WHY YOU & YOUR EMPLOYEES SHOULD ATTEND THIS SEMINAR

This two-day seminar provides the know-how and the tools for efficient and economical design of post-tensioned concrete structures. After a brief introduction to current post-tensioning systems and construction practice, the seminar continues with the economics of both grouted and unbonded options, and covers the practical design concepts and design procedures for beams, one-way and column supported two-way flat slab construction. Each step is supplemented with well-documented literature, examples and computer simulations.

THE TWO-DAY SEMINAR WILL COVER:

- Design basics of post-tensioned structures
- Building Code requirements for design of post-tensioned members
- 10-Step Design of Post-Tensioned Floor Systems
- Design of Shortening of Post-Tensioned Members
- Stress Losses in Post-Tensioning
- Design of Post-Tensioned Floor Systems in High-Seismic Zones
- Construction Detailing
- Design of Post-Tensioned Slabs using 2D Strip Method Software
- Advanced Design of Post-Tensioned Slabs using 3D Finite Element Method Software
- Workflow for Integrated Design of Concrete Buildings with Post-Tensioned Slabs
- Assessment and Evaluation of Vibration Response of Concrete Floor Systems
- Post-tensioning Systems: Application and Construction
- Economics of Post-Tensioned Construction and Quantities
- Seismic Design of Post-Tensioned Floor Systems to the NZ Building Code
- Case Study of Successful applications of Post-Tensioned Suspended Slabs in NZ

The third day is an optional workshop for those interested in hands-on training in design of post-tensioned buildings. Each attendee will be working on their own laptop, on which a full version time-limited copy of the ADAPT programme will be installed. Starting with an architect's drawing, participants will be guided all steps of modelling, analysis and the design of a post-tensioned slab using ADAPT’s 3D Finite Element software. In addition, each participant will receive a CD with the educational versions of ADAPT software.

OTHER BENEFITS

- Valuable resource through the seminar notes and reference material
- Knowledgeable experienced international and local speakers
- The opportunity to network with industry peers

WHO SHOULD ATTEND

Designers, Specifiers, Site Engineers, Contractors, Building Certifiers, Local Authorities, Consulting Engineers, Project Managers, Graduate Engineers.

INVESTMENT DETAILS

- Two-Day Seminar: CNZ-LS members
  $800 (GST exclusive) per person
- Two-Day Seminar: Non CNZ-LS-members
  $900 (GST exclusive) per person (includes complimentary CNZ-LS membership until 30 June 2019)
- Two-Day Seminar & Hands-on Workshop: CNZ-LS members
  $900 (GST exclusive) per person
- Two-Day Seminar & Hands-on Workshop: Non CNZ-LS members
  $1000 (GST exclusive) per person

SEMINAR FEES INCLUDE

- Tea and coffee on arrival
- Morning tea, lunch, afternoon tea
- Comprehensive seminar notes
PROGRAMME

DAY 1 - Wednesday 30 May 2018

8.30 – 9.00 am
Registration

9.00 – 9.10 am
Introduction

9.10 – 10.40 am
SESSION 1
• Post-Tensioning Introduction: Key Benefits, Applications & Systems
• Economics of Post-Tensioned Construction and Quantities

10.40 – 11.00 am
Morning Tea

11.00 am – 12.30 pm
SESSION 2
• Design Basics of Post-Tensioned Structures
• Building Code Requirements for Design of Post-Tensioned Members

12.30 – 1.30 pm
Lunch

1.30 – 2.50 pm
SESSION 3
• Building Code Requirements for Design of Post-Tensioned Members continued
• 10-Step Design of Post-Tensioned Floor Systems, followed by Long-Hand Calculation

2.50 – 3.10 pm
Afternoon Tea

3.10 pm – 4.30 pm
SESSION 4
• Design of a Post-Tensioned Continuous Beam Frame
• Expeditious Design of Post-Tensioned Floors and Beams using 2D Strip Method

4.30 – 5.00 pm
Questions & Discussion

DAY 2 – Thursday 31 May 2018

9.00 – 10.50 am
SESSION 5
• Design for Shortening of Post-Tensioned Members
• Advanced Design of Post-Tensioned Floor Systems using 3D FEM Software (ADAPT-Builder)

10.50 – 11.10 am
Morning Tea

11.10 am – 12.30 pm
SESSION 6
• NZ post-tensioned buildings: Market activity and case studies
• Stress Losses in Post-Tensioning

12.30 – 1.30 pm
Lunch

1.30 – 3.10 pm
SESSION 7
• Workflow for Integrated Design of Concrete Buildings with Post-Tensioned Slabs
• Design of Post-Tensioned Floor Systems in High-Seismic Zones

3.10 – 3.30 pm
Afternoon Tea

3.30 pm – 4.30 pm
SESSION 8
• Seismic Design Considerations for Post-Tensioned Floor Systems in NZ
• Assessment and Evaluation of Vibration Response of Concrete Floor Systems
• Construction Detailing: Layout of Post-Tensioning Tendons and Detailing of Non-Prestressed Reinforcement

4.30 – 5.00 pm
Questions & Discussion; Summary and Evaluation

DAY 3 – Friday 1 June 2018

OPTIONAL HANDS-ON COMPUTER WORKSHOP
9.00am – 5.00 pm
Obtain hands-on experience and exposure to the efficient design of post-tensioning buildings and become familiar with the latest design tools and methods
SPEAKERS PROFILES

Bijan Aalami
Bijan O. Aalami, ASCE life member, is Emeritus Professor of San Francisco State University; Legend, Fellow and Life Member of the Post-Tensioning Institute; and Founder and Principal of ADAPT Corporation, a structural engineering and concrete software development company in California, serving clients in over 70 countries. He is ACI recipient of the Design Award for application of advanced engineering to a notable concrete structure. Bijan has published extensively on analysis and design of post-tensioned structures. A renowned educationalist, he has held courses on design of structural concrete and post-tensioning in over 35 countries worldwide. He is honorary member of the Argentine Structural Engineering Association.

Florian Aalami
Dr. Aalami is an expert in AEC software development and the design and construction of post-tensioned concrete structures. As President & CEO of ADAPT Corporation, he is responsible for the overall operation of the company including its software development, sales and consulting divisions. Florian has taken specific interest in leading the company's international expansion efforts. He is also driving ADAPT's strategic initiative to develop a fully integrated design solution for reinforced and post-tensioned concrete buildings and bridges. Florian earned a bachelor's degree in civil engineering from the University of California, Berkeley and both a master's degree in structural engineering and a doctoral degree from Stanford University's Center for Integrated Facility Engineering (CIFE), a leading think tank on Building Information Modeling (BIM).

Juan Maier
Chartered structural engineer and Head of Business Development at BBR VT International – the Technical Headquarters and Business Development Centre of the BBR Network located in Switzerland. The BBR Network is a leading group of specialised engineering contractors in the field of post-tensioning, stay cables and other related engineering construction with presence in more than 50 countries. He is responsible for global business development activities, sales & marketing strategy and providing project bidding technical and commercial support. Previously he was an Associate at Arup, a leading global engineering consultancy firm, where he gained extensive international structural design and construction industry experience, leading several large multi-disciplinary engineering teams on some of the most complex and challenging projects in the world.

Jeff Matthews
Jeff is a Project Director at Holmes Consulting. He has 15 years' experience since completing his PhD from the University of Canterbury. During his time with Holmes Jeff has worked on a diverse range of projects throughout New Zealand and overseas. A number of these projects have involved the design of reinforced concrete structures. Jeff's project experience has included many large public projects, including healthcare facilities and prisons. He has also worked on car parking buildings, retail complexes, arenas and large international aircraft hangars. Jeff led the design for the 30,000m2 post tensioned Britomart Carpark. At the time of completion it was one of the largest suspended post tensioned buildings in New Zealand. More recently, Jeff is the immediate Past President for the Concrete New Zealand Learned Society.

Marc Stewart
Marc is the Business Development Manager for a new joint venture between BBR Contech and SRG Ltd (Australia). This partnership was developed to expand the use of post-tensioning in NZ high-rise and building structures by drawing on local and international expertise available within the BBR Global Network of Experts. SRG bring design resources and a strong track record in the design and construction of post-tensioned building structures in Australia, while BBR Contech bring local post tensioning resources and expertise.

VENUE
Auckland
Wed 30 & Thur 31 May 2018 (seminar)
Friday 1 June 2018 (optional hands-on workshop)
Ellerslie Event Centre, 80-100 Ascot Avenue
(Ellerslie Racecourse), Greenlane

PRESENTERS
Concrete NZ – Learned Society acknowledges the following supporting organisations for making this seminar series possible:
Bijan Aalami, courtesy of Adapt Corporation
Florian Aalami, courtesy of Adapt Corporation
Juan Maier, courtesy of BBR VT International Ltd
Jeff Matthews, courtesy of Holmes Consulting
Marc Stewart, courtesy of BBR Contech
REGISTRATION FORM - Tax Invoice: GST Registration Number 48-931-944

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Dietary Requirements:

PAYMENT DETAILS:

Two-day Seminar: No. of member registrants [ ] at $920 GST inclusive = $

Two-day Seminar: No. of non-member registrants [ ] at $1035 GST inclusive = $

Two-day Seminar & Hands-on Workshop: No. of member registrants [ ] at $1035 GST inclusive = $

Two-day Seminar & Hands-on Workshop: No. of non-member registrants [ ] at $1150 GST inclusive = $

Total= $ ____________________________ I have enclosed our cheque of $ ____________________________

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Please complete this form, take a copy for your records and email it to learnedsociety@concretenz.org.nz

If paying by cheque or bank draft please email your registration form and post the cheque to:
PT Design & Construction Seminars,
PO Box 12, Beachlands, Auckland 2147.
Cheques should be made payable to Concrete NZ – Learned Society.

For all enquiries phone (09) 536 5410

NOTE: Full payment must be received prior to each seminar.