CHAPTER TALKS

Need a speaker for your Chapter Meeting?

ACI offers 1-hour webinar presentations and up to two in-person presentations to help support the educational needs of your Chapter. Sessions are presented by ACI staff and executive professionals from the American Coal Ash Association, the American Shotcrete Association, and the Slag Cement Association.

Scheduling is as easy as 1, 2, 3!

STEP 1 – SELECT TOPIC

STEP 2 – CONTACT ACI

STEP 3 – RECEIVE CONFIRMATION

American Concrete Institute
Always advancing

1 SELECT TOPIC

*ICC credited.
†Approved by ICC for 0.10 CEU (1 PDH). Approved by AIA for 1 LU hour.
‡Approved by ICC for 0.10 CEU (1 PDH). Approved by AIA for 1 LU/HSW hour.

ACI SESSIONS

(ACI is an approved education provider for the American Institute of Architects [AIA] and the International Code Council [ICC].)

ACI 318 PLUS *(PDH credit is not provided for this presentation)*

In March 2021, ACI launched a new online document platform. This platform easily and conveniently links the content of one ACI document with curated, related content from other ACI forms of information such as committee documents, periodicals, videos, and three-dimensional (3-D) graphics. The platform also allows each user to create their own sets of electronic notes for personal information and resources that can be shared with other individuals. The platform is built around ACI 318-19(22) and the related design and detailing manuals. The platform will continue to grow to include additional ACI documents. This presentation will provide an overview of the platform and show you how you may be able to obtain free, no-obligation access to the platform.

ACI Code Advocacy*†

Topics covered in this presentation will include:
o ACI's revised mission statement;
o Components of building codes;
o Model code development process;
o Model code development advocacy roles;
o State code development process; and
o State code development advocacy roles.

ACI Certification, Now and the Future*†

This presentation will introduce and review new certification programs as well as what's on the horizon. Certification is an important part of our industry and having well-trained, qualified, and certified personnel is critical to any projects success. This presentation will explain the rugged process ACI follows in creating these industry-relevant programs and include a brief outline of:
o Post Installed Concrete Anchor Installation Inspector
o Nondestructive Testing Specialist I – Concrete Strength
o Concrete Construction Sustainability Assessor
o Shotcrete Inspector
o 318 Design Professional
o Concrete Flatwork Finisher Performance Exam
o Glass Fiber Reinforced Polymer (GFRP) Reinforcing Bar Inspector
o EN Standards Field & Lab Tech Programs
o Advanced Concrete Strength Testing Technician

ACI Reference Specifications: Unraveling Concrete Specs*†

Topics covered in this presentation will include:
o What are ACI specifications;
o Common features of ACI specifications, using ACI 301;
o Summary of the ACI 301 checklists; and
o Important upgrades in ACI 301-20.

ACI Repair Code 562-21*‡

Topics covered in this presentation will include:
o Why a repair code is needed;
o The philosophy behind ACI 562;
o How the code promotes consistency in repair design;
o Recognizing repair construction challenges;
o Significance of a quality assurance program for successful repairs; and
o How the code can save the owner money.

Changes to the Concrete Design Standard*‡

Topics covered in this presentation will include:
o Understanding where higher grades of reinforcement are accepted and changes to the requirements for structural concrete to allow the higher reinforcement grades;
o Identifying changes to development lengths for straight bars, hooks, and headed deformed bars;
o Learning the new requirements for post-installed screw-type anchors and shear lug design for anchoring to concrete; and
o Describing the changes to shear design provisions and equations.

Concrete Cracking*†

Topics covered in this presentation will include:
o Causes and control of cracking;
o Evaluation methods;
o Mitigation; and
o Crack repair.

Concrete on the Farm - Early 1900s *(Virtual Presentation Only)*†

In the early 1900s, the farmers that wanted to improve their farms used concrete to build roads, barn floors, corn crib, etc. Concrete was the material of choice because the farmers could find most of the materials on the farm and would only need to purchase the cement. Since most farmers had never made concrete before, the cement companies provided detailed self-help books with illustrations so the farmer could be successful with their concrete construction projects. The lessons the farmers learned by these self-help books are still applicable for today's construction.
So, join us as we travel back to the early 1900s and review the steps that farmers used to make quality concrete. The learning objectives are:
o Learn the procedures of making concrete with minimal equipment ;
o Review the volumetric method of making concrete that can be used today;
o Exam the concrete mixture designs that were tailor made for construction projects on the farm;
o Discover the various methods that were used to cure concrete ; and
o Learn how to evaluate sand to determine if it can be used in concrete

1 SELECT TOPIC (cont.)

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Concrete Sustainability & Resilience*†

This presentation provides an overview of low-carbon concrete, sustainability, and resilience specific to the concrete industry. Topics include terminology and acronyms, state of the practice, what to expect in the future, legislation, and resources. The learning objectives are:

- o Describe the concepts of sustainability and resilience in the context of the concrete industry;
- o Identify ways the concrete industry can contribute to sustainability;
- o Summarize the current status of the concrete industry in providing low-carbon solutions; and
- o Define the following low-carbon concrete-related terms: GWP, EPD, LCA.

Curing Is Good*†

Topics covered in this presentation will include:

- o Defining curing and related terms;
- o Recalling different curing methods;
- o Examining research findings on curing;
- o Reviewing minimum curing requirements from ACI, the American Association of State Highway and Transportation Officials (AASHTO), and state departments of transportation (DOTs); and
- o Explaining curing time in relation to construction activities.

Durability: How Do We Measure It?*†

This presentation will discuss the importance of durability and current test methods. Topics covered in this presentation will include:

- o How to define durability;
- o Where to find durability requirements and guidance; and
- o Commonly used durability tests for freezing and thawing and alkali-aggregate reactivity.

Ethics – Various shades of Grey, just like concrete!*†

Ethics is usually not an easy decision. Rarely are we faced with an Ethical question that is clearly black and white; right or wrong. It is rarely a clear decision and some shade of grey. Doing the ethical thing is not always an easy decision and determining the correct path may include many variables that cause us to pause and consider what the right decision may be. We will discuss some ethical scenarios, fictional and non-fictional, that illustrate this point and provide us some insights into the ethical issues and the various factors that influence our decision-making process.

Topics covered in this presentation will include:

- o Summarize and review various codes of ethics
- o Explain the factors that affects ethical decision making processes
- o Review scenarios that present complex ethical decisions and the ethical considerations
- o Identify ways to practice ethical decision making

Evaluation of Concrete Cores Test Results According to ACI 318-19*
(Virtual Presentation Only)

Topics covered in this presentation will include:

- o Identifying the compressive strength acceptance criteria in ACI 318-19;
- o Explaining when coring is needed and who selects the core locations;
- o Identifying the number and size of concrete cores when evaluating strength in accordance with ACI 318-19; and
- o Describing actions taken when one or more cores are below the acceptance criteria.

FRP – Strengthening*†

Topics covered in this presentation include:

- o Strengthening options;
- o Components and general properties;
- o System selection;
- o System design;
- o Construction; and
- o Maintenance.

History of Concrete – How It Started*
(Virtual Presentation Only)

Topics covered in this presentation include:

- o Explaining the definitions of cement and concrete;
- o Showing how early humans may have accidentally discovered our first cement;
- o Identifying how mud bricks, fired bricks, and pottery led to the discovery of our first concrete;
- o Describing the first kilns that were developed to make cement; and
- o Showing the evolutionary steps from making lime to our modern portland cement concrete.

Introduction to PRO, An ACI Center of Excellence for Advancing Productivity*†

The presentation will share concrete construction's productivity trajectory and compare it to other industries. It will explain how and why ACI developed a response to the productivity challenge.

Learning objectives:

- o Explain concrete construction's poor productivity trend;
- o List six PRO initiatives for improving concrete construction productivity;
- o Describe resources that can help improve concrete designs; and
- o Identify way individuals can get involved to help improve productivity.

Low Compressive Strength Test Results? What They Mean and Next Steps...*†

Topics covered in this presentation include:

- o Definitions related to strength testing;
- o Methods of sampling, fabrication, handling, and curing strength test specimens;
- o Acceptance criteria for strength tests;
- o Interpretation of strength test results not meeting acceptance requirements;
- o Investigation of noncompliant concrete; and
- o Addressing low-strength concrete issues in production.

Mass Concrete: How Big Is Big?*†

This presentation will discuss how to identify mass concrete, ACI 301 requirements pertaining to it, and good construction practices, and covers the following topics:

- o Examples of mass concrete structures;
- o Identifying mass concrete in the field;
- o Specification requirements;
- o Factors influencing mass concrete; and
- o Mitigation or design.

1 SELECT TOPIC (cont.)

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New ACI CODE-440.11-22: Building Code Requirements for Structural Concrete Reinforced with Glass Fiber-Reinforced Polymer (GFRP) Bars*†

This presentation will identify the basic material performance properties of GFRP reinforcing bars—how they compare to traditional steel reinforcement, and how they should be used. It will discuss the basic code requirements for GFRP- reinforced concrete and how the new code relates to other key codes and standards from ACI, ASTM International, and ICC. The learning objectives are:

- o Identify the basic material performance properties of GFRP reinforcing bars and how they compare to traditional steel reinforcement;
- o Explain where the new ACI code for GFRP-reinforced concrete applies, what the limitations are for using this code, and how it relates to other standards from ACI, ASTM International, and ICC;
- o Gain a basic knowledge of the mechanics of GFRP-reinforced concrete and how it compares to steel-reinforced concrete; and
- o Describe the code requirements that relate to the installation of GFRP bars and other general considerations for their field application.

Post-Installed Concrete Anchor Installation Inspector Certifications†

This presentation will cover program content and the requirements for Adhesive Anchor Installer certification and the Post-Installed Concrete Anchor Installation Inspector program, as well as both programs' connection to the requirements in ACI 318. The AAI program has been available for 10+ years and the Inspector program since 2019. We will also touch on how the program is evolving to include post installed rebar. This presentation will be of interest to contractors who use these products, engineering firms and agencies that offer inspection services, as well as engineering firms that write repair specifications.

Topics covered include:

- o Need for the AAI certification program
- o How the programs were developed
- o Understand the requirements to obtain these certifications
- o Understand the process and availability of these programs in your area
- o Understand criteria associated with Anchor Installation Inspector program
- o Future changes to the programs

Using Infrared Thermometers in Concrete Construction *(Virtual Presentation Only)**

There are many instances where temperature measurements are required on a concrete construction jobsite. In most cases, the infrared (IR) thermometer allows the user to quickly measure the temperature and determine if the concrete is within specifications. Luke Snell, Honorary Member of ACI, will lead you through the process of selecting and using the IR thermometer. This presentation will:

- o Discuss how to select an appropriate IR thermometer for use in concrete construction;
- o Recognize what specifications and good practices require the measurements of concrete temperatures;
- o Explain when it is appropriate to use the IR thermometer and when it cannot be used; and
- o Demonstrate how to determine if your IR thermometer is accurate.

In most cases, ACI will cover the speaker's travel expenses up to $1,000.

AMERICAN COAL ASH ASSOCIATION SESSION

What Does Coal Have To Do With Concrete?

The cement and concrete industries consume almost 20 million tons of fly ash, bottom ash, and synthetic gypsum annually. These materials are recovered following the combustion of coal in power plants generating electricity. This presentation by the American Coal Ash Association will provide an overview of the utility industry and a look at the future supply of these materials.

AMERICAN SHOTCRETE ASSOCIATION SESSION

Introduction to Shotcrete†

Topics covered in this presentation include:

- o Introduction to shotcrete;
- o Advantages and benefits using the shotcrete process;
- o Dry-mix and wet-mix processes;
- o Specifications, material considerations, and typical performance guidelines;
- o Surface preparation; and
- o Pre-construction, jobsite conditions, and curing methods.

SLAG CEMENT ASSOCIATION SESSIONS

Slag Cement for Sustainable Concrete Construction

This session focuses on the sustainable benefits of slag cement use. The presentation will cover how the use of slag cement can reduce the environmental footprint of a structure, help projects qualify for Leadership in Energy and Environmental Design (LEED) accreditation, and contribute to enhanced concrete performance. Case studies will illustrate how different mixture designs using slag cement can reduce carbon emissions while increasing the strength and durability of concrete. Attendees will also get a tutorial of the Slag Cement Environmental Product Declaration (EPD) and Life Cycle Assessment (LCA) Calculator tool available to download on the SCA website.

Slag Cement in Concrete

This session covers the basics of slag cement use in concrete mixture design as well as how slag cement enhances the strength, durability, and overall performance of concrete. Learn how to incorporate slag cement in combination with portland cement and/or other supplementary cementitious materials to reach your project's desired outcomes, creating a less permeable and more sustainable concrete. Presenters will also review the various specifications and standards regarding slag cement use. The session will wrap up with case study examples of projects that used slag cement successfully in a variety of applications.

2 CONTACT ACI

Once you have determined your topic and date for your Chapter Meeting, contact the **ACI Chapter Activities department**:

Phone: +1.248.848.3830; E-mail: **denesha.price@concrete.org**
Website: **www.concrete.org/chapters.aspx**

3 RECEIVE CONFIRMATION

Once your speaker has been assigned, you will receive:

- o Confirmation which will include title and description of topic;
- o Picture and bio of presenter; and
- o Meeting logistics including date and time.

MEET THE PRESENTERS

Thomas Adams
Executive Director
American Coal Ash Association

Charles Hanskat
Executive Director
American Shotcrete Association

Sureka Sumanasooriya
Technical Director
NEU: An ACI Center of Excellence for Carbon Neutral Concrete

Phil Diekemper
Executive Director
PRO

Michael Morrison
Manager, Certification Program Development
American Concrete Institute

Kerry Sutton
Engineer
American Concrete Institute

Rex Donahey
Director, Innovative Concrete Technology
American Concrete Institute

Khaled Nahlawi
Engineer
American Concrete Institute

Steve Szoke
Engineer
American Concrete Institute

Ala Douba
Engineer
American Concrete Institute

Bill Rushing
Senior Vice President
Waldemar S. Nelson & Co

Mike Tholen
Senior Managing Director, Technical Operations
American Concrete Institute

Amy Dowell
Engineer
American Concrete Institute

Matthew Senecal
Director, Engineering
American Concrete Institute

Gregory Zeisler
Engineer
American Concrete Institute

William J. Gold
Engineer
American Concrete Institute

Andrea Schokker
Engineer
American Concrete Institute

Jerzy Zemajtis
Executive Director
NEx: An ACI Center of Excellence for Nonmetallic Building Materials

Trey Hamilton
Engineer
American Concrete Institute

Luke Snell
Concrete Consultant

Schedule your Chapter Talks Presenter today!

American Concrete Institute
38800 Country Club Drive, Farmington Hills, MI 48331 USA
+1.248.848.3700
www.concrete.org