CURRICULUM BRIEF VITAE

Name: Hassan Zohoor
Place and Date of Birth: Esfahan, 1945
zohoor@sharif.edu; hzohoor@ias.ac.ir

PRESENT ACADEMIC AND ADMINISTRATIVE POSITIONS

Fellow (Academician), The Academy of Sciences of IR Iran.
Distinguished Professor, Mechanical Engineering, Sharif University of Technology, Iran.
Secretary, The Academy of Sciences of IR Iran.
Section Editor, Scientia Iranica, Transaction B, Elsevier Editorial System.

ACADEMIC QUALIFICATION

Post Doctoral Certificate in Mechanical Engineering, Purdue University, U.S.A
Ph.D. in Mechanical Engineering, Purdue University, U.S.A., 1978
M.S. in Mechanical Engineering, Shiraz University, Iran, 1971
B.S. in Mechanical Engineering, Shiraz University, Iran, 1968

ACADEMIC POSITIONS

Assistant, Associate, and Full Professor, Sharif University of Technology, Iran, 1983-present.
Visiting Professor, The University of New Mexico, U.S.A., 1988-1989.
Assistant Professor, Shiraz University, Iran, 1979-1983.
Assistant Professor Equivalent, Purdue University, U.S.A., 1978.

INSTRUCTED COURSES

Graduate Courses: Advanced Dynamics, Advanced Mechanisms Design, Advanced Robotics, General Biomechanics, Advanced Analytical Dynamics
Undergraduate Courses: Dynamics, Dynamics of Machinery, Analysis and Design of Mechanisms.

STUDENT SUPERVISION

Have supervised over ten PhD Theses, over hundred eighty MS Theses, and more than hundred thirty Undergraduate Projects.

PUBLICATIONS AND SCIENTIFIC CONTRIBUTIONS

Author or co-author of over four hundred scientific papers.

Author of two chapters of two books for UNESCO, co-author of three chapters of three books, and author of four technical pamphlets.
Coordinator of compiling of one electronic book and four CDs for four courses.
Conductor of one Country Project in the area of Energy.
Conductor of more than twenty Research Funded Projects.
General Chair of one International and one National Conferences.
Editor in Chief or Section Editor of four Journals.
Member of Board of Editors of six Journals.
Provider of two constitutions for two scientific institutes, and Compiler of fourteen academic or educational codes.
Reviewer of articles or papers contributed to about thirty scientific journals, publishers, or conferences.

PATENT
Holder of one patent, subject: "Infinitely Variable Speed Transmission", approved by Office of Patent Management, Purdue Research Foundation, 1978; Patent Number in Iran: 23176 on 13 February 1986.

RESEARCH INTERESTS:
Kinematics, Dynamics, Mechanisms, Biomechanics, Robotics, Mechanical Design, Renewable Energies, Ethics and Science.

CURRENT COUNTRY PROJECT:
Studies on the Status of Engineering Sciences in the Country for Future Orientation

RESERCH ACTIVITIES ABROAD
Robotics and CAD/CAM Systems (as a Visiting Professor on sabbatical leave), The University of New Mexico, U.S.A.
Survey on Research Centers, National Center for Scientific Research (CNRS), France.
Robotics, University of Birmingham, England.
Automotive Engines Control Systems (as a Postdoctoral Research Associate), Purdue University, U.S.A.
Fluid Mechanics (as a Postgraduate Student), Stuttgart University, Germany.

MAJOR ADMINSTRATIVE AND SCIENTIFIC POSITIONS
General Chair, First RSI/ISM International Conference on Robotics and Mechatronics, ICRoM 2013.
Secretary, 3rd Engineering Education Conference, EEC 2013.

Founder, establisher, and developer of major codes and regulations of Payame Noor University in Iran, which has been established in 1986. In 2005-06, this university enrolled about 600,000 students and provisional students in 40 fields of study (out of 80 approved fields) at Bachelor's level, 39 fields of study (out of 76 approved fields) at Master's level, and 6 fields of study (out of 16 approved fields) at Doctor's level, at 255 centers and units located in different cities and one overseas center. Since inception, this university has prepared 1,200 titles of self study books, in more than 20,000,000 copies; some of them presented in multimedia, and also has produced 38,000 minutes educational films.
Secretary, The Academy of Sciences of IR Iran, for two periods, 1990-2002 and 2006-present.
Head, Department of Engineering Sciences, The Academy of Sciences of IR Iran, 2005-2007.
President, Payame Noor University, Iran, for two periods, 1989-1995 and 1997-2005.
Deputy for Infrastructure Affairs, Budget and Planning Organization of Iran, 1995-1997.
Head, Institute for Research and Planning in Higher Education, Iran, 1995.
Head, Bureau for Service to the Distinguished Scholars, Iran, 1988.
Establisher, Payame Noor University, Iran, 1985-1988.
Academic Advisor to the Minister of Science and Higher Education, Iran, 1982-1988.
Acting President, Alzahra University, Iran, 1985.
Academic Vice-Minister, Ministry of Science and Higher Education, Iran, 1983-1984.
President, Shiraz University, Iran, 1980-1981.
Head, Department of Mechanics, National Iranian Steel Mill Company, Iran, 1968-1969.

MAJOR MEMBERSHIPS
Member, American Society of Mechanical Engineers.
Member, Center of Excellence in Design, Robotics, and Automation in Iran.
Member, Iranian Society of Mechanical Engineers.
Member, Council of Development of Higher Education, Iran; for several periods.
Member, Executive Board, Asian Association of Open Universities (AAOU); for one period.
Member, Board of Directors of several Scientific Societies.
Member, Boards of Trustees of ten Universities, for several periods, Iran.
Member, Iranian Society of Agriculture Machinery Engineers.
Editor-in-Chief, four Scientific Journals, Iran.
Member, Board of Editors of seven Scientific Journals, Iran.

Editor-in-Chief or Member of the Board of Editors of several Scientific Conferences.
Member of or Advisor to over fifty Scientific Committees, Iran.
Head, Scientific Olympiad Committee of Mechanical Engineering, Iran.
Member, Board of Directors, Association of Academies of Sciences in Asia (AASA); (two terms).
Member, Executive Board of Asian Association of Open Universities (one term)
Member, Council of Development of Higher Education, Iran, (several terms)
Member, Board of Directors of the Iranian Society of Mechanical Engineers (For one term)

HONORS AND AWARDS

Top First Student Award at Shiraz University, Iran, 1968.
Ross Ade Award at Purdue University, U.S.A., 1976.
Ross Ade Award at Purdue University, U.S.A., 1977.
The International Who's Who of Intellectuals, UK, 1992.
The Award of Distinguished Professor in the IR Iran, 1993.
The Lasting Personalities Award in Iran, 2001.
Honoring as the most competent fellow of The Academy of Sciences of IR Iran, 2002.
Best Paper Award Competition Finalist by American Society of Mechanical Engineers (ASME), 2004.
Being Honored in International Council for Open and Distance Education (ICDE) International Conference, for long contribution to the Distance Education and Open Learning, 2005.
Golden Plate of Payame Noor University for the most significant contribution to Open and Distance Education, Iran, 2005.
Honored as a Distinguished Professor by Sharif University of Technology at its 40th Establishment Anniversary, Iran, 2006.
Honored as a Distinguished Professor in Mechanical Engineering by Iranian Society of Mechanical Engineers (ISME), 2007.

SELECTED RCENT JOURNAL PUBLICATIONS:

[01] M H Abedinnasab, H Zohoor, Y-J Yoon, (2012), "Exact Formulations of Non-Linear Planar and Spatial Euler–Bernoulli Beams with Finite Strains", Journal of Mechanical Engineering Science, Proceedings of the Institution of Mechanical Engineers, IMECHE, Part C, Vol. 226, Issue 5, pp 1225-1236, DOI: 10.1177/0954406211420206.

[02] A Aram, H Zohoor, S Sohrabpour, (2012), "How To Find Spatial Periodic Orbits Around the Moon in the TBP", IJST, Transaction of Mechanical Engineering, Vol. 36, No. M1, pp 83-93.

[03] H Moeenfard, A Darvishian, H Zohoor, M T Ahmaidan, (2012), "Influence of Van Der Waals Force on Static Behavior of Nano/Micromirrors Under Capillary Force", International Journal of Modern Physics B, World Scientific Publishing Company, Vol. 26, No. 7, pp 1250056.1-1250056.12, DOI: 10.1142/S0217979212500567.

[04] N S Viliani1, H Zohoor, M H Kargarnovin, (2012), "Vibration Analysis of a New Type of Compliant Mechanism with Flexible-Link Using Perturbation Theory, Hindawi Publishing Corporation", Mathematical Problems in Engineering, Volume 2012, Article ID 857064, pp 1-19, DOI:10.1155/2012/857064.

[05] Ali Aram, Hassan Zohoor, Saeed Sohrabpour, (2012), "How to Find Spatial Periodic Orbital Around the Moon in the TBP", IJST, Transaction of Mechanical Engineering, Vol. 36, No. M1, pp 83-93.

[06] M H Abedinnasab, A Kamali Eigoli, H Zohoor, Gh Vosoughi, (2011), “On the Influence of Centerline Strain on the Stability of a Bimorph Piezo-Actuated Microbeam”, Scientia Iranica, Transaction B 18 (6), pp 1246-1252, DOI:10.1016/j.scient.2011.11.004.

[07] Ali Darvishian, Hamid Moeenfard, Mohammad Taghi Ahmadian, Hassan Zohoor, (2011), “A Coupled Two Degrees of Freedom Pull-In

Model for Micromirrors Under Capillary Force", Acta Mech, Springer-Verlag, pp 1-8, DOI: 10.1007/S00707-011-0558-z.
[08] Hamid Moeenfard, Ali Darvishian, Hassan Zohoor, Mohammad Taghi Ahmadian, (2011), "Characterization of the Static Behavior of Micromirrors Under the Effect of Capillary Force, an Analytical Approach", Journal of Mechanical Engineering Science, Proceedings of the Institution of Mechanical Engineers, IMechE, 433112, Part C, pp 1-12, DOI: 10.1177/0954406211433112.

[09] Hamid Moeenfard, Ali Darvishian, Mohammad Taghi Ahmadian, Hassan Zohoor, (2011), "An Analytical Approach to Modeling Static of Torsional Nano/Micro-Actuators Under Effect of Van Der Waals Force", Japanese Journal of Applied Physics 50, RP110440, pp 1-5.

[10] H Pendar, M Mahnama, H Zohoor, (2011), "Singularity Analysis of Parallel Manipulators Using Constraint Plane Method", Mechanism and Machine Theory, 46, pp 33-43.

[11] H Zohoor, M Moosavi Z, (2011), "Increase in Solar Thermal Energy Storage by Using a Hybrid Energy Storage System", International Journal of Engineering and Applied Sciences, 6:5, pp 307-312.

[12] Zaeem Moosavi M., Hassan Zohoor, (2011), "Introducing a Dimensionless Number as Tank Selector in Hybrid Solar Thermal Energy Storage Systems", Journal of Mechanical Science and Technology, 25 (4), pp 1253-1260.

[13] Zaeem Moosavi M, Hassan Zohoor, Morteza A Khalaji, Ali A Hamidi, (2011), "Performance Analysis of a Hybrid Solar Energy Storage System", Journal of Mechanics, Vol.27, No. 2, pp N19-N23, DOI: 10.1017/jmech.2011.34.

[14] A Aram, H Zohoor, S Sohrabpour, (2010), "Spatial Limit Cycles Around the Moon in the TBP", Acta Astronautica, 67, pp 46-52.

[15] A. Delnavaz, S. N. Mahmoodi, N. Jalili, H. Zohoor, (2010), "Linear and Non-Linear Vibration and Frequency Response Analyses of Microcantilevers Subjected to Tip–Sample Interaction", International

Journal of Non-Linear Mechanics 45, pp 176–185, DOI:10.1016/j.ijnonlinmec.2009.10.007.

[16] A Delnavaz, S N Mahmoodi, N Jalili, H Zohoor, (2010), “Linear and Nonlinear Approaches Towards Amplitude Modulation Atomic Force Microscopy”, Current Applied Physics, Vol. 10, Issue 6, pp 1416-1421.

[17] B Motevalli, H Zohoor, S Sohrabpour, (2010), "Structural Synthesis of 5 Dofs 3T2R Parallel Manipulators with Prismatic Actuators on the Base", Robotics and Autonomous Systems 58, pp 307-321, DOI:10.1016/j.robot.2009.10.001.

[18] A Delnavaz, S N Mahmoodi, N Jalili, M M Ahadian, H. Zohoor, (2009), "Nonlinear Vibrations of Microcantilevers Subjected to Tip-Sample Interactions: Theory and Experiment", Journal of Applied Physics 106, 113510, pp 1-8, DOI:10.1063/1.3266000.

[19] M Vakil, H Pendar, H Zohoor, (2009), "On the Kinematic Analysis of a Spatial Six-Degree-of-Freedom Parallel Manipulator", Scientia Iranica, Transaction B, Mechanical Engineering, Vol. 16, No.1, pp 1-14.

[20] H Zohoor, S M Khorsandijou, (2009), "Dynamic Model of a Mobile Robot with Long Spatially Flexible Links", Scientia Iranica, Transaction B, Mechanical Engineering, Vol. 16, No.5, pp 387-412.

[21] H Pendar, H Roozbehani, H Sadeghian, H Zohoor, (2008), “Singularity Analysis of a 3DOF Parallel Manipulator Using Infinite Constraint Plane Method”, Journal of Intelligent Robotic Systems, Vol. 53, Number 1, pp 21-34.

[22] H Zohoor, S M Khorsandijou, (2008), “Enhanced Nonlinear 3D Euler-Bernoulli Beam with Flying Support”, Nonlinear Dynamics, Vol. 51, pp 217-230, DOI 10.1007/s11071-007-9205-6.

[23] H Zohoor, S M Khorsandijou, M H Abedinnasab, (2008), “Modified Nonlinear 3D Euler Bernoulli Beam Theory”, Journal of System Design and Dynamics, Vol. 2, No. 5, pp 1170-1181.

[24] H Zohoor, S M Khorsandijou, (2008), “Dynamical Model of a Flying Manipulator with Two Highly Flexible Links”, Applied Mathematical Modelling, Vol. 32, pp 2117-2132.

[25] H Zohoor, S M Khorsandijou, (2008), “Generalized Nonlinear 3D Euler-Bernulli Beam Theory”, Iranian Journal of Science and Technology, Transaction B: Engineering, Vol. 32, No.B1, pp 1-12.

SELECTED RCENT CONFERENCE PUBLICATIONS:

[01] Hassan Zohoor, (2012), "Dynamics in Recent Four Centuries", Keynote Speech, 20th Annual International Conference on Mechanical Engineering, ISME2012, Shiraz University, Shiraz, Iran, 15-17 May 2012.

[02] H Moeenfard, A Darvishian, H Zohoor, M T Ahmaidan, (2012), "Pull-In Analysis of Electrostatically Actuated Nano/Micro Mirrors Considering Van Der Waals Force", 20th Annual International Conference on Mechanical Engineering, ISME2012-1469, Shiraz University, Shiraz, Iran, 15-17 May 2012, pp 1-7.

[03] A Darvishian, H Moeenfard, H Zohoor, M T Ahmaidan, (2012), "Bending Effects on the Torsional Characteristics of Micro/Nano Mirrors Under the Combined Effect of Capillary Force and Casimir Force", 20th Annual International Conference on Mechanical Engineering, ISME2012-1465, Shiraz University, Shiraz, Iran, 15-17 May 2012, pp 1-6.

[04] Hassan Zohoor, Milad Alizadeh, (2012), "Design of a Force-Isotropic Underactuated Hand", International Conference on Experimental Solid Mechanics and Dynamics, Article Code: A-10-35-1, X-Mech, Iran University of Science & Technology, Tehran, Iran, 6-7 March 2012, pp 1-7.

[05] Jafar Abbaszadeh Chekan, Kaveh Merat, Hassan Zohoor, (2011), "Regional Stability Analysis of Rotor-Ball Bearing and Rotor-Roller Bearing Systems Considering Switching Phenomena", World Academy of Science, Engineering and Technology 61, International Conference on Mechanical, Industrial, and Manufacturing Engineering, ICMIME, Zurich, Switzerland, 15-17 January 2012, pp 245-251.

[06] M M Ghaffari, H Zohoor, (2011), "Engineering Education and Industry Challenges in Iran", Conference on Frontiers of Chemical Sciences V: Research and Education in the Middle East, UNESCO Headquarters, Paris, France, 4-9 December 2011, pp 1-9.

[07] S H Hassani, M H Kahrobaiayan, H Zohoor, S Sohrabpour, (2011) "Dynamic Analysis of a 3-RRR Micro Robot with Flexible Links and Hinges", Proceedings of the ASME 2011 International Mechanical Engineering Congress & Exposition, IMECE2011-63441, Denver, Colorado, USA, 11-17 November 2011, pp 1-8.

[08] Ali Darvishian, Hamid Moeenfard, Hasan Zohoor, Mohammad Taghi Ahmadian, (2011), "Closed Form Solutions for the Problem of Statical Behavior of Nano/Micromirrors Under the Effect of Capillary Force and Van Der Waals Force", Proceeding of the ASME International Mechanical Engineering Congress & Exposition, IMECE2011-63112, Denver, Colorado, USA, 11-17 November 2011, pp1-7.

[09] S E Moosvi, H Zohoor, M M Ghaffari, M Tavakkoli G, (2011), "Engineering Education and Iran's Industry's Needs with a Look into the Future", The First National Conference for Iran 2025, Article No. EDU096, Tehran, Iran, 30-31 October 2011, pp 1-9.

[10] Mohammad H Abedinnasab, Mahmoud I Hussein, Hassan Zohoor, (2011), "Analysis of Elastic Wave Propagation in Nonlinear Beams", Proceedings of the ASME, International Design Engineering Technical Conferences and Computers and Information in Engineering, IDETC/CIE, IDETC2011-48672, Washington, DC, USA, 28-31 August 2011, pp 1-7.

[11] Mohammad H Abedinnasab, Mahmoud I Hussein, Hassan Zohoor, (2010), "Analytical Approach to Elastic Wave Propagation in Periodic Beams", Technical Presentation, ASME International Mechanical Engineering Congress and R&D Expo, Track 20: Sound, Vibration and Design, Symposium 20-5: Phononic Crystals and Acoustic Metamaterials, Vancouver, Canada, November 2010, pp 12-18.

[12] Omid Saber, Hassan Zohoor, (2010), "Workspace Analysis of a Cable

Drive Robot with Active/Passive Cables", Proceeding of ASME International Mechanical Engineering Congress and Exhibition, IMECE 2010-39800, Vancouver, Canada, 12-18 November 2010, pp 1-8