



## **Curriculum Vitae (C.V.)**

### **Personal Data**

Name: Seied Rabi (Mehdi) Mahdavi  
Date of Birth: 22,10, 1341 (12, January, 1963)  
Marital Status: Married  
Nationality: Iranian

### **Work address**

Department of Medical Physics, Faculty of Medicine, Iran University of Medical Sciences (IUMS), Tehran, IRAN  
Tel/fax. (+98)(21)88622647

### **Education Records:**

- 2005 PhD of Medical Physics - Tehran university of Medical Sciences (TUMs)[Thesis title: In-Vivo Radiobiological Assessment of Prostacyclin Mediated Vascular Changes leading to Development of Radiation Myelopathy in Rat Cervical Spinal Cord]
- 2005 Participation in the European Master of Sciences course in Radiation Biology at the Gray Cancer Institute those in the field of biological basis of radiotherapy and familiarized with the techniques of culturing and irradiating human cells in vitro and assessing the response using the micronucleus assay, at Mount Vernon Hospital and The Institute of Cancer Research in Sutton of London, UK
- 1996 MSc in Medical Physics – TUMS [Thesis title: Accuracy and Reproducibility assessment of treatment fields in Tele-radiotherapy]
- 1992 BSc in Radiology Technology – TUMS

### **Work Experiences**

Currently: - Associate Professor of Iran University of Medical Sciences  
- Radiation Oncology Physicist  
- President of Iranian Association of Medical Physicists (IAMP)  
- Vice president of Middle East Federation of Organizations of Medical Physics (MEFOMP)

- 2015- Commissioning of first Local Hyperthermia (Celsius 42+) in Iran
- 2014- Consultant physicist of Radiotherapy Dept., Haft-e-Tir Hospital, Iran  
University of Medical Sciences
- 2013- Dosimetry, commissioning of first Intra-Operative Radiotherapy  
Electron Beam Linac (IORT) in Iran
- 2006- Dosimetry and Commissioning of Radiotherapy dept. at Pars General  
Hospital, Tehran, Iran
- 2000- Dosimetry and Commissioning of Radiotherapy dept. at Asia General  
Hospital, Tehran, Iran
- 1996- 2008; Radiotherapy Physicist and Assistant Professor of Babol  
University of Medical Sciences (BUMS), Iran
- 1994- Dosimetry and Commissioning of Radiotherapy Dept. at Iran Uni. Of  
Medical Sciences, Haft-e-Tir Hospital, Tehran, Iran
- 1993- Radiotherapy Physicist: Radiotherapy physics, machine commissioning,  
three and two dimensional treatment planning and conformal  
radiotherapy experiences, clinical dosimetry and radiobiology and  
Linac room shielding calculation and design

### **Teaching Experiences**

- From 2009: IUMS, Medical Physics for medical students, radiotherapy physics,  
dosimetry, physics of nuclear medicine and MRI for MSc, and  
PhD students and Residents of Radiation Oncology
- 2005- 2009: IUMS & BUMS, Medical Physics, Dosimetry, and protection
- 2000- 2004: TUMS, Physics for Physiotherapy students, Radiotherapy  
techniques for radiographers
- 1996- 2000: BUMS, Different topics of Medical Physics for Para-medical  
students, Medical Physics for Medical students and Dentistry
- 1994-1995: TUMS, Radiotherapy physics for B.Sc students of Radiotherapy  
Technology

### **Research Favorites**

Clinical physics of Radiotherapy, Radiation Dosimetry, Radiation Treatment  
Planning, Clinical and Basic Radiation Biology, Imaging related to  
Radiotherapy Planning and Simulation

### **Workshop**

- 2015 (1394)- Workshop on clinical photon beam dosimetry: IAMP, Zanjan
- 2014 (1393)- Work shop on clinical electron beam dosimetry: IAMP, Hamedan

- 2013 (1392)- Work shop on clinical photon dosimetry: IAMP, Babolsar
- 2011 (1389)-Lecturer on Radiation Therapy Treatment Planning System  
ISOgray: IAMP and DOSIsoft co., Tehran
- 2010 (1389)- Lecturer of Cancer Congress: Iranian Cancer Society, Tehran
- 2010 (1389)- Lecturer of 5<sup>th</sup> dosimetry workshop: Medical and agricultural  
research center, Karaj, Iran
- 2010 (1389)- Lecturer of 2<sup>nd</sup> Linac Training course and workshop: Cancer  
research institute (CRC) and IAMP, Imam Hospital, Tehran, Iran
- 2008 (1387) - Lecturer of Linac Training course and workshop: Cancer  
research institute (CRC), Imam Hospital, Tehran, Iran
- 2008 (1386)- Course of Physics of Medical Accelerators: Shahid Beheshti  
University, Tehran, Iran
- 2007 - Varian radiotherapy training program: Novy-Jicin radiotherapy center,  
Czecrepublica
- 2007 (1386) - Workshop Enzyme Immobilization: Babol University of Medical  
Sciences
- 2006 (1385) - PTW dosimetry instruments workshop: PTW company, Imam  
Hosein Hospital, Sh. Beheshti Medical University, Tehran, Iran
- 2005 (1384) - Ionizing radiation dosimetry workshop: Iranian Organization of  
Atomic Energy (IOAE), Karaj, Iran
- 2004 - Cell culture and Irradiation methods to radiobiological samples: Gray  
Cancer Institute, London UK
- 2003 (1382) - Working with laboratory animals workshop: Razi Research  
Institute, Karaj, Iran)
- 2002 (1377) - MCNP codes workshop (advanced course): IOAE, Iran
- 1999 (1377) - Interstitial and intra-cavitary radiotherapy workshop: IOAE, Iran
- 1998 (1377) - Research methodology workshop: BUMs, Iran
- 1998 (1377) - Methods of medical education workshop: BUMs, Iran
- 1996 (1376) - Intra-cavitary treatment with Cs-137 after-loading device: Sh.  
Beheshti Medical University, Iran

## **Publications**

-Books:

"IRIORT Protocol" first Iranian intra operative protocol, ME Akbari, HR  
Mirzaei, SR Mahdavi, N Nafisi, Cancer Research Center, 2016

"Radiotherapy techniques" S.R. Mahdavi and *et al*, Iran Medical University  
press, 2006

- Papers:

1. "Effect of Gold Nanoparticles on Prostate Dose Distribution under Ir-192 Internal and 18 MV External Radiotherapy Procedures Using Gel Dosimetry and Monte Carlo Method". *J Biomed Phys Eng*; 5(1), 2015.
2. "Short-term cohort study on sensorineural hearing changes in head and neck radiotherapy". *Med Oncol*, 32:200, 1-7, 2015.
3. "Improvement of dose distribution in breast radiotherapy using a reversible transverse magnetic field Linac-MR unit". *Med. Phys.* 41 (1), 1-11, January 2014.
4. "Breast dosimetry in transverse and longitudinal field MRI-Linac radiotherapy systems". *Med. Phys.* 42 (2), 925-936, February 2015.
5. "Cytotoxic effects of hyperthermia, chemotherapy (Navelbine) and radiation on glioma spheroids". *Radiation Physics and Chemistry* 123 20–24, 2016
6. "Application of Gafchromic EBT2 film for intraoperative radiation therapy quality assurance". *Physica Medica*, Accepted 31 January 2015
7. "Dosimetric evaluation of Gafchromic EBT2 film for breast Intraoperative electron radiotherapy verification". *Physica Medica*, 31 (37-42) 2015.
8. "Comparing the dosimetric characteristics of the electron beam from dedicated intraoperative and conventional radiotherapy accelerators". *Journal of Applied Clinical Medical Physics*, volume 16, number 2, 2015.
9. "Size Effects of Gold and Iron Nanoparticles on Radiation Dose Enhancement in Brachytherapy and Teletherapy: A Monte Carlo Study". *Iran J Med Phys*, Vol. 11 , No. 2 & 3, Spring & Summer 2014.
10. "Magnetic Resonance Imaging - Based Target Volume Delineation in Radiation Therapy Treatment Planning for Brain Tumors Using Localized Region-Based Active Contour". *Int J Radiation Oncol Biol Phys*, Vol. 87, No. 1, pp. 195-201, 2013.
11. "The Effects of Backscattered Radiation into Beam Monitor Chamber: Study of 6 and 18 MV Conventional and Removed Flattening Filter Clinical Accelerator" *BIOSCIENCES BIOTECHNOLOGY RESEARCH ASIA*, March 2015. Vol. 12, p. 25-36
12. "Monte Carlo Calculation of Neutron Doses to Organs of a Female Undergoing A Pelvic 18 MV Irradiation" *Biomedical & Pharmacology Journal* Vol. 8 (March Spl Edition), 65-71 (2015)
13. "Comparison of CCC and ETAR dose calculation algorithms in pituitary adenoma radiation treatment planning; Monte Carlo evaluation" *Journal of Radiotherapy in Practice* (2014) Page 1 of 9

14. "Determination of Correction Factors for Small Field Radiotherapy Using 6 and 18MV Energies of a Linac" J Mazandaran Univ Med Sci 2015; 24(120): 173-187 (Persian)
15. "Optimization of clinical target volume delineation using magnetic resonance spectroscopic imaging (MRSI) in 3D conformal radiotherapy of prostate cancer" Int. J. Radiat. Res., October 2014; 12(4): 303-309
16. "Effect of uniform magnetic field on dose distribution in the breast radiotherapy" Int. J. Radiat. Res., April 2014;12(2): 161-170
17. "Monte Carlo study on beam hardening effect of physical wedges" Int. J. Radiat. Res., July 2014;12(3): 249-256
18. "The role of iron oxide nanoparticles in the radiosensitization of human prostate carcinoma cell line DU145 at megavoltage radiation energies" International Journal of Radiation Biology, 2014; Early Online: 1–6
19. "Skin Reaction in Radiation Therapy for Breast Cancer" Iranian Journal of Medical Physics Vol. 11 , No. 4, Autumn 2014, 316-321
20. "Size Effects of Gold and Iron Nanoparticles on Radiation Dose Enhancement in Brachytherapy and Teletherapy: A Monte Carlo Study" Iranian Journal of Medical Physics, Vol. 11 , No. 2 & 3, Spring & Summer 2014, 253-259
21. "Evaluation of the Cytotoxic Effects of PLGA Coated Iron Oxide Nanoparticles as a Carrier of 5-Fluorouracil and Mega-Voltage X-Ray Radiation in DU145 Prostate Cancer Cell Line" IEEE TRANSACTIONS ON NANOBIOSCIENCE, VOL. 13, NO. 4, DECEMBER 2014
22. "Consequences of Lethal-Whole-Body Gamma Radiation and Possible Ameliorative Role of Melatonin" The Scientific World Journal Volume 2014, Article ID 621570, 9 pages
23. "Enhancing the properties of beam forming bolus in hyperthermia: numerical simulation and empirical verification" Australasian College of Physical Scientists and Engineers in Medicine 2014
24. "Estimation of overall heat transfer coefficient of cooling system in RF capacitive hyperthermia" J. Biomedical Science and Engineering, 2013, 6, 509-517
25. "An Inverse Problem of Temperature Optimization in Hyperthermia by Controlling the Overall Heat Transfer Coefficient" Journal of Applied Mathematics Volume 2013, Article ID 734020 , 9 pages
26. "Relative Biological Effectiveness (RBE) of  $^{131}\text{I}$  Radiation Relative to  $^{60}\text{Co}$  Gamma Rays" Cell Journal(Yakhteh), Vol 15, No 3, Autumn 2013, Pages: 224-229
27. "A comprehensive procedure for characterizing arbitrary azimuthally symmetric photon beams" Physica Medica 30 (2014) 191-201

28. "Monte Carlo investigation of the effect of small cutouts on beam profile parameters of 12 and 14 MeV electron beams" *Radiation Measurements* (2013) 1-7
29. "Dosimetric comparison of different inhomogeneity correction algorithms for external photon beam dose calculations" *Journal of Medical Physics*, Vol. 38, No.2, 74-81, 2013
30. "An Inverse Problem of Temperature Optimization in Hyperthermia by Controlling the Overall Heat Transfer Coefficient" *Journal of Applied Mathematics* Volume 2013, Article ID734020, 9 pages
31. "An analytical model to determine inter-seed attenuation effect in low-dose-rate brachytherapy" *Journal of Applied clinical Medical Physics*, Vol. 14, no. 3, 2013
32. "Dose enhancement effect of gold nanoparticles on MAGICA polymer gel in mega voltage radiation therapy" *Int. J. Radiat. Res.*, Vol. 11 No. 1, January 2013
33. "Magnetic Resonance Imaging - Based Target Volume Delineation in Radiation Therapy Treatment Planning for Brain Tumors Using Localized Region -Based Active Contour" *Int J Radiation Oncol Biol Phys*, Vol. 87, No. 1, pp. 195 -201, 2013
34. "Radio-protective effects of melatonin against irradiation -induced oxidative damage in rat peripheral blood" *Physica Medica* (2013) 29, 65-74
35. "Conformal fields in prostate radiotherapy: A comparison between measurement, calculation and simulation" *Journal of Cancer Research and Therapeutics* - January-March 2012 - Volume 8 - Issue 1
36. "Radio-protective role of antioxidant agents" *Oncology Reviews* 2012; 6-16
37. "Commissioning and initial acceptance tests for a commercial convolution dose calculation algorithm for radiotherapy treatment planning in comparison with Monte Carlo simulation and measurement" *Journal of Medical Physics*, Vol. 37, No. 3, 145-50 ([Excerpta Medica](#) / [EMBASE](#), [PubMed](#), [Pubmed Central](#), [Scimago Journal Ranking](#), [SCOLOAR](#), [SCOPUS](#))
38. "A Comparison of dosimetric parameters between IAEA TRS-398, AAPM TG-51 protocols and Monte-Carlo simulation" *Iran. J. Radiat. Res.*, 2012; 10(1): 43-51 ([ISI](#))
39. "Physical Properties of Ethyl Methacrylate as a Bolus in Radiotherapy" *Iranian Journal of Medical Physics* Vol. 9, No. 2, Spring 2012, 127-134 ([Index Copernicus](#), [Iranmedex](#), [ISC](#))
40. "Applicator Attenuation Effect on Dose Calculations of Esophageal High-Dose Rate Brachytherapy Using EDR2 Film" *Iranian Journal of*

- Medical Physics Vol. 8, No. 1, Winter 2012, 19-24 ([Index Copernicus](#), [Iranmedex](#), [ISC](#))
41. "Normal Tissue Complication Probability Modeling of Radiation-Induced Hypothyroidism After Head-and-Neck Radiotherapy" International Journal of Radiation Oncology, biology, physics. Accepted for publication Mar 15, 2012 ([ISI](#))
  42. "Conformal fields in prostate radiotherapy: A comparison between measurement, calculation and simulation" Journal of Cancer Research and Therapeutics - January-March 2012 - Volume 8 - Issue 1 ([ISI](#))
  43. "Role of MRS in target volume definition of Prostate radiotherapy" Iran J Med Phys Vol. 8, No.3, Winter 2012. ([Index Copernicus](#), [Iranmedex](#), [ISC](#))
  44. "Developing a Verification and Training Phantom for Gynecological Brachytherapy System" Iran J Med Phys Vol. 8, No. 1, Winter 2012. ([Index Copernicus](#), [Iranmedex](#), [ISC](#))
  45. "Designing and evaluating a simple small phantom for dosimetry intercomparison" Journal of Nuclear Science and Technology, No 57, (4) 2011.
  46. "Evaluation of Thyroid Disorders During Head and Neck Radiotherapy by Using Functional Analysis and Ultrasonography" International Journal of Radiation Oncology, biology, physics. Accepted for publication May 26, 2011 ([ISI](#))
  47. " Dosimetry analysis of two new design 103Pd interstitial brachytherapy sources" Int. J. Low Radiation, Vol. 8, Nos. 5/6, 2011 ([ISI](#))
  48. "Comparing the results of 3D treatment planning and practical dosimetry in craniospinal radiotherapy using Rando phantom" Iran. J. Radiat. Res., 2011; 9(3): 151-158 ([ISI](#))
  49. " Evaluation of the combined effect of 2ME2 and Co60 on the inducement of DNA damage by IUdR in spheroid model of the U87MG glioblastoma cancer cell line using alkaline comet assay" Cell Journal (Yakhteh), 2011; 13(2) 83-90 ([ISI](#))
  50. "Development and characterization of a novel PRESAGE formulation for radiotherapy applications" Applied Radiation and Isotopes 69 (2011) 1540–1545 ([ISI](#))
  51. "Monte Carlo estimation of electron contamination in a 18 MV clinical photon beam" Iran. J. Radiat. Res., 2011; 9(1): 15-28 ([ISI](#))
  52. "Evaluation of melatonin for modulation of apoptosis-related genes in irradiated cervical spinal cord" Int. J. Low Dose Radiation, Vol. 7, No. 6, 2010; 436-445 ([ISI](#))
  53. " Dosimetric comparison of two craniospinal radiotherapy techniques for treatment optimization" Iranian Journal of Medical Physics 2010; Vol 7 (2) 1-8 ([Index Copernicus](#), [Iranmedex](#), [ISC](#))



54. " Photoneutron and capture gamma dose equivalent for different room and maze layouts in radiation therapy" *Radiation Protection Dosimetry* (2010), pp. 1–8 (ISI)
55. " The effect of ethanolic extract of propolis on radiationinduced mucositis in rats" *Saudi Med J* 2010; Vol. 31 (6) 179-183 (EMBASE)
56. "A basic dosimetric study of PRESAGE: the effect of different amounts of fabricating components on the sensitivity and stability of the dosimeter" *Phys. Med. Biol.* **55** (2010) 903–912 (ISI)
57. " Characterization of a Radiochromic Solid Polymer Dosimeter According to its' Composition" *WC 2009, IFMBE Proceedings 25/ III*, pp. 284-287 (EMBASE)
58. " Monte Carlo estimation of photoneutrons contamination from high-energy x-ray medical accelators in treatment room and maze: a simplified model" *Radiation Protection Dosimetry*, 2009: 1–12 (ISI)
59. " Evaluation of melatonin for prevention of radiation myelopathy in irradiated cervical spinal cord" *Yakhteh Medical Journal*, 2009: 11 (1): 43-48 (ISI)
60. "The role of CT-based radiotherapy planning on dosimetric correction" *Iran J Radiol*, 2009: 6(1): 23-28 (ISI)
61. "Role of CT simulation in radiation treatment planning" *Journal of Babol University of Medical Sciences*, 2008, 10(4): 7-15
62. "Monte Carlo simulation of TLD response function: Scattered radiation field application" *Int. J. Low Radiation*, 2008, 5(2): 124-133 (EMBASE)
63. "Melatonin as a protective agent in spinal cord damage after gamma irradiation" *Rep Pract Oncol Radiother*, 2007: 12(2): 95-99 (EMBASE, Excerpta Medica, BIOBASE, Index Copernicus)
64. "Adjacent field dose modification in breast radiotherapy by use of half-blocks" *Tehran University Medical Journal (TUMJ)*, 2007: 64(11):32-36 (EMR, EMBASE, Index Copernicus)
65. "Ovarian absorbed doses in radiotherapy of thoracic and abdominal regions" *Journal of Babol University of Medical Sciences*, 2006: 8(4):7-12
66. " Chronological response of prostacyclin changes to moderately low doses of radiation in rat cervical spinal cord" *Iranian Journal of Radiation Research*, 2006: 4(3): 129-136 (ISI)
67. "Long term changes of prostacyclin secretion in radiation induced myelopathy", *Rep Pract Oncol Radiother*, 2006: 11(6): 273-279 (EMBASE, Excerpta Medica, BIOBASE, Index Copernicus)
68. "Portal image contrast enhancement". *Rep Pract Oncol Radiother*, 2006: 11(1): 23-28 (EMBASE, Excerpta Medica, BIOBASE, Index Copernicus)



69. "Surveying the contra-lateral breast dose during the primary breast irradiation of mastectomy patients in three hospitals in Tehran". Journal of Iran university of medical sciences, 2005: 12 (46):323-330
70. "Developing a PC-based portal image contrast enhancement program". Iranian Journal of Radiation Research, 2005: 3(1): 37-42 (ISI)
71. "Ultra-structural histopathologic changes in radiation myelopathy of rat cervical spinal cord". Tehran university medical journal ( TUMJ), 2005: 63(8):607-614 (EMR, EMBASE, Index Copernicus)
72. "Evaluation of tissue heterogeneity effect on the received dose of orthovoltage X-ray in rat's cervical spinal cord". Journal of Iran university of medical sciences,2005: 12(49): 53-62
73. "Dosimetry, Control and Irradiation of rat cervical spinal cord". Journal of Babol university of Medical Sciences 2005 7(2):7-13
74. "Short term changes in prostacyclin secretory profile of ....". Prostaglandins, Leukotrienes and Essential Fatty Acids, 2005: 72(5): 373-378 (ISI)
75. "Radiation myelopathy: a radiobiological review". Rep Pract Oncol Radiother, 2004: 9:119-27 (EMBASE,Excerpta Medica, BIOBASE, Index Copernicus)
76. "Evaluation of accuracy and reproducibility of teletherapy doses by in vivo dosimetry" Iranian Journal of Medical Physics, 2003: 1(1):9-17
77. "Comparison of the different computer speed in calculating of Co-60 depth dose by MCNP4A and MCNP4B Monte Carlo codes". Journal of Babol university of Medical Sciences 2004: 6(3):7-11
78. "Evaluation and measurement of Co-60 gamma ray for the inactivation of lymphocytes". Journal of Iran university of medical sciences,2003:10(35):397-405

## Abstract Published

1. "Melatonin as a protective agent in spinal cord damage after gamma irradiation" Radiotherapy and Oncology, Journal of European Society for Therapeutic Radiology and Oncology, March 2009, Vol 90, Suppl 3
2. " CT simulation role in radiation therapy dosimetry" Journal of Radiological Sciences, April 2008, vol 1, Issue 2
3. " Simulation of increment in skin exit dose due to base plate in radiotherapy by Monte Carlo method" Journal of Radiological Sciences, April 2008, vol 1, Issue 2

4. "Presentation of nursing oncology in Babol". International Journal of Hematology-Oncology & Bone Marrow Transplantation, 2007, Vol. 4, Suppl. 1.
5. "Long term changes of prostacyclin in radiation myelopathy". 6<sup>th</sup> LOWRAD international conference, 2007
6. "The role of CT simulation in radiotherapy treatment planning". Iranian Journal of Radiology, 2007, Vol. 4, Suppl. 2
7. "Thermoluminescence dosimeter response". Journal of Rafsanjan University of Medical Sciences, Summer 2006, Vol. 5, No.2, special supplement
8. "Response of prostacyclin to low dose irradiation in the development of radiation myelopathy". European journal of cancer (EJC) Supplements 2005; Vol 3 N0 2 Oct. 2005
9. "Short term changes in prostacyclin secretory profile of irradiated rat cervical spinal cord" Toxicology and Applied Pharmacology 197 (2004) page 211
10. "Comparison between Co60 and Cs 137 radiations doses for lymphocyte inactivating". Physica medica EFOMP

### **Abstract Presented In Congress**

- 
- Quality Assurance in IOERT: Flatness and symmetry of the radiation beam. 10<sup>th</sup> International Breast Cancer Congress, Sh. Beheshti Medical University, Tehran-Feb. 2015 (1393)
- Radiobiology of single fraction electron beam radiotherapy. Presented at Mashhad IORT workshop, summer 1391
- The Role of MRSI in Clinical Target Volume Assessment for Radiotherapy of Prostate Cancer. 28<sup>th</sup> Iranian Congress of Radiology, Tehran, Iran, 15-18 May 2012
- GYN brachytherapy training phantom. 4<sup>th</sup> annual congress of the Iranian Society of Gynecological Oncology, Tehran, Iran, June 19-21, 2012
- Medical Physics role in Medical Laser application. 6<sup>th</sup> annual congress of Iranian Medical Laser Association, 29-30 Dec, 2011
- Development of a tool for converting MRS images to DICOM file. 17<sup>th</sup> Iranian Conference on Biomedical Engineering, 3-4 Nov. 2010
- Comparison between two methods of treatment plannings for Cranio-Spinal Irradiation. Persian Gulf Biotechnology Park, Queshm, 17-18, 2010
- Melatonin as a protective agent in spinal cord damage after gamma irradiation. Fourth International Conference on Translational

Research and Pre-Clinical Strategies in Radiation Oncology – Geneva, March 11-13 2009

- Radiotherapy data workflow: Data Formats, Networking and Archiving. Imam Khomeini Imaging center, Tehran, Iran, January 2009
- Image based radiation therapy. Digital imaging treatment planning Seminar, Imam Khomeini Imaging center, Tehran, Iran, April 2008
- Investigation of vascular endothelial growth factor gene expression in irradiated rat cervical spinal cord. The 6<sup>th</sup> Congress of the Iranian Radiographic Sciences Association (6icrsa). Homa Hotel Shiraz, April 25-26/2008.
- Simulation of increment in skin exit dose due to base plate in radiotherapy by Monte Carlo method. The 6<sup>th</sup> Congress of the Iranian Radiographic Sciences Association (6icrsa). Homa Hotel Shiraz, April 25-26/2008.
- CT Simulation Role in Radiation Therapy Dosimetry. The 6<sup>th</sup> Congress of the Iranian Radiographic Sciences Association (6icrsa). Homa Hotel Shiraz, April 25-26/2008.
- Presentation of nursing oncology in Babol. 19<sup>th</sup> Asia, Pacific, Cancer Conference, APCC 2007, Nov. 15-17, 2007, Tehran, Iran
- Application of 3D treatment planning in head and neck radiotherapy, Congress of head and neck tumors, 18<sup>th</sup> annual cancer congress, cancer research center, 26-26, Oct., Tehran, Iran
- The role of CT simulation in radiotherapy treatment planning. Imaging Informatics Conference, Tehran, Iran
- Long term study of prostacyclin changes in radiation myelopathy. Neuro Oncology Congress, 22-24 Dec., Sh. Beheshti Medical University Cancer Research Center
- Quality dependence of LiF thermoluminescence dosimeter response. 1<sup>st</sup> human, life and radiation conference, 29-31 Oct., Rafsanjan, Iran
- Chronological response of prostacyclin changes to low-moderate doses of radiation in Rat cervical spinal cord. 2<sup>nd</sup> European IRPA congress on radiation protection, 15-19 may, Paris, France
- Short term changes in Prostacyclin secretory profile of irradiated Rat cervical spinal cord. 10<sup>th</sup> International congress of toxicology 11-15 july, Tampere, Finland
- Dosimetry in radiobiology. 6<sup>th</sup> Iranian congress of medical physics, held at Mashhad University of Medical Sciences
- Radiation myelopathy: a radiobiological review. Current achievements in oncology congress, 6-8 Nov., Poznan- Poland
- Lymphocyte inactivating Co60 radiation dose. 8<sup>th</sup> European congress of Medical Physics, 20-23 May, Eindhoven University of Technology- The Netherlands

- Comparison between two methods of shielded fields calculations. 1<sup>st</sup> int. congress of radiation applications in treatment and diagnosis, 18-20 Oct., Sh. Beheshti University of Medical Sciences
- Application of Sr89 in bone metastasis. 4<sup>th</sup> congress of Biochemistry, Babol university of medical sciences
- Accuracy and Reproducibility assessment of treatment fields in tele-radiotherapy. 3<sup>rd</sup> Iranian congress of Medical Physics, Iran University of Medical Sciences

## **Thesis supervisor**

- 2015(1394)- " Monte Carlo simulation, verification and measurement of parameters effective in absorbed dose in IORT" PhD thesis, Tehran University of Medical Sciences
- 2013(1393)- "Feasibility of simultaneous Imaging, Dosimetry and Planning during breast IORT" PhD thesis, Sh. Beheshti University, Tehran
- 2013(1392)- "Treatment Planning Dosimetric Parameters of IORT" MSc thesis, Azad university
- 2012(1391)-"Development of a new method based on intelligence modeling to determine safe margin for CTV in adaptive radiotherapy for treatment of prostate cancer" PhD thesis, Iran Uni. of Medical Sciences
- 2012(1391)- "Determination and comparison of Dose-Response curves and radiobiological Iso-effective doses between tele-therapy plus ultrasonic hyperthermia and tele-therapy plus high dose rate brachytherapy in spheroid model of DU-145 human prostate carcinoma cell line" PhD thesis, Iran Uni. of Medical Sciences
- 2013(1392)- " Dosimetric calibration and validation of electronic portal imaging device for absorbed dose measurement in external radiation therapy" PhD thesis, Iran Uni. of Medical Sciences
- 2013 (1392)- "Comparison and specification of integral dose in 3DCRT and IMRT using megavoltage energies for optimization of treatment planning" PhD thesis, Iran Uni. of Medical Sciences
- 2013(1392)- "Dose response relation of auditory system in head and neck radiotherapy patients" PhD thesis, Iran Uni. of Medical Sciences
- 2013(1391)- " the evaluation of dose– effect relationship for radiotherapy-induced thyroid toxicity in head and neck cancer with Functional

- assay according to the NTCP models" PhD thesis, Tarbiat Modares Medical University
- 2011(1390)- " Evaluation of Diagnostic reference Level on CT Scan Examination in the City of Tehran" MSc student of Medical Physics, Tehran University of Medical Sciences
- 2011(1390)- " Organ body dose simulation using Monte Carlo EGS5 and human anthropomorphic phantom and benchmarking with TLD" MSc student of Medical Radiation engineering, Sharif University, Tehran
- 2011(1390)- " Dose simulation in different body parts in radiotherapy using Fluka Monte Carlo code on human phantom and benchmarking with TLD. MSc student of Medical Radiation engineering, Sharif University, Tehran
- 2011(1390)- " Dose simulation in different body parts in radiotherapy using BEAM Monte Carlo code on human phantom and benchmarking with TLD. MSc student of Medical Radiation engineering, Sharif University, Tehran
- 2010(1389)- " Investigation of cumulative genotoxic damage in spheroid culture of glioblastoma cells caused by 6 Mv X-ray or Iodine-131 beta-particles in presence of methoxy estradiol, IUDR and Topotecan. PhD student of Medical Physics, Tehran University of Medical Sciences
- 2010(1389)- "Dosimetric characterization of enhanced dynamic wedge implementation in radiation therapy of a heterogeneous phantom by measurement and Monte Carlo calculation" PhD student of Tehran (ex. Iran) University of Medical Sciences, Tehran
- 2010(1389)- "Numerical solution of bio-heat equation for optimization of thermal dose distribution in hyperthermia" PhD student, AZAD Uni., Tehran
- 2009(1388)- "Dynamic wedge dosimetry in chest wall irradiation" MSc student of medical radiation, AZAD Uni., Tehran
- 2009(1388)- "Comparison of conformal fields dosimetric parameters between 3D TPS..." MSc student of medical radiation, AZAD Uni., Tehran
- 2009(1388)- "Comparison of dosimetric parameters obtained by measurement, Coreplan 3D ...." MSc student of medical radiation, AZAD Uni., Tehran
- 2009(1388)- "MRS role in target definition of Brain tumour treatment planning" MSc student of medical radiation, AZAD Uni., Tehran

- 2009(1388)- "Simulation and Experimental Evaluation of Dose Enhanced Radiation Sensitivity in Prostate Cancer by Gold Nanoparticles in Mice" PhD of Medical Physics, Tehran University of Medical Sciences
- 2008(1387) - " Optimization of ethanol-chlorobenzene mass attenuation coefficient as a dosimeter for whole blood irradiation in Gamma-cell...." Iran University of Medical Sciences  
MSc of Medical Physics, Iran Uni. Of Medical Sciences
- 2008(1387) - "Comparison of TRS-398 and AAPM-59 protocols for photon and electron beams with...." MSc of Physics, Mazandaran science university

### **Thesis co-supervision**

- 2011(1389)- "Synergic effect of Iron Oxide nanoparticle with 5FU polymeric cover and 6MV x-ray on human prostate cancer cell of DU-145" MSc of Medical Physics, Tehran Uni. of Medical Sciences, Tehran
- 2010(1389)- " the evaluation of dose– effect relationship for radiotherapy-induced thyroid toxicity in head and neck cancer with Functional assay according to the NTCP models" PhD thesis of Tarbiat Moddaress University, Tehran
- 2010(1388)- "Radiobiological determination of direct damage in DNA, by I-131 and comparing to Monte Carlo simulation in Glioblastoma cells in monolayer cell culture" MSc of Medical Physics, Iran Uni. of Medical Sciences, Tehran
- 2010(1388)- "An alternative method for determination of requirement for using wedge in post mastectomy radiotherapy and Mont Carlo simulation" MSc of medical radiation, AZAD Uni., Tehran
- 2010(1388)-"Evaluation and analytical comparison of different 2D and 3D radiotherapeutic Treatment Planning Systems using Monte Carlo simulation and dosimetry with anthropomorphic thoracic phantom based on IAEA TEC-DOC 1583 protocol " MSc of medical radiation, AZAD Uni., Tehran
- 2010(1388)- " Design and fabrication of the IRA–<sup>103</sup>Pd eye plaque..." PhD of Medical Radiation, AZAD Uni., Tehran
- 2009(1387)-" Spectral and dose distribution analysis of neutron and electron contamination produced in medical linear electron accelerators

- 2009(1387)-" Construction and development of a chemical dosimeter based on the radiochromic solid polymer and evaluation of it's response to high energy photons used in radiotherapy" PhD of Medical Physics, Tarbiat Moddaress University
- 2009 (1388)- " The role of magnetic resonance spectroscopic imaging in the physical treatment planning of target volume definition in prostate cancer " MSc of Medical Physics, Iran Uni. of Medical Sciences
- 2009(1388)- "Dose enhancement effect of Iron oxide nano-particles on the prostate cancer cell survival" MSc of Medical Physics, Iran Uni. of Medical Sciences
- 2009(1388)- " Radiobiological determination of direct damage in DNA" MSc of Medical Physics, Iran Uni. of Medical Sciences
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