

GRADUATE STUDENTS SUPERVISED By: Professor Ali Meghdari

◆ Doctor of Philosophy (Ph.D.) Dissertation Students ◆

Sharif University of Technology, School of Mechanical Engineering, Tehran, Iran.

- [1] Dr. Farbod Fahimi, "**Investigation & Development of Dynamic Decoupling Techniques for Flexible Multi- Body Systems**", (Ph.D. Dissertation; 2/1999), Applied & Solid Mechanics Division.
- [2] Dr. Davood Naderi, (Co-Advised with Prof. Mohammad Durali), "**Kinematics & Dynamics Modeling and Control of a Mobile Manipulator**", (Ph.D. Dissertation; 5/2000), Applied & Solid Mechanics Division.
- [3] Dr. Reza Ravani, (Co-Advised with Prof. Bahram Ravani), "**On the Path Planning of a Robot Manipulator Using the Rational Frenet-Sceret Motion**", (Ph.D. Dissertation; 3/2005), Advanced Science and Research Campus.
- [4] Dr. Ali Jafari, (Co-Advised with Dr. Farzam Farahmand), "**Dynamics Modeling of Knee Joint after Total Knee Arthroplasty (TKA)**", (Ph.D. Dissertation; 01/08), Applied & Solid Mechanics Division.
- [5] Ali Selk Ghaffari, (Co-Advising with Dr. Gholamreza Vossoughi), "**Design/Dynamics and Motion Analysis of a Robotic Nurse Unit to Assist Paraplegic Patients**", (Ph.D. Thesis in Progress), Applied & Solid Mechanics Division.
- [6] Kambiz Ghaemi Oskouie, (Co-Advising with Prof. Saeed Sohrabpour), "**Dynamics Optimization of Dual-Arm Cam-Lock Manipulators**", (Ph.D. Thesis in Progress), Applied & Solid Mechanics Division.
- [7] Mahmoud Reza Azghani, (Co-Advising with Dr. Farzam Farahmand), "**A New Apparatus for Triaxial Measurement of Lumbar Moments in Isometric Mode**", (Ph.D. Thesis in Progress), Biomechanics Division.
- [8] Alireza Ebrahimi, (Co-Advising with Dr. Mehdi Behzad), "**A New Approach for Vibration Analysis of a Cracked Beam**", (Ph.D. Thesis in Progress), Applied & Solid Mechanics Division.
- [9] Seyed Hanif Mahboobi, (Co-Advising with Dr. Nader Jalili), "**Molecular Dynamics and Manipulation of Objects in Nano Scale**", (Ph.D. Thesis in Progress), Applied & Solid Mechanics Division.
- [10] Hossein Nejat Pishkenari, "**Molecular Dynamics Based Modeling and Simulation of Nanoscale Processes in Atomic Force Microscopy**", (Ph.D. Thesis in Progress), Applied & Solid Mechanics Division.
- [11] Borhan Beigzadeh, (Co-Advising with Prof. Saeed Sohrabpour) "**On the Correlation of Dynamic Biped Locomotion and Dynamic Object Manipulation**", (Ph.D. Thesis in Progress), Applied & Solid Mechanics Division.

◆ Master of Science (M.Sc.) Thesis Students ◆

Sharif University of Technology, School of Mechanical Engineering, Tehran, Iran.

- [1-2] M. Arefi and M. Mahmoudian, "**Modeling, Design, and Fabrication of the Sharif Artificial Hand: Biomechanical Issues**", 8/1990, Biomechanical Engineering Division.
- [3-4] B. Vosoughi-Vahdat and R. Shahghadami, (Co-Advised with Dr. Edmond Zahedi), "**Modeling, Design, and Fabrication of the Sharif Artificial Hand: Bioelectronics Issues**", 12/1990, Bioelectronics Engineering Division.

- [5] H. Haashem Alhoseyni, "**Computer Graphics Simulation of the PUMA-560 Robot Kinematics and Dynamics**", 9/1990, Applied & Solid Mechanics Division.
- [6] I. Hashemlou, "**Kinematics & Dynamics Analysis of a Four-Legged Locomotion System**", 9/1990, Applied & Solid Mechanics Division.
- [7] H. Sayyaadi, "**Theory of Contact and Optimization in Trajectory Planning for Finger-Like Dexterous Manipulators**", 9/1990, Applied & Solid Mechanics Division.
- [8] M. Ghasempouri, "**Modeling, Dynamics and Control of Elastic Manipulators**", 5/1991, Applied & Solid Mechanics Division.
- [9] S. Raghibi-Zadeh, "**Trajectory Generation, Position and Force Control Theories of Robots with an Emphasis on Adaptive Control**", 6/1991, Applied & Solid Mechanics Division.
- [10] F. Aghili, (Co-Advised with Dr. Mohammad Haghpanahi), "**Design & Control of an Above-Elbow Prosthesis Based on Combination of E.P.P. Method and Extraction of Motion Classes by Pattern Recognition**", 3/1992, Biomechanical Engineering Division.
- [11] R. Davoodi, "**Applying Engineering Techniques in the Analysis of Human Birth Process**", 6/1992, Biomechanical Engineering Division.
- [12] M. Jafarian, "**Modeling, Design, Fabrication and Analysis of Pneumatically Actuated Artificial Muscles**", 1/1993, Applied & Solid Mechanics Division.
- [13] A. Sekhavat, "**Swing-Free Motion of a Suspended Object from the End-Effector of an Industrial Robot**", 2/1994, Applied & Solid Mechanics Division.
- [14] S. Sarjami, (Co-Advised with Prof. Mohammad H. Kargarnovin), "**Application of Analytical Methods and Numerical Simulation in Orthodontics: Study of Arch-Wire System of Forces and Teeth Movements**", 9/1994, Biomechanical Engineering Division.
- [15] J. Mobarezpour, (Co-Chairman of the Thesis Committee), "**Human Body's Control Strategy in Standing Mode**", 12/1996, Biomechanical Engineering Division.
- [16] A. A. Mahdavi-Jalal, "**Minimizing Amplitude of Oscillation of a Flexible Beam During Transport by a Robot**", 1/1997, Open University, Dept. of Mechanical Engineering, Tehran.
- [17] M. Naderian, (Co-Advised with Dr. Gholamreza Vossoughi and Dr. Khatiboleslam Sadrnejad), "**Application of NiTi Shape Memory Alloys for Actuation of an Artificial Hand**", 3/1997, Applied & Solid Mechanics Division.
- [18] F. Barazandeh, "**Design and Fabrication of a Series of Modular Robotics Grippers Equipped with a Quick Change System**", 10/1997, Applied & Solid Mechanics Division.
- [19] M. Shahparian, "**Kinematics and Dynamics Modeling of Parallel Manipulators**", 9/1997, Applied & Solid Mechanics Division.
- [20] M. Khazraie, "**Solving Non-Linear Dynamics Model of Joints in Human Body**", 6/1997, Biomechanical Engineering Division.
- [21] H. Shah Ali, "**Three Segment Dynamic Model of Knee Joint in Two-Dimensional Space**", 6/1997, Biomechanical Engineering Division.
- [22] M. Saaedi, "**Design and Fabrication of a Feeding Mechanism to Automate the Automobile Tire Assembly Process**", 9/1997, Manufacturing Engineering Division.
- [23] J. Vatankhah, "**Design and Fabrication of a 3-D.O.F. Wrist Force Sensor**", 10/1997, Applied & Solid Mechanics Division.
- [24] H. Javadi, (Co-Advised with Dr. Hamid R. Katouzian and Dr. Mohammad T. Ahmadian), "**F.E.M. Analysis of Stress Wave Propagation at Heel Strike on the Mechanical Connection of Bone and Artificial Joint**", 12/1997, Biomechanical Engineering Division.
- [25] R. J. Samarghandi, (Co-Advised with Dr. Farzam Farahmand), "**On the Design and Fabrication of Orthopaedic Implants**", 3/1998, Biomechanical Engineering Division.
- [26] M. Afrough, "**Investigation of Robot Kinematics Calibration Methods as Applied to MA-3000 Manipulator**", 5/1999, Applied & Solid Mechanics Division.

- [27] H. Fakur Alagheband, (Co-Advised with Dr. Farzam Farahmand), **“Force Analysis of the Knee Joint During Rise from Deep Squat”**, 6/1999, Biomechanical Engineering Division.
- [28] A. R. Samadi, **“Design and Animation of Bicycles for Women of Islamic Culture”**, 6/1999, Biomechanical Engineering Division.
- [29] A. A. Forough-Nasiraei, **“Design and Fabrication of a Hospital Nursing Robot”**, 9/2000, Biomechanical Engineering Division.
- [30] A. H. Bahrami, **“Mathematical Modeling and Analysis of the Normal, Degenerated, and Fused Cervical Spine”**, 11/2001, Applied & Solid Mechanics Division.
- [31] A. Nezafat, **“Investigation of Robot Kinematics in Braced Manipulators”**, 03/2002, Applied & Solid Mechanics Division.
- [32] M. Amir Hosseini, **“Kinematics and Dynamics of an Underwater Remotely Operated Vehicles (UROV)”**, 03/2002, Applied & Solid Mechanics Division.
- [33] M. Arianpour, **“Kinematics Investigation and Analysis of the Jumping Process”**, 03/2002, Applied & Solid Mechanics Division.
- [34] N. Dadkhah Tehrani, (Co-Advised with Prof. Nasser Sadati), **“Intelligent Approach in Satellite Attitude Control”**, 09/2002, Applied & Solid Mechanics Division.
- [35] Azam A. Toosi, (Co-Advised with Dr. Mohammad H. Saeidi), **“Energy Flow Optimization Model in a Housing Unit”**, 02/2003, Energy Conversion Division.
- [36] M. R. Alam, **“Real-Time Compensatory Manipulator Motion Planning for Stabilizing a Mobile Manipulator”**, 07/2003, Applied & Solid Mechanics Division.
- [37] M. Nakhaee-Nejad, (Co-Advised with Dr. Davood Naderi) **“On the Design and Motion Analysis of a Snake-Like Manipulator”**, 07/2003, Applied & Solid Mechanics Division.
- [38] H. R. Chabok, **“On the Design and Fabrication of a Master/Slave Manipulator for Glove Box Environment”**, 3/2003, Manufacturing Engineering Division.
- [39] H. Borhan, (Co-Advised with Dr. Gholamreza Vossoughi), **“Modeling and Control of an Underwater Remotely Operated Vehicles (UROV)”**, 03/2003, Applied & Solid Mechanics Division.
- [40-41] A. Lotfi, and S. H. Mahboobi, **“Design Characteristics, Kinematics and Dynamics Modeling of a Shrimp Rover for Unstructured Environments”**, 06/2004, Applied & Solid Mechanics Division.
- [42] A. Kiapour, (Co-Advised with Dr. Farzam Farahmand), **“Modeling and Analysis of Spine Muscles in Back when Creating Stability at the Presence of External Forces”**, 2/2004, Biomechanical Engineering Division.
- [43] M.R. Deylami, (Co-Advised with Prof. K.N. Sadrnejad), **“Design and Fabrication of an Artificial Esfancter using NiTi Shape Memory Alloy”**, 8/2004, Biomechanical Engineering Division.
- [44] R. Karimi, **“Dynamic Analysis and Control of Human Double Leg Jumps”**, 12/2004, Applied & Solid Mechanics Division.
- [45] H. Nejat Pishkenari, (Co-Advised with Dr. Nader Jalili), **“Acquisition of High Precision Images for Non-contact Atomic Force Microscopy via Direct Identification of Sample Height”**, 03/2005, Applied & Solid Mechanics Division.
- [46] B. Beigzadeh, (Co-Advised with Dr. Majid Nili Ahmadabadi), **“Kinematical and Dynamic Analysis of Biped Robots' Locomotion using Dynamic Object Manipulation Approach”**, 03/2005, Applied & Solid Mechanics Division.
- [47] A. Afshari, **“New Form of Jacobian Matrix and Equations of Motion for a 6 D.O.F. Cable-Driven Parallel Robot using Constrained Variables”**, 12/2006, Applied & Solid Mechanics Division.
- [48] M. Rajaei, (Co-Advised with Prof. Saeed Sohrabpour), **“Dynamic Analysis and Control of an Spherical Robot Mechanism”**, 08/2006, Applied & Solid Mechanics Division.

- [49] M. Saghafi, (Co-Advised with Dr. Nader Jalili), **“Electrical Equivalent Circuit of Multi-Mode Flexible Beams with Piezoelectric Elements”**, 10/2006, Applied & Solid Mechanics Division.
- [50] S. Eslami, (Co-Advised with Dr. Davood Naderi), **“Increasing Stability of Mobile Manipulators using Dynamic Compensation”**, 12/2006, Applied & Solid Mechanics Division.
- [51] A.R. Mirbagheri, (Co-Advised with Dr. Farzam Farahmand), **“Modeling and Optimum Design of a Robot Mechanism to Assist Laproscopic Surgery”**, 03/2007, Biomechanics Division.
- [52] S. H. Tamaddoni, (Co-Advised with Prof. Saeed Sohrabpour), **“Dynamic Modeling and Analysis of Running in Humanoid Robots”**, 06/2007, Biomechanics Division.
- [53] P. Zandyeh, (Co-Advised with Dr. Mohammad T. Ahmadian), **“Visual Quality Control of Slabs in Hot Rolling Mill using Neuro-Fuzzy Network”**, 12/2007, Applied & Solid Mechanics Division.
- [54] S. Radmard, (Co-Advised with Prof. Hassan Zohoor), **“Design, Modeling and Control of Robotic Fish using IPMC’s”**, 11/2008, Applied & Solid Mechanics Division.
- [55] H. Zomorodi Moghaddam, (Co-Advised with Dr. Farzam Farahmand), **“Measurement and Analysis of Human Body Balance Strategy on a Stabulo-Meter”**, 11/2008, Biomechanics Division.