (IEA 2009), Beijing, China.

Yuan L, Buchholz B, Dale AM. (2009) Examination of occupational knee disorders among carpenters in the St. Louis area. Proceedings of the XXIst Annual International Occupational Ergonomics and Safety Conference 2009, Dallas, TX, USA.

Yuan L, Stockman A, Grimes S, Alkadi G. (2009) PATHSoft[®]: A software system for computerized work sampling-based methodology. Proceedings of the 13th International Conference on Human-Computer Interaction (HCI International 2009), San Diego, CA, USA. (accepted by the conference but not included in the proceedings due to non-participation)

Yuan L, Buchholz B, Punnett L, Kriebel D. (2007) Estimation of muscle contraction forces and joint reaction forces at the low back and shoulder during drywall installation. Proceedings of the 51st Annual Meeting of Human Factors and Ergonomics Society, Baltimore, MD.

Brunette MJ, Rayman P, Bond M, Yuan L. (2007) A Delphi study to structure a working conference on women's success in science, technology, engineering and mathematics (STEM). Proceedings of the 2007 American Society of Engineering Education Annual Conference & Exposition, Honolulu, HI.

Gold JE, Fulmer S, Tak S, Yuan L. (2006) Ergonomic hazards in automotive service technicians. Proceedings of the International Ergonomics Association 16th World Congress on Ergonomics, Maastricht, Netherlands.

Other Publications

Yuan L, Rosenberg B, Fulmer S. (2005) Having a blast! *HeathBeat* (Healthcare Practice Specialty Newsletter, American Society of Safety Engineers)

Yuan L, Rosenberg B, Fulmer S. (2003) Having a blast! *On the Beam* (Newsletter, Construction Occupational Health Program, University of Massachusetts Lowell). 6(1):5.

PRESENTATIONS

Peer-Reviewed Conference Presentations

Yuan L. (2012) Development of course portfolios for assessment of program outcomes. 2012 ABET (Accreditation Board for Engineering and Technology) Symposium, St. Louis, MO.

Yuan L, Buchholz B. (2011) Ergonomics of drywall installation: Effects of drywall position and size. IIE Annual Conference and Expo 2011, Reno, NV.

Yuan L. (2011) Demonstrating achievement - Experience from planning for the ABET visit. 2011 ABET Symposium, Indianapolis, IN.

Yuan L. (2010) Building a strong and efficient industrial advisory committee for the ABET accreditation. 2010 ABET Symposium, Las Vegas, NV.

Ikuma L, Nahmens I, Yuan L. (2009) The use of Lean production and safety initiatives in construction. IIE (Institutes of Industrial Engineers) Annual Conference and Expo 2009, Miami, FL.

Yuan L, Buchholz B. (2007) Evaluation of ergonomic intervention strategies for drywall installation. The 135th Annual Meeting and Exposition of the American Public Health Association, Washington, D.C.

Yuan L, Buchholz B. (2007) Examination of muscle fatigue during a simulated workday of drywall installation. The Sixth International Scientific Conference on Prevention of Work-Related Musculoskeletal Disorders (PREMUS 2007), Boston, MA.

Other Presentations

Yuan L. (2016) Engaging OSH&E students through class, research, and community service. 2016 ASSE Leadership Conference, Oak Brook, IL.

Cothell D, Mercante J, Trosclair J, Yuan, L. (2016) Redesign of a motor vehicle inspection station. The Annual Southeastern Students' Research, Creative and Scholarly Activities Showcase, Southeastern Louisiana University, Hammond, LA.

Yuan L. (2015) Ergonomic needs of the petrochemical industry. The 2015 Louisiana Occupational Health Conference, Baton Rouge, LA.

Yuan L. (2014) Validation of an integrated biomechanical modeling approach to the ergonomic evaluation of drywall installation. The Thirteenth Annual Faculty Conference on Teaching, Research & Creativity in the Center for Faculty Excellence at Southeastern Louisiana University, Hammond, LA.

Kelley B, Yuan, L. (2014) An analysis of grip strength data. The Annual Southeastern Students' Research, Creative and Scholarly Activities Showcase, Southeastern Louisiana University, Hammond, LA.

Yuan L. (2013) Reducing ergonomic injuries for librarians using a participatory approach. The Twelfth Annual Faculty Conference on Teaching, Research & Creativity in the Center for Faculty Excellence at Southeastern Louisiana University, Hammond, LA.

Bankston S, Bass C, Babineaux S, Yuan L. (2013) An ergonomic job analysis of a hair salon. The Annual Southeastern Students' Research, Creative and Scholarly Activities Showcase, Southeastern Louisiana University, Hammond, LA.

Yuan L. (2012) Enhancing teaching quality and effectiveness of a library ergonomics training program. The Eleventh Annual Faculty Conference on Teaching, Research & Creativity in the Center for Faculty Excellence at Southeastern Louisiana University, Hammond, LA.

Yuan, L. (2011) Reducing ergonomic injuries for librarians using a participatory approach. NIOSH Pilot Projects Research Training Program 12th Annual Awardees Presentation, Houston, TX.

Yuan, L. (2010) Reducing ergonomic injuries for librarians using a participatory approach. City of Baton Rouge Safety Committee Meeting, Baton Rouge, LA.

Yuan L, Alkadi G, Shurtz T, Joiner K, Jackson B, Stockman A, Grimes S, Riggio A. (2009) PATHSoft[®]: A software system for computerized work sampling-based methodology. CSIT Fall 2009 Seminar Series. Department of Computer Science & Industrial Technology, Southeastern Louisiana University, Hammond, LA.

Buchholz B, Fulmer S, Yuan L, Jing X, Dale AM. (2008) Knee disorders and occupational biomechanical risks in carpenters. Ergonomic Interventions and Research: Preventing Workplace Musculoskeletal Disorders, Center for Occupational and Environmental Health Continuing Education Program, University of California Berkeley, CA.

Jing X, Parikh PJ, Yuan L, Trudeau M, Dennerlein JT, Buchholz B. (2008) Biomechanical evaluation of air stretcher as alternative for carpet knee kicker. Harvard-NIOSH Education and Research Center Pilot Project Symposium, Boston, MA.

Yuan L. (2007) Evaluation of ergonomic intervention efficacy in drywall installation. University of Connecticut Health Center - University of Massachusetts Lowell Semi-Annual Symposium, Sturbridge, MA.

Yuan L, Buchholz B. (2006) Biomechanical analysis of the low back and shoulder during drywall installation. Harvard-NIOSH Education and Research Center Pilot Project Symposium, Boston, MA.

Yuan L, Buchholz B. (2006) Biomechanical analysis of the physical loads during drywall installation. American Society of Safety Engineers Greater Boston Chapter joint technical meeting, Lowell, MA.

Yuan L. (2005) The journey to a comprehensive biomechanical analysis of drywall installation. University of Connecticut Health Center – University of Massachusetts Lowell Semi-Annual Symposium, Sturbridge, MA.

Yuan L, Buchholz B. (2003) Comparison of hand forces and wrist moments between hydroblasting and steel shot blasting using a biomechanical wrist model. Human Factors and Ergonomics Society New England Chapter Student Conference, Medford, MA.

Yuan L, Buchholz, B. (2003) Comparison of hand forces and wrist moments between hydroblasting and steel shot blasting using a biomechanical wrist model. University of Massachusetts Lowell Sixth Annual Student Research Symposium, Lowell, MA.

Tak S, Yuan L. (2002) Intervention to Ironworkers' Concrete Placing Task. University of Massachusetts Lowell Francis College of Engineering Student Research Symposium, Lowell, MA.

RESEARCH SUPPORT

Current Funding

Past Funding

Effects of Position and Size of Drywall on the Physical Demands for Drywall Installers
CPWR (Center for Construction Research and Training)
Role: Principal Investigator
Period Covered: March 1, 2012 - February 28, 2013

Reducing Ergonomic Injuries for Librarians Using a Participatory Approach
NIOSH Southwest Center for Occupational and Environmental Health (SWCOEH)
Role: Principal Investigator
Period Covered: July 1, 2010 - June 30, 2011

Knee Disorders and Occupational Biomechanical Risks - Health Data Analysis and Synthesis
NIOSH through UMass Lowell
Role: Principal Investigator
Period Covered: May 1, 2009 - August 31, 2009

Knee Disorders and Occupational Biomechanical Risks - Health Data Analysis
NIOSH through UMass Lowell
Role: Principal Investigator
Period Covered: July 1, 2008 - December 31, 2008

Biomechanical Evaluation of Air Stretcher as Alternative for Carpet Knee-kicker (Not physically involved because of relocation)
Harvard-NIOSH Education and Research Center (ERC)
Role: Principal Investigator
Period Covered: July 1, 2007 - June 30, 2008

Knee Disorders and Occupational Biomechanical Risks
NIOSH

Role: Project Manager
Period Covered: September 1, 2006 - August 31, 2009

Biomechanical Analysis of the Low Back and Shoulder during Drywall Installation
Harvard-NIOSH Education and Research Center (ERC)
Role: Principal Investigator
Period Covered: July 1, 2005 - June 30, 2006

Submitted/in Preparation

A Participatory Approach to Improving Ergonomics in Libraries
OERC (Office Ergonomics Research Committee)
Role: Principal Investigator
Period Covered: January 1, 2014 - December 31, 2014 (submitted in August 2013 - rejected)

Ergonomic Evaluation of Drywall Stabilizing Clip
ASSE Foundation
Role: PI
Period Covered: June 1, 2013 - May 31, 2014 (submitted in April 2013 - no funds)

Nerve Stimulus Transfer Device for People with Feeling Loss in Their Feet
Louisiana Board of Regents Industrial Ties Research Subprogram (ITRS)
Role: Co-PI
Period Covered: June 1, 2012 - June 30, 2015 (submitted in November 2011 - rejected)

A Participatory Ergonomics Approach to Reduce Injuries for Librarians
Louisiana Board of Regents Research Competitiveness Subprogram (RCS)
Role: PI
Period Covered: June 1, 2010 - June 30, 2012 (submitted in November 2009 - rejected)

Development of LeanSafe: a Practical Method and Implementation Tool to Assess and Improve Plant Operating Efficiency and Safety
Louisiana Board of Regents Industrial Ties Research Subprogram (ITRS)
Role: Co-PI
Period Covered: May 1, 2009 - May 1, 2012 (submitted in November 2008 - rejected)