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AHMADI
Specialty: Concrete Dams Design and Dynamic
analysis, Earthquake
Engineering, Fluid-Structure
Interaction,
Finite Element Analysis.
Title: Professor
Department: Civil Engineering., Hydraulic Structures
Division
Academic Degrees: Ph.D. C.E., M.Sc. C.E, B.S. St. E.
Current Position: University Faculty (1988 to date)
Marital Status: Married
Date & Place of Birth: June 6, 1955, Arak, Iran
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EDUCATION

Ph.D. March 1988
Dept. Civil Engineering, Tohoku University, Sendai, Japan
Thesis Title: New Method of Analysis for Arch Dam: Reservoir and Foundation
Dynamic Interactions, and Static Joint Opening.
M.S. March 1985
Dept. Civil Engineering, Tohoku University, Sendai, Japan
Thesis Title: A Study of Static and Dynamic Behaviors of Arch Dam.
B.S. July 1979
Structural Engineering Faculty, Sharif University of Technology, Tehran, Iran
Language Ability: English (fluent), Japanese (fair), German (limited), Arabic (limited)

ACADEMIC EXPERIENCE

Permanent Position: Professor and Faculty in The Faculty of
Engineering and Technology,
Tarbiat Modares University, Civil Engineering
Dept. (since 1988)
Graduate Lectures Given: Finite Element Method I & II, Concrete
Dams, Matrix Analysis of Structures, Fluid-Structure

Interaction, Earthquake Engineering, Mechanics
of Materials. (since 1988)

1988 to 1990 :

Head of Civil Engineering Department at School of Engng., Tarbiat Modarres
University(T.M.U).

1988 to 1989 :

Head of Technical Bureau of T.M.U.

1993 to 1994 :

Research Deputy of School of Engineering

1996 to 1998 :

Founder and Dean of Research Faculty (Pazhouhesh-kadeh) of Building and Housing.

1989 to 1993 :

Member of Founders, & Charge de' Affair of the International Institute of
Eearthquake Engineering and Seismology

1994 to 1995 :

Guest Professor to the Swiss Federal Institute of Technology (ETH) on Sabbatical for
Research on Nonlinear Dynamic Analysis of Arch Dam.

1995 to 1998 :

Member of Scientific Research Council of Iran (Industry Committee).

2001 to 2002 :

Head of Special Committee for Revising General Courses for Undergraduate Level for
Universities in Tehran.

1993 to 2004 :

Member of Civil Engineering Committee of Supreme Council of Planning for Higher
Education.

1995 to 2000 :

Head of Hydraulic Structures Division in Civil Engineering Department.

1995 to 2004 :

Chief Editor of Modares Technical & Engineering Journal, Tarbiat Modares University

1998 to date :

Member of Research Council, International Institute of Earthquake Engineering and
Seismology, Tehran, Iran.

1999 to 2003 :

Vice-Chancellor for Academic Affairs, Tarbiat-Modares University.

1990 to 1999 :

Member of Scientific Research Council of Iran (Earthquake Committee).

2003 to 2007 :

Head of Hydraulic Structures division, Civil Engineering Department, Tarbiat Modarres
Univ.

2003 to 2006 :

Member of Academic Publishment Council, Tarbiat Modares University

2003 to 2007 :

Members of the Board of Trustees, Research Faculty (Pazhouhesh-kadeh) of Building
and Housing.

2004 to 2008 :

Member of Council of Faculties Scientific Evaluation, Tarbiat Modarres Univ.

2003 to 2008 :

Member of Council of Faculties Scientific Evaluation, International Institute of Earthquake Engineering and Seismology, Tehran, Iran.

2004 to date:

Member of editorial board of several Iranian Scientific Journals (Modares & Technical and Engineering, Road and Transportation, Seismology and Earthquake Engineering, Int. Journal of Civil Engineering, etc.)

2006 to 2010:

Members of the Board of Trustees, International Institute of Earthquake Engineering and Seismology.

2007 to date: Member of the Academic Culture Development in The Faculty of Engineering and Technology, Tarbiat Modares Univ.

INDUSTRIAL AND PROFESSIONAL EXPERIENCE

1978 to 1979 :

Structural Engineering Supervisor at the site of heavy RC construction in cooperation with the Parjam General Contractor Co.

1989 to 1990 :

Senior supervisor on the dynamic and static analyses and structural design of Ostour Concrete Arch Dam (160 m. Height) to be built in Azarbajejan province of Iran, in cooperation with the Mahab-Ghodss Consultant Engineers (MG).

1988 to 1993 :

Senior supervisor on preliminary and final design Tange-Soleyman (Shahid-Rajaei) Concrete Arch Dam now under construction in Mazandaran Province in cooperation with the MG.

1988 to 1993 :

Consultant in the design and analysis of several concrete dams under or planned for construction as well as in the safety evaluation of existing dams in Iran, such as Karun-I, Karun-III, Dez, Tabarakabad, Taham, Ghir, Ilam, Tange-Douk, Barezou etc. in cooperation with the Mahab-Ghodss Consultant Engineers Co.

1991-1994:

Design Manager of two earth dams projects in the feasibility stage (Kalan dam with 40m. height, and Sang-e-Siah dam with 30m. height) in conjunction with the Mahab-Gharb Consulting Engineers Co.

1992:

Head of Civil Design Checkers of the Karun-III Project (A 200m Concrete Arch Dam with a 2000MW Hydroelectric Power Plant).

1990-1991 :

Chief engineer in the dynamic verification analysis of 106 m. height Sefidroud buttress dam post earthquake rehabilitation design with special reference to hydrodynamic interaction and foundation radiation.

1989 to 1994 and 1997 to date:

Member of Technical Committee of Concrete Dams section in the Mahab-Ghodss

Consulting Engineers, Tehran, Iran.

1995 to 1998 :

President of the Building and Housing Research Center; the National organization under the ministry of Housing and Urban Development.

1997 to Date:

Structural Design supervisor of the Karun-IV Project (A 240m Concrete Arch Dam with a 2000 MW Hydroelectric Power Plant).

1995 to 1997 :

Head of the National Committee of Revising the Iranian Code for Seismic Resistant Design of Buildings (ISIRI Standard 2800).

1997 to date :

Main Member of the National Council of Building Code; Ministry of housing and Urban Development.

1998 to 2003, and 2007 to date :

Head of the Special Committee for the National Code for Energy Saving in Buildings.

2002 to 2003 :

Head of Special Committee on "Quality Improvement of Building Material and Construction Technology", Organization of Management and Planning of Iran.

1999 to 2008 :

Member of Technical Committee of BHRC (Building and Housing Research Center), Tehran, Iran.

1992 to 2005 :

Founder and member of Board of Directors of Mahsab Gharb Consulting Engineers, Tehran, Iran.

2001 to 2002 :

Founder and member of the "RD committee for Construction Technology" of Housing Investment Company, Tehran, Iran.

2001 to 2008 :

Head of Technical Guidance Group for the National Program of Retrofitting the Vital and Emergency Buildings and Facilities.

2002 to date:

Keynote lecturer of Technical Official Training Courses for Seismic Retrofit of Buildings, Organization of Management and Planning of Iran.

2002 to Date :

Member of the National Committee of Revising the Iranian Code for Seismic Resistant Design of Buildings (ISIRI Standard 2800).

2005 to Date:

Structural Design Checker of the World Highest Concrete Dam; Bakhtiari Hydro-Project (A 315m Concrete Arch Dam with a 2000 MW Hydroelectric Power Plant).

2004-2006:

Member of the Engineering Jury Panel of The Khwarizmi International Award, Tehran, Iran.

2005-2006:

Member of the International Panel of Experts, Shahryar Arch Dam Project, Tablieh Construction Company, Tehran, Iran.

2007 to 2010 :

Head of the Special Committee for the National Building Code Chapter 21; Engineering Civil Defence for Buildings.

2010 to date:

Member of Research Council for Civil Infrastructures and Standardization, Technical Department of Municipality of Tehran City.

2011 to date:

Member of Research Council of Dam Engineering, Iran Water Resource Management Company, Ministry of Energy.

MEMBERSHIPS

1. Member of Iranian Association of Structural Engineers since 1989.
2. Member of the Iranian National Committee on Large Dams since 1989.
3. Member of the Japanese Association of Civil Engineers (1988-1993).
4. Member of the Earthquake Research Institute EERI (1989-1994).
5. Member of Founders of Iranian Association of Earthquake Engineering, since 1991.
6. Member of the International Association of Computational Mechanics IACM,(1989-1996).
7. Member of Iranian Construction Engineers Organization since 1995.

HONOURS

1. 3rd rank in Structural Engineering freshmen of the Nation-wide higher education entrance exam for Aryamehr (Presently Sharif) University of Technology, 1973.
2. Japanese Monbusho Scholarship Laureate for Graduate studies in Japan, 1982-1988.
3. " Honored Faculty of The Year 1995" in Tarbiat Modares University
4. " Honored Faculty of The Year 1997" in the Faculty of Engineering and Technology, Tarbiat Modares University.
5. Prize for Significant Contribution to the rehabilitation of the Sefid-Roud Dam (Analysis and Design tasks), 1991, from the Minister of Energy.
6. Prize for Distinct Paper in the 3rd Iranian Congress of Dam Construction (IRCOLD 1997), from the Minister of Energy.
7. Holder of Professional Engineer Degree (Grade 1), Tehran Building Engineers Organization since 1995.
8. President of The Iranian Association of Earthquake Engineering (2003 to 2006).

PUBLICATIONS

A. Books and Technical Reports:

1. M. T. Ahmadi et al., "An Evaluation of Repair techniques for the Damaged Sefidroud Concrete Buttress Dam," Mahab-Ghodss Consultant Engineers Company, 1991.
2. M.T. Ahmadi, Lotfi V., Zakerzadeh N., "PARSHAPE; A Computer Program to Generate Parabolic Arch Dam," Mahab-Ghodss Consultant Engineers Co. 1988.
3. M.T. Ahmadi. Khoshrang, Gh., "A Finite Difference Program for Thermal Load Analysis of Concrete Arch Dams," MG Consultant Engineers Co., 1990.
4. M.T.Ahmadi, "Scientific Program for Structure Section Development," MG Consultant Engineers Co., 1991.
5. M.T.Ahmadi, F.Jafarzadeh(eds.), "The Manjil-Roudbar Earthquake of Khordad 31, 1369, Iran," Technical report 1, (Publication no. 70-91-1 in Persian), Int.Inst.Earthq.Engng.Seism, 1991
6. M.T. Ahmadi, Gharabaghi B., " A New Method of Analysis for the Dynamic Interaction of Dam-Reservoir using Euler-Lagrangian Approach," (Publication no. 72-93-1 in Persian) International Institute of Earthquake Engineering and Seismology, September 1993.
7. G.R.Graham, T.Yanagida (Authors), A.Fouroggi, M.T. Ahmadi (Translators into Persian), "Roller Compacted Concrete for Gravity Dam; ICOLD Bulletin no.75", Int.Inst.Earthq. Engng.Seism., Tehran, 1995.
8. M.T.Ahmadi (ed.& head of revising committee), "Iranian Code for Seismic Resistant Design of Buildings- 2nd Revised Edition", BHRC Publication no 253, Tehran 1997.
9. M.R.Pourjafar, N.Nik-khah, M.T.Ahmadi," An Illustrated Guide to the Iranian Code for Seismic Resistant Design of Buildings (ISIRI Standard 2800)", BHRC Publication no 245, Tehran 1997.
10. M. T. Ahmadi (ed.& head of the Assigned Committee), " Guidebook for Chapter 19 of Iranian Building Code; Savings in Building Energy Consumption, Vol. 1, Thermal Insulation of External Envelope," Ministry of Housing and Urban Planning, 1999, Tehran.
11. M.T.Ahmadi (head of Assigned Committee), " Chapter 19 of the Iranian Building Code (2nd ver.); Savings in Building Energy Consumption, Vol. 1, Thermal Insulation of External Envelope," Ministry of Housing and Urban Planning, 2002, Tehran.
12. V. Mirahsani, M.T. Ahmadi, and M. Haeri," Iranian design response spectrum," Building and Housing Research Center, Winter 2000, Tehran.
13. M. T. Ahmadi, M. Izadinia, " Nonlinear Dynamic Analysis of Concrete Arch Dams including Shear-Tensile failures," Scientific Research Council of Iran, 2003, Tehran.
14. M.T. Ahmadi, S. Mohammadi, Gh. Liaghat, and A. A. Tasnimi, "Terms of Reference for Devising National Code for Blast Load Resistant Structures, " (in Persian), Building and Housing Research Center, Tehran, Spring 2007.
15. M.T. Ahmadi, " Optimum Shape Seismic Design Software for Concrete Arch Dam," Technical Report Dam-84023, Iran Water Resource Management Company, 2010.

16. Experiences and Lessons Learnt on Seismic Retrofitting, (in Persian), Ahmadi M. T., Tahuni S. and Namayandeh- Niasar A. (editors), Winter 2011, IREMCO, Tehran, Iran.

M.T. Ahmadi, " Seismic Load Definition for Hydraulic Structures in Canyon Sites," Technical Report Dam-84..., Iran Water Resource Management Company, 2010.

B. Papers in Journals:

1. Ahmadi M. T., "SPRAD, Seismic Analysis Program for Fluid-Structure Radiative Systems, " Computers & Structures, 1989.
2. Ahmadi M. T., Razavi, S., "A Three-Dimensional Joint Opening Analysis of An Arch Dam, " Computers & Structures Vol. 44 No. 1/2, 1992.
3. M. T. Ahmadi, Khoshrang Gh., " Sefidrud Dam`s Dynamic Response to the Large Near-Field Earthquake of June 1990," J. of Dam Engineering, Vol.III, Issue 2, 1992.
4. M.T.Ahmadi, "Sefidroud dam Experience", Int. J. Water Resources Engng. vol.1, no.1, 1993.
5. M. T. Ahmadi, S. A. Marashi, and A. A. Aghakoochak, "A Study of Joint-Opening on Concrete Dams Using Incremental Static Loading", (in Persian) Amirkabir J. of Science and Technology vol.9, no.33, 1997.
6. M. T. Ahmadi, B. Nawaeenya, "Hydrodynamic Interaction Analysis of Dam-Reservoir Using Lagrangian Approaches", (in Persian) Int. J. of Engineering, Iran University of Science and Technology, Vol.6, no.1-b, 1995.
7. J. Vaseghi-Amiri, M. T. Ahmadi, " Appropriate Constitutive Model for Nonlinear Dynamic Analysis of Concrete Gravity Dams Fracture Under Earthquake Effects," (in Persian), Int. J. of Engng., Vol.9 No. 3, Iran University of Science and Technology, 1998.
8. M.T. Ahmadi, J. Vaseghi-Amiri, "Fracture Models Assessment for Dynamic Analysis of Concrete Gravity Dams," (in Persian) Modarres Technical and Engineering Journal, No.4, Spring 1998.
9. M. T. Ahmadi, M. Izadinia, and H. Bachmann, "A Discrete Crack Joint Model for Nonlinear Dynamic Analysis of Arch Dam," Computers and Structures, Vol. 79, No. 4, 2001, Pergamon Press.
10. M. Izadi-Nia and M. T. Ahmadi, " Vertical Contraction Joint Models for Nonlinear Dynamic Analysis of Concrete Arch Dams," (in Persian), Esteghlal Journal of Engineering, Vol. 19, No. 2, Winter 2001.
11. N. Khaji, M. T. Ahmadi, " An Efficient method for Dam-Reservoir Seismic interaction Analysis," Amirkabir journal of Science and Technology, Vol. 13, No. 50, Spring 2002.
- M. T. Ahmadi, M. R. Mivechi and A. Hajmomeni, " Ambient Vibration Tests of a Modern Arch Dam; Some Proposals for Method of Data Processing," Int. J. of Civil Engng., Iran University of Science and Technology, 2002.
12. M. T. Ahmadi, M. H. Sadaghyani, and H. A. Maghsudi-Shoorabi, " Numerical Analysis of Behavior of Jointed rock Mass of Concrete Arch Dam Abutments," (in

- Persian), Amirkabir Journal of Science and Technology, vol. 13, No.51, Summer 2002.
14. R. Sarraf-Mamoory, M. T. Ahmadi, T. Parhizkar, and S. B. Ahmadi, "The study of the effect of Particle Size and Weight Ratio of Ceramic Pigments on Compressive Strength of Colored Concrete," (in Persian), Modarres Technical and Engineering Journal, No. 5, Fall 2001.
 15. M. T. Ahmadi, Afsheen Kalantary, "Dynamic Modelling of Seismic Behavior of Elevated Water Tank Including Fluid-Structure Interaction," (in Persian), Modarres Technical and Engineering Journal, Winter 2003.
 16. M. T. Ahmadi, "Changing the Steel Frame Design of Ordinary Buildings," (in Persian), Building and Housing News, Vol. 1 Winter 1997, BHRC, Iran.
 17. M. T. Ahmadi, and N. Moghaddas, "Problems to Focus on When Building High Rise," (Translation from Bulletin of Tall Buildings & Urban Habitat into Persian), Building and Housing News, Vol. 2, No. 4, Spring 1998, BHRC, Iran.
 18. M. R. Mivehchi, M. T. Ahmadi, and A. Haj-momeni, "Effective Techniques for Arch Dam Ambient Vibration Test: Application on Two Iranian Dams," J. Seimology and Earthquake Engineering, Summer 2003, Vol. 5, No.2, Int. Inst. Earthq. Engng. Seism., Tehran, Iran.
 19. S. S. Emamzadeh, and M. T. Ahmadi, "Underwater Explosion Shockwave Propagation by Finite Element Method," (in Persian), J. of Marine Engineering, Iran, 2006.
 20. A. H. Akhaveisi, and M. T. Ahmadi, "A New Thin Shell Flexural 4-Node Finite Element Based on Reissner-Mindlin Theory," (in Persian), Modarres Technical and Engineering Journal, No. 27, Spring 2007.
 21. Tajalli, F., Ahmadi, M. T., Moharrami, H., "A Shape Optimization Algorithm for Seismic Design of a Concrete Arch Dam," J. Dam Engineering, vol.18, issue 2, Sep 2007.
 22. Tarinejad, R., Ahmadi, M. T., Mivehchi, M. R., Ahmadi, M. K., "Evaluation of Dynamic Properties of Concrete Arch Dam using Forced Vibration Test," (in Persian), Int. J. of Science & Technology, Amirkabir, Vol 18, No.66-c, Spring & Summer 2007.
 23. Moradloo, J., Ahmadi, M. T., Vahdani, S., "Geometrically Nonlinear Dynamic Analysis of Concrete Arch Dams," (in Persian), Int. J. of Engng., Vol.19 No. 2, Iran University of Science and Technology, 2008.
 24. Tarinejad, R., Ahmadi, M. T., Khaji, N., "Analysis of Topographic Amplification Effects on Canyon Sites using 3-D Boundary Element Method," J. Seimology and Earthquake Engineering, Spring & Summer 2007, Vol. 9, No. 1 & 2, Int. Inst. Earthq. Engng. Seism., Tehran, Iran.
 25. Yazdani, S., Yazdani, M., Ahmadi, M. T., "Effect of Geometrical Properties of Discontinuities on Hydraulic Behavior of and Seepage in the Abutments of Concrete Arch Dam," (in Persian), J. of Hydraulics, vol. 3, no. 1, spring 2008.
 26. Akbari, J., Ahmadi, M. T., Pahl, P. Y., "Shape Design of Concrete Arch Dams using Hermite Splines," (in Persian), Journal of Faculty of Engineering, vol. 42, no. 4, Tehran University, Aug. 2008.
 27. Akbari, J., Ahmadi, M. T., "Shape optimization of concrete arch dams for dynamic load using mesh design velocity," J. Dam Engineering, June 2007.
 28. Shekari M. R., Khaji, N., Ahmadi, M. T., "A Coupled BE-FE Study for Evaluation of Seismically Isolated Cylindrical Liquid Storage Tanks Considering Fluid-Structure

interaction," J. Fluids and Structures, 2009.

29. Tajalli, F., Ahmadi, M. T., Moharrami, H., " Shape Optimization of Concrete Arch Dam to Enhance Seismic Performance," (in Persian), Modarres Technical and Engineering Journal, 2009.

30. Khandan-Bakavoli, M., Ahmadi, M. T., Yazdani, M., " Study on the Effect of Seepage on Jointed Rocks in Abutments of Arch Dams," (in Persian), Int. J. of Science & Technology, Amirkabir, Issue 71, 2009.

31. Karimi, I., Khaji, N., Ahmadi, M. T., and Mirzayee, M., " System Identification of Concrete Gravity Dams using Artificial Neural Networks based on a Hybrid Finite-Boundary Element Approach," Engineering Structures 32, 2010, pp.3583-3591.

32. Pirali P., Liaghat, Gh. H., and Ahmadi, M. T., " Viscoplasticity Coupled with Nonlocalized Damage for Incompatibilities due to Strain Softening," Mechanika, 86(6), 2010, pp. 17-23.

33. Ahamdi, M. T., Moradloo, J., Vahdani, S., "Nonlinear Dynamic Analysis of Concrete Arch Dams using Elasto-Plastic Concrete Models," (in Persian), J. of Civil and Surveying Engineering, Vol.44, No. 3, University of tehran, 2010, pp.303-315.

34. Jilani, H., A. Bahreininejad, and M. T. Ahmadi, " Adaptive Finite Element Mesh Triangulation using Self-Organizing Neural Networks," Advances in Engineering Software, 40, 2009, pp.1097-1103.

35. Fallah-Ziarani M., A.A. Tasnimi, and M. T. Ahmadi, " Flexural RC Special Frame Performance Level Effects on Seismic Nonlinear Behavior of Beam-Middle Columns Connections," (in Persian) Sharif Civil Engineering Journal, 2-26 (2), pp.21-28, 2009.

36. Mirzayee, M., N. Khaji, and M. T. Ahmadi, " A Hybrid Distinct Element-Boundary Element Approach for Seismic Analysis of Cracked Concrete Gravity Dam-Reservoir Systems," Soil Dynamics and Earthquake Engineering, 31, pp.1347-1356, 2011.

37. Yazdani, S., Yazdani, and M., Ahmadi, M. T., " Effect of Geometrical Properties of Discontinuities on Abutments Stability of Concrete Arch Dam," (in Persian), Modares Civil Engineering Journal, 11, no. 1, Spring 2011.

38. Akbari, J., M. T. Ahmadi, and H. Moharrami, " Advances in Concrete Arch Dams Shape Optimization," Applied Mathematical Modelling, 35, pp. 3316-3333, 2011.

39. Moradloo, J., Ahamdi, M. T., Vahdani, S., "Rigorous Nonlinear Dynamic Analysis of Concrete Arch," (in Persian), J. of Civil and Environmental Engineering, Vol.39, No. 4, University of Tabriz, 2009, pp.47-59.

40. Heidari, N., and M. T. Ahmadi," Advanced Analysis of Ambient and Cement Hydration Thermal Effects on a RCC Dam Considering Construction Schedule," (in Persian), Modares Civil Engineering Journal, 11(4), pp.29-41, Winter 2011.

41. Tarinejad, R., and Ahamdi, M. T., " Effective Algorithm for Non-Uniform Seismic Loading of Structures in a Canyon Site," (in Persian), J. of Civil and Environmental Engineering, Vol.39, No. 4, University of Tabriz, 2009, pp.1-12.

42. Khodakarami M.I., N. Khaji, M. T. Ahmadi, "Modeling Transient Elastodynamic Problems using a Novel Semi-Analytical Method Yielding Decoupled Partial Differential Equations," Comput. Methods Appl. Mech. Engrg., 213-216 (2012), pp183-195.

C. Papers in Conferences :

1. Ahmadi M.T., Suzuki M., and Ozaka Y., "A Study of the Dynamic Behavior of Arch Dam," 40th Annual Congress of the Japan Society of Civil Engineers, Sendai, Japan, 1985.
2. Ahmadi M.T., Ozaka Y., "Displacement Based Finite Elements for the Dam-Reservoir System," 41th Annual Congress of the Japan Society of Civil Engineers, Fukuoka, Japan, 1986.
3. Ahmadi M., Ozaka Y., "New Method of Analysis for Dynamic Interaction of Arch Dam," Annual Meeting of JSCE Tohoku Branch, Akita, Japan, 1987.
4. Ahmadi M.T., Ozaka Y., "Dam-Reservoir System Analysis using Displacement-Based Finite Elements," First Iranian Conference on Dam Engineering, Tehran, 1987.
5. Ahmadi M.T., Ozaka Y., " A Simple Method for the Full-Scale Dynamic Analysis of Arch Dam," Proc. of the 9th World Conference on Earthquake Engineering (9WCEE), Tokyo, Japan, 1988.
6. Ahmadi M.T., "CRACK, A Computer Program for Static Analysis of Joint Opening in Concrete Dams," 1988.
7. Ahmadi M.T. , Razavi, S., "A Three-Dimensional Joint Opening Analysis of Arch Dam, " 2nd World Congress on Computational Mechanics, Stuttgart, Germany, 1990.
8. B. Gharabaghi, Ahmadi M.T., " Dynamic Analysis of Dam-Reservoir using Euler-Lagrange Finite-Element Formulation," Proc. 2nd Iranian Conference on Dam Engineering, 1991.
9. Ahmadi M.T., Khoshrang Gh., Mokhtarzadeh A., "Dynamic Response of Sefidroud Buttress Dam during the Manjil-Roudbar Earthquake," Proc. 1st Conference on Seism. and Earthq. Engng.(SEE-1), Tehran, 1991.
10. Ahmadi M.T. Khoshrang Gh., Mokhtarzadeh A., and Jalalzadeh A., "Behavior of a Large Concrete Dam due to an Actual Maximum Credible Earthquake," Proc. of the 10th World Conference on Earthquake Engineering (10WCEE), Madrid, 1992.
11. M.T. Ahmadi, M.Izadinya, "Nonlinear analysis of Concrete Arch Dam using Special Model for Shear-Tension Fracture in Joints," (in Persian) 4th International Conference on Civil Engineering, Sharif University of Technology, Tehran 1997.
12. M.T.Ahmadi, V.Lotfi, and S.Noshad Soheili, " Seismic Design of Arch Dam in a High hazard Site", 10th European Conference on Earthquake Engineering, Duma(ed.), 1995.
13. S.Weiseh, N.Khodabandeh, B.Kuranloo, M.Hosein-nya, M.T.Ahmadi, M.Ghasemzadeh, and N.Heyrani-Nobary, "Study of the Possibility of Enforcement of Standards of Main Materials for Construction," (in Persian), 3rd Seminar for Housing Developments Policies, Tehran University, 1996.
14. M.T.Ahmadi, " National Building Codes," (in Persian), BHRC Education Extension Seminar for Ordinary Buildings, Tarbiat Modarres university, 1996.
15. M.T.Ahmadi, "Effects of Earthquakes on Concrete Dams," (in Persian), 3rd IRCOLD Congress on Dam Construction, Tehran 1997.
16. J.Vaseghi-Amiri, M.T.Ahmadi, " Analysis of Concrete Gravity Dams Fracture Considering Reservoir Interaction due to Earthquake," (in Persian), 4th International Conference on Civil Engineering, Sharif University of Technology, Tehran 1997.

17. S.A.Marashi,M.T.Ahmadi,and A.A.Aghakoochak, "Analysis of Crack Growth in Concrete Dams Under Incremental Static Loads," (in Persian), 4th International Conference on Civil Engineering, Sharif University of Technology, Tehran 1997.
18. J.Vaseghi-Amiri, M.T.Ahmadi, "Concrete Constitutive Model for Nonlinear Dynamic Analysis of Concrete Gravity Dams," (in Persian), 4th International Conference on Civil Engineering, Sharif University of Technology, Tehran 1997.
19. S.S.Majid-Zamani, M.T.Ahmadi, "A Review of Technical Regulations of School Buildings for Resistance Assurance Against Earthquakes," (in Persian), Congress on Earthquakes and Educational Buildings Performances, Shiraz University, 1998.
20. M.T. Ahmadi, " A Major Seismic Event for a Large Concrete Dam," First Iran-Japan Workshop on Recent Earthquakes in Iran and Japan, May 16-18, 1998, Tehran, I.R. Iran.
21. M. R., Mivehchi, and M. T. Ahmadi, "System Identification; a Consistent Method to determine the Dynamic Properties and to Evaluate Large Concrete Dams Resistance Against Earthquakes," Third International Conference on Seismology and Earthquake Engineering, May, 1999, Tehran, Iran.
22. R. Sarraf-Mamoori, M.T. Ahmadi, T. Parhizkar, S.B. Ahmadi, " Improvements in Maintenance, Management, and Distribution in Watering and Drainage Systems Using Ceramic Pigments Concrete," (in Persian), Conference on Watering and Drainage Systems, 2000, Tehran.
23. M. M. Zakeri, and M. T. Ahmadi," Identification of the Cause of Cracks in Monolith No. 18 of Sefid-Rud Concrete Buttress Dam," (in Persian), 4th Conference on Dam Construction, Design, Operation and Maintenance, 20-21 Feb. 2001, IRCOLD, Tehran, Iran.
24. M. R. Mivehchi, A. Haj-Momeni, R. Tarinejhad, M. T. Ahmadi, "Ambient and Forced Vibration Tests on Two Iranian Concrete Arch Dams," (in Persian), 4th International Conference on Earthquake Engineering and Seismology, 2003, Tehran, Iran.
25. S. M. Mousavi, M. T. Ahmadi," A Comparison on Numerical Modelling Techniques of Jointed Rock for Tunnels and other Underground Structures Analysis," (in Persian), 6th Conference on Tunneling, Tehran, Iran, 2003.
26. M. R. Mivehchi, M. T. Ahmadi, " Ambient Vibration Tests of Iranian Arch Dams as a Verification of the Iranian Practice of Dam Design," International Commission on Large Dams Congress, Montreal, 2003.
27. J. Moradloo, M. T. Ahmadi, " A Study on Consistent Algorithm for Nonlinear Large-Displacement Analysis of Concrete Arch Dam and Assessing its Significance," (in Persian), First National Conference on Civil Engineering, Tehran, Iran, 2004.
28. Tarinejad,R., Ahmadi, M. T., "Identification of Concrete Dams Dynamic Properties using Forced Vibration Tests," (in Persian), 7th Int. Congress of Civil Engineering, Tehran, Iran, May 2006
29. Mivehchi, M. R., Ahmadi, M. T., " Evaluation of Discrepancies between the Dynamic Characteristics of Mathematical and Prototype Models of Concrete Arch Dam," 13th World Conference on Earthquake Engineering, Vancouver, Canada, August 2004.
30. Mivehchi, M. R., Ahmadi, M. T., "Frequency Optimization of Concrete Arch Dams

using the Results of Vibration Tests and Mathematical Model," 73th Annual ICOLD Meeting, Tehran, Iran, May 2005.

31. Khandan-Bakavoli, M., Ahmadi, M. T., " Hydro-Mechanical Interaction Effects on Concrete Dam Stability," 73th Annual ICOLD Meeting, Tehran, Iran, May 2005.

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