

Dr Bijan Aalami's selected list of publications to illustrate fields of interest¹
Update October 2020

The publications are organized based on field of interest

(i) On Concrete Structures and Post-Tensioning

Aalami, B.O. (2019). "Post-Tensioning Design, A Simple, Serviceable, and Safe Option," Structure Magazine, www.StructureMag.org, June 219, pp. 13-14.

Aalami, B. O. (2018). "The Challenge of the End Span," Concrete International, www.Concrete.org, Oct. 2018, PP. 52-54.

Aalami, B. O. (2018). "Support Restraints and Strength of Post-Tensioned Members," Structure Magazine, www.StructureMag.org, January 2018, pp. 18-20.

Aalami, B. O. (2016). "Cracking Moment and Safety of Post-Tensioned Members," Structure Magazine, www.StructureMag.org, October 2016, pp. 34-35.

Aalami, B. O., Aalami, F. B., Smilow, J., and Rahimian, A., (2016), "Novel Application of Post-Tensioning Solves High-Rise Design Challenges," Concrete International, American Concrete Institute, October 2016, pp 58-63

Aalami, B., (2015), "Post-Tensioning in Ground-Supported Slabs," PTI Journal, Post-Tensioning Institute, December 2016, PP. 5-16.

Aalami, B. O., (2007), "Critical Milestones in Development of Post-Tensioned Buildings," American Concrete Institute, (ACI) Concrete International, October 2007, pp 52-52.

Aalami, B. O. (2005), "Structural Modeling and Analysis of Concrete Floor Slabs," ACI, Concrete International, December 2005, pp. 39-43.

Aalami, B. O., and Jurgens, J. D. (2003), "Guidelines for the Design of Post-Tensioned Floors," American Concrete Institute, Concrete International Journal, March 2003, pp. 77-83. (2003)

Aalami, B. O. (2001) "Software for the Design of Concrete Buildings," American Concrete Institute, Concrete International Journal, December 29, 2001, pp. 28-35.

Aalami, B. O., (2000) "Structural Modeling of Post-Tensioned Members," Journal of Structural Engineering, ASCE, Vol. 126, No.2 Feb 2000, pp. 157-162

Aalami, B. O., (1998) "Hyperstatic (Secondary) Actions in Prestressing and Their Computation," Post-Tensioning Institute, Phoenix, PTI²-TN6, pp10, December 1998

¹ Does not include over 100 Technical Notes on post-tensioning authored and distributed through ADAPT Corporation

² www.Post-Tensioning.org

Aalami, B. O., and Chegini, M. M., (1995) "*Structural Retrofitting of Cast-in-Place Concrete Parking Structures*," Proceedings, Third National Concrete and Masonry Engineering Conference, San Francisco, pp. 639-660, June 15-17, 1995.

Aalami, B. O., (1994) "*Unbonded and Bonded Post-Tensioning Systems in Building Construction - A design and Performance Review*," Post-Tensioning Institute, Phoenix, PTI-TN5, pp10, Sept 1994

Aalami, B. O., (1994) "*One-Way and Two-Way Post-Tensioned Floor Systems*," Post-Tensioning Institute, Phoenix, PTI-TN3, pp10, Feb 1994

Aalami, B. O., (1993) "*Strength Evaluation of Existing Post-Tensioned Beams and Slabs*," Post-Tensioning Institute, Phoenix, PTI-TN4, pp10, 1993

Aalami, B. O., (1993) "*Effective Width in Post-Tensioning*," Post-Tensioning Institute, Phoenix, PTI-TN5, pp 4, 1993

Aalami, B. O., (1993) "*Analysis and Design of Segmentally Constructed Bridges*," Proceedings, CONCET'93, Kuala Lumpur, Malaysia, TS2-1 to TS2-16, May 25-27, 1993.

Aalami, B. O., (1993) "*Developments in Analysis and Design of Post-Tensioned Buildings*," Proceedings, CONCET'93, Kuala Lumpur, Malaysia, May 25-27, 1993.

Aalami, B. O., (1990) "*Load Balancing - A Comprehensive Solution to Post-Tensioning*," Structural Journal, ACI, November-December 1990, pp 662-670.

Aalami, B. O., Barth F. G., Napior, K. and Pu D. C.,(1989) "*Earthquake Performance of Unbonded Post-Tensioned Buildings; San Francisco Earthquake 1989*," Post-Tensioning Institute, Phoenix Sep. 1990, pp. 16.

Aalami, B. O., (1990) "*Developments in Post-Tensioned Floors in Buildings*," Proceedings, FIP-XIth International Congress, Hamburg, June 1990, pp S3-S9.

Aalami, B. O.,(1989) "*Design of Post-Tensioned Floor Slabs*," ACI, Concrete International, V.11, No. 6, June 1989, pp. 59-67.

Aalami, B. O. and Barth F. G.,(1989) "*Restraint Cracks and Their Mitigation in Unbonded Post-Tensioned Building Structures*," American Concrete Institute, SP113, 1989, also Post-Tensioning Institute 1988, pp. 157-202.

Barth F.G. and Aalami, B.O.,(1989) "*Controlled Demolition of an Unbonded Post-Tensioned Concrete Slab*," Post-Tensioning Institute, Phoenix, 1989.

Aalami, B. O. and Swanson, D. T. , (1988) "*Innovative Rehabilitation of a Parking Structure*," American Concrete Institute, Journal of Concrete International, February 1988.

Aalami, B.,(1972) "*Moment-Rotation Relationship Between Column and Slab*", Journal of the American Concrete Institute, May 1972, pp 263-269.

Mehrain, M. and Aalami, B., (1974) "Rotational Stiffness of Concrete Slabs", Journal of the American Concrete Institute, September 1974, pp 429-435.

(ii) Software on Structural Concrete Developed and in Use in Over 75 Countries Across the World

Aalami, B. O., "*ADAPT-ABI*," for analysis of incrementally constructed prestressed and nonprestressed concrete bridges and frames.

Aalami, B. O., "*ADAPT-ABS*," for analysis of concrete box girder bridges with non-uniform plan geometry.

Aalami, B. O., "*ADAPT Post-Tensioning Software System*," for analysis and design of floor systems and beams.

Aalami, B. O., "*ADAPT-RC*," for analysis and design of concrete floor systems and beams.

Aalami, B. O., "*FELT Friction, Elongation and Long-Term stress losses in prestressing*

Aalami, B. O., "*PULT Ultimate strength analysis/design of prestressed members*,"

Aalami, B. O., and Bommer, A. "*ADAPT-Floor*," a finite element two-dimensional analysis and design software for prestressed and nonprestressed slabs and floor systems.

(iii) On the vibrations and dynamics of structures

Aalami, B. O., (1984) "*Large Amplitude Vibrations of Rectangular Plates*," Journal of Applied Mechanics, ASME, 1984, pp 935-937.

Aalami, B. O., (1973) "*Waves in Prismatic Bars of Arbitrary Cross-Section*", Journal of Applied Mechanics, ASME, December 1973, pp 1067-1072.

Aalami, B. and Atzori, B., (1974) "*Flexural Vibrations and Timoshenko's Beam Theory*", Journal of the American Institute of Aeronautics and Astronautics, May 1974, pp 679-685.

Aalami, B. O., and Javaherian, H., (1973) "*Free Vibrations of Rectangular Plates*," Fourth Australasian Conference on the Mechanics of Structures and Materials, University of Queensland, Brisbane, 20-22nd, Aug, 1973, pp.1-8.

(iv) On the design of steel structures

Aalami, B. and Chapman, J.C., (1969) "*Large-Deflection Behavior of Rectangular Orthotropic Plates Under Transverse and Inplane Loads*", Proceedings of the Institution of Civil Engineers, March 1969, pp 347-382 and November 1969, pp 263-264. London.

Aalami, B., (1972) "*Large-Deflection of Plates Under Patch Loading*", Journal of the Structural Division, American Society of Civil Engineers, November 1972, pp 261-269.

Aalami, B. Moukhtarzadeh, A. and Mahmudi-Saati, P., (1972) "*On Strength Design of Ship Plates Under Inplane and Transverse Loading*", Transactions of the Royal Institute of Naval Architects, November 1972, pp 519-534.

Aalami, B., (1972) "*Large-Deflection Stress Analysis of Rectangular Containers*", Journal of Ship Research, US, December 1972, pp 261-269.

Williams, D.G. and Aalami, B., (1975) "*Some Considerations in Regard to the Strut Analysis of Compression Panels*", Proceedings of the Institute of Engineers, Australia, January 1975.

Aalami, B. O., (1973) "*Analysis and Design of Cubic Liquid Containers*," Conference on Stress and Strain in Engineering, National Conference Publication, no. 73/5, 1973, pp. 77-82

(v) On Communication Wave Guides

Aalami, B., (1973) "*Analysis and Behavior of Acoustic Surface Wave Guides*", Institute of Electronics and Electrical Engineers, Transactions on Sonics and Ultrasonics, July 1973, pp 252-260.

Books

Aalami, B. O., (2014) "Post-Tensioned Buildings; Design and Construction," www.PT-Structures.com, Rewood City, CA, Mar 2014, 450 pp

Aalami, O. B., and Bommer A., (1999) "DESIGN FUNDAMENTALS OF POST-TENSIONED CONCRETE FLOORS," Post-Tensioning Institute, Phoenix, AZ, April 1999

- ❖ Translated in Korean
- ❖ Translated in Croatian

Williams, D.G. and Aalami, B., (1979) "*DESIGN OF THIN PLATES UNDER EDGE COMPRESSION*," Crosby Lockwood, UK, 1979.

Aalami, B. and Williams, D.G., (1975) "*THIN PLATE DESIGN FOR TRANSVERSE LOADING*," John Wiley, USA, 1977, and Crosby Lockwood, UK, 1975.