# **PERSONAL DETAILS:**

Name: Abolfazl Surname: Hassani Date of Birth: 1955

Place of work: Tarbiat Modares University, Faculty of Engineering, Civil Engineering

Department,

Highway and Transportation Engineering group.

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# **EDUCATIONAL BACKGROUND:**

Degree of PhD: University of Westminster - London, England, 1992

Degree of MSc: University of Birmingham - Birmingham, England, 1986

Degree of BSc: NESCOT - Surrey, England, 1981

# ACADEMIC BACKGROUND

Assistant Professor: Tarbiat Modares University (TMU) - Tehran, since 1992 Associate Professor: Tarbiat Modares University (TMU) - Tehran, since 2005

#### **LECTURING EXPERIENCE:**

Concrete Pavement Design Advanced Concrete Technology Railway Engineering Design Pavement Management Systems Airport Pavement Design

#### **RESEARCH ACTIVITIES:**

Rigid Pavement
Flexible concrete Pavement
Rutting potential of Flexible Pavements
Fibrous Concrete
Airport Pavement Management Systems (APMS)

#### **PUBLICATIONS:**

Cox D. W and Hassani, A. "Heavy duty concrete pavement" 3rd Int. Symp. on heavy vehicle road interaction 1992, Cambridge Univ. Cambridge England.

Hassani. A "Concrete Pavement Design" Two days Seminar on Highway Materials, Amirkabir Univ. 1992.

Tehranizadeh. M, Hassani. A and Mohammadi Tehrani. F, "Base Isolation System", 8th Int. Conf. on Earthquake Prognostics, Tehran University, Sep. 1993, Tehran - Iran.

Hassani. A and Mohammadi Tehran. F, "Introductory to Base Isolation" Ministry of Housing & Urban Development publication (Sarpanah), winter 1993. Tehran - Iran.

Hassani. A "Overlay Pavement Design", Seminar on Road maintenance and Management, Tarbiat Modarres University, Summer 1993, Tehran - Iran.

Hassani. A & Moahammadi Tehrani. F "Analytical comparative study of base isolation systems". International Workshop application and development of base isolation. 17-19 May 1994, Shantou, China. Mohammadi Tehrani F and Hassani A "Behavior of Small Building During Earthquake", 3rd Int. Kerensk Conf. on Structural Eng., Singapore, June 1994.

Hassani. A & Moahammadi Tehrani. F "Application of sliding base for strengthening small building during earthquake. Seminar on housing development policies, Tehran University, Oct. 3-5, 94, Tehran - Iran.

Hassani. A, Shademani. M and Zamani. H, "Importance role of construction material date base system in construction industry". Seminar on housing development policies, Tehran University, Oct. 3-5, 94, Tehran - Iran.

Hassani. A "Flexible Concrete Pavements". 7th International Symp. on concrete rods. Vienna, 3-5, Oct 1994.

Bakhtiari. S & Hassani. A "Air Blown Bitumen". 1st Conf. on Bitumen and Asphalt mixes, Tarbiat Modarres University, 16-18 Oct 1994, Tehran - Iran.

Hassani. A "Concrete today and tomorrow". 8th REAAA Conf. on Roads for future development.

Mohammadi Tehrani. F & Hassani. A "Buildings with sliding base". Proceeding of 2nd International Conference on Seismology & Earthquake Eng., 15-17 May 1995, Tehran - Iran.

Hassani. A, & Cox. D. W "Flexible concrete beams on elastic rubber foundation model". International Congress on concrete in the service of mankind.

University of Dundee 24-28 June 1996, Dundee, England. Member of committee "Code of practice for the earthquake resistant design of road and railroad bridges,", BHRC, publication No. R235, 1996.

Hassani A "Effect of speed on fatigue in concrete pavements", 4th Int. conf. on civil Eng., Tehran - Iran, May 1997 Hassani A and Jafarpoor F " How can Additives help fresh concrete", Geotechnical and material strength magazine, Geotechnical- Ministry of Road and Transportation, year 15, 1997.

Hassani A and Azadi A "Effect of silica fume on permeability and compressive strength of RRC, Modares Science and Research journal, 2005.,

Hassani A "Sliding base isolation for protecting small buildings against earthquake, BHRC

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Hassani, A. & Saied M. "Role of steel fiber in enhancing concrete properties in coastal marine structures", the 3rd Int. conf. on Coast, Ports and Marine Structures (ICOPMAS), Tehran - Iran, 1998

Hassani, A "Proposed Standard for Concrete Retarding Admixtures", BHRC Publication, 1998.

Hassani A. & Saied M "The study of mean time drying shrinkage behavior of steel fiber reinforced concrete pavements", 8th Int. Symposium on concrete roads, Lisbon, 1998

Hassani A. "Effect of steel fibers on concrete tensile", BHRC, Tehran - Iran publication No. R263, 1999.

Hassani A "Laboratory investigation of reinforced rubber elastomers as base isolation for buildings, Daneshvar Science & Research journal Year 7, No. 25, Autumn 1999.

Hassani A. "Application of Ceramic Pigments on concrete durability", the 4th Int. conf. on Coast, Ports and Marine Structures (ICOPMAS), Bandar Abbas, Iran, 2000

Hassani A "Earthquake resistance of building with rubber bearings", BHRC publication No. 340, Tehran - Iran 2002.

Hassani A "Life Cycle cost comparison between Flexible and Rigid Pavement", Ministry of Road and Transportation, Deputy of Education Research and Technology, Report 79BITIP12, 1ST print, 2004.

Hassani A. Arjmandi M "Comparative Investigation on Concrete Pavement Thickness Using Industrial Waste Chips, Steel Fiber and Silica Fume", 9th Int. Symposium on Concrete Roads, Istanbul - Turkey, 4-7 April 2004.

Hassani A and Sadeghi D "Analysis of loading characteristics effect on flexible pavements performance", Modares Science & research Journal, 2005

Hassani A "Life Cycle cost comparison between Flexible and Rigid Pavement", Ministry of Road and Transportation, Deputy of Education Research and Technology, Report 79BITIP12, 2nd print, 2005.

Hassani, A and saghafi,b, "Roller - compacted concrete for heavy duty pavements" 6th International DUT workshop on fundamental Modeling of Design and Performance of concrete pavements, September 15-16 2006, Belgium.

Hassani, A, Rezaee, A, and Mansorian, A, "Life cycle cost evaluation Concrete and asphalt concrete pavement in Iran", 10 th symposium on concrete Roads 18 - 22 - September, 2006, Belgium.

Hassani, A and Jamshidi, A "Modeling and Structural Design of concrete Block Pavements systems. & International conference on concrete Bloch paving ICPI, Sanfrancisco 2006.

Hassani, A. Saghafi, Behrooz, Bahraininezad, Ardeshir and Noori, Roholla. "Artificial Neural Networks for predicting faulting in jointed concrete pavements considering base conditions", Six International Conference on sustainable aggregates, asphalt technology and pavement engineering, 21 -22 Feb 2007, Liverpool, UK.

#### THESIS SUPERVISION

The study of mean time drying shrinkage behavior of steel fiber reinforced concrete pavements, summer 1997

Design of concrete pavements using finite element and comparison with Westergaard'solutions, summer 1997

Evaluation of a road pavement in province of Kordestan by MCI method, Autumn 1998

Software development for road accident analysis, summer 1998

Evaluation of Tehran - Saveh freeway using MCI and PCI methods, summer 1999

Application of high strength concrete in pavements, March 1999

The durability of Railway concrete sleepers using steel fibers, spring 2000

Cracks due to sub-base materials in flexible pavements, Spring 2001.

Application of ramp strategy in expressways, 2001.

Determination of criteria for the application and implementation of concrete pavements in Iran, winter 2001.

Effect of industrial chips on design criteria in high strength rigid pavements, Feb. 2002.

Application of FRP dowel bars in concrete pavements, 2003.

The study of permeability of RCC with pozzolanic material in concrete pavements May 2003.

Analysis of heavy axle loads effects on pavements, winter 2003.

Stabilization of eolian sand sediment using lime and pozzolan, April 2004.

Determination of stabilization methods for swamps area, winter 2004.

Development of railway analysis software, spring 2005.

Techno-economical analysis of suitable pavement in tunnels, winter 2005.

An analytical - computer model for determining stress and strain in concrete pavements, winter 2005.

Laboratory investigation of road stone characteristics and road surface skid resistance, winter 2005.

Prevent of biological corrosion in urban sewage pipes by addition of materials in concrete mixture, July 2005.

Stabilization of Mashy sub-grades case study on South Pars Region, Autumn 2005.

Technical @ economical comparison of concrete and ballasted infra-structures in railways, winter 2005.

Technical @ economical evaluation of doubling railways of Tehran - Tabriz, Autumn 2006.

An analytical study on overlay material to prevent reflective cracks in composite pavements, winter 2006.

Investigation and Development of a degradation model for Iranian Railway with ballasted track system, winter 2006.

Correlation between California Bearing Ratio (CBR) & Light Falling Weight Deflectometer (FWD) test results, winter 2005.

Back calculation of the FWD test results in flexible pavements using artificial Neural Networks, Autumn 2006.

#### PROFESSIONAL MEMBERSHIP:

Member of Iranian Society of Earthquake Engineering (MISEE)

Member of International Society for Concrete Pavements (ISCP)

Member of PIARC Committee in Iran

Member of Editorial board of Asian Journal of Structural Eng.

### **COMMITTEE MEMBERSHIP**

1) Member: Committee on Durability of Concrete, AFN20 - Transportation Research Board (TRB) of the National Academies.

2) Member: Committee on Durability of Concrete, AFN30 -

Transportation Research Board (TRB) of the National Academies.

# PAPER PEER REVIEW

**ACI Concrete and Materials Journal** 

#### **ACADEMIC & RESEARCH CENTER WORK EXPERIENCE:**

Deputy in Education, Building & Housing Research Center (BHRC) - Ministry of building and Housing, 1993 - 1994.

Deputy in Research, Building & Housing Research Center (BHRC) - Ministry of building and Housing, 1994 - 1995.

Head of Highway & Transportation Group- Tarbiat Modares University, 1994 - 1996

Head of publication committee, Building & Housing Research Center (BHRC) - Ministry of Building and Housing, 1994-1996

Deputy in Education, Building & Housing Research Center (BHRC) - Ministry of Building and Housing, 1995 - 1996.

Member of education committee, Ministry of Building and Housing, 1994 - 1996.

Head of Material Department - Building & Housing Research Center, 1996-1999.

Member of research committee at for materials properties, Building & Housing Research

Center (BHRC) - Ministry of Housing, 2002 - Present.

Member of research committee, civil engineering department, Tarbiat Modares University, 2002 - 2005

Head of Highway & Transportation Group- Tarbiat Modares University, 2003 - 2006

Deputy of Faculty in Education, Faculty of engineering, Tarbiat Modares University, 2005 - Present

Head of Pavement management research center (PMRC), 2005 - Present

Head of Extended Education Office 2005-Present

# **AWARDS:**

Distinguished Researcher By Tarbiat Modares University, 2004 and 2005