



**International Society for
Occupational Ergonomics & Safety**

**THE XXXIIND ANNUAL
OCCUPATIONAL ERGONOMICS AND
SAFETY CONFERENCE**

CONFERENCE PROGRAM

SEPTEMBER 17-18, 2020

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International Society for Occupational Ergonomics & Safety

2020 ISOES CONFERENCE SCHEDULE

(Tentative schedule as of 09/16/2020)

THURSDAY, SEPTEMBER 17 -- Times in EST (GMT-04)

Registration	7:00	16:00
Welcome session	8:00	8:10
Keynote address: Overview and update of ASTM Committee F48 (Exoskeletons and Exosuits)	8:10	9:15
Break	9:15	9:30
<i>Session I: Ergonomics & Human Factors I</i>	9:30	10:30
Break	10:30	10:45
Webinar: Office Ergonomics for the Home or Virtual Office Environment	10:45	11:15
<i>Session II: Occupational Biomechanics</i>	11:15	12:25
Lunch	12:25	1:00
Student ward Ceremony	1:00	1:15
ISOES - General Body Meeting	1:15	2:00
Webinar: Practical Ergonomic Tips for Training Employees	2:00	2:30
<i>Session III: Prevention through Design</i>	2:30	3:10
General announcements & closing	3:10	3:15
May join SISE Virtual Conference in Microsoft Teams (registration required). For information and registration, click here to go to: http://ieworldconference.org/pages/SISE2020.html		

FRIDAY, SEPTEMBER 18 -- Times in EST (GMT-04)

ISOES EXECUTIVE COMMITTEE MEETING	8:30	9:30
Expert Presentation: "Respirable Crystalline Silica in the Construction and General industry – Protecting Workers" OSHA-OT, University of South Florida (USF)	9:30	10:30
<i>Session IV: Ergonomics & Human Factors II</i>	10:30	11:30
Break	11:30	11:40
<i>Session V – Occupational Health & Safety II</i>	11:40	12:40
Conference Closing - Adjournment	12:40	1:00
May join SISE Virtual Conference in Microsoft Teams (registration required). For information and registration, click here to go to: http://ieworldconference.org/pages/SISE2020.html		


Thursday, September 17, 2020


Join Zoom Meeting

<https://us02web.zoom.us/j/85938798591?pwd=a1pqR3I2eWZ0K0JsQy9DN1QrTXM3dz09>

Meeting ID: 859 3879 8591

Passcode: aY3zma

Welcome Session	Dr. Gabriel Ibarra-Mejia, M.D., Ph.D. Assistant Professor Department of Public Health Sciences University of Texas at El Paso El Paso, TX, USA	8:00 am to 8:10 am
	Short Bio: Dr. Gabriel Ibarra-Mejia is an Assistant Professor at the Department of Public Health Sciences at the University of Texas at El Paso. He also holds a position as an adjunct professor for The University of Texas Health Sciences Center at Houston, where he provides undergraduate and graduate-level instruction in four main areas: environmental health, occupational health, epidemiology, and research methods. At the Universidad Autonoma de Ciudad Juarez, he provides education in industrial ergonomics to undergraduate industrial engineering students, as well as mentoring engineering graduate and undergraduate students. With Universidad de Guadalajara, he participates as an external instructor in occupational biomechanics for the Masters in Ergonomics program. He also collaborates as an associate consultant for the firm JFAssociates, Inc., which specializes in providing consultancy services to the industry and government in the areas of industrial engineering, ergonomics, health, and safety.	

Keynote Address	Donald R. Peterson, Ph.D., M.S., FAIMBE Chair, ASTM Committee F48 - Exoskeletons and Exosuits Dean, College of Engineering and Engineering Technology Professor, Mechanical Engineering Northern Illinois University Joint Professor of Biomedical Engineering Dwight Look College of Engineering, Texas A&M University	8:10 am to 9:15 am
	Title: Overview and update of ASTM Committee F48 (Exoskeletons and Exosuits) Short Bio: Dr. Donald R. Peterson is a Professor of Mechanical Engineering and Dean of the College of Engineering and Engineering Technology at Northern Illinois University. He is also a joint professor in the Department of Biomedical Engineering at Texas A&M University and a Fellow of the American Institute for Medical and Biological Engineering (AIMBE). Dr. Peterson is a graduate of Worcester Polytechnic Institute, earning degrees in Aerospace Engineering (B.S.) and Biomechanical Engineering (B.S.) and a graduate of the University of Connecticut, earning degrees in Mechanical Engineering (M.S.) and Biomedical Engineering (Ph.D.). Dr. Peterson has over 25 years of experience in biomechanical engineering and medical research, which has been focused on measuring and modeling injury biomechanics and human, organ, and/or cell performance, including exposures to various physical stimuli and the subsequent biological responses. His research has involved the investigation of injury mechanisms and human-device interaction and has led to the generation of new technologies and systems, such as personal protection technologies, occupational exoskeleton systems, robotic assist devices for hemiplegic rehabilitation, long-duration biosensor monitoring and reporting systems, novel surgical and dental devices and instruments, smart medical devices for home patient care, and biotechnology systems. Some of Dr. Peterson's research has been focused on hand-arm vibration exposures from tool use, and he serves as a U.S. delegate on the International Standards Organization Technical Committee (ISO/TC) 108/SC4 on Human Exposure to Mechanical Vibration and Shock. He is also currently serving as the Chair of the ASTM Committee F48 on Exoskeletons and Exosuits. Dr. Peterson has published over 115 peer-reviewed scholarly works and is the Editor-in-Chief for "The Biomedical Engineering Handbook," published by CRC Press, and the Series Editor for the Biomedical Engineering textbook series, published by CRC Press.	
Moderator: Gabriel Ibarra-Mejia M.D., PhD.		

Break	9:15 am to 9:30 am
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Session I - Ergonomics and Human Factors I	9:30 am to 10:30 am
Session Chair: Steve Fleming, CPE, CXL	

#	Title	Authors
1	Interprofessional investigation of muscle activity and musculoskeletal symptoms among student tablet users: a pilot study	Shira Weiner, Ralph Garcia, and Rivka Molinsky
2	Risk of Musculoskeletal Disorders (MSDs) among Janitors during Most Frequent Occupational Tasks	Ali Aljaroudi, Shani Gomez and Lilith England
3	Rapid upper limb assessment (RULA) and Rodgers muscle fatigue analysis (RMFA) of dentists using an optical microscope, loupes, or no magnification during endodontic access. A pilot study	Juan Carlos Ortiz Hugues and Carlos G. Adorno

Break	10:30 am to 10:45 am
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Webinar	10:45 am to 11:15 am
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Jeremy Wilzbacher, MS, CPE

Senior Consultant
Aon Casualty Risk Control
Lander, Wyoming.

Title: Office Ergonomics for the Home or Virtual Office Environment

Short bio: Senior Consultant with Aon Casualty Risk Control in Lander, Wyoming. Jeremy holds a master’s degree in Industrial/Mechanical Engineering with a specialization in Ergonomics from Marquette University in Milwaukee, Wisconsin. Jeremy is a Certified Professional Ergonomist and has 18 years’ experience in the ergonomics field.

jeremy.wilzbacher@aon.com

Summary: This presentation focuses on the challenges encountered by employees that have suddenly found themselves working from home due to the COVID-19 pandemic. Most of the new work-from-home employees do not have access to proper desks, chairs, and standard computer accessories commonly found in the office environment. Many employees are working with no more than a laptop and a table or home desk. In this environment, creative solutions are required to help employees implement practical solutions to minimize the stress to their bodies while working on a computer. The presentation covers computer-based ergonomics principles and how to implement strategies in the home environment to take steps to get closer to ideal working postures.


Moderator: Gabriel Ibarra-Mejia, M.D., Ph.D.

Session II – Occupational Biomechanics	11:15 am to 12:25 pm
Session Chair: Chao Wang, Ph.D.	

#	Title	Authors
1	Head and Low Back Human Activity Peak Acceleration Analysis Considerations	Greg Weames, Steve Fleming, and George Page
2	Using a Temporary Riding Platform to Improve Biomechanical Factors Associated with Riding on Railroad Freight Cars	George Page, Steve Fleming, John Vanderpool, and Greg Weames
3	The Effect of Hologram Distance/Size on Shoulder Stress during Augmented Reality Interactions	Jeong Ho Kim, Hemateja Ari, Charan Madasu and Jaejin Hwang

Lunch	12:25 pm to 1:00 pm
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Student Award Ceremony	1:00 am - 1:15 pm
General Body Meeting – ISOES Members	1:15 pm - 2:00 pm

<p>Webinar</p> 	<p>Richard Wyatt, Ph.D. Senior Consultant Aon Risk Solutions Huntsville, AL.</p> <p>Title: Practical Ergonomic Tips for Training Employees</p> <p>Short bio: Dr. Richard Wyatt is a Senior Consultant with Aon Risk Solutions in Huntsville, Alabama. Richard holds a Ph.D. in Industrial and Systems Engineering from the University of Alabama-Huntsville and is a registered professional engineer. He is a certified professional ergonomist and a certified safety professional and has 30 years’ experience in Industrial Engineering, Quality Engineering, and Ergonomics.</p> <p>Summary: Ergonomics can be technical in the methods and techniques used to evaluate a job or task. This session presents tips for developing your ergonomic training process for safety committees and ergonomic teams. Practical examples are included that can aid when training a safety team in determining improvement strategies to improve job tasks. This session also includes some examples that teams can use to improve posture in manufacturing and distribution jobs.</p> <p>Moderator: Gabriel Ibarra-Mejia, M.D., Ph.D.</p>	<p>2:00 to 2:30 pm</p>
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Session III – Prevention through Design II		2:30 pm to 3:10 pm
Session Chair: Marc Snell, Ph.D.		
#	Title	Authors
1	Assessing the ergonomic design of a new back table for perioperative nurses	Ketan Prakash Thakur, Pranav Madhav Kuber, Masoud Abdollahi, and Ehsan Rashedi
2	Anthropometric analysis to build ergonomic equipment	Priyadarshini Dasgupta, Lisa M. Kuhn and Jonathan Faulk

General announcements & closing	3:10 pm to 3:15 pm
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Friday, September 18, 2020

Join Zoom Meeting

<https://us02web.zoom.us/j/82959920544?pwd=WG1JRnpHaEFmM04wUkIwTTgyM1AzUT09>

Meeting ID: 829 5992 0544

Passcode: dZfx2e

Executive Committee Meeting		8:30 am to 9:30 am
Expert Presentation	<p>William Tomlin North Florida Regional Manager USF SafetyFlorida Consultation Program Jacksonville, FL.</p>	9:30 to 10:30 am
	<p>Title: Respirable Crystalline Silica in the Construction and General industry – Protecting Workers."</p> <p>Short bio: Based in Jacksonville, William Tomlin serves as the North Florida regional manager for the USF SafetyFlorida consultation program. Mr. Tomlin earned his Master of Science degree in industrial hygiene from the University of Oklahoma, Oklahoma City campus, and has since accumulated 35 years of experience conducting employee workplace exposure monitoring. Additionally, he has worked as a safety and health director in manufacturing, construction, and electrical utility organizations. He has experience working with workers' compensation insurers to minimize claim costs and has experience in developing or evaluating behavior-based safety programs. Currently, Mr. Tomlin is the course chairperson for the USF OSHA Training Center's Respiratory Protection and Principles of Ergonomics courses.</p>	
Moderator: Clarence Rodrigues, Ph.D., PE, CSP, CPE		

Session IV - Ergonomics and Human Factors II		10:30 am to 11:30 am
Session Chair: Jaeiin Hwang, Ph.D.		
#	Title	Authors
1	A Voice of the Customer Approach to Determine Employee Feedback of Workplace Stretching Implementation in a Mature Ergonomic Process	Richard Wyatt and Alicia Licata
2	Inflammatory Biomarker Gene Expression After a Repetitive Manual Task	Daniel Conde, Mario Garcia, Amber Rohrer, Jacen Moore and Gabriel Ibarra-Mejia
3	Pain medication vs. preventative ergonomics intervention: a construction sector study	Priyadarshini Dasgupta, Gabe Mejia, Sang D. Choi, Bongkyoo Choi, and Taylor Mahoney
Break		11:30 am to 11:40 pm

Session V – Occupational Health & Safety I		11:40 am to 12:40 pm
Session Chair: James G. Borchardt, CPE, CSP		
#	Title	Authors
1	Hazard Analysis of the Craftsman Drill Press	Chiemezie Anthony Udemba, Prof. Jerry Purswell and Prof. Mehmet Bayram Yildirim
2	A System Safety Analysis of an Arc Welding Machine	Renita Tahsin and J. P. Purswell
3	Reliability of two methods for joint angle measurement for task analysis in construction carpentry work	Ana Ramirez-Quintana, Margarita Ortiz-Solis, Laura López-Gómez, Edwin López-López, and Gabriel Ibarra-Mejía
Conference Closing - Adjournment		12:40 to 1:00 pm