2025 (4TH)

Construction Safety Conference

August 6-7, 2025 | Burge Union

Safety Knowledge Foundations

Hosted by the
Craig and Diane Martin
National Center for Construction Safety

KU SCHOOL OF ENGINEERING
The University of Kansas

CONFERENCE FAQs

Professional Development Hours

This conference offers a total of 11.75 professional development hours (PDH). The PDH certificate will be sent via email after the event.

INTERNET

Select “KU Guest” and accept terms. No password is required.

Conference Website

Further details are available on the conference website: nccs.ku.edu/csc2025

CONFERENCE PLANNING

Conference Co-Chairs

David Darwin, Ph.D.
Deane E. Ackers Distinguished Professor
Interim Director of the Craig and Diane Martin National Center for Construction Safety
Department of Civil, Environmental & Architectural Engineering (CEAE)
University of Kansas

Marsia Geldert-Murphey
ASCE 2024 President

SAVE THE DATE

The 4th Construction Safety Conference will be held on **August 6-7, 2025.**

AGENDA

Day 1 - August 6, 2025, Knowledge Generation sessions

8:00 - 9:00 a.m.
Forum C

Registration and Breakfast

9:00 - 9:15 a.m.
Forum D

Welcome

David Darwin
Deane E. Ackers Distinguished Professor
Interim Director of the Craig and Diane Martin National Center for Construction Safety
University of Kansas

Mary Rezac
Professor and Dean, School of Engineering, University of Kansas

9:15 - 9:45 a.m.
Forum D

Chair: Jim Wright
Director of Environmental, Health, Safety, and Security / Senior Principal, Terracon

Keynote Speech: OSHA Today: Improving Workplace Safety
Keynote Speaker: Todd Underwood
Area Director, Occupational Safety and Health Administration (OSHA)

10:00-11:20a.m.
Forum D

Session 1: Evolving Roles and Risk Perception in Construction Safety
Chair: Dan Smolik

The Construction Engineer's Role in Safety
Speaker 1: Jack Toellner
Professional Engineer/Safety Professional, Toellner Consulting LLC

A Comparison of Construction Accident Cognition: A Case Study of Construction Managers
Speaker 2: Hew Merrett
Assistant Professor, National Yunlin University of Science and Technology, Taiwan

11:20-11:30a.m.
Forum C

Break

11:30-12:50p.m.
Forum D

Session 2: Health and Safety Practices in Residential and Student Housing Projects
Chair: Justin Azbill
Chief Servant Leader, The Tribal Group LLC

Assessment of Client-Led Health and Safety Management Practices for Construction Project Delivery in Nigeria: An Expert Perspective
Speaker 1: Bamidele Arijeloye (online)
Postdoctoral Fellow, Durban University of Technology, South Africa

AGENDA

11:30-12:50p.m.
Forum D

Extent of Health and Safety Practices on Residential Developments in Ibadan Metropolis, Nigeria
Speaker 2: Nathaniel Olatunde (online)
Lecturer, Durban University of Technology, South Africa

Student Housing Safety: Differential Contributions of Liquefied Petroleum Gas and Facilities Management Maintenance Services in Ghana
Speaker 3: Anugwo Chijindu (online)
Senior Lecturer, Durban University of Technology, South Africa

1:00 -2:00 p.m.
Forum C

Lunch

2:00 -3:20 p.m.
Forum D

Session 3: Risk Assessment and Decision-Making in Construction Safety
Chair: Paul Ziegler
Vice President of Safety, Allan Myers

Evidence-to-Decision: Making Informed Decisions in Construction Safety Research
Speaker 1: Hew Merrett
Assistant Professor, National Yunlin University of Science and Technology, Taiwan

Safety Risk Assessment of Tower Crane Operations in High Rise Construction
Speaker 2: Aarya Shah
Undergraduate Student, Nirma University, India

Data Driven Safety Using Insights from Geofencing
Speaker 3: Sindhu Badugula
Graduate Research Fellow, University of Kansas

3:20 -3:30 p.m.
Forum C

Break

3:30 -4:50 p.m.
Forum D

Session 4: Technology Integration and Innovation for Safety
Chair: Michael Schneider
Senior VP, CPO, Baker Concrete Construction (Retired); President, Michael Schneider Consulting LLC

A Review of Cyber-Physical Systems and Digital Twins Integration for Monitoring in the Architecture, Engineering, and Construction Industry
Speaker 1: Xiaowei Wang
Postdoctoral Researcher, University of Kansas

AI-based Safety Training Systems for Construction Workers
Speaker 2: Gulzhanat Akhanova
Postdoctoral Researcher, University of Kansas

AGENDA

3:30 -4:50 p.m. Forum D	**Keynote Speech: WTF PtD?** *Keynote Speaker: Michael Toole* *Former Dean of the College of Engineering, University of Toledo*
5:00 -7:00 p.m. Forum C	**Cocktails and Dinner**

Day 2 - August 7, 2025, Practical Application Sessions

8:00 -9:00 a.m. Forum C	**Registration and Breakfast**
9:00 - 9:10 a.m. Forum D	*Chair: Md Nazmus Sakib* *Assistant Professor, University of Texas at Arlington* **Welcome** *Marsia Geldert-Murphey* *ASCE 2024 President*
9:10 - 9:40 a.m. Forum D	**Keynote Speech: Building the Future of Safety: Integrating AI, Computer Vision, and Wearable Technologies in Construction** *Keynote Speaker: Jay Kim* *Associate Professor, Texas A & M University*
9:40 - 11:00 a.m. Forum D	**Session 1: Occupational Noise-Induced Hearing Loss Prevention among Construction Workers** *Chair: Phuong Nguyen* *Assistant Professor, South Dakota State University*
	We Can't Sleep, We Can't Think, We Can't Escape This Noise *Speaker 1: Allen Vinyard* *Director of the Industrial Safety and Health program, Kansas Department of Labor*
	Construction Noise: Scope, Impact, and Resources for Worker Protection *Speaker 2: Rick Rinehart* *Deputy Director, CPWR – The Center for Construction Research and Training*
11:00-11:10 a.m. Forum C	**Break**
11:10 - 12:30 p.m. Forum D	**Session 2: Guidelines for Infection Control in Construction** *Chair: Somin Park* *Assistant Professor, University of Texas at Arlington*

AGENDA

Infection Prevention and Healthcare Construction Principles
Speaker 1: Michael Buck
Safety and Health Compliance Specialist, Industrial Hygiene, University of Minnesota.

ICRA 2.0: Dissecting the Changes and How to Apply the Changes
Speaker 2: Leon Young
Network Infection Manager, Facilities and Construction, Allegheny Health Network

12:30 -1:30 p.m.
Forum C

Lunch

1:30 - 2:50 p.m.
Forum D

Session 3: Occupational Respiratory Health Protection in Construction
Chair: Xiaowei Wang
Postdoctoral Researcher, University of Kansas

Respiratory Protection
Speaker 1: Gladys Keino
Assistant Area Director at US Department of Labor, OSHA.

Occupational Respiratory Health Protection
Speaker 2: Georgi Popov
Professor, University of Central Missouri

2:50 - 3:00 p.m.
Forum C

Break

3:00 - 4:20 p.m.
Forum D

Session 4: Practices to Reduce Hazardous Exposures in Construction
Chair: Gulzhanat Akhanova
Postdoctoral Researcher, University of Kansas

The Importance of Workforce Voices: Evaluating Musculoskeletal Disorder Prevention in Construction
Speaker 1: Paige DeBaylo
Director of MSD Solutions Lab, National Safety Council

Transitioning Your Workforce to a Better Ergonomic Mindset
Speaker 2: Justin Azbill
Chief Servant Leader, The Tribal Group LLC

4:20 - 4:45 p.m.
Forum D

Closing: Best Paper Award
Chair: David Darwin
Deane E. Ackers Distinguished Professor
Interim Director of the Craig and Diane Martin National Center for Construction Safety

Conference Chair

David Darwin

Deane E. Ackers Distinguished Professor
Interim Director of the Craig and Diane Martin National Center for Construction Safety, University of Kansas

Dr. David Darwin is the Deane E. Ackers Distinguished Professor in the Department of Civil, Environmental & Architectural Engineering at the University of Kansas. A licensed professional engineer in the state of Kansas, he holds a Ph.D. in Civil Engineering from the University of Illinois at Urbana-Champaign, and B.S. and M.S. degrees from Cornell University.

Dr. Darwin has served on the KU faculty since 1974, progressing from Assistant Professor to full Professor and serving in key leadership roles, including Chair of the Department (2013–2023) and Director of the Structural Engineering and Materials Laboratory (1982–2013). He is also the Director of the Infrastructure Research Institute.

His research has significantly advanced understanding in concrete materials, corrosion, bond behavior, cracking, and durability, and he has authored or co-authored hundreds of influential publications and books, including multiple editions of Design of Concrete Structures. Dr. Darwin has received numerous prestigious honors, including election as a Distinguished Member of ASCE, Honorary Member of ACI, and Fellow of AAAS.

In addition to his academic work, Dr. Darwin has served as a consultant on structural failures and advanced construction methods and has been deeply engaged in national technical committees, including ACI Committee 318, ASTM, and the ASCE Structural Engineering Institute. He is a past president of the American Concrete Institute and has received over a dozen national awards for research, service, and teaching excellence.

Conference Chair

Marsia Geldert-Murphey

ASCE 2024 President

Marsia Geldert-Murphey is one of two regional directors for Lochmueller Group, a 270-person Midwestern consulting firm, where she is responsible for the operations of their offices in the states of Missouri and Illinois. She has three decades of diverse, increasingly responsible, multi-disciplinary technical and leadership experience, both for private and public entities. Marsia's history includes the founding of two consulting engineering firms and a construction business.

An ASCE member since 1990, when she joined as a student chapter member, Marsia is the current chair of the Public Policy and Practice Committee. She served on the ASCE Board of Direction from 2016-2019 as the Region 7 director. Her extensive ASCE activities include service on several Society-level committees such as program and finance, leader training, and diversity and women, as well as serving as a mentor. She also led the St. Louis Section as president in 2006.Marsia earned her bachelor's degree in civil engineering at South Dakota State University and her master's degree in civil engineering with a focus on geotechnical engineering at Missouri University of Science and Technology in Rolla, Missouri. She remains actively involved with both universities. She is currently serving on the Selection Committee for the new dean of the Jerome J. Lohr College of Engineering, and she is a member of the Civil Engineering Academy at Missouri S&T. Marsia is a licensed professional engineer in several states and is a fellow in ASCE.

Session Chair

Jim Wright

Director of Environmental, Health, Safety, and Security / Senior Principal, Terracon

Jim Wright serves as the Director of Environmental, Health, Safety, and Security and is a Senior Principal at Terracon. He holds a bachelor's degree in Chemistry and a master's degree in Industrial Hygiene. With over three decades of experience, Jim began his career in 1991 as a project safety officer, overseeing environmental and safety compliance on Superfund sites for an international drilling contractor. His early work placed him at some of the most heavily contaminated locations in the United States.

Over time, Jim's role expanded to overseeing safety, health, environmental, and fleet management operations across global drilling projects, including in the U.S., Africa, Australia, Mexico, Canada, and South America. He has been instrumental in designing and implementing world-class safety systems in high-risk environments.

Jim is a certified instructor in multiple disciplines: MSHA-certified for underground and surface mining, American Red Cross-certified in first aid/CPR (infant to adult), OSHA-authorized to teach 10- and 30-hour construction safety courses, and certified in performance, off-road, and Smith System® driving instruction.

He currently serves on the National Drilling Association's Safety Committee and has previously held leadership roles within the National Groundwater Association, including Chair of the Safety Subcommittee. In recognition of his outstanding contributions, Jim was honored with the Safety Advocate Award by the National Groundwater Association in 2012.

Session Chair

Dan Smolik

Vice President
Garney Construction

As Vice President, Dan is responsible for Garney's risk management department, which is comprised of safety, bonding, insurance, and legal aspects of the company. He works with these departments and the leadership team to identify risk management issues that can impact the company's organization and develop strategies to manage our enterprise risks in a manner that supports the overall vision of the company.

Dan joined Garney in 2000 following his graduation from Missouri Western State University with a degree in construction engineering technology. He spent 20 years managing and leading Garney's pipeline operations in Florida. This experience gives Dan a broad-based operational perspective, combining both management and organizational skills to provide solutions to non-insurance-related business risk issues.

Based in Garney's Winter Garden, Florida, office, Dan promotes Garney's strong safety culture through leading safety trainings and educating employees across the country on how to uphold our safety standards. Within the company, he chairs both the Safety Council and Risk Management Council.

A hallmark of Dan's professional journey has been his unwavering commitment to a formidable work ethic, a trait that was instilled in him from an early age and has proven instrumental in thriving within an employee-owned company.

Session Chair

Justin Azbill

Chief Servant Leader
The Tribal Group LLC

Mr. Azbill has dedicated his career in the construction industry to serving as a leader and advocate for the well-being and advancement of trade professionals. He has built a career reputation as an Operational and Thought Leader that understands the importance of leveraging vulnerability and experience to gain buy-in. Mr. Azbill has over 30 years of experience in Leadership and Safety / Risk Management, having held key management positions with Kiewit Power, Suffolk Construction, Cannistraro, Callahan Construction, and Milwaukee Tool. Throughout his career, Mr. Azbill has created a successful reputation by leveraging a collaborative leadership style which has helped him achieve consistent industry-leading results and build successful partnerships that continue to impact the construction industry. Mr. Azbill has advocated for Trade Professional Health and Wellness through a “Do What’s Right” leadership style, zeroing in on the importance of having simple conversations.

Mr. Azbill has led companies to noticeable safety improvements and increased engagement in incident prevention, fostering a positive safety culture. Evident through his reduction of claims, incidents, and lost time, as well as increased involvement of subcontractor engagement, he has been honored with notable awards including the OSHA VPPP Star award in 2012 (the first time a VPPP Star award was awarded to a construction job in Region 1), MCAA Milwaukee Tool Safety Professional Award, ESGR DOD Patriot Award, Safety Excellence Award by the NSC, and Platinum STEP Award by the ABC.

Mr. Azbill currently leads several Peer-to-Peer groups focused on Psychological Safety as he is an industry advocate for Mental Health and Suicide Prevention. Mr. Azbill leads from the front in the Mental Health space engaging the industry with his “The Human Side of Leadership” program focused on gaps in leadership and soft skills training (Operational / Emotional Intelligence), Keynote speaking on the importance of preventative measures “Selfcare / Shadow-work” and is a Founding Member of the Safety Social S4S (Safety for Safety) Peer Group meeting.

Mr. Azbill holds several accredited safety certifications and licenses and attended Johnson County Community College, the University of Kansas, Thomas Edison University, and National University earning his PhD in Organizational Leadership. Mr. Azbill is a sitting member on numerous safety advisory committees and serves as the ISEA Education Committee Chair and is a Board of Trustees member Director at Large for the Construction Industry Alliance of Suicide Prevention.

Session Chair

Paul Ziegler

Vice President of Safety, Allan Myers

Paul joined Allan Myers in 1986 as a laborer and held positions in Estimating, Operations and Human Resources. His past experiences led him to his current role as Vice President, Safety. Paul is the lead of all Home Safe Tonight strategies for the company. Paul is responsible for the development and implementation of the Allan Myers safety standards along with managing and leading a staff of 50 HSE professionals who collaboratively work with Operations to build a safety culture and who believe in incident and injury - free. Paul is a member of the Allan Myers Senior Leadership Team and also a partner leading the Safe Operations Leadership Team.

Session Chair

Michael Schneider

Senior VP, CPO, Baker Concrete Construction (Retired); President, Michael Schneider Consulting LLC

Mike Schneider grew up on the West side of Cincinnati, and then went on to obtain a BS in personnel management from Miami University of Ohio and a BS in construction management from the University of Cincinnati. He began his 45-year career at Baker Concrete as a Project Manager in 1978 and recently retired as Senior Vice President and Chief People Officer. Mike is a past President of the American Concrete Institute (ACI) and the American Society of Concrete Contractors (ASCC). He currently resides in Albuquerque, New Mexico and is President of Michael Schneider Consulting, LLC.

Session Chair

Md Nazmus Sakib

Assistant Professor
University of Texas at Arlington

Dr. Md Nazmus Sakib is an Assistant Professor in the Department of Civil Engineering and the Department of Computer Science and Engineering (courtesy) at The University of Texas at Arlington (UTA). Before joining UTA, Dr. Sakib was an Instructional Assistant Professor in the Department of Construction Science at Texas A&M University, teaching courses related to Building Information Modeling (BIM) and Machine Learning (ML). His experience and interest are focused on interdisciplinary research, teaching, and collaboration. He has completed his Ph.D. in Interdisciplinary Engineering, primarily focusing on artificial intelligence, data analytics, human factors, and construction. He also holds a master's degree in Construction Management from Texas A&M University and an undergraduate degree in Civil Engineering from Bangladesh University of Engineering and Technology.

His research goal is to apply interdisciplinary knowledge and skillset to understand and advance the human-technology frontier to benefit future development towards a sustainable and resilient Architecture, Engineering, and Construction (AEC) industry.

Before joining academia, Dr. Sakib was involved in infrastructure design and construction industry for more than four years. During this period, he was involved with the detailed design and drawing of several high-rise building structures, warehouses, towers, and power plant infrastructure.

Session Chair

Phuong Nguyen

Assistant Professor
South Dakota State University

Dr. Phuong Nguyen is an Assistant Professor in the Department of Construction and Operations Management, Jerome Lohr College of Engineering, at South Dakota State University (SDSU). Prior to being at SDSU, he worked as a Postdoctoral Researcher in the Department of Civil and Environmental Engineering at the University of Alberta, Canada. He is an Affiliated Researcher at the Craig and Diane Martin National Center for Construction Safety at the University of Kansas.

His research interests include utilizing artificial intelligence (machine learning, reinforcement learning, computer vision, and fuzzy logic), wearable sensors, extended reality, Building Information Modeling, and simulation to improve construction planning, safety, and productivity, and developing data-driven decision-support models to enhance project delivery processes for highway and airport construction projects.

Dr. Nguyen possesses a Ph.D. in civil engineering with a specialization in construction engineering and management from the University of Kansas along with a master's degree in construction management from California State University, East Bay, and a bachelor's degree in civil engineering from Vietnam National University, Ho Chi Minh City University of Technology. While earning his bachelor's, he worked as a project engineer intern with an architecture and construction firm for three years.

Session Chair

Somin Park

Assistant Professor
University of Texas at Arlington

Dr. Somin Park is an Assistant Professor in the Department of Civil Engineering at the University of Texas at Arlington (UTA). Dr. Park's research areas include Human-Robot Interaction (HRI), Building Information Modeling (BIM), Machine/Deep Learning, Natural Language Processing (NLP), Image Processing, and Virtual Reality (VR). Dr. Park's work focuses on interdisciplinary research, leveraging insights from multiple fields, including construction, to advance automation in the industry. Dr. Park received her Ph.D. degree in Civil and Environmental Engineering from the University of Michigan (UM) and holds both a bachelor's and a master's degree in Civil and Environmental Engineering from Yonsei University in South Korea.

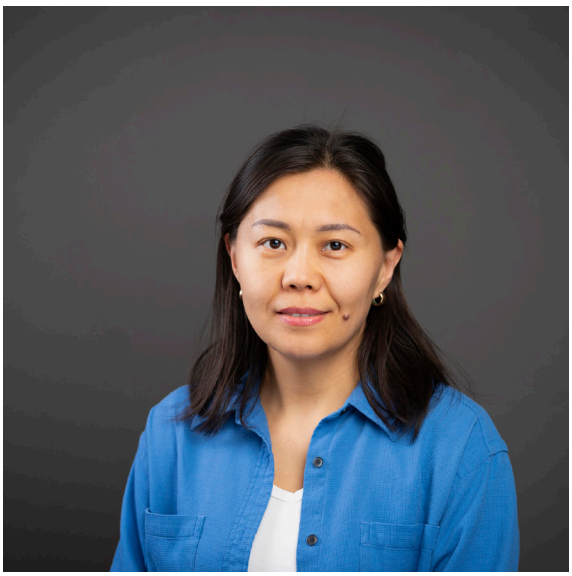
Session Chair

Xiaowei Wang

Postdoctoral Researcher
University of Kansas

Dr. Xiaowei Wang is a postdoctoral researcher at the University of Kansas. Dr. Wang's research focuses on construction safety and ethics, human-robot collaboration, and the integration of emerging technologies, such as drones, BIM, AI, and digital twins, into the architecture, engineering, and construction (AEC) industry. Her work also explores urban development, infrastructure systems, and policy analysis, with a strong emphasis on regulatory frameworks and technology adoption.

Session Chair



Akhanova Gulzhanat

Postdoctoral Researcher
University of Kansas

Dr. Gulzhanat Akhanova is a researcher with over 12 years of academic experience, specializing in sustainable development, building sustainability assessment, and construction safety. She has 5 years of industry experience in building condition assessment. Gulzhanat joined the Craig and Diane Martin National Center for Construction Safety at the University of Kansas as a Postdoctoral Researcher in January 2024. Before that, she obtained her PhD in Science, Engineering, and Technology from Nazarbayev University and a Master of Engineering in Civil Engineering from the University of Toronto. Her research focuses on using artificial intelligence tools to improve construction safety training, address mental health issues in construction, and advance building sustainability assessment. She is passionate about bridging research and practice to advance sustainable and safe construction solutions that make a global impact.

OSHA Today: Improving Workplace Safety

Burge Union (Forum D), August 6, 2025

9:15 - 9:45 a.m.

Todd Underwood

Area Director,Occupational Safety and Health Administration (OSHA)

Todd Underwood has been the Area Director for four years in the Wichita Area Office. He has been a Kansas resident for almost 21-years. He is a graduate of Southwest College in Winfield, KS and Columbia Southern University, where he earned a Master of Science degree with a specialization in safety. Todd also served for 21-years in the U.S. Air Force, where he served in Occupational Safety.

Abstract

This presentation will provide an overview of OSHA's organization, our mission, and present various objectives that this agency uses to improve workplace safety.

10:00 - 10:55 a.m.

The Construction Engineer's Role in Safety

Burge Union (Forum D), August 6, 2025

Jack Toellner

Professional Engineer
Toellner Consulting LLC

Jack is a graduate of Texas A&M University with a degree in Civil Engineering and holds a Master of Public Health in Occupational and Safety Management from Tulane University. With over 37 years of diversified experience in construction, engineering, safety, health, and environmental (SH&E) management, he retired as an executive from ExxonMobil. Jack is a Registered Professional Engineer (P.E.) in the State of Texas and a Certified Safety Professional (CSP). Throughout his career, he worked in more than 30 countries and collaborated with over 100 project teams and clients, including various government agencies. Jack is recognized for his expertise in SH&E management planning, execution, and public speaking.

Abstract

This presentation explores the evolving role of the construction engineer from a traditional technical executor to modern systems thinker and organizational leader. Prior to the 1990s, construction engineers primarily focused on managing construction methodology, contract execution, cost, schedule, and quality. In 2023, however, their role has expanded significantly to include addressing unsafe behaviors, identifying system deficiencies (such as overly simple or overly complex systems, lack of redundancy, and inadequate resources), managing interfaces across teams and disciplines, recognizing potential risks, and demonstrating leadership aligned with organizational values. This shift highlights the increasing complexity of the construction environment and the need for engineers to contribute not only to project success but also to organizational resilience and safety culture. The presentation emphasizes the importance of systems thinking, proactive risk management, and strong leadership in the modern construction engineering profession.

A Comparison of Construction Accident Cognition: A Case Study of Construction Managers

Burge Union (Forum D), August 6, 2025

10:55-11:20 a.m.

Hew Merrett

Assistant Professor
National Yunlin University of Science and Technology, Taiwan

Dr. Hew Merrett's work spans spearheading academic research, teaching future engineers, and driving collaborative industry-academia projects. He leads cutting-edge research on safety in complex systems and value engineering within the construction sector, while also lecturing on engineeringconstruction management subjects. Previously, during his tenure as Principal Compliance Officer at the Victorian Department of Health, he advanced regulatory approaches for water quality and public health. As part of a multi-agency team, he contributed to strengthening regulatory operations and supporting continuous improvement through cross-sector collaboration.

Abstract

Construction safety performance relies on the complex management decision-making process, directly impacting safety results. In this study, the management-level staff working at highway construction sites in Taiwan were surveyed on the extent to which they identified unsafe behaviours of construction workers. In the study, four research hypotheses were tested, including cross-validation of personal variables and types of accidents, analysis of differences between personal variables and accident cognition, the difference analysis of accident type and accident perception, and the linear relationship between accident perception and site conditions. Leadership qualities, together with work experience and educational attainment, were found to determine how managers identify and address safety risks. The strong relationship between site conditions and accident cognition validated all four research hypotheses posed. Furthermore, effective management was found to play an essential part in developing a safety culture, which leads to decreased construction accidents. The experience, education, and safety education and training of the highway construction site managers are significantly correlated with accident perception. Individual variables such as the degree of identification, institutional aspects, and implementation aspects are the main factors that trigger unsafe behaviours of construction workers. The construction managers' site safety management and background experience can be used to predict workers' safety attitudes, safe habits and occupational accidents.

11:30 - 11:55 a.m.

Assessment of Client-Led Health and Safety Management Practices for Construction Project Delivery in Nigeria: An Expert Perspective (online)

Burge Union (Forum D), August 6, 2025

Bamidele Arijeloye
Postdoctoral Fellow, Durban University of Technology, South Africa

Abstract

The Nigerian construction industry continues to grapple with poor health and safety (H&S) outcomes, largely due to inadequate regulatory enforcement and limited client involvement. This study investigates the role of construction clients in driving effective H&S management practices within the context of a self-regulatory environment. A three-stage Delphi survey involving 15 experts from government, private, and academic sectors was conducted to identify key client-led H&S practices and the barriers impeding their implementation. Results show that practices such as appointing H&S personnel, prioritizing safety in meetings, ensuring compliance with H&S plans, prequalifying contractors, and notifying stakeholders of site risks are most adopted. Major barriers include inadequate staff training, weak regulatory frameworks, lack of management commitment, poor supervision, and financial constraints. High Kendall's W values (0.784 for practices and 0.798 for barriers) reflect strong expert agreement. The findings highlight critical gaps in policy, capacity, and accountability, calling for harmonized regulation, client training, and institutional reform. Comparative insights show that, while developing nations like Nigeria face deep-rooted systemic challenges, proactive client involvement in developed contexts offers a replicable model for advancing construction safety.

Extent of Health and Safety Practices on Residential Developments in Ibadan Metropolis, Nigeria (online)

11:55 a.m.-12:20 p.m.

Burge Union (Forum D), August 6, 2025

Nathaniel Olatunde
Lecturer, Durban University of Technology, South Africa

Abstract

The study looked at how health and safety practices (H&SPs) are applied in residential developments in Ibadan Metropolis and checked if there are different opinions among respondents about the level of H&SPs; the goal was to improve these projects. Adopting a project-based research design, a random method of sampling was used to select 116 ongoing building projects, and data collection was ensured with the use of a questionnaire. Data analysis was conducted with frequency, percentage, mean item score, Cronbach's alpha coefficient and analysis of variance. Results indicated that the use of safety boots (MS=3.48) and use of helmets (MS=3.28) were the only two H&SPs where the extent of compliance was moderate from the 33 safety protocols measured. Overall, the extent of H&SPs is low (MS=2.27). Further findings showed that there was only 3% disagreement each on the rating of the extent of H&SPs in the study area when the opinions of respondents were discriminated based on the profession of the respondents and construction cost and a 9% disagreement in their opinions when the extent of H&SPs was discriminated based on building types. The study recommended an improved project's stakeholders' devotion and dedication to enhancing health and safety (H&S) matters on building projects, thereby improving their performance. The study contributed to knowledge by providing information on the extent of H&SPs

12:20 - 12:50 p.m.

Student Housing Safety: Differential Contributions of Liquefied Petroleum Gas and Facilities Management Maintenance Services in Ghana (online)

Burge Union (Forum D), August 6, 2025

Anugwo Chijindu
Senior Lecturer, Durban University of Technology, South Africa

Abstract

The rise in fire outbreak, with its consequences on student housing safety in Sub-Saharan Africa is worrisome. While facilities management maintenance services are crucial to preventing and controlling LPG usage in student housing, scholars are yet to quantify its mediating role to student housing safety. Based on that this study assesses the contributions of facilities management maintenance services on student housing safety in Ghana. A sample of 245 registered off-campus student housing mangers in northern Ghana was selected. Using Post Occupancy Evaluation technique through survey and partial-least-square structural equation modelling, the study uncovered positive significance of observed indicators of LPG, Facilities Management Maintenance, and Student housing safety. Also, LPG usage showed strong direct impact on student housing safety. However, LPG recorded moderate effects on student housing safety through Facilities management maintenance service. Based this, the study recommended a high concentration for observed indicators of FMM to control and management environmental safety, physical safety, and overall student safety in off-campus student housing in Ghana.

Evidence-to-Decision: Making Informed Decisions in Construction Safety Research

Burge Union (Forum D), August 6, 2025

2:00 - 2:30 p.m.

Hew Merrett
Assistant Professor, National Yunlin University of Science and Technology, Taiwan

Abstract

The construction industry remains one of the most hazardous sectors worldwide, contributing disproportionately to occupational injuries and fatalities. This study aims to bridge the persistent gap between academic research and evidence-informed industry practice by evaluating technology-based safety interventions. In this study focuses specifically on automated systems for monitoring compliance with personal protective equipment (PPE) as an example case study. To develop the evidence base this study applies the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) Evidence to Decision (EtD) framework, adapted from public health research, to assess the quality and applicability of current evidence in the context of practical application. This approach helps identify key enabling factors, limitations, and research gaps, particularly concerning effectiveness, cost, and feasibility. The results show that while automated PPE compliance systems show strong potential, findings reveal that the existing evidence base remains limited, especially regarding their real-world applicability and scalability. The review highlights that while automated PPE compliance systems demonstrate promising accuracy levels (88% to 96%), the existing evidence base is fragmented, especially regarding comparative effectiveness, implementation costs, and scalability across varied construction settings. The study concludes that structured research translation frameworks like GRADE EtD can significantly improve evidence-informed decision-making for adopting emerging safety technologies in construction. Moreover, this approach offers a replicable model for accelerating the translation of safety research into practical applications

2:30-
2:55 p.m

Safety Risk Assessment of Tower Crane Operations in High Rise Construction

Burge Union (Forum D), August 6, 2025

Aarya Shah
Undergraduate Student, Nirma University, India

Abstract

The construction industry remains one of the most hazardous sectors worldwide, contributing disproportionately to occupational injuries and fatalities. This study aims to bridge the persistent gap between academic research and evidence-informed industry practice by evaluating technology-based safety interventions. In this study focuses specifically on automated systems for monitoring compliance with personal protective equipment (PPE) as an example case study. To develop the evidence base this study applies the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) Evidence to Decision (EtD) framework, adapted from public health research, to assess the quality and applicability of current evidence in the context of practical application. This approach helps identify key enabling factors, limitations, and research gaps, particularly concerning effectiveness, cost, and feasibility. The results show that while automated PPE compliance systems show strong potential, findings reveal that the existing evidence base remains limited, especially regarding their real-world applicability and scalability. The review highlights that while automated PPE compliance systems demonstrate promising accuracy levels (88% to 96%), the existing evidence base is fragmented, especially regarding comparative effectiveness, implementation costs, and scalability across varied construction settings. The study concludes that structured research translation frameworks like GRADE EtD can significantly improve evidence-informed decision-making for adopting emerging safety technologies in construction. Moreover, this approach offers a replicable model for accelerating the translation of safety research into practical applications across other high-risk industries.

Data Driven Safety Using Insights from Geofencing

Burge Union (Forum D), August 6, 2025

2:55 - 3:20 p.m.

SIndhu Badugula
Graduate Research Fellow, University of Kansas

Abstract

In high-risk environments such as construction sites and industrial zones, ensuring worker safety is both a regulatory requirement and an ethical imperative. This presentation explores a data-driven approach to enhancing safety through geofencing, a location-based technology that establishes virtual perimeters around hazardous or restricted areas. By leveraging real-time location tracking using Bluetooth Low Energy (BLE) beacons, geofencing systems can monitor personnel movement, and trigger automated alerts to prevent accidents. The presentation also highlights case studies demonstrating how integrating geofencing with machine learning algorithms improves the accuracy of location-based safety interventions. In the end, this data-driven approach helps companies take action before accidents happen, lower the number of safety incidents, and build a stronger, more safety-focused work environment.

3:30 - 3:55 p.m

A Review of Cyber-Physical Systems and Digital Twins Integration for Monitoring in the AEC Industry

Burge Union (Forum D), August 6, 2025

Xiaowei Wang

Postdoctoral Researcher

University of Kansas

Dr. Xiaowei Wang is a postdoctoral researcher at the University of Kansas. Dr. Wang's research focuses on construction safety and ethics, human-robot collaboration, and the integration of emerging technologies, such as drones, BIM, AI, and digital twins, into the architecture, engineering, and construction (AEC) industry. Her work also explores urban development, infrastructure systems, and policy analysis, with a strong emphasis on regulatory frameworks and technology adoption.

Abstract

Although existing monitoring systems partially mitigate various challenges in the Architecture, Engineering, and Construction (AEC) industry, accidents continue to pose a significant threat, resulting in substantial human casualties and economic losses. Based on these challenges, previous studies have highlighted the potential of Cyber-Physical Systems (CPS) and Digital Twins (DT) to enhance monitoring systems by enabling real-time data collection, improving predictive accuracy, and strengthening anomaly detection. However, a systematic understanding of how these technologies can be effectively combined to optimize monitoring in the AEC industry remains limited. To bridge this gap, this study conducts a comprehensive review of CPS-DT integration for monitoring in the AEC sector, exploring current research trends, key applications, and existing challenges. The findings reveal that current CPS and DT applications for monitoring primarily focus on structural health monitoring, safety assessments, and real-time performance evaluation. However, challenges such as network reliability constraints, and energy efficiency limitations significantly hinder their full-scale deployment in dynamic construction environments. Based on these insights, this study identified key future research directions, including the development of efficient predictive models to improve risk assessment, the optimization of real-time data processing architectures to enhance responsiveness, and the improvement of wireless communication infrastructures for seamless data transmission. Addressing these challenges will facilitate the development of intelligent, scalable, and cost-effective monitoring systems, ultimately enhancing safety, efficiency, and sustainability in the AEC industry.

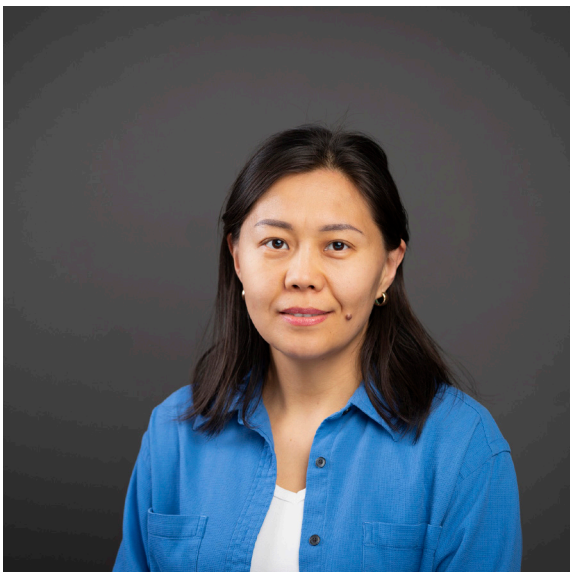
AI-based Safety Training Systems for Construction Workers

3:55-4:20 p.m.

Burge Union (Forum D), August 6, 2025

Akhanova Gulzhanat

Postdoctoral Researcher
University of Kansas



Dr. Gulzhanat Akhanova is a researcher with over 12 years of academic experience, specializing in sustainable development, building sustainability assessment, and construction safety. She has 5 years of industry experience in building condition assessment. Gulzhanat joined the Craig and Diane Martin National Center for Construction Safety at the University of Kansas as a Postdoctoral Researcher in January 2024. Before that, she obtained her PhD in Science, Engineering, and Technology from Nazarbayev University and a Master of Engineering in Civil

Abstract

Construction is the second deadliest industry in the United States, claiming the lives of more than 1,000 workers annually. The workforce is diverse, consisting of non-Hispanic white (57.5%), Hispanic (31.1%), Black (5.1%), Asian (1.8%), and other non-specified workers. When comparing workforce representation with fatality distribution, disparities emerge that raise important questions about access to effective safety training and protection on job sites. Therefore, to improve safety outcomes for all construction workers, it is essential to understand and address the full spectrum of risk factors, ranging from physical job hazards to systematic issues such as limited access to linguistically and culturally appropriate safety training. This research aims to develop training systems for construction workers, enhanced by AI technologies. The presentation will introduce the research idea, highlight current gaps, and outline the core areas the training systems will address. Additionally, the research tasks and broader impacts will be discussed.

4:20 - 4:50 p.m.

WTF PtD?

Burge Union (Forum D), August 6, 2025

Michael Toole

Former Dean of the College of Engineering
University of Toledo

Mike Toole recently retired after a 30-year career as an entrepreneurial and interdisciplinary leader in the military, industry, and academia. Before serving as the Dean of the College of Engineering at the University of Toledo from 2017-2024, he spent 18 years at Bucknell University that included serving as an Associate Dean of Engineering, a Professor of Civil and Environmental Engineering, the Director of the Grand Challenges Scholars Program, and the Director of the Institute for Leadership in Technology and Management. Mike received his B.S. from Bucknell and his master's and Ph.D. from M.I.T. A professional civil engineer (Pennsylvania) and a Fellow in the American Society of Civil Engineers, he initiated and maintains www.designforconstructionsafety.org. His professional employment includes serving five years of active duty as an officer in the U.S. Navy Civil Engineer Corps, management positions with a publicly traded homebuilder and a multidisciplinary engineering firm, and co-founding three startups. He has published on construction safety (especially designing for construction safety), construction innovation, and project management.

Abstract

This presentation will take a critical look at Prevention through Design (PtD) and ask "Why the Floundering (WTF)? There are many good reasons why PtD should have been widely adopted in the US construction industry by now, but there are apparently more powerful reasons why it has not. How many of these hindrance factors will likely hinder the adoption of other construction safety innovations? Are there valid reasons to remain hopeful about PtD in the US construction industry?

Notes

9:10 - 9:40 a.m.

Building the Future of Safety: Integrating AI, Computer Vision, and Wearable Technologies in Construction

Burge Union (Forum D), August 7, 2025

Jay Kim

Associate Professor
Texas A & M University

Jay Kim, PhD is an Associate Professor in the Department of Environmental and Occupational Health in the School of Public Health at Texas A&M University. He received his MS in Industrial and Systems Engineering from the University of Wisconsin-Madison and PhD in Industrial and Systems Engineering from the University of Washington. Before joining the TAMU faculty in 2024, he was an associate professor at Oregon State University. He has extensive research experience in occupational health with his major research focus on occupational ergonomics and biomechanics. He is particularly interested in developing and evaluating evidence-based interventions to reduce physical exposures to reduce occupational injuries and illness and therefore improve workers' health and well-being.

Abstract

The construction industry remains one of the most hazardous sectors, facing persistently high rates of injuries, fatalities, and musculoskeletal disorders. Traditional safety interventions, while valuable, often rely on reactive approaches that fall short in today's fast-paced, complex work environments. This keynote will explore how emerging technologies—particularly artificial intelligence (AI), computer vision, and wearable systems such as exoskeletons—are transforming the landscape of construction safety and occupational health. Drawing on real-world applications and translational research, the talk will highlight innovations that enable real-time hazard detection, predictive injury risk modeling, and biomechanical monitoring to proactively protect workers. Attendees will gain insight into the potential of AI-enhanced video analytics to identify unsafe behaviors, the use of wearable sensors to monitor fatigue and posture, and the role of assistive technologies in mitigating physical strain. The presentation will also address practical considerations for implementation, including data integration, workforce acceptance, and policy implications. By bridging the gap between technological innovation and on-the-ground safety needs, this keynote will present a vision for safer, smarter, and more adaptive construction environments—underscoring the critical role of human-centered design and interdisciplinary collaboration in shaping the future of construction safety.

We Can't Sleep, We Can't Think, We Can't Escape This Noise

Burge Union (Forum D), August 7, 2025

9:40 - 10:20a.m.

Allen Vinyard

Director of the Industrial Safety and Health program, Kansas Department of Labor

Allen Vinyard is the Director of the Industrial Safety and Health Program at the Kansas Department of Labor. He holds a Bachelor of Science in Safety Management from the University of Central Missouri and has over 30 years of experience in occupational safety and health. Throughout his career, he has served as a Safety Consultant for the Kansas Department of Labor, Director of Safety for the Kansas Department of Transportation, and also worked in the private sector with a construction company, gaining well-rounded expertise in both public and private safety practices. Allen is a Professional Member of the American Society of Safety Engineers and has earned the Associate Safety Professional (ASP) designation in 2018 and the Certified Safety Professional (CSP) credential in 2020.

Abstract

Occupational hearing loss is a prevalent and often under-recognized health issue in the construction industry. Due to consistent exposure to high levels of noise from heavy machinery, power tools, and construction activities, workers are at significant risk of developing noise-induced hearing loss (NIHL). This condition is typically gradual, irreversible, and can severely impact communication, safety, and quality of life. Despite the availability of hearing protection devices (HPDs) and regulatory standards, challenges such as inadequate training, poor enforcement of safety measures, and a culture of risk tolerance hinder effective prevention. This paper reviews the causes, risk factors, and health consequences of occupational hearing loss in construction settings. It also explores current preventive strategies and highlights the need for comprehensive hearing conservation programs, regular audiometric testing, and industry-wide awareness to mitigate this critical occupational hazard.

10:20 - 11:00a.m.

Construction Noise: Scope, Impact, and Resources for Worker

Burge Union (Forum D), August 7, 2025

Rick Rinehart

Deputy Director
CPWR – The Center for Construction Research and Training

Rick Rinehart is Deputy Director at CPWR – The Center for Construction Research and Training. He holds a doctorate in occupational health and a master's in industrial hygiene from the Harvard School of Public Health. He has worked at NIOSH, where he helped launch the Prevention through Design Initiative, and served as an epidemiologist in OSHA's Directorate of Construction. Rick is currently the Principal Investigator of the CPWR Building Trades National Medical Screening Program (BTMed), which provides free medical screening exams to former construction workers from Department of Energy nuclear weapons sites. He has also consulted internationally on child labor and on improving occupational safety and health in small enterprises.

Abstract

Noise exposure is a widespread yet often overlooked hazard in the construction industry. This presentation will examine the scope of the issue and the health impacts of chronic noise exposure, with a focus on Noise-Induced Hearing Loss and emerging research linking hearing loss to dementia and increased mortality risk. Attendees will also be introduced to a suite of free, practical resources, including training programs, toolbox talks, and hazard alerts, along with guidance on where to access these tools to support noise hazard prevention and promote safer, healthier job sites.

Infection Prevention and Healthcare Construction Principles

Burge Union (Forum D), August 7, 2025

11:10 - 11:50a.m.

Michael Buck

Health and Safety Compliance Specialist
University of Minnesota

Michael Buck is a Health and Safety Compliance Specialist with the University of Minnesota Department of Health, Safety, and Risk Management. He is responsible for IAQ investigations throughout the University System. Mr. Buck is a member of the Hospital Infection Control committee for the UMMC MHealth Fairview system. He is the auditor for the asbestos, lead, and mercury programs. Mr. Buck supports UMMC providing IAQ expertise and environmental microbiological sampling. Mr. Buck is author of the APIC Infection Prevention Manual for Construction and Renovation, Chapter 5: Air Monitoring for Quality Evaluation in Healthcare. Mr. Buck has been a healthcare consultant for over 25 years. His current research interests involve water quality, energy management, and validation of air and water safety related to infection prevention in healthcare facilities.

Abstract

This presentation reviews the principles of health care construction in relation to infection prevention safety principles. New monitoring technology and a detailed review of safety principles and how to interpret environmental monitoring data will be discussed. Attendees will gain an understanding of health care construction related to infection prevention principles.

11:50 - 12:30p.m.

ICRA 2.0: Dissecting the Changes and How to Apply the Changes

Burge Union (Forum D), August 7, 2025

Leon Young

Network Infection Manager
Facilities and Construction, Allegheny Health Network

Leon Young, BS, MLS(ASCP), CIC, has been practicing infection Prevention for over 15 years. Leon is a subject matter expert regarding the relationship between patient safety and healthcare construction/maintenance activities. As a leader in the field, Leon has managed many complex projects including several hospital demolitions and a multi-phased demolition and renovation of a 3-winged transplant intensive care unit. He has been a contributing editor for the Joint Commission and has presented nationally on healthcare construction topics and measures.

Abstract

Infection Control Risk Assessment (ICRA) for healthcare construction is a critical concept for healthcare construction contractors and Infection Prevention professionals. With the recent ASHE driven improvements to the original ICRA navigating those changes can be challenging. This presentation aims to define the changes and additions to ICRA 2.0 with explanation and colorful examples from the construction site.

Respiratory Protection

Burge Union (Forum D), August 7, 2025

1:30 - 2:10 p.m.

Gladys Keino

Assistant Area Director
US Department of Labor, OSHA

Gladys Keino serves as the Assistant Area Director for the Wichita Area Office of the Occupational Safety and Health Administration (OSHA). With seven years of dedicated service at OSHA, Gladys is passionate about public service and believes in the interconnectedness of communities, emphasizing that her work is driven by her commitment to serve. She is a Certified Industrial Hygienist (CIH), Certified Safety Professional (CSP), and a current PhD candidate in the field of occupational health, bringing a wealth of expertise and knowledge to her role. Gladys is fortunate to contribute to the safety and well-being of others through her work and is committed to fostering a safer workplace for all.

Abstract

The Occupational Safety and Health Administration (OSHA) plays a crucial role in ensuring the safety and health of workers across various industries, including construction. This presentation highlights the fundamental components of OSHA's Respiratory Protection Standard, 29 CFR 1910.134, which addresses the requirements for implementing effective respiratory protection programs. Key topics include the hierarchy of controls for air contaminants, the selection and use of appropriate respirators, mandatory medical evaluations, fit testing protocols, training requirements, and maintenance of respiratory equipment. This overview aims to enhance understanding of the standard's implications for workplace safety, emphasizing the responsibility of employers in safeguarding employee health and complying with regulatory requirements. By fostering a thorough comprehension of these critical safety measures, we aim to promote a culture of safety and health in construction and related industries. Attendees are encouraged to explore OSHA's comprehensive resources for further insights into effective respiratory protection practices.

2:10-2:50 p.m.

Occupational Respiratory Health Protection

Burge Union (Forum D), August 7, 2025

Georgi Popov

Professor and Chair
Occupational Risk and Safety Sciences Department, University of Central Missouri

Georgi Popov, Ph.D., CSP, QEP, SMS, ARM, CMC, FASSP,FAIHA is the chair of Occupational Risk and Safety Sciences at UCM. Popov holds a Ph.D. from the National Scientific Board, an M.S. in Nuclear Physics from Defense University in Bulgaria and a post-graduate certification in environmental air quality. He graduated from the U.S. Army Command and General Staff College in Fort Leavenworth, KS. For his service with the United Nations mission in Cambodia he was awarded a UN medal. Popov is the chair of ANSI/ASSP Z590.3, vice chair of ISO 31000 U.S. TAG, a professional member of ASSP's Heart of America Chapter and a member of the Society's Risk Management/Insurance Practice Specialty. In 2017, Dr. Popov received ASSP's Outstanding Safety Educator Award. He is coauthor of Assessing and Managing Risk - An ERM Perspective; Risk Management Tools for Safety Professionals; and Risk Assessment - A Practical Guide to Assessing Operational Risk. In 2022 Dr. Popov was awarded the NIOSH Prevention through Design Pioneer award.

Abstract

This presentation will cover common respiratory protection issues in the construction industry. Some of the main contaminants of concern include total suspended particulates (Total Dust), silica dust, asbestos, lead, hexavalent chromium, mold spores, and bacteria. Respiratory protection program requirements will be discussed. Strategies like when to use and when not to use respiratory protection will be covered. The presenter will offer some ideas for common strategies to reduce exposure risk. Practical examples and some myths and realities will be discussed.

The Importance of Workforce Voices: Evaluating Musculoskeletal Disorder Prevention in Construction

Burge Union (Forum D), August 7, 2025

3:00 - 3:40 p.m.

Paige DeBaylo

Director of MSD Solutions Lab
National Safety Council

Paige DeBaylo is the director of the National Safety Council MSD Solutions Lab. DeBaylo leads the Lab's efforts to advance accessible, practical and novel research related to emerging issues in the musculoskeletal disorders prevention space, including how workforce characteristics impact MSDs; assessing lesser-known MSD risk factors, like psychosocial and organizational factors; technologies for MSD prevention; and real-world MSD solution pilots featured in case studies.
She brings deep expertise in quantitative and qualitative research methods, program evaluation, systematic literature reviews and meta-analyses, and survey development and validation. She has edited, reviewed and published occupational health, workplace stress, developmental psychology, and scale development and validation-related research papers in leading academic journals. She has also presented her work at national conferences. DeBaylo holds a Ph.D. in industrial and organizational psychology from Auburn University, where she studied workplace stress and work-life balance.

Abstract

Frontline workers (FLWs) are the first to experience the impact of musculoskeletal disorders (MSDs), yet their voices remain largely absent from MSD prevention strategies. A targeted online survey of 1,000 FLWs across diverse industries, including the construction industry, explored three areas: risk reduction, safety culture, and innovation and collaboration efforts of their workplaces. The presentation emphasizes the importance of aligning leadership intentions with construction worker realities through structured, collaborative approaches.

Transitioning Your Workforce to a Better Ergonomic Mindset

Burge Union (Forum D), August 7, 2025

3:40 - 4:20 p.m.

Justin Azbill

Chief Servant Leader

The Tribal Group LLC

Mr. Azbill was serving in the construction industry as a leader that advocates for the good of trade professionals has been Mr. Azbill's career mindset. He has built a career reputation as an Operational and Thought Leader that understands the importance of leveraging vulnerability and experience to gain buy-in. Mr. Azbill has over 30 years of experience in Leadership and Safety/Risk Management, having held key management positions with Kiewit Power, Suffolk Construction, Cannistraro, Callahan Construction, and Milwaukee Tool. Throughout his career, Mr. Azbill has created a successful reputation by leveraging a collaborative leadership style which has helped him achieve consistent industry-leading results and build successful partnerships that continue to impact the construction industry. Mr. Azbill has advocated for Trade Professional Health and Wellness through a "Do What's Right" leadership style, zeroing in on the importance of having simple conversations. Mr. Azbill has led companies to noticeable safety improvements and increased engagement in incident prevention, fostering a positive safety culture. Evident through his reduction of claims, incidents, and lost time, as well as increased involvement of subcontractor engagement, he has been honored with notable awards including the OSHA VPPP Star award in 2012.

Abstract

One of the top risk's associated with the industry is ergonomic and repetitive stress injuries. This presentation leverages data driven processes to help change the mindset of Trade Professionals when choosing between manual vs. cordless tool usage. Human Performance begins with identifying operational rhythm methods that focus on reducing fatigue to the Trade professional. Showcasing how using technology within innovational tools to maximize occupational health, maximize ease of use, and maintain productivity is the focus of this presentation. Showing the impact of understanding ergonomic values using EMG screens that measure fatigue rates. A presentation that will show you firsthand how going from manual handle force to cordless technology can improve your teams Human Performance and ergonomic mindset. This presentation will show the difference between the use of manual handheld tools vs cordless tools with technology built into the innovation that programs a tool to be a better ergonomic solution that improves human performance. Presentation on the ergonomic design of tools - selection processes gaining a better understanding for trade professionals to use during operations that add value to human performance. Review of time studies that indicate planning, training, and administrative controls improve ergonomic exposures and production.

Notes

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