

# ADAPT

## Structural Concrete Software

A Two-day Practical and Interactive Workshop

## Workflows for Success: Concrete and Post-tensioned Building Design

Hands-On Software Training with Practical Design Lectures

2017 Dates

Nashville, TN – May 11-12

Los Angeles, CA – November 2-3

### Course Overview

This workshop series is specifically tailored for those interested in hands-on, in-depth training in 3D-FEM concrete software, modeling procedures and techniques for the design and analysis of post-tensioned buildings. Comprehensive workflows and step-by-step training will be conducted for modeling of a multi-story building, gravity loading and floor design, lateral loading and design, soil-supported foundations, and column design.

Each module will offer intensive, start-to-finish instruction of each workflow utilizing the latest ADAPT-Builder software (including ADAPT-Floor Pro, Edge and MAT) in an interactive learning environment. Specific attention will be given to the use and integration of ADAPT's multistory analysis tool, ADAPT-Edge, with regards to load takedown, column design, and integration of results in floors and foundations. Each participant will take home greater in-depth knowledge and understanding of how to practically and efficiently implement the use of these software tools in the design process and develop practical workflows for project or component completion.

### Tentative Schedule of Course

#### Module One: Modeling and Setup of Multi-level Building model

- Introduction and description of multistory analysis tool for concrete structures, both conventionally reinforced and post-tensioned, ADAPT-Edge
- Introduction to modeling work-flows from start points of Revit integration, DWG/DXF files or other 3rd party software output, with model validation
- Pre-analysis generation of gravity loads, load patterns, elastic combination definition, long-term and cracked deflection combinations, material properties
- Best practices for modeling of components, finite element meshing, tendon modeling/optimization and analysis options
- Modeling mat foundation
- Tributary load take-down feature

#### Module Two: Two-Way Elevated Slab / Two-way Transfer Slab Gravity Design

- Analysis of single level and multi-level structure and review results
- Generation of design criteria and creation of design strips for two-way slab systems
- Evaluation of work-flow for two-way slab systems in multistory structures including transfer/podium
- Design strip execution and extraction of graphical results
- Export of reinforcement to AutoCAD
- Modeling/optimizing post-tensioning for a floor system
- Evaluation of results and preparation of graphical reinforcement and tendons layout for export to AutoCAD

### **Module Three: Modeling and Setup of Lateral Loads and RC Mat Foundation design**

- Introduction to Wind and Seismic load generation wizards
- Modifying load combinations to include lateral loads
- Defining Usage cases and Stiffness Modifiers
- Validating results of lateral loading
- Including lateral loads from multi-level analysis into single-level floor and foundation designs
- Review of drift results

### **Module Four: Integrated Column design with S-CONCRETE**

- Defining design groups for Column sections
- Design options for columns to check size and reinforcement, or optimize
- Live load reduction
- Review of Design Group results
- Review of Individual Member results
- Iterating toward final design based on design results
- Column design reports and schedules

Following the completion of these modules, we will have time for Q & A.

#### **Registration**

Enrollment will be strictly limited. Details of event location will be provided after registration.

Early Registration: Prior to 30 days of event date: \$1,100

Registration within 30 days of event date: \$1,200

Fee includes breakfast, lunch, and snack for one attendee. Travel and lodging additional.

Add a copy of Dr. Bijan Aalami's book, [Book on Post-Tensioned Buildings: Design and Construction](#) for only \$100 with registration for this workshop. Please indicate this at time of requesting invoice. Book will be delivered at the workshop. This reflects a \$25 discount off US edition or \$35 discount off the International edition. One book per attendee.

Please address any questions to our Sales Team at (650) 306-2403 or [sales@adaptsoft.com](mailto:sales@adaptsoft.com)

A \$100 discount is available if two or more people from the same company attend a workshop in the same location. Discount does not apply to first registrant.

*Workshop registrations will be confirmed when payment is made in full. Cancellation requests should be emailed to [sales@adaptsoft.com](mailto:sales@adaptsoft.com). Cancellation requests received no later than 14 days prior to the start of a workshop will receive a full refund. Cancellation requests received 7-14 days of the registered event will receive a 75% refund. No cancellation or refund will be provided within 7 days of the event. No shows the day of an event do not qualify for a refund of registration fees. Registrant substitutions are allowed at any time.*