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Faculty of Medical Sciences,
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Google Scholar Profile:

https://scholar.google.com/citations?user=spH_WmsAAAAJ&hl=en&oi=ao

RESEARCH INTEREST

Movement Disorders, Parkinson's, Biological Signal Processing

EDUCATION

PhD in Biomedical Engineering – Biomechanics 2012 – 2017
Sahand University of Technology, Tabriz, Iran
Total GPA: 18.35 / 20
Thesis Title: Modeling of Human Standing Strategies to Evaluate the Roles of Joint Mechanisms in Stability Provision
Advisor: [M. R. Azghani, PhD](#)

MSc in Biomedical Engineering – Biomechanics 2009 – 2011
Amirkabir University of Technology, Tehran, Iran
Total GPA: 17.15 / 20
Thesis Title: Biomechanical Analysis of Effects of TSF External Fixator on Fracture Healing and Deformity Correction of the Lower Limb Bones (scored 20/20)
Advisors: [A. R. Arshi, PhD](#) – [G. Rouhi, PhD](#)

BSc in Biomedical Engineering – Biomechanics 2005 – 2009
Amirkabir University of Technology, Tehran, Iran
Total GPA: 16.43 / 20
Thesis Title: Biomechanical Analysis of Inhaled Drug Delivery using Computational Fluid Dynamics Approach (scored 20/20)
Advisor: [M. Tafazzoli-Shadpour, PhD](#)

High School Diploma – Mathematics and Physics 2001 – 2005
Total GPA: 17.76 / 20
National Organization of Development of Exceptional Talents (NODET), Allameh Helli Center, Tehran, Iran

LIST OF
PUBLICATION

Published Journal Articles

1. Rahmati M, Bahrpeyma F, Ashtiani MN. Shoulder kinematic and muscle recruitment pattern changes in upper trapezius myofascial trigger points: a controlled observational study. *BMC Musculoskel Disord*. 2026;27(1), 82.
2. Abbasi H, Ashtiani MN. Laser-Guided Visual Cueing Modulates Spatiotemporal Gait Dynamics During Transitions in Parkinson's. *Journal of Motor Behavior* 2026;58(1), 31-40.
3. Rezvanifar Y, Ashtiani MN, Rouhi G. Computational Modeling of Bone-Implant Construct Osseointegration: Advantages and Shortcomings. *J Orthop Spine Trauma*. 2026;12(1), 29-36.
4. Hanifi A, Abedini-Nassab R, Ashtiani MN. A Preliminary Mechanics-Informed Machine Learning Framework for Objective Assessment of Parkinson's Disease and Rehabilitation Outcomes. *Diagnostics*. 2025;15(22), 2855.
5. Zaki Z, Ravanbod R, Amroodi MN, Ashtiani MN. Effectiveness of high-power laser therapy on partial tears of the supraspinatus tendon: A randomized controlled trial. *Physiother Theor Pract*. 2025;41(9), 1795-1806.
6. Khaki S, Ravanbod R, Ashtiani MN. Mechanical correction in kinesiology and mulligan taping: A comparative study on scapular dyskinesis in computer users. *J Back Musculoskel Rehabil*. 2025;38(5), 981-994.
7. Heydarpour H, Ashtiani MN, Bahrpeyma F, Tafakhori A, Jaberzadeh S. Transcranial Direct Current Stimulation on Supplementary Motor Area Enhances the Effects of Exercise Therapy for Proprioception and Balance in People with Parkinson's: an Exploratory Pilot Trial. *Neurorehabil Neural Repair*. 2025;39(11), 906-919.
8. Najafabadi SM, Grzelczyk D, Ashtiani MN. A novel device for proprioceptive acuity measurement: Validity and reliability analysis in young and older adults. *Biocybern Biomed Eng*. 2025;45(3), 580-589.
9. Daniali S, Ashtiani MN, Kahrizi S. Upper Body Instability in People with Parkinson's Disease: A Kinematic Study. *J Eng Med: Part H*. 2025;239(6), 515-523.
10. Shokri N, Yazdanpanah K, Ashtiani MN. Control Mechanisms of Sensorimotor System on Manipulation of Proprioceptive Inputs during Balance Maintenance, *J Motor Behav*. 2025;57(3), 224-232.

11. Taheri M, Ashtiani MN. Effects of Physical Therapy on Ankle Proprioception and Postural Control in People with Parkinson's: A Semi-experimental Clinical Trial. *Neurorehabil*. 2025;56(3), 406-413.
12. Najafabadi SMM, Ashtiani MN, Bartłomiej Zagrodny, Dariusz Grzelczyk. Examining the Impact of Visual Perturbation Caused by Virtual Reality on Postural Stability. *J Hum Kin*. 2025;99: *In Press*.
13. Zaki Z, Ravanbod R, Amroodi MN, Ashtiani MN. Effectiveness of High-power Laser Therapy on Partial Tears of the Supraspinatus Tendon: A randomized Controlled Trial. *Physiother Theor Pract*. 2025; *In Press*.
14. Taheri M, Ashtiani MN. Validity and Reliability Analysis of a Designed and Manufactured Device for Ankle Proprioception Acuity Measurement in People with Parkinson's [in Farsi]. *Iran J Bio Med Eng*. 2024; 18(1), 11-20.
15. Miandoab MP, Ashtiani MN, Abedini-Nassab R, Akrami SM. Detection of knee osteoarthritis based on center of pressure data and the BAT algorithm. *J Mech Med Biol*. 2024(03); 2350054:14.
16. Ashtiani MN, Yaghmaei Z, Hosseini I. Investigating the Effect of Muscle Co-contraction in Providing Stability while Standing in Patients with Knee Osteoarthritis [in Farsi]. *Iran J Bio Med Eng*. 2024; 17(3), 41-50.
17. Reisi A, Hashemi-Oskoue A, Ashtiani MN, Bahrpeyma F. Role of sensory feedback in postural control of the patients with diabetic neuropathy. *Int J Diabet Develop Countr*, 2024;44(1), 77-83.
18. Afshari NF, Bahrpeyma F, Ashtiani MN. The Effect of ASSET Rehabilitation Protocol on the Shoulder Kinematics after Rotator Cuff Tendons Repair. *J Clin Physiother Res*. 2023; 8(2): *In Press*.
19. Babayi M, Najafabadi SMM, Ashtiani MN, Grzelczyk D. General muscle fatigue changed joint regulations in static and dynamic balance. *Acta Bioeng Biomech*. 2023; 25(2), 125-132.
20. Hatami M, Torkaman G, Ashtiani MN, Mohebi S. Different muscle strategy during head/knee level of functional reaching-transporting task to decrease falling probability in postmenopausal women with osteoporosis. *Arch Physiother*. 2023;13(1), 1-7.
21. Babayi M, Ashtiani MN, Emamian A, Ramezanpour H, Yousefi H, Mahdavi M. Peri-implant cell differentiation in delayed and immediately-loaded dental implant: A mechanobiological simulation. *Arch Oral Biol*. 2023;151:105702.

22. Dodangeh A, Ashtiani MN. Therapeutic Routes for Movement Disorders in Patients with Parkinson's Disease: A Narrative Review Study [in Farsi]. *J Shahid Sadoughi Univ Med Sci*. 2023;31(2), 6350-6361.
23. Hosseini I, Ashtiani MN, Bahrpeyma F. Correlation between the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) Scores and the Stability Metrics in Patients with Knee Osteoarthritis. *Int J Musculoskel Pain Prevention*. 2022;7(3), 741-749.
24. Hosseini I, Ashtiani MN, Bahrpeyma F. Postural stability in patients with moderate knee osteoarthritis: roles of the visual feedback and dynamic perturbations. *J Rehabil Sci Res*. 2021;8(4), 189-197.
25. Ashtiani MN, Mortazavi SM. Dynamic stress and strain analysis of the hip bone-implant interface during human gait [in Farsi]. *Iran J Orthop Surg*. 2021; 19(3), 136-144.
26. Ravanbod R, Eslami N, Ashtiani MN. Immediate effects of footwear with vibration applied to the swing phase of the gait cycle on dynamic balance in patients with diabetic peripheral neuropathy. *J Biomech*. 2021; 128: 110710.
27. Najafi-Ashtiani M, Ashtiani MN, Oskoei MA. Cognitive perturbations affect brain cortical activity and postural control: an investigation of human EEG and motion data. *Biomed Signal Process Control*. 2021; 69: 102955.
28. Ravanbod R, Eslami N, Ashtiani MN. Assessment of the lower extremity muscle strength in diabetic peripheral neuropathy patients measured by handheld dynamometer and its association with falling. *Health Edu Health Promot*. 2020; 8(4), 203-208.
29. Ashtiani MN. Physical and sensory perturbations changed joint regulations in control of posture: a power spectral analysis. *J Rehabil Sci Res*. 2021; 8(3), 115-120.
30. Ashtiani MN, Azghani MR, Parnianpour M, Khalaf K. Effects of human stature and muscle strength on the standing strategies: A computational biomechanical study. *Proc Inst Mech Eng H*. 2020; 234(7), 674–685.
31. Błaszczyk JW, Fredyk A, Błaszczyk PM, Ashtiani MN. Step Response of Human Motor System as a Measure of Postural Stability in Children. *IEEE Trans Neural Syst Rehabil Eng*. 2020;28(4), 895-903.

32. Shahbad R, Mortazavi M, Alizadeh-Fard F, Mohammadi Z, Alavi F, Ashtiani MN. An investigation of the effects of osteoporosis, impact intensity and orientation on human femur injuries: a parametric finite element study. *J Emerg Pract Trauma*. 2020;6(1), 28-32.
33. Najafi-Ashtiani M, Oskoei MA, Ashtiani MN. Effects of cognitive interference and type of support surface on postural stability: a biomechanical analysis [in Farsi]. *Iran J Bio Med Eng*. 2019; 12(4), 331-340.
34. Ashtiani MN, Azghani MR, Shakouri SK. Biomechanical modeling of hip abduction exercise using optimized inverse dynamics. *Zahedan J Res Med Sci*. 2019; 21(1), e68977.
35. Ashtiani MN, Azghani MR, Parnianpour M. Initial balance in human standing postures: Roles of the joint mechanisms. *Proc Inst Mech Eng H*, 2018; 232(12), 1255-1260.
36. Oliaei S, Ashtiani MN, Azma K, Saidi S, Azghani MR. Effects of postural and cognitive difficulty levels on the standing of healthy young males on an unstable support, *Acta Neurobiol Exp*, 2018; 78(1), 60-68.
37. Ashtiani MN, Azghani MR. Open- and closed-loop responses of joint mechanisms in perturbed stance under visual and cognitive interference, *Biomed Signal Process Control*, 2018; 42: 1-8.
38. Babayi M, Ashtiani MN. Effects of cyclic thermal loads on bone-implant interface in dental prostheses, *Zahedan J Med Res Sci*, 2017;19(12), e12081.
39. Ashtiani MN, Azghani MR. Effects of visual and cognitive interference on joint contributions in perturbed standing: a temporal and spectral analysis. *Australas Phys Eng Sci Med*, 2017; 41(1), 21-30.
40. Ashtiani MN, Azghani MR. Predictive models for estimation of the human stance equilibrium parameters using inverse dynamics and response surface method. *J Musculoskel Res*. 2017; 20(3): 1750016.
41. Ashtiani MN, Azghani MR. Nonlinear dynamics analysis of the human balance control subjected to physical and sensory perturbations. *Acta Neurobiol Exp*. 2017; 77(2), 168-175.
42. Ashtiani MN, Azghani MR. Effect of aging on feasibility and contribution of joint mechanisms in balanced standing using biomechanical modeling. *Zahedan J Res Med Sci*. 2017; 19(8): e11786.

43. Mirak M, Alizadeh M, Ghaffari M, Ashtiani MN. Characterization, mechanical properties and corrosion resistance of biocompatible Zn-HA/TiO₂ nanocomposite coatings. *J Mech Behav Biomed Mater*. 2016; 62: 282-290.
44. Najafi-Ashtiani H, Ashtiani MN. Comparative evaluation between rigid and dynamic spinal fixation systems: a three-dimensional finite element analysis. *Zahedan J Med Res Sci*. 2015; 17(8): e1021.
45. Bahrami B, Shahrabaf S, Mirzakouchaki B, Ghalichi F, Ashtiani MN, Martin N. Effect of surface treatment on stress distribution in immediately loaded dental implants – A 3D finite element analysis. *Dental Mater*, 2014; 30(4), e89-e97.
46. Oskui IZ, Ashtiani MN, Hashemi A, Jafarzadeh H. Effect of thermal stresses on the mechanism of tooth pain. *J Endodon*. 2014; 40(11), 1835-1839.
47. Najafi H, Ashtiani MN. Finite element analysis on iliosacral screw insertion in fixation of sacral stress fracture: a comparison between three systems. *Zahedan J Med Res Sci*, 2014; 16(1), 59-63.
48. Oskui IZ, Ashtiani MN, Hashemi A, Jafarzade M. Thermal analysis of the intact mandibular premolar: a finite element analysis. *Int Endod J*, 2013; 46(9), 841-846.
49. Bahrami B, Ghalichi F, Mirzakouchaki B, Ashtiani MN, Marghoub A. Finite element analysis of stress distribution in immediately loaded dental implant. In *Biomedical Engineering (ICBME), 19th Iranian Conference of*, 2012, December, (pp. 179-182). IEEE.
50. Ashtiani MN, Tafazzoli-Shadpour M, Najafi H. Evaluation of the droplet collapsibility in inhalation drug delivery: a 3D computational study. *J Biomed Phys Eng*, 2012; 2(3), 83-92.
51. Ashtiani MN, Imani R. Transient heat transfer in a dental prosthesis implanted in mandibular bone, in: Herold KE, Vossoughi J, Bentley WE, SBEC 2010, IFMBE Proceedings, Vol. 32, pp. 376-379, 2010.

Book Chapters

Bahrami S, Baheiraei N, Ashtiani MN, Nour S, Razavi M. *Microfluidic devices in tissue engineering*. In: Hamblin MR, Karimi M. Biomedical applications of microfluidic devices. Academic Press, London, 2021.

Tabatabaee S, Ashtiani MN, Mousavi A, Baheiraei N. *Nanobiomaterials in musculoskeletal regeneration*. In: Razavi M. Nanoengineering in musculoskeletal regeneration. Academic Press, London, 2020.

Conferences

Taheri M, Ashtiani MN. Improving proprioceptive accuracy, functional mobility, postural stability, and quality of life after ten weeks of proprioceptive strengthening exercises in people with Parkinson's, *The 1st specialized neurology physiotherapy conference*, November 2024, Tehran, Iran

Hamdollahpour M, Ashtiani MN, Mohammadi E. The relationship between rigidity and balance and functional variables in people with Parkinson's, *The 1st specialized neurology physiotherapy conference*, November 2024, Tehran, Iran

Najafabadi SMM, Dariusz Grzelczyk, Ashtiani MN. Prototype of an Advanced Ankle Proprioceptive Acuity Assessment Device, *The 10th World Congress on Mechanical, Chemical, and Material Engineering (MCM'24)*, August 2024, Barcelona, Spain

Ashtiani MN. Particle deposition in human nasal drug delivery: a computational fluid dynamics approach. *The 2nd International Conference on Electrical, Computer, Mechanical and Mechatronics Engineering (ICE2015)*, August 2015, Istanbul, Turkey

Ashtiani MN, Azghani M, Shakouri K. Biomechanical analysis on effects of side-lying hip abduction exercise on gluteus medius muscle. *The 16th Annual Congress of Iranian Society of Physical Medicine, Rehabilitation and Electrodiagnosis*, Dec 2012, Tehran, Iran. (in persian)

Houshmand B, Oskui IZ, Ashtiani MN, Naseri F. Effect of different designs on stress distribution of dental implants using finite element method. *The 11th meeting of Iranian academy of periodontology*, Jan 2012, Tehran, Iran.

Ashtiani MN, Abdollahi A. An impact analysis of human ribcage in a car-to-car crash: an explicit finite element study. *The 1st MEFOMP international conference of medical physics*, Nov 2011, Shiraz, Iran.

Ashtiani MN, Sherkat H, Latifottojar N, Najafi H, Najarian S. Design and fabrication of a novel wearable automated peritoneal dialysis device. *The 1st MEFOMP international conference of medical physics*, Nov 2011, Shiraz, Iran.

Ashtiani MN. Numerical prediction of particle deposition in human nasal drug delivery: a computational fluid dynamics approach. *The 4th Iranian Controlled Release Conference (ICRC 2009)*, Zanjan, Iran.

Ashtiani MN, Imani R. Biomechanical evaluation of effective parameters on inhaled drug delivery. *The 4th Iranian Controlled Release Conference (ICRC 2009)*, Zanjan, Iran.

Ashtiani MN, Hooshier-Ahmedi SA, Soleimani KS. Dynamic stress analysis of bone-prosthesis complex during stance phase of gait: a preliminary approach to the loosening characterization. *The 15th Iranian Conference on Biomedical Engineering 2008*, Mashhad, Iran.

Oskui IZ, Ashtiani MN, Tafazzoli-Shadpour M. Developing a model of natural tooth thermography: 3D finite element analysis. *The 15th Iranian Conference on Biomedical Engineering*, Dec 2008, Mashhad, Iran.

EXPERIENCES & HONORS

Research/Executive Experiences

Reviewer of the 16th medical students Olympiads, Iranian Ministry of Health, July 2024.

Head of Student Research Committee, Faculty of Medical Sciences, *Tarbiat Modares University*, March 2021 – present.

Head of the Executive Committee. Establishing the university's skill development center, *Research Deputy of Tarbiat Modares University*, September 2021 – present.

Member and Consultant. Education development center (EDC), *Faculty of Medical Science, Tarbiat Modares University*, December 2021 – present.

Head of the Executive Success Package. Implementation of a model of new methods in directing interdisciplinary research, *Research Deputy of Tarbiat Modares University*, March 2021.

Research Executive. Mechanobiological simulation of bone apposition around an implanted dental prosthesis, *KFP Dental Co. and Research Deputy of Tarbiat Modares University*, October 2021.

Supervisor of Tarbiat Modares University Students, *National Scientific Olympiad for Medical Sciences Students*, 12th and 13th annual.

Research Executive. An investigation on the effects of warship motion perturbations on standing stability of the navy personnel, *AJA University of Medical Sciences*, April 2018.

Research Assistant. Biomechanical modeling of the hip abduction exercise, *Tabriz University of Medical Sciences*, May 2019.

Industrial Experiences

Transfer technology for an automated peritoneal dialysis device (PeritoRen®) to *Avyantra Healthcare Technology Startup*, Hyderabad, India, 2019.

Mechanical engineer and designer, *Iranian Research Organization for Science and Technology*, Department of Electrical and Biomedical Engineering, 2011.

Mechanical engineer and designer, *Baroumand Designs*, 2011.

Inventions

Wearable automated peritoneal dialysis device (PeritoRen®), Iranian Patent, Ashtiani and his co-workers, 2011.

Design and manufacturing of a new movable fixture of flexural strength test for advanced ceramics, Iranian Patent, Masjedi and Ashtiani, 2008.

Teachings

Teaching in *Advanced Muscle Nerve Physiology*, PhD course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Analysis of Sensory-Motor Systems*, PhD course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Motor Control*, PhD course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Research Methods in Biomedical Sciences*, PhD course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Mechanical Characterization of Biomaterials*, PhD course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Research Methods in Biomedical Sciences*, MSc course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Spine Biomechanics*, MSc course, Faculty of Medical Sciences, Tarbiat Modares University.

Teaching in *Musculoskeletal Biomechanics*, MSc course, Faculty of Mechanical Engineering, Tarbiat Modares University.

Teaching in *Orthopedic Biomechanics*, MSc course, Faculty of Mechanical Engineering, Tarbiat Modares University.

Teaching in *Trauma Biomechanics*, MSc course, Faculty of Mechanical Engineering, Tarbiat Modares University.

Teaching in *Experimental Methods in Orthopedic Biomechanics*, MSc course, Faculty of Mechanical Engineering, Tarbiat Modares University.

Teaching in *Technical Drawing and Computer-Aided Design*, Faculty of Mechanical Engineering, Sahand University of Technology.

Students

PhD

Supervisor: Heydarpour H, *Effect of Trans-cranial Direct Current Stimulation on Supplementary Motor Area on Proprioceptive Data processing and Postural Control in Patients with Parkinson's Disease*, PhD student, Tarbiat Modares University.

Supervisor: Sadeghnia M, *Investigation of the Effects of Resistance Training with Addition of trans-cranial Direct Current Stimulation on Arm Function and Quality of Life in Patients with Stroke*, PhD student, Tarbiat Modares University.

Co-Supervisor: Rahmati M, *Effects of Dry Needling on Muscle Activity Pattern and Scapulohumeral Rhythm in Patients with Active Myofascial Trigger Point in the Upper Trapezius Muscle*, PhD student, Tarbiat Modares University.

Co-Supervisor: Mortazavi M, *The Relationship between Ankle Proprioception and Postural Control in Aging People*, PhD student, Lodz University of Technology, Poland.

Advisor: Rostami-Mehr E, *Investigation of the relationship between strength and tolerance of hip abductor, knee extensor muscle and WOMAC score with kinetic and kinematic parameters of knee and hip during stair climbing in people with knee osteoarthritis*, PhD student, Tarbiat Modares University.

Advisor: Zaki Z, *Evaluation of the Effects of High-Power Laser and Exercise Therapy on Supraspinatus Tendon Tear and Glenohumeral Joint Kinetics and Kinematics: Randomized Clinical Trial*, PhD student, Tarbiat Modares University.

Advisor: Afshari F, *Effects of Adding Kinetic Chain Exercises to Routine Rehabilitation Protocol on the Muscle Activation Pattern, Shoulder Kinematics, Pain, Functional Abilities and Quality of Life after Rotator Cuff Tendons Repair*, PhD student, Tarbiat Modares University.

MSc

Supervisor: Abedi K, *Investigating the effect of Parkinson's disease on elastometric variables of neck muscles using ultrasound method and head motor functions: a cross-sectional study*, MSc student, Tarbiat Modares University.

Supervisor: Babaeian K, *Comparative Evaluation of Acuity of Proprioception in Hands of People with Parkinson's and Age-matched Individuals: A Cross-sectional Study*, MSc student, Tarbiat Modares University.

Supervisor: Taheri M, *Effects of 10-week Proprioceptive Exercises on Proprioception Acuity, Balance, and Quality of Life in Patients with Parkinson's Disease: A Clinical Trial*, MSc student, Tarbiat Modares University.

Supervisor: Hamdollahpour M, *Evaluation of Experiences of Disability in Activities of Daily Living in Patients with Parkinson's Disease: An Exploratory-Sequential Mixed-method Study*, MSc student, Tarbiat Modares University.

Supervisor: Abbasi H, *Investigation of Effects of Visual Cueing on Gait Disorders in People with Parkinson's: a Semi-experimental Study*, MSc student, Tarbiat Modares University.

Supervisor: Es'haaq S, *Pattern Recognition in Gait of the Patients with Parkinson's Disease using Linear Accelerometry*, MSc student, Tarbiat Modares University.

Supervisor: Yaghmaei Z, *Effects of Ischemic Preconditioning on Delay of Forearm Pump in Elite Male Rock Climbers: A Randomized-Controlled Trial*, MSc student, Tarbiat Modares University.

Co-Supervisor: Rezanifar Y, *A simulation of the effect of insertion torque on dental implant osseointegration using a mechanobioregulatory model*, MSc, Tarbiat Modares University.

Supervisor: Dodangeh A, *Effects of 10-week transverse plane physical exercises on postural stability and initiation of gait in patients with Parkinson's disease*, MSc, Tarbiat Modares University.

Supervisor: Daniali S, *Biomechanical Evaluation of Trunk Stability in Response to Unexpected Quick Release Perturbation in Patients with Parkinson's Disease and Age-matched Healthy Individuals*, MSc, Tarbiat Modares University.

Supervisor: Hosseini I, *An investigation of multi-joint coordination and muscle recruitment pattern with and without perturbed standing in patients with moderate knee osteoarthritis and matched healthy subjects*, MSc, Tarbiat Modares University.

Supervisor: Safari M, *Calculation of muscular forces of the lower extremity and Knee joint contact forces in patients with knee osteoarthritis*, MSc, Tarbiat Modares University.

Supervisor: Samadzadeh S, *Stability analysis in human standing using Lagrangian coherent structures*, MSc, Tarbiat Modares University.

Supervisor: Habibi F, *Biomechanical analysis of the head stabilization during the gait of patients with vestibular dysfunction*, MSc, Tarbiat Modares University.

Advisor: Eslami N, *Immediate effect of vibrating sandal in swing phase of gait on postural indices and lower limb muscles activity in patients with moderate diabetic neuropathy compared with age-matched controls*, MSc, Tarbiat Modares University.

Advisor: Hatami M, *Comparison of electromyographic activity of ankle and thigh muscles in reaching and transporting tasks in osteoporotic and healthy menopausal women*, MSc, Tarbiat Modares University.

Advisor: Karimi AR, *Design and analysis of knee joint Holder aiming walking and knee joint treating*, MSc, Tarbiat Modares University.

Advisor: Khaki S, *Effects of kinesio tape and Mulligan tape on electromyography activity and the kinematics of scapulothoracic and inetics of glenohumeral joints in computer users affected with scapular dyskinesis*, MSc, Tarbiat Modares University.

Awards

Member of the *National Elites Foundation*, from Nov 2015.

Honorably Admission in MSc by *Exceptional Talent Committee*, Amirkabir University of Technology, Tehran, Iran.

Member and Head Designer, Executive Committee of the 1st *Khwarizmi International Awards (KIA)* in Surgeon Robots, Feb 2011, Tehran, Iran.

Best submitted invention in Iran's New Towns Innovations Festival, *Ministry of Road and Urban Development*, for Wearable automated peritoneal dialysis device, Dec 2012, Tehran, Iran.

LANGUAGE PROFICIENCY

Farsi (Native)
English (Fluent)
Italian (Moderate)

TECHNICAL SKILLS

Numerical Solvers
matlab, Python, SPSS, AnyBody, ABAQUS, Comsol

Mechanical Designs
CATIA