

IN THE NAME OF GOD

Curriculum Vita

I. PERSONAL INFORMATION:

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II. EDUCATIONAL RECORDS:

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>date</u>
B. Sc.	Iran Medical Sciences	physical therapy	1988
M. Sc.	Tarbiat Modares University	physical therapy	1992
Ph.D.	Tarbiat Modares University	Medical physics	2000

III. ACADEMIC EXPERIENCES:

Instructor Tarbiat Modares University, Tehran, Iran, (Since 1992-1999)

Assistant professor Tarbiat Modares University, Tehran, Iran, (Since 2000)

Associate Professor Tarbiat Modares University, Tehran, Iran, (Since 2006)

Professor Tarbiat Modares University, Tehran, Iran (Since 2011)

IV. MEMBERSHIP OF SCIENTIFIC SOCIETIES:

Physical therapy Iranian Association

Biomedical Engineering Society

European Biomechanical Society

V. REFEREE FOR JOURNAL ARTICLES SUBMITTED TO:

1) Archives Dermatology Research

- 2) PLOS ONE
- 3) The Journal of Back and musculoskeletal rehabilitation
- 4) JMIR Serious Games
- 5) Journal of Bodywork and Movement Therapies
- 6) Photomedicine and Laser Surgery
- 7) Journal of Rehabilitation Research and Development
- 8) Advances in Wound Care
- 9) Int J Diabetes Dev Ctries
- 10) Modares Journal of Medical Sciences
- 11) Daneshvar
- 12) Journal of Iran Medical Sciences University
- 13) Journal of Tehran Medical Sciences University
- 14) Birjand University of Medical Sciences
- 15) Zanjan University of Medical Sciences
- 16) Iranian journal of Physiology and pharmacology
- 17) Iranian journal of Biomedical engineering
- 18) Reviewer of IEEE, Engineering in Biology and Medicine Society Conferences since 2008-2020

VI. RESEARCH INTERESTS:

- 1) Effect of electromechanical modalities on the repair process and biomechanical properties
- 2) Osteoporosis and Osteoarthritis

VII. JOURNAL PAPERS [Author(s), Journal Name, Volume(Year) Page(s)]:

- 1) Eftekhari Hosseini A., Torkaman G.; “Etiology, physiopathology, early detection and treatment of Pressure sores: A review”; Daneshvar; 1993; No. 142; pp: 22-32.
- 2) Hamedi H., Firrozabadi S.M.P., Torkaman G., Faghihzadeh S.; “The effects of percutaneous lumbar stimulation on the H-reflex Parameters”; Daneshvar; 1999; 6(23); 73-78.
- 3) Torkaman G., Fallah A., Sharafi A.A., Katoozian H.R., Eftekhari Hosseini A., Faghihzadeh S., Mofeed M.; “Design a skin indenter system to produce controlled pressure sore on the experimental animals”; Daneshvar; 1999; 6(24); 59-64.
- 4) Okhovvatian F., Hosseini Khameneh S.M.; Torkaman G., Sarmadi A.R.; “Energy cost during ambulation with different crutches in patient with spinal cord injuries”; Pejouhesh; 2001; 25(3); 127-135.

- 5) Torkaman G., Sharafi A.A., Fallah A., Katoozian H.R.; "Blood biochemical changes following external force application in guinea pig: Early detection of pressure sore"; Iranian Biomedical Journal; Oct. 2000; 4(4); 140.
- 6) Hajimohammadi M., Karimi H., Torkaman G., Fahihzadeh S.; "The effect of clinical application of cold on Knee Joint position sense in uninjured population"; Modarres Journal of Medical Sciences; 2001; 4(2); 115-121.
- 7) Firoozabadi S.M.P., Torkaman G., Ebrahimi F.; "A Comparative study on soleus H-reflex parameters using vertebral column and peripheral nerve stimulation"; Physiology and Pharmacology; 2002; 6(1): 91-98.
- 8) Ravanbod R., Torkaman G., Baghaipoor M.R., Nadali F.; Effect of ergometric exercise on factor VIII coagulant activity in patients with mild and moderate hemophilia-A; J Thrombosis Haemostasis; Vol 1; Supplement 1; July 2003; p:133.
- 9) Navid A., Torkaman G., Firoozabadi S.M.P.; Study of H-reflex signal recruitment curve after tripolar TENS on vertebral column desensitized skin; Physiology and Pharmacology; 2003-2004; 7(2):123-134.
- 10) Ravanbod R., Torkaman G., Baghaipoor M.R., Nadali F ; The influence of exercise upon F VIII C and vWF;Ag Levels in Mild or Moderate Haemophilia; Physiology and Pharmacology; 2003- 2004; 7(2):149-156.
- 11) Pakzad M., Torkaman G., Firoozabadi S.M.P.; The effect of superficial Electrical stimulation of the motor units of tibialis anterior muscle on the H-reflex parameters of soleus muscle; Modarres Journal of Medical Sciences; 2004; 7(1); 31-38.
- 12) Sarmadi A.R., Firoozabadi S.M.P., Torkaman G., Fathollahi Y.; Assessing information of soleus and gastrocnemius motor unit H-reflex response to paired stimulation; ; Electromyography and Clinical Neurophysiology; 2004; 44:401-408.
- 13) Torkaman G., Sharafi A.A., Fallah A., Katoozian H.R., Mofeed M; Study of Skin Response to Applied pressure in Model of Guinea Pig ; J Biomedical Engineering ; 2004; 1(1); 91-99.
- 14) Kazerani A. , Firoozabadi S.M.P. , Torkaman G. , Sarmadi A. Comparing the fractal parameters of soleus and gastrocnemius muscle H-reflex after application of bipolar and tripolar TENS on Human vertebral column. Iranian Journal of Medical Physics ; 2004; 1(4&5):51-58.
- 15) Shadmehr A. , Estaki A., Oliai G.H. , Madadi F., Torkaman G., Bitarafan A.A., Sabbaghian A. Design and construct of an instrument to accelerate bone repair. Iranian Journal of Medical Physics ; 2004; 1(4&5):17-22.
- 16) Bagheri H., Torkaman G., Rahbari Helabadi A. The effects of strength training of the ankle muscles on balance. Journal of Faculty of Medicine; Tehran University; 2006; No:11; p:893-902.

- 17) Yousefi-Diba A. A, Mokhtari-Dizaji M, Larijani B, Salehnia M, Torkaman G. The effect of laser therapy of 30 mW on bone repair: Histological study. *The Journal of Iranian Anatomical Sciences*; Vol 3 Spring 2005 No:1; pp:67-74.
- 18) Mehmandoost F., Torkaman G., Firoozabadi S.M.P., Talebi G. The Effect of Anodal and Cathodal Electrical Stimulation (I.D.C.) on Wound Healing, *Journal of Daneshvar* ; Aug.-Sep. 2005; vol. 12, no. 58, pp: 37-44.
- 19) Naeemi SS, Firoozabadi M, Torkaman H, Niromanesh SH. Relation between trunk projection accuracy and backache during pregnancy. *Pejouhandeh Biomonthly Research Journal*; 2006; 10(1):31-38.
- 20) Rezaeian Z. , Torkaman G. , Nadali F., Ravanbod R., Goushe B., Nejatian M., Broumand M.A, Pourfathollah AA. . Effect of physical fitness on Coagulant Activity in healthy young men . *Pakistan Journal of Biological Sciences*, 2006, 9(11):2032-2039.
- 21) Mokhtari-Dizaji M, Dadras MR, Larijani B, Torkaman G. Quantitative ultrasound to predict the mechanical properties of bone. *Journal of Biomechanics* 2006, Vol 39(suppl 1):s465
- 22) Jamshidi F, Torkaman G, Firoozabadi SMP. The effect of cathodal and anodal electrical stimulation on the biomechanical properties of pressure sore in guinea pig. *Journal of Biomechanics* 2006, Vol 39(suppl 1):s394.
- 23) Ravanbod R, Torkaman G, Baghaipour MR, Nadali F. Effect of ergometric exercise on F-VIII coagulant activity in Mild and moderate haemophilia-A: A chance to reduce injective replacement therapy. *Pakistan Journal of Biological Sciences*, 2006, 9(15):2823-2827.
- 24) Rezaeian Z. , Torkaman G. , Nadali F., Ravanbod R., Goushe B., Nejatian M., Broumand M.A, Pourfathollah AA. Effect of aerobic training on Coagulant Activity in healthy young men. *Physiology and Pharmacology*; 2006; 10(1):79-85.
- 25) Karimzadeh Shirazi K, Wallace LM, Niknami SH, Hidarnia A, Torkaman G, Gilchrist M, Faghihzadeh S. A home-based transtheoretical change model designed strength training intervention to increase exercise to prevent osteoporosis in Iranian women aged 40-65 years: a randomized controlled trial. *J Health Education Research Theory and practices*; 2006; 22(3):305-317.
- 26) Salehi H, Torkaman G, Firoozabadi SMP. The effect of spinal skin cooling with topical ointment on the recruitment curve parameters of soleus H-reflex. Accepted in *Physiology and Pharmacology*; 2006; 10:151-157.
- 27) Salehi H, Torkaman G, Firoozabadi SMP. Study the concomitant effect of topical anesthesia and cold on the recruitment curve parameters of H-reflex. *Iranian Journal of Medical Physics*, 2006; 2(9):55-70.

- 28) Talebi GA, Torkaman G, Firouzabadi SMP, Shari at S, Karbasi V. The Study of the wound potential changes during the healing process and its relation to wound size. *Kowsar Medical Journal*,2006;11(30):241-250.
- 29) Talebi GA, Torkaman G, Firouzabadi SMP, Shariat S, Mofid M. Effect of anodal and cathodal microamperage electrical stimulation on injury potential and size of acute wound in guinea pig. *Iranian Journal of Medical Physics*;2006;3(10):23-34.
- 30) Kamali F, Ebrahimi E, Bayat M, Torkaman G, Salavati M. The effect of low laser therapy on the repair of osteochondral defects in rabbit knee. *Iranian Journal of Medical Physics*, 2006; 2(9):81-88.
- 31) Shadmehr A, Estaki A, Madadi, Torkaman G, Jalaei Sh. The influence of controlled cyclic movements upon healing of experimental tibial fractures. *Tehran University Medical Journals*; 2006; 63(12):965-973.
- 32) Mehmandoust F, Torkaman G, Firoozabadi M, Talebi G. Study of anodal and cathodal pulsed electrical stimulation on skin wound healing in guinea pig, *Journal Rehabilitation Research and Development* 2007;44(4): 611-18.
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- 37) Naimi S, Firoozabadi SMP, Torkaman G, Moradi A, Haghivand S, KHoshamooz Y, Sarmadi AR. Comparison of effectiveness and durability of two stretching methods(Hold-Relax and Static stretching muscle tightness. *Tabib –e-Shargh*, 2007; 4:261-269.
- 38) Yasrebi B, Estaki A, Sharafi AA, Torkaman G, Shadmehr A. Study of biomechanical properties and bone density of osteoperforated Rabbit tibia during bone repair period. *Feyz*, 2007; 4:41-45.
- 39) Kamali F, Bayat M, Torkaman G, Ebrahimi E, Salavati M. Biomechanical evaluation of spontaneity repair of osteochondral effects in rabbit knee. *Iranian J of Rehabilitation*; 2007; 7(4):25-29.

- 40) Rezaeian Z., Torkaman G., Nadali F., Ravanbod R., Goushe B., Nejatian M., Broumand M.A., Pourfathollah AA. . Effect of physical fitness on Coagulant Activity in healthy young men. *Harekat*, 2007, 9(11):2032-2039.
- 41) Mokhtari Dizaji M, Yousefi- Diba A, Larijani B, Salehnia M, Torkaman G, Dadras R. Assessing the efficiency of ultrasound parameters in the detection of bone repair process. *Iranian J Medical Physics*. 2006; 3(10): 45-54.
- 42) Salehi K, Mohammadi E, Torkaman G, Hoseini SM. The effect of TENS on range of motion and morning stiffness of knee joint on patient with osteoarthritis. *J of Shahrekord University of Medical Sciences*; 2007; 9(2):62-67.
- 43) Naghii MR, Torkaman G, Mofid M. Effects of boron and calcium supplementation on mechanical properties of bone in Rats. *Pajouhesh Dar pezeshti*, 2007, 31(1):73-78.
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- 45) Karimzadeh Shirazi K, Niknami SH, Hidarnia A, Wallace LM, Torkaman G, Faghihzadeh S. Effect of a TTM-based osteoporosis preventive physical activity education on increasing muscle strength and balance in women aged 40-65. *Hakim*, 2007; 10(2):34-42.
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- 48) Abdi Sh, Javadieh F, Bayat M, Mohsenifar X, Torkaman G, Sadeghi Y, Rezaei F. The effect of low level Helium- Neon laser therapy on healing of partial thickness defect of experimental induced diabetic rats. *Journal of Iranian Anatomical Sciences*; 2007; 5(19-20):115-123.
- 49) Torkaman G, Fallah A, Mofid M, Ghiaci S, Talebi GA. Effect of continuous, repeated and intermittent pressure on the biomechanical and histological characteristics on guinea pig skin. *Iranian Journal of Biomedical Engineering*, 2007 (3): 215-226.
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- 53) Talebi GA, Torkaman G, Firouzabadi SMP, Mofid M, Shariat S. Externally applied electricity for influencing on injury potential, mechanical and histological characterization of wound. *J Biomechanics*; 2008,41(s1):s190.
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- 60) Jahangard T, Torkaman G, Goosheh B, Hedayati M, Dibaj A. The acute & permanent effect of short term aerobic training on coagulation & fibrinolytic factors & lipid profiles in postmenopausal women. *Iranian Journal of Endocrinology & Metabolism.* 2009; 11(3): 273-283.
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- 63) Karimi N, Ebrahimi I, Ezzati K, Kahrizi S, Torkaman G, Arab AM. The effects of consecutive supervised stability training on postural balance in patients with chronic low back pain. *Pak J Med Sci* 2009 25(2): 177-181.
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- 65) javadian F, Bayat M, Torkaman G. Evaluation of Low-Level Laser Therapy with a He-Ne Laser on the Healing of an Osteochondral Defect using a Biomechanical Test. Accepted in *Photomed Laser Surg* 2010 Jun; 28(3):423-28.
- 66) Moghimi S, Miran Beygi MH, Torkaman G, Mahloogi Far A. Quantitative assessment of pressure sore generation and healing through the numerical analysis of high frequency ultrasound images. *JRRD* 2010 47(2): 99-108.
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- 68) Roya Ravanbod, Giti Torkaman, Ali Esteki. The measurement of rabbit's knee friction with a pendulum friction tester. *Modares, Journal of Medical Sciences: Pathobiology* 2010, spring 13: 57-67.
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- 70) Roya Ravanbod, Giti Torkaman, Ali Esteki. Biotribological and biomechanical changes after experimental haemarthrosis in the Rabbit knee. *Haemophilia* 2011, 17: 124-133.
- 71) Sadraie Sh, Kaka GhR, Mofid M, Torkaman G, Monfared MJ. Effects of low intensity pulsed ultrasound on healing of denervated tibial fracture in the rabbit. *Iranian Red Crescent Medical Journal* 2011, 13(1): 34-41.
- 72) Hoseini Sanati M, Torkaman G, Hedayati M, Mohktari Dizji M. Effect of Ga-As and He-Ne laser on the improvement of biomechanical characteristics recovery in full-thickness wound. *Lasers in Medicine* 2010, 7(1): 6-13.
- 73) Hoseini Sanati M, Torkaman G, Hedayati M, Mohktari Dizji M. Effect of Ga-As and He-Ne laser on injury potential of skin full-thickness wound. *J Photochemistry Photobiology B: Biology* 2011, 103: 180-185.
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- 77) Roghani T, Torkaman G, Movassegh Sh, Hedayati M, Goosheh B, Bayat N. The effect of 6-week submaximal training with and without external loading on cardiovascular fitness, balance, cortisol, and lipid profiles in osteoporotic postmenopausal women. *IJEM* 2012 13(6):587-597.
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- 86) Rezaeian Z, Torkaman G, sabbaghian AR, Esteki A, Ravanbod R, Dadpey M. The effect of anterior cruciate ligament transaction on biomechanical and histological properties of knee articular cartilage in rabbit. *Rehabilitation in Medical Sciences* 2012 No 2: 310-326.
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VIII. Innovations

- 1) Pressure and Shearing Force Applicator (Indenter)
- 2) Joint Friction Tester

IX. LIST OF PAPERS PERSENTED IN CONGRESSED AND SEMINARS

[Author(s), Name of Congress, City, Country, Year, Proceeding, Page(s)]:

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- 65) Sadraee H., Kaka Gh.R., Mofid M, Rezaei Y, Karimi Zarchi AA, Torkaman G., et al. Histomorphometrical and immunohistochemical study of callus formation of tibia after exposure of low intensity of pulsed ultrasound in rabbit. 18th congress of Physiology and Pharmacology. 2007: 71, Mashhad, Iran.
- 66) Jahangard T, Torkaman G, Dibaj A, Gousheh B, Hedayati M. The effect of short-term aerobic exercise on tPA, PAI and vWF antigenes in postmenopausal women. 19th Iranian Congress of Physical Therapy, Tehran, IRAN.
- 67) Roya Ravanbod, Giti Torkaman, Ali Estaki. Help the joint biomechanics. XXVIII International Congress of the World federation of Hemophilia, 2008, Istanbul, Turkish.
- 68) Jahangard T, Torkaman G, Gousheh B, Dibaj A. The effect of short-term aerobic exercise on coagulative and fibrinolytic factors in postmenopausal women. 6th International Congress on Physical Education and Sport Sciences, 4-6 March 2008, Kish, Iran.
- 69) Habibi M, Torkaman G, Hedayati M, Gousheh B. The effects of one session aerobic and combined aerobic-resistance exercise on fibrinolytic factors (t-PA, PAI-1) in healthy young sedentary men. 6th International Congress on Physical Education and Sport Sciences, 4-6 March 2008, Kish, Iran.
- 70) Mokhtari Dizaji M, Yousef-Diba A, Larijani B, Salehnia M, Torkaman G, Dadras MR, Hamidi Z, Adibi H, Kazemnejad A. The effect of Low Level Laser therapy on bone repair: Ultrasound study. 6th International Congress on Physical Education and Sport Sciences, 4-6 March 2008, Kish, Iran.
- 71) Talebi G, Torkaman G, Firoozabadi M, Mofid M, Shariat Sh. Externally applied electricity for influencing on injury potential, mechanical and histological characterization of wound. 16th Congress of the European Society of Biomechanics; July 6th-9th, 2008, Lucerne, Switzerland.
- 72) Moghimi S, Miran Beygi M, Torkaman G, Mahloojifar A. Color Calibration for the analysis of wound images. 15 th Iranian Conference on Optics and Photonics and 1st Iranian Conference on Photonic Engineering; 27-9 January 2009, Esfahan, I.R. Iran.
- 73) Jahangard T, Torkaman G, Gousheh B, Hedayati M. The effect of short term aerobic exercise on coagulation, fibrinolytic factors and lipid profiles in postmenopausal women. 3th Iran-Arab Cardiovascular Congress; 12-15 March 2009, Kish, IRAN.
- 74) Ravanbod R, Torkaman G, Gousheh B, Hedayati M, Fallahi F. Inflammatory Cytokines and Atherosclerosis. 3th Iran-Arab Cardiovascular Congress; 12-15 March 2009, Kish, IRAN.

- 75) Moghimi S, Miran Beygi M, Torkaman G, Mahloojifar A. Studing the generation of pressure sores in guinea pigs through modeling and using high frequency ultrasound. 3ed International on Modeling, Simulation and Applied Optimization, January 20-2, 2009 Sharjah, UAE.
- 76) Goljarian S, Torkaman G, Firoozabadi M, Sarmadi AR. The effect of renshow cell activity on the fast and slow twitch motor units by H response recording. 21st Physical Therapy Congress, Tehran, Iran.
- 77) Asadi MR, Torkaman G, Hedayati M. The effect of sensory and motor intensity of electrical stimulation on the biomechanical parameters of full thickness skin wound. 21st Physical Therapy Congress, Tehran, Iran.
- 78) Asadi MR, Torkaman g, Hedayati M. The effect of electrical stimulation intensity on VEGF expression and biomechanical properties during wound. International Congress of Biomedical Engineering, 28-30 Sep 2010, Amsterdam, Netherland.
- 79) Hoseini Sanati M, Torkaman G, Hedayati M, Mohktari Dizji M. Injury potential and VEGF expression of skin full-thickness wound after irradiation of Ga-As and He-Ne lasers. Laser in Medicine National Congress, 16-18 Feb 2011, Tehran Iran.
- 80) Roghani T, Torkaman G, Gousheh B, Movaseghi Sh. Improvement of cardiovascular fitness in postmenopausal women after weighted vest aerobic training. 5th Middle East Cardiovascular Congress, 23-25 Feb 2011, Kish Island, Iran.
- 81) Ravanbod R, Torkaman G, Esteki A. The effect of pulsed ultrasound therapy on the improvement of joint friction in heamarthrosis model. XXIIIrd Congress of the International Society of Biomechanics July 3-7, 2011, Brussels, Belgium.
- 82) Rezaeian Z, Torkaman G, Esteki A, Sabagheian A, Ravanbod R. Short-term effect of ACLT on knee joint biomechanics. 19th annual meeting of EORS, September 1-2 2011, Vienna, Austria.
- 83) Nima Rezaei, Giti Torkaman, Shafieh Movasseghe, Mehdi Hedayati, Noushin Bayat. SITE SPECIFIC RESISTANCE TRAINING CAN INCREASE BALP, tALP AND SEMI_DYNAMIC BALANCE IN OSTEOPOROTIC WOMEN. Roma XXXII WORLD CONGRESS of SPORTS MEDICINE, 27-30 September 2012, p:53, Rome, Italy.
- 84) Nasiripour F, Torkaman G, Mohajeri MR, Hedayati M. Effect of sensory threshold intensity of catodal stimulation on the wound area, skin temperature, and skin sensory

threshold in diabetic foot ulcers. 23th Iranian Physical Therapy Congress, 2012, 17-19 May, Shiraz, Iran.

- 85) Hosseini M, Torkaman G, Hedayati M. Biomechanical properties of full thickness wound after exposing of Ga-As and He-Ne laser. 23th Iranian Physical Therapy Congress, 2012, 17-19 May, Shiraz, Iran.
- 86) Roghani T, Torkaman G, Movaseghi Sh, Hedayati M, Bayat N. Improvement of balance and blood cortisol level after aerobic treadmill walking in menopausal osteoporotic patients. 23th Iranian Physical Therapy Congress, 2012, 17-19 May, Shiraz, Iran.
- 87) Goljarian S, Torkaman G, Firoozabadi M, Sarmadi A. Reliability of maximum amplitude and its related intensity of H' response. 23th Iranian Physical Therapy Congress, 2012, 17-19 May, Shiraz, Iran.
- 88) Ghanjal A, Torkaman G, Ghabaee M, Ebrahimi E, Banki AA. The effect of action observation on the balance parameters and functional activity of hemiparetic patients: Based on the mirror neuron theory. 24th Iranian Physical Therapy Congress, 2013, 8-10May, Tehran, Iran.
- 89) Ghanjal A, Torkaman G, Ghabaee M, Ebrahimi E. The effect of action observation on the symmetry of weight distribution and stability indices in semi-dynamic stability in healthy men and women. 24th Iranian Physical Therapy Congress, 2013, 8-10May, Tehran, Iran.
- 90) Banifatemeh H, Torkaman G, Khoshamooz Y. Effect of skin desensitization on the motoneuron excitability of Soleus and Gastrocnemius muscles. 24th Iranian Physical Therapy Congress, 2013 8-10May, Tehran, Iran.
- 91) Khoshamooz Y, Torkaman G, Banifatemeh H. Effect of vertebral column tripolar TENS on the recovery curve of Soleus and Gastrocnemius Muscles. 24th Iranian Physical Therapy Congress, 2013, 8-10May, Tehran, Iran.
- 92) Darbani M, Torkaman G, Movaseghi Sh, Bayat N. Comparison of the amplitude SD, velocity and length of COP in health, osteopenic, and osteoporotic women. 25th Iranian Physical Therapy Congress, 2014, 7-9May, Tehran, Iran.

- 93) Rezaeian SZ, Torkaman G, Ravanbod R, Esteki A. The effect of LIPUS on tibial articular cartilage biomechanics in rabbit model of OA. World Congress of Osteoarthritis, 24 -27 April 2014, Paris, France.

X. Books

- 1- Comprehensive management for congenital bleeding disorders in Iran: Chapter 21: Standards in Haemophilia Patients Physical Therapy. 2nd edition. 1400.

XI. RESEARCH PROJECT LEADER:

- 1) Study of mechanical force Parameters cause Pressure sores comparison of electrical and ultrasonic modalities on repair it.
- 2) The effect of static/cyclic and repetitive normal pressure on the induced ischemia and biomechanical properties of tissue in guinea Pig.
- 3) The effect of electromechanical stimulation on the skin wound healing.
- 4) Effect of ergometric training on coagulant activity of VIII in healthy young men.
- 5) The effect of catodal current intensities on injury potential, tensile strength, releasing of vascular endothelial growth factor, and histological parameters in skin wound healing.
- 6) Study of cartilage biomechanical properties and joint friction in Experimental Haemarthrosis after Intra-articular Injection of Mesenchymal Stem cells

XII. RESEARCH STUDENTS SUPERVISED:

- 1) Comparative study of pulsed ultrasound (1MHz) and ascorbic acid in treatment of pressure sore in guinea Pig. Sedigheh Ghiaci, MSc, (1999).
- 2) Study of H-reflex signal recruitment curve after tripolar TENS on the vertebral column desensitized skin. Arezu Navid, MSc, (2002).
- 3) Effect of ergometric exercise on F-VIII Coagulation activity in patients with hemophilia-A. Roya Ravanbod, MSc, (2002).
- 4) Study of recruitment curve of H-reflex signal after application of vibration on bulk and tendon of soleus muscle. Amin Kordi Yoosefi Nejad, MSc, (2002).
- 5) The Study of catodic and anodic electrical stimulation (I.D.C.) effect on wound healing in guineapig. Fereshteh Mehmandoust, MSc, (2002).
- 6) Study the concomitant effect of topical anesthesia and cold on the recruitment curve parameters of H-reflex. Hosein Salehi, MSc, (2005)
- 7) The aerobic training on FVIII coagulant activity in healthy youngmen. Zahra- Sadat Rezaeian, MSc, (2005).

- 8) Effect of surface tripolar TENS of vertebral column on the soleus and gastrocnemius muscles. Leila Simorgh, MSc, (2005).
- 9) The effect of cathodal and anodal electrical stimulation(IDC) on healing of pressure ulcers in guinea pig. Fateme Jamshidi, MSc, (2005)
- 10) Study of relation between wound electrical potential, micro-amperage direct current(DC) and wound healing characteristics. Ghadam Ali Talebi, PhD, (2007).
- 11) The effect of short term aerobic exercises on coagulative and fibrinolytic factors in postmenopausal women. Jahangard Tahereh, MSc, (2008).
- 12) The effects of aerobic and combined aerobic-resistance exercise on fibrinolytic and coagulation factors in healthy young sedentary men. Mehrdad Habibi, MSc, (2008).
- 13) The effect of sensory & motor intensities of cathodal current on injury potential, tensile strength of tissue and releasing of vascular endothelial growth factor. Mohammad Reza Asadi, MSc (2010).
- 14) The effect of pulsed ultrasound and Ga-Al-As LLLT on inflammation suppression and increasing mechanical functionality of the rabbit knee experimental haemarthrosis. Roya Ravanbod, PhD (2010).
- 15) Effect Of low level laser therapy with 632.8nm (He_Ne)&904 nm (Ga_Ar) On injury potential, releasing of vascular endothelial growth factor & tensile strength in full thickness wounded Rat skin. Mahsa Hosseini, MSc(2010).
- 16) Comparison of effect of 6 weeks aerobic treadmill exercise with and without external loading on NTX and BALP and balance in postmenopausal women with primary moderate osteoporosis. Tayebeh Roghani, 2011.
- 17) Studing & comparing the effect of the 1MHz pulsed US wave & Ga-Al-As 810nm low level laser to improve the cartilage biomechanical properties & knee joint complex coefficient of friction in rabbit experimental OA. Zahra Rezaeian, PhD, 2011.
- 18) Comparison of The effect of 6 weeks resistance training and pulsed electromagnetic field stimulation on NTX, B –ALP and balance in primary postmenopausal osteoporotic women. Nima Rezaee, MSc, 2011.
- 19) Comparison of the effect of 6 week resistance training and combined resistance training with pulsed electromagnetic stimulation on N-terminal telopeptide of type I collagen(NTX), Bone-specific alkaline phosphatase(B-ALP) and balance in osteoporotic severe haemophilia A. Behrouz Parhampour, MSc, 2012.

- 20) Evaluation of effect of sensory threshold of cathodal direct current electrical stimulation on expression of vascular endothelial growth factor and wound surface area in diabetic foot ulcers. Faezeh Nasiri Pour, MSc, 2012.
- 21) Evaluation of the effects of short-term Whole body vibration training on neuromuscular response in Young healthy and postmenopausal Women. Leyla Simorgh. PhD, 2012.
- 22) Evaluation of the acute effects of Whole body vibration on the H-reflex recruitment curve in the soleus and gastrocnemius muscles. Leyla Dadashi, MSc, 2013.
- 23) Evaluation of H-reflex recovery curve of the soleus and gastrocnemius muscles after application of tripolar TENS on the anesthetized skin of vertebral column. Yasamin Khoshamooz, MSc, 2013.
- 24) Evaluation of H-reflex recovery curve of the soleus and gastrocnemius muscles after application of bipolar TENS on the anesthetized skin of vertebral column. Hajar Banifateme, MSc, 2013.
- 25) The effect of functional activities observation on improving the functional activities, balance and asymmetrical indices in hemiplegic patients based on mirror neurons theory, Ali Ghanjal, PhD, 2014.
- 26) The effect of bicycle pedaling after the vertebral column tripolar cathodal surface stimulation and the usual methods of peripheral stimulation on HD & H-reflex parameters of soleus and gastrocnemius muscles in spinal cord injury patients, Tahereh Jahangard, PhD, 2014.
- 27) The effect of 12 sessions WBV training on the H-reflex recruitment curve and peak torque of soleus in healthy persons. Morteza Ahmadi, PhD, 2014.
- 28) The comparison of static, dynamic and functional balance parameters in osteoporotic and nonosteoporotic women. Maliheh Darbani, MSc, 2014.
- 29) Study and Comparison of Recurrent Inhibition in tri-polar and bipolar TENS using H' response curve to offer a new treatment. Goljarian, PhD, 2014.
- 30) Effect of 1MHz Pulsed Ultrasonic Waves on Inflammatory Parameters and Knee Joint Friction in Non-traumatic Osteoarthritis Guinea Pig Model. Mahmood Ahmadi, MSc, 2015.

- 31) The effect of cryotherapy on the improvement of joint inflammation, inflammatory interleukins diminution and subpattellar space reduction in experimental haemarthrosis of Rabbits. Mohammad Esmail Zandinezhad, MSc, 2015.
- 32) Evaluation of effect of cathodal direct current on the expression of angiogenic factors (VEGF, NO, VEGFR-2, HIF-1 α), Oxygen saturation of peripheral blood and wound surface area in the ischemic diabetic foot ulcer. Mohammad Reza Asadi, PhD, 2015.
- 33) Acute and short –time effect of pulsed electromagnetic field at lumbao – sacral area on the H-reflex recruitment curve of soleus and displacement of the center of pressure in the osteoporotic women. Mohammad Gilani, MSc, 2016.
- 34) Effect of Low Level Laser With Ga-As (904 nm) on Expression of Angiogenic Factors (VEGF, VEGF Receptor-2,NO, HIF-1 α), Oxygen Saturation of Peripheral Blood and Wound Surface Area in Ischemic Diabetic Foot Ulcers. Mahsa Hoseini Sanati, PhD, 2016.
- 35) Study of 8-week functional balance training on static and functional balance, location of center of pressure location in BOS, and limit of stability in postmenopausal women with osteoporosis. Fereshte Yousefi, MSc, 2017.
- 36) Comparison among the effects of pulsed ultrasound, Platelet rich plasma injection and combination of this on knee joint friction and cartilage biomechanical properties in non-traumatic osteoarthritis guinea pig model. Jalal Tavakoli, MSc, 2017.
- 37) Effect of gait retraining with toe-out angle on the COP sway, itslocation in base of support, physical function and pain in patient with knee osteoarthritis. Tamam Halbavi, MSc, 2017.
- 38) Investigation of the center of pressure displacement and its position than the base of support in Hyperkyphotic and Normal Kyphotic Postmenopausal Women, Sanaz Mohebi, MSc, 2017.
- 39) Effect of exercise therapy with and without intra-articular hyaluronic acid injection on the COP sway and its location in the base of support and physical function in patients with knee osteoarthritisT Elham Rostami Mehr, MSc, 2018.
- 40) The effect of MWM techniques on the COP sway in functional position and its situation in base of support in knee osteoarthritis, Najmeh Abdollahian, MSc, 2018.
- 41) Effect of 24 weeks advanced weight-bearing exercises with/without quadriceps and soleus FES on femoral and tibial bone density indexes and functional activities in paraplegic SCI. Mostafa Rahimi, PhD, 2019.

- 42) Comparison of electromyographic activity of ankle and thigh muscles in reaching and transporting tasks in the post menopausal women with and without osteoporosis. Marzieh Hatami, MSc, 2020.
- 43) Effect of foot progression angle on the knee muscles activity during sit to stand in patients with knee osteoarthritis, Neda Gholami, MSc, 2020.
- 44) Effect of foot progression angle on the cop sway and the knee sagittal and frontal plane moments during sit to stand in patient with knee osteoarthritis, Farniaz Faroughi, MSc, 2020.
- 45) Study of pelvic tilt and center of pressure displacements in dynamic tests in osteopathic women and their relation with in the Qualeffo-41 score. Mina Shabani, MSc, 2023.
- 46) The effect of subject specific Foot progression angle retraining on the kinetics, kinematic, muscle activation and functional ability during walking in patients with knee osteoarthritis. Gholami samaneh, PhD. 2022.
- 47) The comparison of the conventional versus virtual reality training on the functional movement skills in women with primary osteoporosis, Mohammad Kazem Rezaei, PhD. 2022.
- 48) Effect of 6-week strength-balance training under virtual reality environment on the co-contraction of lower limb muscles and center of pressure sway during limit of stability, curve tracking and turning in women with primary osteoporosis, Mohammad Gilani, PhD. 2023.
- 49) Study of interdependence of foot and knee mechanics during gait and center of pressure pathway during sit to stand and turn in patients with unilateral knee osteoarthritis and flat foot, Maryam Sohrabi, PhD.
- 50) The comparison of whole body vibration with frequency of 20 and 40 Hz on the transmission to the lower limb's joints and center of pressure sway in the postmenopausal women, Mina Ahmadi, MSc, 2023.

XIII. RESEARCH STUDENTS CO-SUPERVISED:

- 1) The Comparative study of concentric and eccentric exercise of quadriceps muscle with Isokinetic system. Saeed Azimi, MSc, (1997).
- 2) The effect of percutaneous Lumbar stimulation on the H-reflex parameters. Hossein Hamedi, MSc (1998).
- 3) The comparative study of cardiovascular parameters in spinal cord injury during walking with three kinds of crutches. Alireza Sarmadi, MSc, (1999).
- 4) The effect of superficial electrical stimulation of the motor units of tibialis anterior muscle on the H-reflex parameters of soleus muscle. Mohammad Pakzad, MSc, (1999).
- 5) The effect of maximum effort on the knee proprioception in 20-30 years old girls. Nasrin Siahtiri, MSc,(1999).

- 6) The comparison of the H-reflex parameters of soleus muscle in two methods of surface electrical stimulation of vertebral column and peripheral neural fibers. Fatemeh Ebrahimi, MSc, (2000).
- 7) The study of H-reflex and Mh wave recruitment curves before and after percutaneous lumbar spine stimulation. Narges Saeedi, MSc, (2000).
- 8) Effect of clinical application of cold on Knee Joint position sense in the uninjured population. Mehdi Haji Mohammadi, MSc, (2000).
- 9) Study of heat and cold using on the muscle recovery after fatigue. Majid Mokhtari Vayeghan, MSc, (2000).
- 10) Comparison of the effect of bi-polar and tri-polar TENS on H-reflex and Mh wave recruitment curve. Sakineh Goljarian, MSc, (2002).
- 11) An evaluation of surgical wound healing by consecutive *in vivo* measurement of epidermis electrical resistance in comparison with other conventional methods. Saeed Behabadi, MSc, (2003).
- 12) Effect of fatigue on body balance in intact non-trained person. Zeinab Vasheghani Farahani, MSc, (2004).
- 13) Comparison of goal shooting in professional football players before and after fatigue; Ebrahim Abassi, MSc, (2004).
- 14) The comparative study of fractal parameters in human H-reflex after bipolar and tripolar TENS. Amiroossein Kazerani, MSc, (2004).
- 15) The effects of strength training of the ankle muscles on balance. Afshine Rahbari, MSc, (2004).
- 16) The effect of vertebral column tripolar TENS with various intensity on soleus and gastrocnemius H-reflex and Mh wave recruitment curve. Alireza Sarmadi, PhD, (2004).
- 17) Quantitative evaluation of controlled cyclic mechanical stimulation in repair of rabbit tibia diaphysis. Azadeh Shadmehr, PhD, (2005).
- 18) The effect of TENS on pain and quality of life in osteoarthritis. Kamal Salehi, MSc, (2005).
- 19) Study of invasive and non invasive measuring of injury potential through wound healing in guinea pig. Vahideh Karbasi, MSc (2005).
- 20) The effect of GaAlAs laser therapy (30 mW) on bone repair in rabbit: Densitometry and ultrasoundography. Aliasghar Yousefi Diba, MSc (2005).
- 21) A home-based trans-theoretical change model designed strength training intervention to increase exercise to prevent osteoporosis in Iranian women aged 40-65 years. Karimzadeh, PhD (2006).
- 22) Study of low power pulsed ultrasound waves on the biomechanical properties of bone healing in rabbit. Behzad Yasrebi, PhD, (2007).

- 23) Effect of low back proprioception on static standing balance and torques of lower limb joints during pregnancy and post delivery. Sedighe Sadat Naimi, PhD, (2007).
- 24) Evaluation of low level laser therapy for repair of osteochondral defects in the rabbit knee. A morpho-hystological and biomechanical study. Fahimeh Kamali, PhD, (2007).
- 25) Study of functional training and in chronic nonspecific lumbar pain. Noredin Karimi, PhD (2008).
- 26) Assessment of pressure sore generation and healing through fusion of the information obtained from high frequency ultrasound sonography and optic imaging, Sahar Moghimi, PhD, 2010.
- 27) The effect of different fatty acids, nutrients, and whole Body Vibration on the bone histomorphometrics, bone mechanical properties and metabolic parameters in Rat. Soheila Salmasi, MSc, 2011.
- 28) The effect of nutrients (Ca, vitamin D, and Boron) and fluoride on the bone histomorphometrics and bone mechanical properties in Rat. Zahra Golavar, MSc, 2011.
- 29) Study of motoneurons recruitment curve of gastrosoleus muscle after taping on the desensitized skin of lower leg. Rasool Bagheri, MSc, 2011.
- 30) The Effects of Stabilization Exercises and Maximum Isometric Exercises on Cross Sectional Area of Deep Flexor Muscles in Chronic Non-Specific Neck Pain by Ultrasonography. Ahmad Reza Asgari, PhD, 2014.
- 31) Sara Asghari Mooneghi, PhD, 2015.
- 32) Investigation of the healing effect of cold atmospheric plasma in animal model of pressure wound. Maedeh Chatraei, MSc, 2017.
- 33) The effects of six-week resistance, aerobic and combined exercises on the pro-inflammatory and anti-inflammatory markers in overweight patients with moderate haemophilia A: A randomized controlled trial. Behrooz parhampour, PhD, 2019.

XIV. COURSES TAUGHT:

- 1) Tissue Biomechanics
- 2) Physiotherapy in Musculoskeletal impairments
- 3) Electro-neuromyography
- 4) Exercise Physiology
- 5) Seminars (M.Sc. and Ph. D.).