# **2023 Construction Safety Conference Brochure**



# School of Engineering, University of Kansas The National Center for Construction Safety

Chien-Ho Ko and Samyoga Bhattarai

August 9-10, 2023 | Burge Union, KU























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### **Emergency Procedures: Burge Union**

Date: 08.09.2023 and 08.10.2023

An emergency is a situation that poses an immediate risk to health, life, property, or the environment. Emergencies catapult us out of our routine operations.

In the event of an emergency that requires an evacuation from the union, you will hear the fire alarms ring. This indicates that you must leave the building. The following evacuation procedures will help us react in an organized manner.

#### Things to remember:

- In the event of a fire, do not use the elevators.
- Fire extinguishers and fire alarm pulls are located throughout the forums in the Burge Union; see the maps below for their exact locations.
- In the maps below, red arrows indicate emergency exits.
- Use the first route for evacuation. If the first route is blocked, use the second route.
- Emergency exits, fire extinguishers, and fire alarm pulls in the Archives are accessible.
- After evacuating the forums, report to the designated assembly area.
- Stay in your designated outdoor assembly area for a head count.
- Report any missing individuals and last known locations to emergency responders.
- Notify emergency responders about sensitive research, operating equipment, animals left in buildings, etc.
- Wait for instructions from emergency responders

#### **MEDICAL EMERGENCY**

Lawrence Memorial Hospital is the premiere health care provider for the residents of Douglas County. It is located approximately 2.5 miles from LEEP2 via Iowa St. at the following address:

#### 325 Maine Street, Lawrence, Kansas 66044

The hospital has an emergency room and can be reached at (785) 505-5000

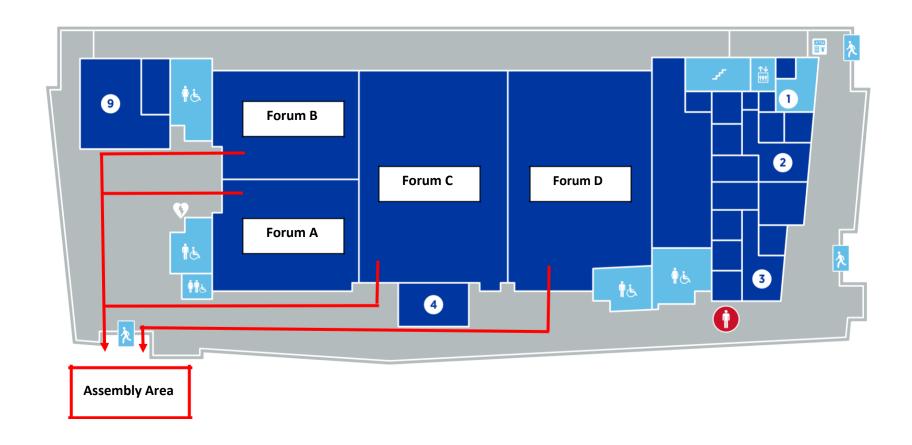
#### **KU'S POLICE DEPARTMENT**

The KU patrol unit delivers most of the required police services to the KU community. Police Officers are on duty 24 hours a day, seven days a week.

#### Public Safety Bldg, 1501 Crestline Dr, Lawrence, KS 66045

The department can be contacted at (785) 864-5900 for non-emergency questions, services, and information. For police, fire, or medical emergency response, call **911**.

# The Burge Union Building Directory





### **2023 Construction Safety Conference**

### School of Engineering, University of Kansas The National Center for Construction Safety

Venue: Burge Union, KU (Address: 1565 Irving Hill Rd, Lawrence, KS 66045)

# Agenda

### 09 August 2023 (Wednesday)

Time	Event
18:30 to 21:00	Forum D
Cocktail & Welcome	Chair: Craig Martin
Dinner	Keynote speaker: Ross Myers, CEO of Allan Myers

### 10 August 2023 (Thursday)

Time	Event	
08:30-09:00	Forum C	
Breakfast		
	Forum D	
09:00-09:30	Chair: Chris Miller	
Keynote speech		
	Keynote Speaker: <u>Carlos Bertha</u> (US Air Force Academy)	
	Forum A: Transportation Safety	
09:40-11:00	Chair: <u>Brian Lines</u>	Forum B: Safety Culture and Awareness
Industry sessions	Speaker 1: Troy R Whitworth (KDOT)	Chair: Ahmed Al-Bayati
	Speaker 2: Nick Rogers (KDOT)	

		Speaker 1: Mike Schneider (Baker Concrete)
		Speaker 2: Tanner Funk (KUMC)
	Forum A: Hazard Identification	Forum B: Incident and Injury
	Chair: Joe Podrebarac	Free
11:10-12:30	Paper ID 9: Awwad J Dababneh (UOJ)	Chair: Omar Maali
Academic sessions	Paper ID 14: <u>Vimlesh Prabhu Desai</u> (NICMAR)	Speaker 1: <u>Jack Toellner</u> (Toellner)
	Paper ID 15: <u>Dilip A. Patel (SVNIT)</u>	Speaker 2: <u>Jay Greenspan (JMJ)</u>
12:30-13:30	Forum C	
Lunch	Forum C	
	Forum A: Best Practices I	Forum B: Best Practices II
13:30-14:50	Chair: Omar Maali	Chair: Dilip Patel
Industry sessions	Speaker 1: William Hayden (UB)	Speaker 1: John Smith (Alberici)
·	Speaker 2: Jim Wright (Terracon)	Speaker 2: <u>Todd Underwood</u> (OSHA)
	Forum A: Mental Health	Forum B: Safety Management
	Chair: Dilip Patel	Chair: Ahmed Al-Bayati
15:00-16:20 Academic sessions	Paper ID 23: <u>Muhammad Kamran</u> (UW)	Speaker: Allen Vinyard (KDOL)
Academic sessions	Paper ID 25: <u>James O. Kereri</u> (Mizzou)	Paper ID 13: <u>Chukwuma Nnaji</u>
	Paper ID 26: <u>Billy J Hare</u> (GCU)	Paper ID 19: <u>Ibukun Awolusi</u>
16:20-17:00	Forum C	
Social Hour/Networking		

### **Keynote Speakers**

#### **Carlos Bertha**

CSC2023 Keynote Speaker

Presentation Topic: Ethics for Construction Safety Professionals
Professor, Department of Philosophy, United States Air Force Academy



- Grew up in Caracas, Venezuela
- Bs in Mechanical engineering, University of South Florida (1989)
- Worked at the US Army Corps of Engineers, Savannah District
- Ph.D. in philosophy, USF (2000)
- Professor of philosophy, US Air Force Academy
- Teach Ethics, Philosophy of Science, Comparative Religion, etc.
- Member of ASCE's Committee for Anti- Corruption and Ethical Practice
- Colonel (Ret.), US Army, Corps of Engineers
- Combat tour in Afghanistan with USACE

### **Session Chairs**

### **Ahmed Al- Bayati**

CSC2023 Session Chair
Assistant Professor, Department of Civil and Architectural Engineering,
Lawrence Technological University



### **Biography**

Dr. Al-Bayati is the founding director of the Construction Safety Research Center (CSRC) and an assistant professor in the Department of Civil and Architectural Engineering. He actively researches in the field of construction safety, specializing in safety climate and safety culture to improve the overall site safety and construction process optimization to minimize subsurface utility strikes. He uses a variety of qualitative and quantitative data collection, data analysis, and data mining methods. Dr. Al-Bayati's research findings have been published in the American Society of Civil Engineers' (ASCE) Journal of Construction Engineering and Management, ASCE's Practice Periodical on Structural Design and Construction, National Safety Council's (NSC) Journal of Safety Research, and the American Society of Safety Professionals' (ASSP) Professional Safety Journal. Dr. Al-Bayati serves on many local and national committees. Dr. Al-Bayati has more than ten years of experience in the construction industry working in diverse areas of the field, from safety coordinator to site engineer. He is a certified professional engineer (PE) in Michigan, an OSHA-authorized trainer, and an Associate DBIA certified.

#### **Brian Lines**

CSC2023 Session Chair
Associate Professor, Department of Civil, Environmental & Architectural Engineering



### **Biography**

Dr. Lines is an assistant professor in Construction Management in the Civil, Environmental & Architectural Engineering Department (CEAE) in the School of Engineering at the University of Kansas. He specializes in alternative procurement, competitive proposal preparation, alternative contracting methods, risk management, project delivery, and performance measurement. He has extensive experience on the owner side (procurement & operations) of design/engineering, construction, facilities, and non-construction projects valued at more than \$989 million. In addition to all types of design and construction project delivery, he has led project efforts in IT (software & analysis) and business services (book store services, travel management, purchase cards, etc.). Brian possesses a Bachelor of Science degree in Chemical Engineering and a Masters and PhD in Construction Management, all from Arizona State University. He also holds a Facility Management Professional (FMP) designation and is active in continuing education seminars/short courses for professionals internationally.

#### **Chris Miller**

CSC2023 Session Chair President, Biopharma and Life Sciences Global Business Unit



- Graduated from the University of Texas San Antonio with a Master of Science Degree in Civil Engineering.
- Graduated from Executive Global Leadership Program at Thunderbird University and the Executive Leadership Program at the University of Michigan Ross School of Business.
- Highly motivated and experienced executive skilled in orchestrating strategy and operations for global business units, with focused subject matter expertise in consulting, engineering, construction, logistics, operations and maintenance, and program management across a variety of markets with accountability of delivering projects in 37 countries.
- Served in Chief Operating Officer, Chief Delivery Officer and Global Business Unit President roles with Exyte, APTIM, Granite Construction, CH2M HILL, Jacobs and Montgomery Watson Harza with profit and loss responsibility of businesses from \$600M to \$3B in revenue, with special emphasis on company turnarounds and rapid growth environments.
- Maintains a reputation for world-class safety performance and serves as a member of the CEO Construction Incident and Injury-Free Safety Executive Roundtable.
- Served as Captain, United States Air Force in varying roles from Environmental Clean-up Program Management to Aircrew Member Nuclear, Biological and Chemical protection systems.

### **Craig Martin**

CSC2023 Session Chair Director at Terracon



- Chief Executive Offer (CEO) and President of Jacobs Engineering Group (retired)
- Member of the National Academy of Construction (NAC)
- A Leadership Fellow of the National Association of Corporate Directors (NACD)
- Carroll H. Dunn Award of Excellence from the Construction Industry Institute
- Legacy Award Winner for Southern California by Engineering News-Record

### Dilip A. Patel

CSC2023 Session Chair

Associate Professor, Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology, India



- Educational Qualifications:BE (Civil Engineering), MTech (Construction Project Management), LLB (General Laws), PhD.
- Safety Champion (Royal Academy of Engineering UK), Scaffold Trainer (STI, Texas USA); Lead Auditor (OHSMS); Road Safety Auditor (MoRTH & IRC India)
- Associate Professor in the Department of Civil Engineering at S.V. National Institute of Technology Surat (India), and Adjunct Faculty, IIT Gandhinagar (India)
- Experiences: Industry:02 yrs; Academic & Research:18 yrs
- Research Interest Areas: Construction Safety and Health, Project Management, Resilience Infrastructure, Sustainable and Lean Construction, Digital Technology, Construction Law, Heritage Conservation
- PhD Theses Guided: 04; M Tech Dissertations Guided:40
- Book Published: Construction Safety Management (2022-Pearson Education Services India)
- Reputed Journal Papers: 30; International and National Conference Papers: 60; Book Chapters: 05
- Research Projects: 05 & Fellowship Awarded: 05
- A member of the technical expert group of Coalition Disaster Resilience Infrastructure (CDRI)
- Secretary, Indian Building Congress (IBC), Surat Chapter

### **Omar Maali**

CSC2023 Session Chair Senior Project Engineer, Municipal Services and Operations, City of Lawrence

## **Biography**

Dr. Omar Maali research interests includes utilizing information technology for safety and organizational change management. Dr. Omar Maali got his PhD at The University of Kansas.

### **Speakers**

### **Allen Vinyard**

CSC2023 Speaker

Presentation Topic: Safety help and where to find it

Director of Industrial Safety and Health at Kansas Department

of Labor



### **Biography**

Allen Vinyard is the Director of the Industrial Safety and Health program within the Kansas Department of Labor. Allen is a graduate of the University of Central Missouri with a Bachelor of Science in Safety Management. In his 30-year career, he has worked with the Kansas Department of Labor as a Safety Consultant, was the Director of Safety for the Kansas Department of Transportation, as well as time spent working for a private construction company. He is a Professional Member of the American Society of Safety Engineers. Allen obtained his ASP in 2018 and his CSP in 2020.

#### **Jack Toellner**

CSC2023 Speaker

Presentation Topic: Preparing Today's Undergraduates and Early Career Professionals to Lead Safety Tomorrow - Challenges and Potential Solutions



- Graduate of Texas A&M University w/degree in Civil Engineering.
- Graduate of Tulane University w/MPH in Occupational and Safety Management.
- Diversified experience in construction, engineering, SH&E, and management; retired executive with ExxonMobil w/37+ years of service.
- Registered Professional Engineer (P.E.) with State of Texas.
- Certified Safety Professional (CSP).
- Recognized expert in SH&E management planning/ execution and public speaking. Worked in 30+ countries with 100+ project teams and clients, including multiple government agencies

### Jay Greenspan

CSC2023 Speaker
Presentation Topic: Causing a Breakthrough in Safety
Performance
Co-founder at JMJ



- Jay Greenspan co-founded JMJ in 1987
- Jay worked in more than 60 countries, delivering JMJ's management methodology under vastly differing multicultural circumstances
- He has worked with many of the world's largest companies, including Intel, BP, Jacobs Engineering, Anglo American, Chevron, Skanska, Rio Tinto, and Boeing
- He currently chairs a CEO Forum for 18 US-based construction firms who share best practices with one another
- He has delivered in chemical plants, construction sites, computer chip plants, mining operations, off-shore drilling rigs, and numerous other locales
- Jay was COO of The Hunger Project, an NGO committed to the sustainable end of hunger, with a core focus on the empowerment of women
- Jay's first career was as a teacher and then principal at an inner-city high school in America

#### **John Smith**

CSC2023 Speaker

Presentation Topic: Changes- Implementing Safety Initiatives

Vice President & Market Leader, Energy & Industrials and Renewables at Alberici



### **Biography**

As Vice President & Market Leader, Energy & Industrials and Renewables at Alberici, John Smith leads the Energy & Industrials and Renewables markets and our Integrated Project Support Services. Having worked for Alberici for the past sixteen years across multiple service lines and geographic regions, John brings a broad background of construction experience. Prior to Alberici, he spent ten years with a nationally recognized engineering firm that provided him with valuable experience that allows him to provide great insight and contributions to our design-build and EPC projects.

John has a bachelor's and master's degree in civil engineering from Missouri University of Science & Technology. He serves on the Board of Trustees at Missouri University of Science & Technology and is the chair of their Career Development Council. He also serves on the Board of Directors for the Missouri Consortium for Construction Innovation (MO-CCI) and the National Center for Construction Safety at the University of Kansas.

John and his wife, Alicia, live in Edwardsville, IL and have three sons, Kyle, Ryan and Drew. They enjoy spending time with their sons many sporting activities.

### Jim Wright

#### CSC2023 Speaker

Presentation topic: Terracon – a Case Study in Safety Culture Director of Environmental, Health, Safety, and Security / Senior Principal for Terracon Consultants, Olathe, Kansas



- Bachelor's degree, Chemistry and Master's, Industrial Hygiene
- Began a career in the drilling industry in 1991 as a project safety officer for safety and environmental monitoring on Superfund sites for an international drilling contractor.
   This work took him to some of the most highly contaminated sites in the United States.
- Career evolved into managing all aspects of safety, health, environment, and fleet management for worldwide drilling operations. Jim has designed and implemented world class safety systems for drilling operations in the US, Africa, Australia, Mexico, Canada, and South America.
- MSHA-certified underground and surface mining instructor; American Red Cross-certified infant, child, and adult first aid / CPR instructor; OSHA-approved 10- and 30hour construction safety trainer; and performance, offroad, and Smith SystemÒ driving instructor.
- Currently sits on the National Drilling Association Safety Committee and held past positions as Chairperson / Member on the National Groundwater Association's Professional Development, Safety Subcommittee.
- 2012 Safety Advocate Award by the National Groundwater Association.

#### Mike Schneider

CSC2023 Speaker

Presentation Topic: Creating a Safety Culture of Care and Concern VP, CPO at Baker Concrete Construction



### **Biography**

Mike grew up on the West side of Cincinnati, and then went on to obtain a BS in personnel management from Miami University (Ohio) and a BS in construction management from the University of Cincinnati. He began his career at Baker Concrete in 1978 as a Project Manager and currently serves as Sr. VP and Chief People Officer. Mike is the past President of the American Society of Concrete Contractors (ASCC), and the American Concrete Institute (ACI).

### **Nick Rogers**

CSC2023 Speaker

Presentation topic: Worker Protection in Work Zones Kansas Department of Transportation



- Graduate of the Colorado School of Mines with a degree in Engineering Civil Engineering Specialty.
- Licensed Professional Engineer (P.E.) in Kansas.
- Over 20 years serving the citizens of Kansas with the Kansas Department of Transportation.
- Worked as an Inspector on highway construction projects for 7 years.
- Worked as a Construction Engineer for 11 years.
- Currently working as KDOT's Senior Traffic Control Engineer since 2021.

#### **Tanner Funk**

CSC2023 Speaker

Presentation Topic: QPR Suicide Prevention

Education Specialist, Nursing Practice, Research, and Professional

Development

Clinical Assistant Professor, University of Kansas School of Nursing



- Dr. Tanner Funk DNP, RN graduated with his Bachelor of Science in nursing from the University of Kansas in 2004
- Master of Science in nursing from the Research College of Nursing in 2008
- Doctor of Nursing Practice from Capella University in 2020
- Education Specialist at The University of Kansas Health System in Kansas City, Kansas.
- Clinical Assistant Professor of Nursing at The University of Kansas School of Nursing where he is a mental health clinical instructor and teaches both leadership and Capstone nursing courses.
- Diversified experience in the areas of nursing education, staff education, infection control, employee health, performance improvement, and leadership.

#### **Todd Underwood**

CSC2023 Speaker Area Director, Occupational Safety and Health Administration, Wichita Area Office



- Graduate of Southwestern College w/degree in Human Resources
- Graduate of Columbia Southern w/MS in Occupational Safety and Health
- Retired safety professional with US Air Force in Occupational Safety and Health w/21+ years
- Ground safety manager with Hawker/Beechcraft
- OSHA Wichita Area Office Area Director w/14 year (Compliance Officer/Auditor/Assistant Area Director)

### **Troy R Whitworth**

CSC2023 Speaker

Presentation Topic: Organizational Safety Update

Director of Safety at Kansas Department of Transportation

### **Biography**



Troy Whitworth is the Director of Employee Safety for KDOT. He is a Certified Public Manager. He has served in many positions during his 35-year tenure with KDOT. As the Director of Safety, he has championed enhancing situational awareness through educational emails, articles, and videos. Before beginning this position, he was Assistant to the Director of Operations where he managed the Operations budget and provided guidance and support to the Districts and Bureaus. He spent several years, prior to that, working for the Bureau of Construction and Maintenance as a staff maintenance manager overseeing the RWIS program and developing comprehensive training for employees. During this time, he also participated in several Multi-State Pooled Fund Study groups to enhance and share information across the nation. He spent his first 20 years working in the KC Metro Area in Maintenance.

### **Paper Presenters**

#### Awwad J. Dababneh

CSC2023 Paper Presenter
Presentation Topic: "Failure is Inevitable, Injury is Preventable" A
Proposed Cognitive Model for Teaching and Training in
Occupational Safety and Health
The University of Jordan



### **Biography**

Dr. Dababneh holds a Ph.D. in Industrial Engineering from the University of Cincinnati, 1997, and has 25years of experience as a safety instructor and trainer. He attained several professional certifications including Certified Safety Professional, Certified Professional Ergonomist, and Authorized OSHA Trainer. He taught at many Universities in the USA and abroad, and worked for Texas Instruments, Inc., GE Oil & Gas, NIOSH, and Nuqul Group. He is tenured Associated Professor at the University of Jordan, Amman, Jordan.

### Billy J. Hare

CSC2023 Paper Presenter

Presentation Topic: Suicides among construction occupations in the UK: being poor is not good for your mental health Deputy Director BEAM Research Centre, School of Computing Engineering & Built Environment, Glasgow Caledonian University



### **Biography**

Professor of Construction Management; joined GCU in 2002, after a career in construction contracting; delivered research on several HSE, IOSH, EPSRC, CITB and industry funded projects totalling over £1m; 50+ peer-reviewed publications and Impact Case Studies for the UK Research Excellence Framework; research portfolio is focused on improving safety health and wellbeing within the construction industry; currently International Coordinator of the 'International Council for Research and Innovation in Building and Construction' Safety Health and Wellbeing Working Group; expert commentary is often sought by the media, including the BBC.

#### Dilip A. Patel

CSC2023 Paper Presenter

Presentation Topic: Construction Hazards Identification using Natural Language Processing

Associate Professor, Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology, India

- Educational Qualifications:BE (Civil Engineering), MTech (Construction Project Management), LLB (General Laws), PhD.
- Safety Champion (Royal Academy of Engineering UK), Scaffold Trainer (STI, Texas USA); Lead Auditor (OHSMS); Road Safety Auditor (MoRTH & IRC India)
- Associate Professor in the Department of Civil Engineering at S.V. National Institute of Technology Surat (India), and Adjunct Faculty, IIT Gandhinagar (India)
- Experiences: Industry:02 yrs; Academic & Research:18 yrs
- Research Interest Areas: Construction Safety and Health, Project Management, Resilience Infrastructure, Sustainable and Lean Construction, Digital Technology, Construction Law, Heritage Conservation
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- Research Projects: 05 & Fellowship Awarded: 05
- A member of the technical expert group of Coalition Disaster Resilience Infrastructure (CDRI)
- Secretary, Indian Building Congress (IBC), Surat Chapter

#### **Ibukun Awolusi**

CSC2023 Paper Presenter

Presentation Topic: Effects of Heat Stress Prevention Training on

the Knowledge of Construction Students

Assistant Professor, The University of Texas at San Antonio



### **Biography**

Dr. Ibukun Gabriel Awolusi is an Assistant Professor in the School of Civil & Environmental Engineering, and Construction Management at The University of Texas at San Antonio (UTSA). He holds a Ph.D. and an M.S. in Civil Engineering from The University of Alabama (UA), an M.Sc. in Construction Management (with Distinction) and a B.S. in Building (with First Class Honors) from the University of Lagos.

Before joining academia, Dr. Awolusi worked in the construction industry for several years, where he managed the construction of various building and infrastructure projects. Dr. Awolusi currently conducts research in the areas of construction safety and health, safety in manufacturing, innovation and technology integration in construction, construction education, and workforce development. He has published and presented numerous research articles in top-tier peer-reviewed journals and notable international conferences.

#### James O. Kereri

CSC2023 Paper Presenter

Presentation Topic: The Impact of Ageism on the Mental and Physical Health of Construction Workforce University of Missouri



### **Biography**

James Ogechi Kereri holds a Ph.D. in Engineering Science with a concentration in Construction Management. Dr. Kereri is an assistant teaching professor at the University of Missouri. James has previously worked as a construction manager with a five-year record of success overseeing all phases of multimillion-dollar construction of residential and commercial, as well as infrastructure and environmental projects for government and private-sector clients. Dr. Kereri's research interests are in relationship management, relational contracting, construction project team behaviors, relationship quality, and labor issues including safety and other emerging workforce related topics.

### **Muhammad Kamran**

CSC2023 Paper Presenter

Presentation Topic: Improving Safety in Small Modular Reactor (SMR) and Microreactor (MR) Construction: Enhancing Guidelines and Leveraging Digital Technology Tools University of Wyoming



### **Biography**

Graduate Research Assistant in the Department of Civil and Architectural Engineering and Construction Management at University of Wyoming, United States

Experienced in both construction industry and research field specifically in construction safety domain.

Registered Professional Engineer (P.E.) with Pakistan Engineering Council (PEC)

#### Vimlesh Prabhu Desai

CSC2023 Paper Presenter

Presentation Topic: Women Professionals in Construction Industry- Barriers and Approaches to Improve Wellbeing, Safety and Health

Sr. Associate Professor, National Institute of Construction Management and Research, Hyderabad, India



- Graduate of Goa Engineering College, India w/ degree in Electronics & Telecommunications
- MBA in General Management, Goa University
- PhD in Public Private Partnership from Pune University, India
- Rich and diversified experience in corporate (20 years) and academia (11 years)
- Advisor to top management on strategic transformations, process improvement, growth opportunities, and managing change
- Held senior-level positions across sectors such as Mining, Power, Highways, and Construction
- Certified SAP consultant in Supply Chain Management -Procurement

### Contact

Chien-Ho Ko, Ph.D., P.E

Research Professor

Director of the Craig and Diane Martin National Center for Construction Safety Department of Civil, Environmental & Architectural Engineering University of Kansas

nccs@ku.edu

(785) 864-0215

For police, fire, or medical emergency response, call **911.**