

# **MOHAMMAD**

**TAGHI AHMADI** 



### **Department of Engineering**

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PERSONAL INFORMATION	EDUCATIONAL RECORDS	ACADEMIC EXPERIENCES
COURSES TAUGHT	<u>REFEREES</u>	OTHERS
MEMBERSHIP OF SCIENTIFIC SOCIETIES	RESEARCH INTERESTS	SEARCH PROJECT LEADER
REFEREE FOR JOURNAL ARTICLES SUBMITTED TO		BOOK
RESEARCH STUDENTS SUPERVISED		PAPERS

# I. PERSONAL INFORMATION:

Name:	Mohammad Taghi Ahmadi
Date of Birth:	
Place of Birth: Marital Status:	Married
Address:	Department of Engineering
P.O.Box.	14115-4838 Tehran, Islamic Republic of Iran
Tel:	+9821 8005040 (ext: room)
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#### **II. EDUCATIONAL RECORDS:**

<b>Degree</b>	<u>Institution</u>	<u>Field</u>	<u>Date</u>
B.Sc	Sharif Univ.of Technology	Structural Engineering Faculty	July. 1979

M.Sc	Tohoku Univ. Sendai, Japan	Civil Engineering	March. 1985
Ph.D.	Tohoku Univ. Sendai, Japan	Civil Engineering	March. 1988

#### **III. ACADEMIC EXPERIENCES:**

**Permanent Position:** Associate Professor and Faculty of School of Engineering Tarbiat Modarres 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,

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Mechanics of Materials. (since 1988)

1988 to 1990: Head of Civil Engineering Department at Tarbiat Modarres University.

1988 to 1989: Head of Technical Bureau of T.M. Univ.

1993 to 1994: Dean of Research of School of Engineering

1995 to date: Head of Hydraulic Structures Division in Civil Engineering Department. 1993 to date: Member of Civil Eng. Committee of Supreme Council of Planning for Higher Education.

1996 to date: Founder and Dean of Research Faculty (Pazhouhesh-dadeh) of Building and Housing.

1989 to 1993: Member of founders, & Charge de Affair of the International Institute of earthquake Engineering and Seismology.

1995 to date: Chief Editor of Modarres Technical Engineering Journal Published by the T.M.U Press.

1994 to 1995: Guest Professor to the Swiss Federal Institute of Technology (ETH) on Sabbatical for Research on Nonlinear Dynamic Analysis of Arch dam.

1990 to date: Member of Scientific Research Council of Iran (Earthquake and Industry Committees).

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.

1980 to 1982:

Head of Structure Section in the military corps of engineers

1989 to 1990:

Senior supervisor on the dynamic and static analysis and structural design of Ostour concrete Arch Dam (160 m. Heght) to be built in Azarbayejan province of Iran, in cooperation with the Mahab-Ghodss Consultant Engineers (MG). 1988 to 1993:

Senior supervisor on preliminary and final design Tange-Soleyman (Sasheed-Rajaee) 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, Ghir, Ilam, Tange-Douk, Barezou etc. in cooperation with the Mahab-Ghodss Consultant Engineers Co. 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:

Member of Technical Committee of structure sections in MG. 1995 to 1998:

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

1995 to 1997:

Head of the National Committee of Revising the Iranian Code of Practice 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.

#### **IV. MEMBERSHIP OF SCIENTIFIC SOCIETIES:**

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) Secretary and Member of Founders of Institute EERI (1989-1994).

6) Member of the International Association of Computational Mechanics IACM, (1989-1996).

#### V. REFEREE FOR JOURNAL ARTICLES SUBMITTED TO:

1) Ahmadi M. T., "SPRAD, Seismic Analysis Program for Fluid-Structure Radioactive 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," Dam Engineering, Vol. III, Issue 2, 1992.

4) M. T. Ahmadi, "Sefidroud dam Experience", Int. J. Water Resources Eng. 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



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University of Science and Technology, vol. 6, no.1-b, 1995.

7) J. Vasegh-Amiri, M. T. Ahmadi, "Appropriate Constitutive Model for Nonlinear Dynamic Analysis of Concrete Gravity Dams Fracture Under Earthquake Effects," (in Persian), Int. J. of Eng., Iran University of Science and Technology. Accepted for publication, 1998.

#### VI. RESEARCH INTERESTS:

#### VII. JOURNAL PAPERS [Author(s), Journal Name, Volume (Year) Page(s)]:

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#### VIII. LIST OF PAPERS PRESENTED IN CONGRESSES AND SEMINARS

#### [Author(s), Name of Congress, City, Country, Year, Proceeding, Page(s)]:

1) Ahmadi M. T., Suzuki M., and Osaka Y., "A Study of the Dynamic Behavior of Arch Dam," 40th Annual Congress of the Japan Society of Civil Engineering's, 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. T., 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 Dispalcement-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. Eng. (SEE-1), Tehran, 1991.

10) Ahmadi M. T. Khoshrang Gh., Mokhtarzadeh A., and Jalalzadeh A., "Behavior of a Large Concrete Dam due to an Actural Maximum Credible Earthquake," Proc. of the 10th World Conference on Earthquake Engineering (10WCEE), Madrid, 1992.

11) M. T. Ahmadi, M. Izadiny, "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 Desion of Arch Dam in A High hazard Site", 10th European Conference on Earthquake Engineering, Duma (ed.), 1995.

13) M. T. Ahmadi, S. Weiseh, M.Ghasemzadeh, M. Hosein-nya, and N. heyrani-Nobary, "Methods for Implementation of Compulsory Standards for Concrete Mix Aggregates," (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 Grouth 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.

#### **IX. SEARCH PROJECT LEADER:**

#### **X. BOOKS**

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. Eng. 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,

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September 1993.
7) G. R. Graham, T. Yanagida (Authors), A. Fourogi, M.T. Ahmadi (Translators into Persian), "Roller Compacted Concrete for Gravity Dam; ICOLD Bulletin no.75", Int. Inst. Earthq. Eng. Seism., Tehran, 1995.
8) M. T. Ahmadi (ed. & head of revising committee), "Iranian Code of Practice 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.
XI. RESEARCH STUDENTS SUPERVISED:

#### XIII. COURSES TAUGHT:

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## IV. NAMES AND ADDRESSES OF SEVERAL REFEREES:

V. OTHERS (Award,...):