

Locations and Accommodations:

*rate subject to cut-off dates and apply only the day before and the days of the seminar, with check-out on the last day of the seminar.

ORLANDO, FL
DECEMBER 6-7, 2007
 Orlando Metropolitan Resort
 8444 International Drive
 Orlando, FL 32819
 407-345-0505
 ASCE Hotel Rate: \$109 Single/Double

HOUSTON, TX
MARCH 6-7, 2008
 Four Points Sheraton Houston
 2828 Southwest Freeway
 Houston, TX 77098
 713-942-2111
 ASCE Hotel Rate: \$89 Single



CEUs/PDHs: ASCE is an IACET-authorized CEU provider and complies with the IACET criteria for awarding CEUs. In addition, ASCE follows NCEES guidelines on continuing professional competency. Since continuing education requirements for P.E. license renewal vary from state to state, ASCE strongly recommends that individuals regularly check with their state registration board(s) on their specific continuing education requirements that affect P.E. licensure and the ability to renew licensure. For details on your state's requirements, please go to: http://www.ncees.org/licensure/licensing_boards/

ASCE offers more than [500 online courses](#) on a wide variety of technical, management, and regulatory topics. These courses are available through ASCE's distance learning partnerships. For a complete listing of these courses or to register, please go to:

www.asce.org/conted/distancelearning/

ASCE members receive discounts of 15% or more on most online courses.

HELPFUL INFORMATION:

SEMINARS:

Confirmation Letter and Time/Location: All seminar registrations will be confirmed in writing within two weeks of receiving your registration. Seminar time, location and hotel information will be included with your confirmation letter. Seminar fees include all course materials. Fees do not include hotel accommodations or meals. Hotel reservations should be made early as discounted rates are subject to cut-off dates.

Instructor Substitution: ASCE reserves the right to substitute an equally-qualified instructor for any seminar should unforeseen circumstances arise.

Cancellations: Cancellations must be made in writing via email or fax and must include registrant's name, confirmation # and name/date of the seminar. If you cancel 7 business days or less prior to the seminar start date, no refund/credit/transfer will be issued. You may transfer your registration to another registrant with no penalty up until the day of the seminar.* No credits/refunds will be issued for no shows. If ASCE must cancel a seminar due to insufficient enrollment, your registration fee will be refunded in full. ASCE is not responsible for non-refundable expenses such as airfare, hotels, transfer fees, or any other expenses associated with a cancellation.

*Price differential will be charged if transferring to a higher priced seminar or a non-member is replacing a member. Transfer may only be used one-time, no multiple transfers allowed.

CEUs/Certificates: One (1.0) CEU equals ten contact hours of instruction. A CEU certificate will be issued to each person who successfully completes a seminar and a permanent record will remain on file with ASCE. One (1.0) Continuing Education Unit (CEU) = Ten (10) Professional Development Hours. For details on your state's requirements, please go to:

http://www.ncees.org/licensure/licensing_boards/

Send a Team and Save: Register three or more from one organization for the same seminar and save 10% on each seminar registration. Registrations must be made at the same time to receive this discount.

On-Site Registration: Registration is available on-site at the seminar; however, we cannot guarantee that course materials will be available that day. Course notes and other materials will be mailed to you approximately two weeks after the seminar. Please be sure to contact ASCE no later than the day before the

seminar to confirm that the seminar will be held as planned.

Dress: Casual business attire is appropriate for all seminars.

Discounted Airfares: Use United Airlines or American Airlines and save money on airfares when traveling to ASCE Seminars. Call United Airlines Meeting Reservations Center at 1-800-521-4041, 7 days a week from 7:00 AM to 12:00 midnight Eastern Time and refer to ID number 563PM. Call American Airlines at 1-800-433-1790 and refer to ID number 18413. If you wish to use a travel agency, you must tell your agent to book your reservation under the above ID numbers to receive your discount.

Rental Cars: Special rates are available with Enterprise Rent-A-Car. Visit www.enterprise.com or call 1-800-736-8222 to make a reservation. Please use Code 16VCS73 and Password ASC to obtain your discounted rates.

MEMBERSHIP: Go to www.asce.org to join ASCE and save on future continuing education opportunities. Enter 08CEFCAT in the promotion code section of the membership application.

DISTANCE LEARNING COURSES:

Return Policy: If you are not completely satisfied with your product purchase, return it undamaged within 14 days for an exchange or credit to your account. If your return is not due to our error, we will deduct the shipping costs from your credit. Returns are accepted at the warehouse only. Please refer to your packing list or call ASCE for the address.

CEUs/Exams: CEUs will only be granted to the person who originally ordered the product. Additional certificates are available for some courses for a fee of \$50 each. Exams must be taken within one year of receipt of course. A passing score of 70% or higher is required to receive CEUs. Exams may be retaken up to three times without additional charge.

Fulfillment/Shipping: Orders are processed within 24 hours of receipt. All products are sent via UPS Ground unless otherwise requested.

Online Courses: Log-in and Password information is sent to the email address provided with the order within 24 hours of receipt. All online courses expire one year after receipt of log-in and password.



1801 Alexander Bell Drive
 Reston, Virginia, 20191-4400

Post Tensioning Construction and Design

REGISTER ONLINE NOW! For faster and immediate registration register online! Go to: www.asce.org/conted/seminars

ASCE Individual Member # _____
[ASCE membership numbers are NOT TRANSFERABLE within any given company] PE: Yes No PhD: Yes No

Name _____

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Company _____

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Payment Information: Must be complete before processing can occur

- A check for \$ _____ is enclosed.
- Charge my credit card: Please fill in priority code _____
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 Name (exactly as it appears on card): _____
(in the box, right of mail label)
- If Faxing, a copy of check or purchase order is required. **78BR207**

Locations: Please check one

- Orlando, FL / December 6-7, 2007 (8099)
 Houston, TX / March 6-7, 2008 (8100)

Fees: Please check one

A copy of your check or PO is required when faxing your registration

- \$1,085 Members
 \$1,295 Non-Members

ASCE Distance Learning:

- Reinforced Concrete Design -
 Part I: Flexural Members (V01) (add \$6.95 for shipping first item, \$2.50 each additional item)*
 \$288 Ind *additional cost outside the USA and for overnight delivery.
- Reinforced Concrete Design -
 Part II: Columns (P21)
 \$144 Ind
- Wind Loads Online Course (V02)
 \$399 M \$499 NM

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Phone: 1-800-548-2723
 703-295-6300 (international)

Fax: 703-295-6144

Email: seminars@asce.org

Mail-FAX entire panel back with registration info



Continuing Education
ASCE

Post Tensioning Construction and Design

Orlando, FL / December 6-7, 2007

Houston, TX / March 6-7, 2008

"This seminar was excellent. It greatly enhanced and expanded my knowledge and understanding of post tension concrete design."

-Ronald Manske, JVA, Inc., Ft. Collins, CO

"This was a very good seminar. The excellent presentation was well formatted and organized."

-Basant Satpathy, DLR Group, Omaha, NE

"This was the best seminar I have ever attended!"

-Gidey Tesfay, Clark County, Las Vegas, NV

"This was an excellent seminar for not only understanding the concepts but also real design and practical issues. The instructor was excellent!"

-Satish Jain, Cary Copczynski & Co., Bellevue, WA

"Best seminar I have attended in the last 10 years."

-Bora Erbilin, Associate, Burton Braswell Middle Brooks, Longwood, FL

"This was one of the best continuing education seminars I have ever been required to attend."

-Christopher Melluck, Phoenix Fabricators Inc., Indianapolis, IN

This is an ASCE Continuing Education Course, NOT JUNK MAIL. If you don't need CEU's pass this on to someone who does.



1.4
CEUs

Post Tensioning Construction and Design

Purpose and Background

Presenting the latest developments in construction, design technology, design practice and software tools, this seminar is tailored to provide you with the know-how and means you need for efficient and economical design of post-tensioned buildings and parking structures. The seminar is the culmination of over 25 years of experience in design practice and teaching of post-tensioning. It starts with the introduction of current post-tensioning systems, hardware, and construction practice. Next it covers the background to design and proven procedures, including the latest code requirements. This is followed by detailed long-hand numerical examples, and computer application for beams, one-way slab and column-supported floor systems. It concludes with software application, project reviews, detailing, and tips for good practice.

Learning Objectives

During this two-day seminar, you will learn about:

- Current post-tensioning systems and construction practice in buildings and parking structures
- Economics of post-tensioning and preliminary designs
- Background to, and efficient procedures for post-tensioning design
- Provisions of the latest design codes and their application
- Long-hand calculation for design, and design verification
- Efficient tendon layout and detailing
- Finite element application and software tools for design of post-tensioned buildings
- Design for restraint of supports

Seminar Benefits and Learning Outcomes

- Seminar attendees receive comprehensive course notes and reference material including detailed design examples
- Find out about the latest developments in post-tensioning systems and construction practice, including measures for durability and low maintenance
- Know the changes in ACI and IBC building codes and their impacts on your design
- Learn how you can avoid costly errors by using an integrated approach in your design from architectural drawings to structural documents
- Become skilled in efficient tendon layout and detailing for good construction practice
- Examine the possibilities of increasing the productivity of your designs using software tools tailored for seamless flow of the design process from the architectural drawings to construction documents
- Learn how to optimize, and at the same time increase the reliability and economy of your designs

Assessment of Learning Outcomes:

Students' achievement of the learning outcomes will be assessed through a series of problem-solving design exercises, class discussion following the presentation of each major topic, and through short case studies.

Who Should Attend

- Structural engineers engaged in concrete and/or post-tensioning design
- Building officials and City plan checkers
- Engineers responsible for review or investigation of post-tensioned structures
- Engineers charged with retrofit of post-tensioned buildings
- Forensic engineers who deal with post-tensioned structures
- Academics and students with interest in design of concrete floor systems

Seminar Instructor

BIJAN O. AALAMI, Ph.D., P.E., M.ASCE is Professor Emeritus of San Francisco State University, Life Member of the Post-Tensioning Institute, Chartered Engineer, and a Principal of ADAPT Corporation – a structural engineering firm in California specializing in design of concrete structures. He has been actively engaged in the design and construction of numerous notable post-tensioned buildings, bridges and special structures. A renowned world leader and teacher in the design of concrete buildings, bridges, special structures and post-tensioning, through his worldwide educational seminars, Dr Aalami has enriched the practice of many engineers in North and Latin America, the Far East, Europe and the Middle East. His extensive publications on concrete design, in particular post-tensioning, are the principal resource for practical design of post-tensioned buildings and bridges. For the last twenty years, Dr. Aalami has been the project leader of the software suite ADAPT that is serving concrete design engineers in over 70 countries worldwide.



Reinforced Concrete Design - Part I: Flexural Members

Fundamentals of design of reinforced concrete flexural members are covered. Focus is on design by the American Concrete Institute's Building Code Requirements for Structural Concrete 18-0 (ACI 18-0). Fundamental behavior of flexural members and the necessary design checks are presented. Examples of analysis and design of beams, one-way slabs, and retaining walls are used to illustrate the concepts. A fundamental background in structural analysis and design is assumed. 6 hours. 0.6 CEUs

Reinforced Concrete Design - Part II: Columns

Focus is on design of reinforced concrete columns using the American Concrete Institute's Building Code Requirements for Structural Concrete 18-05 (ACI 18-05). Fundamentals necessary for understanding and verifying the output of typical design software and design aids are emphasized. Topics include: an introduction to strength design, behavior of tied and spirally reinforced columns, construction of axial load and moment interaction diagrams, strength reduction factors, use of interaction diagrams in design, shear resistance, biaxial bending, and an introduction to slenderness effects. 3 hours. 0.3 CEUs

Wind Loads Online Course

This course is an online version of the popular ASCE workshop. Topics include wind effects (e.g., Bernoulli's equation, patterns over buildings, and effects of roof geometry), basic design wind speed, design wind loads, how to use the ASCE-7 standard (plus three worked solutions), frequently asked questions, other codes, and where to get further information. 8 PDHs

SUMMARY OUTLINE

TIME: 8:30am – 4:30pm

DAY ONE

Introduction to post-tensioning; post-tensioning systems; post-tensioning hardware

Construction technology of post-tensioned structures; preferred construction practice

Background to structural modeling and design of concrete floors with specific reference to post-tensioning

Detailed design procedure of post-tensioned floors and frames

Long-hand design example of a post-tensioned column supported flat slab

Long-hand design example of a post-tensioned parking structure beam and slab

Industry standard computer applications for design of flat slabs, beams and frames; Equivalent Frame Method and beam frames (using ADAPT-PT)

DAY TWO

Layout of post-tensioning tendons; detailing of tendons and rebar

IBC, ACI and other code provisions for design of post-tensioned members for gravity, wind and earthquake

Finite element analysis of and design of post-tensioned floor systems using ADAPT-FLOOR- Pro

Case studies of design of post-tensioned floors

Structural Modeling of post-tensioned members for analysis and design

Crack mitigation in post-tensioned structures and design for restraint of supports

Questions and discussion



For a complete listing of Continuing Education seminars, visit ASCE's website at: www.asce.org/conted/



In-House Presentations

Let us come to you.

This seminar can be:

- Presented at your organization
- Scheduled at your convenience
- Tailored to the needs of your staff

An on-site program can reduce the per person cost by more than 25% and your total training cost by 50%.

Call ASCE Continuing Education at: **1-800-548-2723**