



**Concrete Conference**  
Codes, Standards &  
Best Practices

Riyadh, Saudi Arabia  
28-29 November 2023

# PROGRAM BOOK



American Concrete Institute  
*Always advancing*



المواصفات السعودية  
Saudi Standards

اللجنة الوطنية لكود البناء السعودي  
Saudi Building Code National Committee



جمعية الخرسانة والإنشاء  
Concrete and Construction Association



## ABOUT AMERICAN CONCRETE INSTITUTE (ACI)

*Always advancing*—ACI is a leading global authority for the development, dissemination, and adoption of its consensus-based standards; technical resources; and educational, training, and certification programs. Founded in 1904, ACI is headquartered in Farmington Hills, MI, USA, with a regional office in Dubai, UAE, and Resource Centers in Southern California, Chicago/Midwest, and Mid-Atlantic. ACI has over 94 Chapters, 244 Student Chapters, and 30,000 members spanning over 120 countries.

## ACI MEMBERSHIP

ACI membership means knowledge! Through annual subscriptions, ACI members now have free access to all ACI University webinars and on-demand courses, plus unlimited access to the Institute's 200+ practices (including all ACI guides and reports) and symposium volumes. With 30,000 members in more than 100 countries, ACI is the premier global community dedicated to the best use of concrete. With enhanced benefits, ACI membership provides information on engineering and construction practices worldwide and allows you chance to save time and money while increasing your productivity and competitiveness.

## ABOUT CONCRETE INTERNATIONAL (CI)

*CI* is the magazine of the concrete community, published monthly by ACI.

*CI's* circulation is concentrated among professionals in the concrete field—the engineers, architects, contractors, manufacturers, researchers, and technicians largely responsible for the advancement of concrete technology and practice. These professionals collaborate in preparing ACI codes, standards, and guides that define the essential requirements for all types of concrete structures.

## ACI CONCRETE CONVENTION

The ACI Concrete Convention, held twice a year, is dedicated to improving the design, construction, maintenance, and repair of concrete structures. The Convention provides a forum for networking and education and the opportunity to provide input on concrete industry codes, specifications, and guides.

## ABOUT THE CONFERENCE

ACI-MEC 2023 will feature leading local and international experts sharing their knowledge on topics such as new and existing concrete structures, codes and standards, innovation, new technologies and sustainability in building codes, ACI resources on concrete best practices, and more.

The conference will highlight the role of codes and standards in developing and exploring new technical solutions and technologies that are essential to meeting the demands of a changing world and tackling modern challenges in the concrete construction industry.

ACI-MEC 2023 will host special sessions on ACI resources on nonmetallic materials in collaboration with NEx: An ACI Center of Excellence for Nonmetallic Building Materials. The sessions will include an introduction to the newly released ACI CODE-440.11-22, "Building Code Requirements for Structural Concrete Reinforced with Glass Fiber-Reinforced Polymer (GFRP) Bars—Code and Commentary," delivered by Antonio Nanni, ACI President.

A special panel discussion will be held in collaboration with PRO: An ACI Center of Excellence for Advancing Productivity to discuss topics including identifying issues that negatively impact productivity in concrete construction, the role of innovation, technologies and processes that improve concrete construction productivity, the role of structural engineers in improving constructability and productivity in the industry, and more.

## CONFERENCE OBJECTIVES

- Provide a forum for the development and advancement of ACI codes and standards.
- Discuss the challenges and difficulties of implementing emerging technologies in the concrete industry.
- Introduce the latest codes and standards issued by ACI.
- Provide a place where students can meet industry professionals and discuss the latest technological advancements.
- Discuss international implementations of concrete best practices to deliver high-quality projects.
- Highlight efforts behind ACI consensus-based resources.
- Support local research initiatives on sustainability advancement.

## SPEAKERS AND GUESTS

Please visit [www.aci-mec.com](http://www.aci-mec.com) to view the list of speakers and guests.

## AGENDA

TIME	DAY 1—NOVEMBER 28, 2023
8:30 AM – 9:00 AM	Registration
9:00 AM – 9:30 AM	<b>OPENING CEREMONY</b> Conference MC: <b>Ali Alqarni</b> , PhD, ACI member King Saud University <b>WELCOME ADDRESS</b> <b>Dr. Ahmad S. Al-Gahtani</b> Board Chairman, Concrete and Construction Association <b>Abdulnasser Saif Al-Abdullatef</b> , Eng. Secretary-General, Saudi Council of Engineers (SCE) <b>His Excellency Dr. Saad bin Othman Alkasabi</b> Governor, Saudi Standards, Metrology and Quality Organization (SASO); and Chairman, Saudi Building Code National Committee (SBCNC)
9:30 AM – 10:00 AM	<b>Keynote Speaker</b> <b>ACI INTERNATIONAL UPDATE: NEW INITIATIVES FOR ADVANCING THE CONCRETE INDUSTRY</b> <b>Antonio Nanni</b> , ACI 100th President; and Inaugural Senior Scholar, Professor, and Chair, Department of Civil and Architectural Engineering, University of Miami
10:00 AM – 10:30 AM	Coffee Break and Networking
<b>CONCRETE STRUCTURES CODES &amp; STANDARDS—DESIGN AND REPAIR</b>	
10:30 AM – 11:10 AM	<b>ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY: HISTORY &amp; FUTURE</b> <b>Cary Kopczynski</b> , PE, SE, FACI, FPTI, CEO and Senior Principal of Cary Kopczynski & Company (CKC), ACI Past President
11:10 AM – 11:45 AM	<b>WHY DO WE NEED A REPAIR CODE? ACI 562</b> <b>Khaled Nahlawi</b> , PhD, PE, Distinguished Engineer, ACI
11:45 AM – 12:15 PM	<b>THE SAUDI BUILDING CODE: A JOURNEY THROUGH HISTORY, PRESENT, AND FUTURE PERSPECTIVES</b> <b>Ahmed Shuraim</b> , PhD, ACI member, Chair, Structural Technical Committee, SBCNC
12:15 PM – 12:30 PM	<b>DO WE HAVE AN ARABIC VERSION OF ACI 318?</b> <b>Dr. Ali Attiyah</b> , PhD, ACI member, Faculty of Engineering, University of Kufa; and ACI Iraq Chapter
12:30 PM – 1:30 PM	Lunch and Pray
1:30 PM – 2:00 PM	<b>HOW TO PERFORM SEISMIC EVALUATION AND RETROFIT OF EXISTING CONCRETE BUILDINGS WITH ACI CODE-369.1-22</b> <b>Khaled Nahlawi</b> , PhD, PE, Distinguished Engineer, ACI
2:00 PM – 2:30 PM	<b>WHY 350 AND NOT 318 FOR ENVIRONMENTAL STRUCTURES</b> <b>Dr. Ali Attiyah</b> , PhD, ACI member, Faculty of Engineering, University of Kufa; and ACI Iraq Chapter
2:30 PM – 3:00 PM	Coffee Break and Networking



## AGENDA

3:00 PM – 3:20 PM	<b>INTRODUCTION TO PRO: AN ACI CENTER OF EXCELLENCE FOR ADVANCING PRODUCTIVITY</b> Cary Kopczynski, PE, SE, FACI, FPTI, CEO and Senior Principal of Cary Kopczynski & Company (CKC), ACI Past President
3:20 PM – 4:20 PM	<b>PANEL DISCUSSION: WHAT'S HOLDING BACK PRODUCTIVITY?</b> The panel discussion will focus on productivity struggles and achievements that can help engineers, contractors, owners, and material suppliers recognize and implement strategies that allow concrete construction to overcome years of stagnation in productivity.  Moderator: <b>Mike Tholen</b> , PhD, PE, Senior Managing Director, Technical Operations, ACI  Panelists: <b>Charles Malek</b> , Director of Structural Design, Dar Al-Handasah (Shair and Partners) <b>Wael Darkazanli</b> , COO, Atheel Contracting Company, and Faisal bin Saedan for Investment and Real Estate Development Group <b>Abdulrahman Almunabhi</b> , PhD, PE, Director of Codes and Standards (A), NEOM <b>Chris Leptokaridis</b> , Technical & Strategy Director, Saudi Readymix <b>Mansour Faried</b> , Chief Engineer, CSCEC Middle East <b>Rami Yaghi</b> , Deputy Regional Manager – Eastern Province, ACES KSA

TIME	DAY 2—NOVEMBER 29, 2023
8:30 AM – 9:00 AM	Registration
<b>SUSTAINABILITY, INNOVATION &amp; CONCRETE BEST PRACTICES</b>	
9:00 AM – 9:30 AM	<b>HIGHLIGHTS OF ACI CODE-440.11-22: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE REINFORCED WITH GLASS FIBER-REINFORCED POLYMER (GFRP) BARS—CODE AND COMMENTARY</b> Antonio Nanni, ACI 100th President; and Inaugural Senior Scholar, Professor, and Chair, Department of Civil and Architectural Engineering, University of Miami
9:30 AM – 10:00 AM	<b>SUSTAINABLE CONSTRUCTION MATERIALS</b> Mohammed Al Mehthel, Principal Professional, Saudi Aramco
10:00 AM – 10:30 AM	<b>FIBER-REINFORCED POLYMER MATERIALS FOR CONCRETE INFRASTRUCTURES</b> Muhammad K. Rahman, PhD, ACI member, Vice President, ACI Saudi Arabian Chapter Eastern Province; and Research Engineer (Associate Professor), King Fahd University of Petroleum & Minerals (KFUPM)
10:30 AM – 11:00 AM	Coffee Break and Networking
11:00 AM – 11:30 AM	<b>ACI 130R-19: REPORT ON THE ROLE OF MATERIALS IN SUSTAINABLE CONCRETE CONSTRUCTION</b> Khaled Awad, Chairman and Founder, Advanced Construction Technology Services (ACTS); and ACI Past President



## AGENDA

11:30 AM – 12:00 PM	<b>MAPEI RE-CON LINE: PRODUCTS AND SOLUTIONS FOR INCREASED MATERIAL CIRCULARITY IN READY-MIX CONCRETE PRODUCTION</b> Sven-Henrik Norman, Corporate Product Manager, Mapei
12:00 PM – 12:30 PM	<b>STANDARDIZATION FOR CONCRETE WORK</b> Tarek Emara, MSc, ICIOB, ACI UAE Chapter, QA/QC Director, CSCEC Middle East
12:30 PM – 1:30 PM	<b>Lunch and Pray</b>
1:30 PM – 2:00 PM	<b>AN OVERVIEW OF NEU: AN ACI CENTER OF EXCELLENCE FOR CARBON NEUTRAL CONCRETE AND ITS VALIDATION PROGRAM</b> Dean Frank, PE, Executive Director, NEU: An ACI Center of Excellence for Carbon Neutral Concrete
2:00 PM – 2:30 PM	<b>CRYSTALLINE WATERPROOFING PROTECTION TECHNIQUE USED IN LATIN AMERICA LONGEST BRAZIL-PARAGUAY INTEGRATION BRIDGE</b> Emilio Takagi, Technical Director, Penetron International
2:30 PM – 3:00 PM	<b>ADDITIVE CONSTRUCTION: LATEST SECTOR DEVELOPMENTS AND STANDARD INITIATIVES – ASTM INTERNATIONAL</b> Stephan Mansour, BSc, ECKM, Associate Consultant, ASTM International
3:00 PM – 3:15 PM	<b>CLOSING REMARKS</b>



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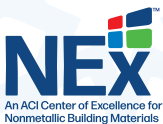
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## COMPANY PROFILES

### PARTNERS



#### Mapei (Mapei S.p.A.)

Mapei, founded by Rodolfo Squinzi in 1937 in Milan, Italy, is now one of the world's leading manufacturers of chemical products for the building industry and has contributed to the construction of some of the most important architectural and infrastructural works worldwide. Mapei now operates with 102 subsidiaries in 57 countries and 90 plants in 35 countries.



#### PENETRON

PENETRON developed cementitious waterproofing products and additives to create an optimal crystalline technology. Today, the PENETRON system of products is sold in over 100 countries through qualified applicators and distributors.



#### Saudi Readymix

Saudi Readymix is Saudi Arabia's leading supplier of ready mixed concrete, with 40+ strategically placed factories. They possess the region's largest fleet of mobile equipment and collaborate with institutes and academic institutions through their Research & Development (R&D) Center for concrete industry research.







## GOLD SPONSORS



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For Laboratories and Soil للمختبرات والتربة

### ACES

ACES offers a wide range of specialized engineering services, including site and geotechnical investigation, materials technology and testing, quality control of projects, special studies, land and marine surveying, and chemical and environmental testing.

ACES has offices across the Middle East region. ACES also undertakes projects in other countries, including Azerbaijan, Tanzania, Turkey, Kuwait, Iraq, Angola, Djibouti, and Morocco, among others.

In 2022, ACES expanded its geographic footprint to the United States through the acquisition of MC Squared, LLC ([www.mc2engineers.com](http://www.mc2engineers.com)). MC Squared will continue to operate independently with limited operational overlap with ACES Middle East.



### Arkaz

Arkaz is primarily focused on providing unique, innovative, and cost-effective construction chemicals of the highest quality that cater to the requirements of the industry.

Founded in 2008, Arkaz has been operating for more than a decade in the Gulf Cooperation Council (GCC), emerging as a leading player in the concrete admixtures industry in the Gulf region.



### CHRYSO

CHRYSO designs, produces, delivers, and markets admixture

solutions and cement additives dedicated to concrete and cement producers and construction systems. They cover 100 countries through their network of 22 international subsidiaries, distributors, and licensees. Thanks to their 1300 talents who create innovation and share their expertise and know-how, CHRYSO creates value-added solutions for their customers.



*Environmentally Safe VpCI®/MCI® Technologies*

### Cortec

Cortec is the leading manufacturer of environmentally friendly corrosion inhibitors. Providing effective solutions for corrosion challenges across most industries operating throughout the Middle East and North Africa, Cortec Middle East taps into the expertise of a team of highly qualified engineers and a wide portfolio of developed solutions.



## DCP

With over 90 years of experience, DCP specializes in developing, manufacturing, and promoting innovative construction materials. DCP operates across North America, Europe, Africa, Asia, and the Middle East, with 15 manufacturing sites and a distribution network spanning over 35 countries, solidifying its global presence in the construction industry.



Ha-Be manufactures concrete admixtures, surface protection systems, and concrete colors for the Middle Eastern market. For 10 years now, Ha-Be Middle East has been supplying to numerous ready mixed and concrete goods producers, as well as a number of infrastructure projects, with a highly favorable response from their customers.



## Saudi Pultrusion Industries (SPI)

SPI is a leading fiber-reinforced polymer (FRP) pultrusion manufacturer in Saudi Arabia with a state-of-the-art factory with a product lineup of FRP gratings, ladders, handrails, platform structures, cable trays and ladders, solar panel structural support, FRP reinforcing bars, corrugated sheets, dome covers, manhole covers, and custom pultrusion and molded parts.





28-29 November



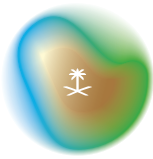


## Concrete Conference Codes, Standards & Best Practices

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### STRATEGIC PARTNERS

وزارة الطاقة  
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هيئة التقييس الخليجية  
GCC Standardization Organization



American Concrete Institute  
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