

Concrete Repair Basics

ONE DAY, 7.5 HOURS

Best methods and materials for economical and effective concrete repairs

Program Content:

■ Condition Survey

Causes and types of deterioration
Evaluating deteriorating concrete
Determining the extent of potential damage
Assessing the consequences and risks of material failures

■ Repair Techniques

Removing damaged concrete
Preparing existing concrete for repair
Patching and overlays
Repair techniques such as shotcrete, carbon fiber reinforcing, and chloride extraction

■ Repair Materials

Selecting materials for different repair situations and environments, including sealants, protection systems, cementitious materials, and polymeric materials

■ Cracks and Joints

Understanding cracks and joints
Causes and effects of cracking
Methods of repairing cracks and joints
Installing expansion joints for elevated slabs and slabs on ground

■ Applications of Repair Techniques

Case studies that utilize repair methods and materials for various types of structures

Who should attend:

Engineers, repair contractors, material suppliers, maintenance personnel, and public works engineers

Instructors:

James P. Barlow, Bruce A. Collins, James P. Donnelly, Paul E. Gaudette, James E. McDonald, Myles A. Murray, and Michael M. Sprinkel.

Seminar handouts:

Guide for Making a Condition Survey of Concrete in Service (ACI 201.1R)
Causes, Evaluation, and Repair of Cracks in Concrete Structures (ACI 224.1R)
Guide for Evaluation of Concrete Structures before Rehabilitation (ACI 364.1R)
Strength Evaluation of Existing Concrete Buildings (ACI 437R)
Concrete Repair Guide (ACI 546R)
Course Notes authored by the instructors

