Repair of Concrete
TWO DAYS, 15 HOURS
In-depth strategies and techniques for reliable concrete repairs

Program Content:

Day One
- **Condition Survey**
  Assessing damage and deterioration
  Load testing
  Identifying the causes
  Developing reports
  Nondestructive testing techniques
- **Repair Materials**
  Polymer-modified cements
  Cementitious material selection process
  Polymers
- **Surface Preparation**
  Equipment
  Methods
- **Placement Methods**
  Concrete placement
  Polymer placement
  Other techniques
- **Crack and Joint Repairs**
  Identifying cracks and causes
  Expansion joints
  Contraction joints
  Techniques
- **Questions and Answers**

Day Two
- **Repair of Corrosion-Damaged Structures**
  Bridge and transportation structures
  Façade and balcony
  Parking garages and plazas
  Civil structures
- **Protective Systems for Concrete Structures**
  Membranes and waterproofing
  Sealers and coatings
- **Structural Repair and Strengthening of Concrete Elements**
  Post-tensioning repair
  Shear collars
  External post-tensioning
  Other techniques
  Carbon and glass fiber reinforcement
- **Specifications and Contract Documents**
  General conditions
  Bidding strategies
  Technical sections
- **Group Exercise**
  An actual case study will be presented and based on what was learned at the seminar. Participants will break into small discussion groups to review the projects and recommend an appropriate repair system

Who should attend:
Owners and facility managers, concrete specialists and general contractors, civil and structural engineers, material suppliers, and architects

Instructors:
James P. Barlow, Bruce A. Collins, James P. Donnelly, Paul E. Gaudette, Randall W. Poston, and Michael M. Sprinkel

Seminar handouts:
Guide for Conducting a Visual Inspection of Concrete in Service (ACI 201.1R)
Causes, Evaluation, and Repair of Cracks in Concrete Structures (ACI 224.1R)
Four Epoxy Standards (ACI 503.1 to 503.4)
Concrete Repair Guide (ACI 546R)
Course Notes authored by the instructors