

## Scientific Presentations & Publications in International Conferences

- [1] M. Shahinpoor, and **A. Meghdari**, "Combined Flexural-Joint Stiffness Matrix and the Elastic Deformation of a Servo-Controlled Two-Link Robot Manipulator", **10<sup>th</sup> U.S. National Congress of Applied Mech.**, Proc. of Abstracts, F6, June 16-20, **1986**, Austin, TX, **USA**.
- [2] **A. Meghdari**, and B.C. Chiou, "A Comparative Survey of Robot Manipulator Dynamics", Proc. of the **9<sup>th</sup> IEEE-ISE Conf. & Symp.**, pp.50-58, May 5-7, **1987**, Albuquerque, NM, **USA**.
- [3] **A. Meghdari**, C.P. Keddy, T.J. Beugelsdijk, R.F. Ford, "A Systematic Approach to Robotics Testing and Evaluation", Proc. of the ISMM Int. Conference on Computer Applications in Design, Simulation, and Analysis, pp. 161-167, February 1-3, 1988, Honolulu, HI, **USA**.
- [4] **A. Meghdari**, and M. Shahinpoor, "Generalized Kinematical Analysis of N-Axis Flexible Manipulator Arms Via (4 x 4) Homogeneous Transformations", Proc. of the **ANS (American Nuclear Society) 3<sup>rd</sup> Topical Meeting on Robotics and Remote Systems**, Sect.11-5, pp.1-8, March 13-16, **1989**, Charleston, SC, **USA**.
- [5] **A. Meghdari**, M. Mahmoudian, M. Arefi, "Kinematics and Dynamics Modeling of the Sharif Artificial Hand", Advances in Bioengineering: Proc. of the 1989 ASME Winter Annual Meeting, pp. 57-58, December 10-15, **1989**, San Francisco, CA, **USA**.
- [6] **A. Meghdari**, "Computer Graphics Simulation of an Industrial Robot", Proc. of the **10<sup>th</sup> Symp. on Engr. Applications of Mechanics**, pp. 371-376, May 27-30, 1990, Kingston, Canada.
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- [8] **A. Meghdari**, "A Variational Approach for Modeling Flexibility Effects in Manipulator Arms", Proc. of the **16<sup>th</sup> ASME Design Automation Conference**; Advances in Design Automation, DE-Vol. 23-2, pp. 443-448, September 16-19, **1990**, Chicago, IL, **USA**.
- [9] **A. Meghdari**, "On the Performance of a Solar Cooking System Utilizing Compound Parabolic Concentrators", Proc. of the **1<sup>st</sup> Int. Conference on Energy Conversion and Energy Sources Engineering**, pp. 514-521, October 5-8, **1990**, Wuhan, **China**.
- [10] **A. Meghdari**, M. Mahmoudian, M. Arefi, "Geometric Adaptability: A Novel Mechanical Design in the Sharif Artificial Hand", Proc. of the 1991 ASME Applied Mechanics and Biomechanics **Symposium**, pp. 219-223, June 16-19, **1991**, Columbus, OH, **USA**.
- [11] **A. Meghdari**, H. Sayyaadi, "Optimization in Trajectory Planning of Multi-Jointed Fingers in Dexterous Hand Designs", Proc. of the **1991 ASME Computers in Engineering Conference**, pp. 496-502, August 18-22, **1991**, Santa Clara, CA, **USA**.
- [12] **A. Meghdari**, "On the Design of Muscle Actuated Elastic Fingers for Artificial Hands", Proc. of the AL-Azhar Engineering 2<sup>nd</sup> International Conference, Vol. VIII, pp.395-400, December 21-24, 1991, Cairo, **Egypt**.
- [13] **A. Meghdari**, and R. Davoodi, "Engineering Analysis of Shoulder Dystocia in Human Birth Process by Finite Element Method", Proc. of the **1<sup>st</sup> Int. Conference on Engineering Applications of Mechanics**, pp. 68-76, June 9-12, **1992**, Tehran, **Iran**. Also presented at the **1992 Biomechanics**

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[16] **A. Meghdari**, "Conceptual Design and Characteristics of a Dual-Arm Cam-Lock Manipulator", Proc. of the ASCE SPACE-94; Robotics for Challenging Environment Conference, pp. 140-148, Feb. 26-March 3, **1994**, Albuquerque, N.M., **USA**.

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[22] **A. Meghdari**, and R. Davoodi, "Applying Engineering Tools to Analyze the Human Birth Process", Proc. of the 1995 ASME/AICHE/ASCE Summer Bioengineering Conference, pp. 107-108, June 28-July 2, **1995**, Beaver Creek, CO., **USA**.

[23] S. A. Fazlzadeh, and **A. Meghdari**, "A Closed-Form Formulation of the Dynamical Equations of N-Axis Planar Manipulators", Proc. of the **4<sup>th</sup> Int. Conf. on Control, Automation, Robotics and Vision**, December 4-6, **1996**, pp. 1830-1835, **Singapore**.

[24] **A. Meghdari**, and F. Fahimi, "Modeling a Robot with Flexible Joints and Decoupling its Equations of Motion", CD-ROM Proc. of the 1997 ASME Design Engineering Technical Conferences, VIB-4209, September 14-17, **1997**, Sacramento, CA., **USA**.

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- [43] A. Selk Ghafari, M. Behzad, **A. Meghdari**, "Experimental Investigation on the Effects of Random Signals on Micro-Step Control Positioning Accuracy", **Proc. of MECHATRONICS2004: The 9<sup>th</sup> Mechatronics Forum Int. Conference**, pp. 477-485, August 2004, Ankara, Turkey.
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- [46] **A. Meghdari**, H. Hosseinkhannazer, A. Selkghafari, "Optimization and Dynamic Simulation of a Nurse Robot in Hospital Environments using Genetic Algorithm" CD-Rom Proc. 2<sup>nd</sup> Int. Conf. on Autonomous Robots and Agents, December 13-15, **2004, Palmerston North, New Zealand**.
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- [49] M. Behzad, **A. Meghdari**, A. Ebrahimi, "A Continuous Model for Forced Vibration Analysis of a Cracked Beam", **CD-Rom Proc. of the 2005 ASME International Mechanical Engineering Congress, Orlando, FL**, November 5-11, **2005, USA**.
- [50] A. Selk-Ghafari, **A. Meghdari**, "Robust Backstepping Control of Robotic Nurse Unit to Assist Paraplegic Patients", **CD-Rom Proc. of the 2005 ASME Int. Mechanical Engineering Congress, Orlando, FL**, November 5-11, **2005, USA**.

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- [52] A. Jafari, F. Farahmand, **A. Meghdari**, "Surface Modeling of Complicated Geometries with Incomplete Erroneous Data Point-An Extension to B-Spline Approach", **Proc. of the 2005 IEEE Int. Engineering in Medicine and Biology 27<sup>th</sup> Annual Conference**, September 1-4, 2005, Shanghai, China.
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[89] S. H. Mahboobi, **A. Meghdari**, N. Jalili, F. Amiri "Precise Assembly of Metallic Nanoclusters as Building Blocks of Nanostructures: A Molecular Dynamics Study", **CD-Rom Proc. of the ASME 2010 Int. Design Engineering Technical Conferences (IDETC'2009)**, August 15-18, 2010, Montreal, **Canada**.

[90] B. R. Sahraei, A. Nemati, M. Farshchi, **A. Meghdari**, "Adaptive Fuzzy Sliding Mode Control Approach for Swarm Formation Control of Multi-Agent Systems", **CD-Rom Proc. of the ASME 2010 10<sup>th</sup> Biennial Int. Conf. on Engr. Syst. Design & Analysis (ESDA 2010)**, July 12-14, 2010, Istanbul, **Turkey**.

### **Scientific Publications in Domestic/National Conferences**

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[2] M. Arefi, M. Mahmoudian, and **A. Meghdari**, "Biological Studies of the Human Hand", (in Persian), Proc. of the 1<sup>st</sup> National Conference on Research and Developments in Biomedical Engineering, January 3-4, **1990**, Tehran, **Iran**.

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