

Curriculum Vita

(Updated: December 24th, 2021)

Personal Information

Name: Bijan Hashemi
Date of Birth: 11th July 1957
Place of Birth: Malayer, Iran
Nationality: Iranian
Marital Status: Married



Educational Background

Diploma: Mathematics, Dr. Shariati (Previously Pahlavi) High School, Malayer, Iran, 1975.
B.Sc.: Physics, Tarbiat Moalem University (Now known as: Kharazmi/Arak University), Iran, 1979.
M.Sc.: Medical Physics, Tarbiat Modares University, Tehran, Iran, 1987.
Ph.D.: Medical Physics, University of Edinburgh, Edinburgh, U.K. 1997.

Professional Background

Current Job:

Faculty Member (Associate Professor) of Department of Medical Physics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. From: July 2007 to now.

Previous Jobs:

Faculty Member (Assistant Professor), Department of Medical Physics, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. From: April 1998 to July 2007.
Faculty member (Instructor), Department of Medical Physics: Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran. From: September 1988 to March 1990.

Current Work Address

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Brief Biography

Having Diploma in Mathematics from Dr. Shariati High School (Iran) in 1975, B.Sc. Degree in Physics from Tarbiat Moalem University (Now being named: Kharazmi/Arak University) (Iran) in 1979, M.Sc. Degree in Medical Physics from Tarbiat Modares University (Iran) in 1989, and finally Ph.D. Degree in Medical Physics from Edinburgh University (U.K.) in 1997.

A faculty member (Associate Professor) of the Department of Medical Physics of Tarbiat Modares University (Tehran/Iran) with general research interest in the application of ionizing radiation in medical diagnosis and treatment (radiology and radiotherapy, radiobiology and radiation protection started from 1978 up until Now.

Member of National (Audit and Evaluation) Specialized Board of Medical Physics of the Ministry of Health and Medical Education of Iran from 1998 till now and Secretary of National (Audit and Evaluation) Specialized Board of Medical Physics from 2019 till now. A full member of Iranian Association of Medical Physicists (IAMP), Asian Federation of Medical Physics (AFOMP), International Federation of Medical Physics (IFOMP) and PIP member of American Association of Medical Physicists (AAPM) and a member of the IPEM from 1992 (being suspended because of to not

being able to pay its' subscription fee due to the economic sanction imposed on Iranian banks for money orders to overseas countries).

Having published tens (about: 180) of scientific original papers at various specialized national and international medical physics related journals on different topics aimed for the development of conventional and novel diagnostic and treatment methods based on medical physics knowledge and science.

Educational Information (Including meetings, conferences, seminars, on-line education, etc.):

A) Lecturing M.Sc. Courses in Medical Physics

- **Physics of Radiotherapy (1) (formal & on-line education due to COVID-19 pandemic)**
- **Fundamentals of Radiation Detection and Dosimetry (on-line education due to COVID-19 pandemic)**
- **Radiation Protection of Ionizing Radiation in Medical Radiation Centers (formal & on-line education due to COVID-19 pandemic)**
- **Academic English (for Medical Physics Students) (formal& on-line education due to COVID-19 pandemic)**
- **Research Methods in Medical Sciences (formal & v on-line education due to COVID-19 pandemic)**

B) Lecturing Ph.D. Courses in Medical Physics

- **Special Topics in Radiation Detection and Measurement.**
- **Novel Topics in Radiotherapy**
- **Basic Physics and Application Concepts of Modern Radiotherapy Machines**
- **Treatment Guiding and Verification in Radiotherapy with Medical Imaging Methods**
- **Novel dose Calculations and Treatment Planning Systems in Radiotherapy**
- **Novel Topics in Brachytherapy**

Professional Activities Information (Including organizations, committees, etc.)

A) Professional official appointments

- **Associate Professor in Medical Physics, Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: July 2007 to present.**
- **Director of Self –Funded Campus of Tarbiat Modares University. Tehran, Iran. From: August 2020 to present.**
- **Director of Self –Funded Campus and Office of Free Educations of Tarbiat Modares University. Tehran, Iran. From: August 2019 to August 2020.**
- **Director of the Educational Cooperation and Test Center, Tarbiat Modares University. Tehran, Iran. From: August 2010 to August 2020.**
- **Financial and Administrative Vice-Dean of Faculty, Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: October 2005 to August 2010.**
- **Executive Director of Modares Journal of Medical Sciences, Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: September October 2002 to April 2007.**
- **Assistant Professor in Medical Physics (M.Sc. & Ph.D.), Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: April 1998 to July 2007.**
- **Head of the Department of Medical Physics, Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: February 1999 to 2001.**
- **Deputy of the Research Vice-Dean of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to 2000.**
- **Financial and Administrative Vice-Dean of Faculty of Basic Sciences, Tarbiat Modares University. Tehran, Iran. From: October 1989 to March 1990.**
- **Financial Advisor of Principal of Tarbiat Modares University. Tehran, Iran. From: March 1989 to October 1989.**
- **Instructor in Medical Physics of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: September 1988 to March 1990.**
- **Director of Center of Social Research and Program Evaluation of IRIB. Tehran, Iran. From April 1987 to August 1989.**
- **Deputy Manager of the Commerce, Beans General Office of Khuzestan Province. Ahvaz, Iran. From: 1981 to 1983.**

B) Membership of the professional/expert committees/councils

- **Secretary of Medical Physics Audit and Evaluation Board, Ministry of Health and Medical Education of Iran. Tehran, Iran. From: March 2019 to present**
- **Member of Medical Physics Audit and Evaluation Board, Ministry of Health and Medical Education of Iran. Tehran, Iran. From: 1998 to present.**
- Member of Revising Committee of Medical Physics Ph.D. Curriculum of Medical Physics Audit and Evaluation Board, Ministry of Health and Medical Education of Iran. Tehran, Iran. From: 2014 to 2016.
- Member of Revising Committee of Medical Physics M.Sc. Curriculum of Medical Physics Audit and Evaluation Board, Ministry of Health and Medical Education of Iran. Tehran, Iran. From: 2013 to 2016.
- Member of Revising Committee of Medical Imaging M.Sc. Curriculum of Medical Physics Audit and Evaluation Board, Ministry of Health and Medical Education of Iran. Tehran, Iran. From: 2015 to 2016.
- Member of Revising Committee of Radiation Biology M.Sc. Curriculum of Medical Physics Audit and Evaluation Board, Ministry of Health and Medical Education of Iran. Tehran, Iran. From: 2015 to 2017.
- Member of Expert Committee of Medical Physics, Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to present.
- Member of Comprehensive Commission for Programming and Evaluation (M.Sc. and Ph.D. Curricula), Tarbiat Modares University. Tehran, Iran. From: 2011 to 2015.
- Member of Research (Postgraduate) Council of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to 2014.
- Member of Physiotherapy Expert Committee of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 2003 to 2010.
- Member of Occupational Health Expert Committee of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to 2010.
- Member of Education (Postgraduate) Council of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to 2010.
- Member of Audit and Evaluation Committee of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to 2010.
- Secretary of Audit and Evaluation Committee of Faculty of Medical Sciences, Tarbiat Modares University. Tehran, Iran. From: 1998 to 2003.

C) Membership of scientific associations/societies

- **PIP Member of the American Association of Medical Physicists (AAPM). USA. From: 2008 to present.**
- **Member of Iranian Association of Medical Physicists (IAPM), AFOMP, and IOMP. Tehran, Iran. From: 1998 to present.**
- Member of Board of Directors of Iranian Association of Medical Physicists (IAPM). Tehran, Iran. From: January 2002 to 2019.
- Head of the Professional Committee of the IAMP. Tehran, Iran. From: January 2002 to 2009.
- Graduate Member of the Institute of Physics and Engineering in Medicine (IPEM), UK. From: 1992 to 1998.
- Associate Member of the Institute of Physics and Engineering in Medicine (IPEM). UK. From: 1998 to Present (Currently suspended due to being unable to pay the membership costs following economic sanctions imposed on Iranian Banks banning them from any money transfer to the overseas banks including the UK).

D) Membership of the editorial board/peer reviewers of scientific journals

- **Physica Medica (European Journal of Medical Physics). Elsevier publisher. From: 2009 to present.**
- **International Journal of Radiation Oncology, Biology and Physics. Elsevier publisher. From: 2011 to present.**
- **Modares Journal of Medical Sciences of Faculty of Medical Sciences of Tarbiat Modares University. Tehran, Iran. From: July 2002 to Present.**
- **Iranian Journal of Medical Physics, Iranian Association of Medical Physicists (IAMP), Iran, from: 2002 to Present.**
- **(Iranian Medical Journal of) Kousar. Tehran, Iran, from: 1999 to Present.**
- **Iranian Journal of Medical Sciences. Tehran, Iran, from: 1999 to Present.**
- **(Iranian Medical) Journal of Daneshvar. Tehran, Iran, from: 1999 to Present.**
- **(Iranian Medical) Journal of Hakim. Tehran, Iran, from: 1999 to Present.**
- **Iranian Journal of Medical Physics. Mashhad, Iran. 2003 to present.**

E) Membership of scientific/editorial board of scientific conferences/congresses/meetings

- The 12th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Shahid Beheshti University of Medical Sciences. Tehran, Iran. 2018.

- The 11th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Tehran University of Medical Sciences. Tehran, Iran. 2014.
- The 10th Iranian Congress of Medical Physics and the 1st MEFOMP (Middle East Federation of Medical Physics) International Conference of Medical Physics. Shiraz, Iran. 2011.
- The 9th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Iran University of Medical Sciences. Tehran, Iran. 2010.
- The 1st Iranian National Research Festival of Radiation Sciences' Students. Shiraz University of Medical Sciences. Shiraz, Iran. 7-8 October 2010.
- The 9th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Iran University of Medical Sciences, Tehran, Iran, 2010.
- The 8th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Shahid Beheshti University, Tehran, Iran, 2009.
- The 7th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Jodishapour University of Medical Sciences. Ahvaz, Iran. 2007.
- The 6th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Mashhad University of Medical Sciences. Mashhad, Iran. 2004.
- The 5th Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Tarbiat Modares University. Tehran, Iran. 2002.
- Scientific Secretary of the Fifth Iranian Congress of Medical Physics, Iranian Association of Medical Physicists and Tarbiat Modares University, Tehran, Iran, 2002.

F) Supervised M.Sc. Thesis in Medical Physics

1. **An assessment of bystander effect due to irradiation of 6MV radiotherapy beams through investigating the changes of PD-L1 and NF- κ B genes expression. By: Nastaran Masoudzadeh Vayeghan. Continues.**
2. Assessment of dose painting IMRT treatment plans for prostate cancer patients using DW-MRI based on weighted dose distribution conformity indices. By: Sman Moradi. September 2020.
3. Assessment of computed tomography enterography (CTE) imaging based on absorbed doses from CTE image of an anthropomorphic phantom (XCAT) by Monte Carlo simulation. By: Elham Khodayari. June 2020.
4. Prediction of radiotherapy outcome in low grade glioma patients based on machine learning radiogenomics model using MR images and genetic data. By: Mohsen Beikali Soltani. December 2019.
5. An assessment of the effect of the grid thickness and blockage surface percentage in electron beam radiation therapy (EBRT) at various energies using Monte Carlo simulation. By: Fatemeh Jafari. July 2019.
6. Evaluating the dosimetric characteristics of beveled applicator for intraoperative electron Radiotherapy. By: Ebrahim Shahverdi. July 2019.
7. Effect of combining 6 MeV radiotherapy with a selected protocol of RF hyperthermia on the treatment of MCF-7 breast cancer cell line in the presence of gold nanoparticles using clonogenic assay. By: Akram Mohammadi Nokhandani. February 2018.
8. An assessment of the correlation between some anatomical parameters and dose distribution indicators in dedicated radiotherapy techniques FiF, 3DCRT, Inv.-IMRT in patient with left breast cancer. By: Leyla Rahmati. January 2017.
9. Estimation of patient dosimetric parameters (organ dose, effective dose, air KERMA) in special angiography techniques and investigation the effects of the angle and field of view variations on these parameters by using the Monte Carlo simulation method on the VIP-Man phantom model. By: Parisa Nafar Sefiddashti June 2016.
10. Assessment of patient entrance skin dose and effective dose in a mathematical human phantom accompanied by image quality indexes (SNR, CNR, resolution) for the most common interventional radiological exams. By: Salar Bijari. May 2016.
11. Estimating the variation of effective source surface distance (SSD) and output factor in intraoperative radiotherapy (IOERT) due to the usage of beam shaper. By: Hoda Ghotbi. February 2016.
12. Effect of inhomogeneity and exposure conditions on in-vivo dosimetry parameters of the patients undergoing radiotherapy for brain tumors with a 15 MV linac using EBT Gafchromic films. By: Seyed Masoud RezaeiJoo. February 2016.
13. Simultaneous assessment of doses and some QC parameters (CT number uniformity, spatial resolution and contrast resolution) resulted from general common CT examinations performed by using single and multi-detector (MD) CT systems. By: Daryoush Khoramian. July 2015.
14. Evaluation of the effect of retinitis pigmentosa on flash Xenon ERG and flash VEP components using signal analysis methods in time and frequency domains (Fourier and wavelet). By: Ebdali Samira. March 2015.
15. Assessment of the accuracy of computed regulation thermography (CRT) and mammography imaging techniques in the diagnosis and follow-up of breast cancer. By: Fatmira Hasanaj. September 2014.

16. The effect of inhomogeneity on dosimetric accuracy of the computerized TPS CorePLAN in conformal radiotherapy of prostate with 6 and 18 MV beams in a heterogeneous pelvis phantom using experimental and computation Monte Carlo dosimetry method. By: Mehdi Elahi. September 2014.
17. Estimation of the dose received by the target area and critical organs by using mono-isocentric radiotherapy technique in comparison with common non mono-isocentric techniques for the radiotherapy of breast cancer with 6 MV photon beams. By: Amin Banaei. September 2013.
18. The effect of geometric parameters of lead grid on dosimetric characteristics of external radiotherapy using electron beams of a medical linear accelerator. By: Kamran Entezari. June 2011.
19. An assessment of the effect of the polyethylene shield on the neutron equivalent dose produced by the 18MV photon beam of a medical linac. By: Mohammad Hossein Dejbani. July 2011.
20. Dosimetric accuracy evaluation of two common computerized TPSs for chest wall irradiation with 6MV Tangential beams in an inhomogeneous thorax phantom using EDR-2 films. By: Golbarg Esmaili. January 2011.
21. The effect of spatial frequency and contrast sensitivity of grating pattern reversal stimulation on the latency and amplitude of VEP components in healthy people. By: Zeinab Rezaei Hosseinabad. November 2010.
22. Estimation of the level of dosimetric errors for some radiotherapy techniques (in reference & non reference condition) using a dosimetric quality audit method on 6 & 18 MV photon beams of Varian linacs. By: Manijeh Beigi. September 2010.
23. An investigation on the synergistic effect of interstitial brachytherapy and Photofrin II on the treatment of breast adenocarcinoma tumors induced in Balb/C model. By: Ali Moradi. (1383-30.04.1388). July 2009.
24. Evaluation of magica normoxic gel dosimeter for the assessment of LDR Ir-192 wires dose distribution in Paris system. By: Azizollah Rahimi. April 2008
25. Assessment of color (yellow) filtration on visual evoked potential (VEP) by using pattern reversal. By: Seyed Nader Mousavi. September 2006.
26. An assessment of the accuracy of delivered radiation dose for the treatment of prostate cancer using diode dosimetry. By: Mohammad Saeed Sabouri. November 2005.
27. Estimating and evaluating radiation doses resulted from common CT examinations of children and the quality control parameters of a conventional CT system. By: Toufigh Sadeghiani. February 2005.
28. An estimation and comparison of doses to patients from routine X-Ray examination in some of Tehran general hospitals. By: Mehravar Razaati Rahimzadeh. June 2002.
29. Assessment and evaluation of various middle esophagus cancer teletherapy techniques by using CT images and computerized treatment planning. By: Hasan Ali Nedaei. March 2002.
30. Assessment of the correlation between reduced acuity due to myopia and visual evoked potential (VEP) wave by using various simulation patterns. By: Sakineh Yusefi. September 2002.
31. An assessment of absorbed doses received by some critical organs from panoramic radiography. By: Farshad Hajihashemi. November 2000.
32. Relative integral doses of target and rectum from various cervical cancer radiotherapy techniques. By: Tayeb Allahverdi Pourfallah. July 2000

G) Co-supervised M.Sc. Thesis

1. Lethal effect of low-voltage electric current on hydatid cyst protoscoeces. By: Reza Ghasemikhah. September 2003.
2. An Assessment of Thyroid Dose of Patient and Staff Performing Barium Swallow and Upper Gastrointestinal Fluoroscopy Examinations. By: Hassan Mouladoust. March 2002.

H) Supervised Ph.D. Thesis in Medical Physics

1. **Radiosensitization effect of folate-conjugated hafnium oxide nanoparticles on HeLa cancer cells under 6 MV photon radiation. By: Bahareh Amini Kadijan. Continues.**
2. **Simultaneous effect of 6 MeV electron beams radiotherapy and 13.56 MHz radiofrequency hyperthermia on radiation sensitivity of cultured monolayer MCF7 breast cancer cells in the presence of gold nanoparticles. By: Milad Hatamian. Continues.**
3. **Evaluation of the proper respiratory gating window for lung tumors to determine desired setup margin for synchronize respiratory method by using digital phantom 4D XCAT and images of patients. By: Mehdi Elahi. Continues.**
4. Dosimetric and radiobiologic assessment of adaptive radiotherapy by using contour based dose painting method derived from multi-parametric MRI (mpMRI) in prostate cancer patients. By: Seyed Masoud Rezaei. April 2021.
5. Effect of collimator angle and non-coplanar fields on the quality indexes of treatment plans for nasopharyngeal carcinoma and their radiobiological assessment based on the Poisson and LQ models. By: Ghada Sharbo. March 2020.
6. Optimization of the dose distribution in the treatment of prostate cancer with 6 MV intensity modulated radiotherapy through the assessment of the effects of bladder and rectum dose volume histograms and the number and angles of radiation fields. By: Amin Banaei. February 2019.

7. Assessment of the radiosensitization of breast cancer cells to electron beams using conjugated gold nanoparticles with AS1411 aptamer. By: Somayeh Sadat Mehrnia. April 2018.
8. Assessment of lymphocytes intrinsic radiosensitivity of healthy subjects and prostate cancer patients to ionizing radiation photons (6 MV) by using micronuclei and chemical PCC methods. By: Farhad Golfam. May 2017.
9. The effect of gold nanoparticles on the absorbed dose distribution in the combined external and internal radiation therapy of prostate in a pelvic phantom using experimental and simulated Monte Carlo dosimetry methods. By: Hossein Khosravi. October 2015.
10. Estimation of dosimetric parameters based on the K_{NR} and K_{NCSF} correction factors for small field radiation therapy at 6 and 18MV linac energies using Monte Carlo simulation methods. By: Ali Rahimi. September 2015.
11. Investigating the effect of fractionated gamma irradiation in the presence of free radical scavenger on the microstructure and fracture behavior of human femur cortical bone. By: Farzaneh Allahveisi. June 2014.
12. An in-vitro and in-vivo assessment of the radiobiological effect of the time gap within each radiotherapy fractions in controlling Breast adenocarcinoma cells (4T1) in the Balb/c and using the linear quadratic model for its compensating. By: Safoora Nikzad. May 2014.
13. Investigating the radiosensitivity effect of folate conjugated gold nanoparticles on the therapeutic efficiency of external radiotherapy with low energy x-rays on MCF-7 and HeLa cancerous cell lines. By: Karim Khoshgard. February 2013.
14. Determination of the thyroid dose-response in patients undergoing head and neck external radiotherapy using the functional assay method based on the DMH concept in the NTCP models. By: Mohsen Bakhshandeh. May 2012.
15. An assessment of the factors affecting the effective attenuation coefficient of the compensator material for optimizing 6 MV intensity modulated radiation therapy (IMRT) by using simulation MC method. By: Abbas Haghparast. October 2011.
16. Development of a chemical dosimeter based on the radiochromic solid polymer and evaluation of its dosimetry characteristics in radiotherapy applications. By: Ahmad Mostaar. July 2010
17. Evaluation of effect of osteolytic defect location and shape on the occurrence of vertebral body compressive fracture in vertebrae using quantitative computed tomography (QCT) based finite element analysis (FEA) (QCT) based Finite Element Analysis Tomography. By: Ahad Zeinali. March 2008.
18. Monte Carlo dose calculation for photon beam in internal asymmetric fields. By: Payman Hejazi. July 2008.
19. An investigation on neutron contamination produced by 18 MV high energy photons of medical linacs and its effects on patient dose using the Monte Carlo method. Seyed Mehdi Hashemi Dizaji. July 2007.
20. An investigation of scattered radiation and bremsstrahlung contamination generated by electron beam applicators of a NEPTUN 10PC linac using the Monte Carlo method. By: Nasrollah Jabbari. May 2007.
21. An investigation on the effect of linac head structures on the x-ray field non uniformity using the Monte Carlo simulation method. By: Abbas Shafaei. November 2004.

I) Co-supervised Ph.D. Thesis in Medical Physics

1. The effect of optical modulation and induction on visual evoked potentials. By: Ebrahim Jafarzadehpour. April 2003.

Professional Achievement Information (Including presentations, publications, etc.)

A) Papers Published in National Journals

1. Bijan Hashemi-Malayeri and Farideh Bastani, 1999. An introduction to the Internet and its applications. Part 1: Internet principles, history, and communication applications. Modares Journal of Medical Sciences, Vol. 1, No. 1, pp. 99-113. [Persian].
2. Bijan Hashemi-Malayeri and Farideh Bastani, 2001. An introduction to the Internet and its applications. Part 1: information applications. Modares Journal of Medical Sciences, Vol. 2, No. 2, pp. 173-185. [Persian].
3. Bijan Hashemi-Malayeri, 2001. A direct developed method for the assessment of patient doses from CT examinations. Modares Journal of Medical Sciences, Vol. 2, No. 2, pp. 95-116. [Persian].
4. Bijan Hashemi-Malayeri, Hossein Gharaati, Tayeb Allahverdi Pourfallah, Hossein Rajabi, and Ramin Jaberi, 2002. Relative integral doses of the target and rectum in various radiotherapy methods of cervical cancer. Daneshvar Journal, Vol. 8, No. 34, pp. 71-86. [Persian].
5. Bijan Hashemi-Malayeri, Farshad Hajihashemi, and Mohammad Reza Salamat, 2003. Assessment of some critical organs absorbed doses from panoramic radiography. Daneshvar Journal, Vol. 10, No. 45, pp. 75-82. [Persian].
6. Ebrahim Jafarzadehpour, Seyed Mohammad Firouzabadi, Bijan Hashemi, Anoshirvan Kazemnejad, and Seyed Masoud Shushtarian, 2003. An assessment of achromatic induction of contrast threshold in spatial frequency modulation. Daneshvar Journal, Vol. 11, No.47, pp. 29-36. [Persian].

7. Reza Ghasemikhah, Abdolhossein Dalimi Asl, and Bijan Hashemi, 2003. Lethal effect of low voltage electric current on hidatid cyst protoscoloces. *Rahavard Danseh Journal*, Vol. 6, No. 2, pp. 32-38. [Persian].
8. Bijan Hashemi-Malayeri, Ali Akbar Sharafi, Hasan Moladoust 2003, 'An assessment of thyroid dose of patient and staff performing barium swallow and upper gastrointestinal fluoroscopy examinations', *Iranian Journal of Medical Physics*, Vol. 1, No. 3, pp. 17-21.
9. Nasrollah Jabbari, Hossein Rajabi, Hassan Firouzabadi, Fereidoon Rastgoo, Nahid Yagoubi, Bijan Hashemi, 2003. Suitable energy window in gamma camera imaging. *Iranian Journal of Nuclear Medicine*, 12(1) (Serial no. 21), pp. 63-72. [Persian]. English abstract available from: http://irjnm.tums.ac.ir/article_440.html.
10. Bijan Hashemi, Hassanali Nedaei, Hossein Gharaati, Ali Kazemian, 2004. Assessment and evaluation of different teletherapy techniques of middle esophagus cancer using CT images and computer treatment planning. *Iranian Journal of Medical Physics*, Vol. 1, No. 4-5, pp. 83-90. [Persian].
11. Abbas Shafaei, Gholamreza Raeisali, Bijan Hashemi, 2004. A Method for the calculation of x-rays bremsstrahlung spectrum and yield produced in medical accelerators using the MCNP4B Monte Carlo code, *Daneshvar Journal*, Vol. 11, No. 51, pp. 47-54. [Persian].
12. Bijan Hashemi, Seyed Mohammad Firouzabadi, Sakineh Yusefi, Ebrahim Jafarzadehpour, 2005. Assessment of the variation of the latency and amplitude of the VEP P100 peak in blurred vision induced by myopia using pattern reversals, *Daneshvar Journal*, Vol. 12, No. 57, pp. 76-79. [Persian].
13. Toufigh Sadeghiani, Bijan Hashemi-Malayeri, Hassan Hashemi, Aliakbar Sharafi, 2005. Assessment of the children CT doses from conventional CT examinations and the quality control indexes of a CT system. *Iranian Journal of Medical Physics*, Vol. 2, No. 8, pp. 31-44. [Persian].
14. Payman Hejazi, Bijan Hashemi-Malayeri, Majid Shahriari, Anoshirvan Kazemnejad, 2007. Monte Carlo simulation of energy spectrum, angular distribution, and radial fluence distribution of photon beam of a medical linac using MCNP4C code. *Koomesh Journal (Semnan University of Medical Sciences)*, Vol. 8, No. 2, pp. 101-109. [Persian]. English abstract available from: http://koomeshjournal.semums.ac.ir/browse.php?a_id=74&sid=1&slc_lang=en.
15. Ebrahim Jafarzadehpour, Seyed Mohammad Firouzabadi, Bijan Hashemi-Malayeri, Seyed Masoud Shushtarian, Anoshirvan Kazemnejad, Naser Asadi, 2006. Designing and implantation of the software and hardware of VEP patterns. *Modares Journal of Medical Sciences*, Vol. 9, No. 2, pp. 13-24. [Persian]. English abstract available from: http://mjms.modares.ac.ir/article_6108.html.
16. Nasrollah Jabbari, Bijan Hashemi-Malayeri, Ali Farajollahi, Anoshirvan Kazemnejad, Abbas Shafaei, Shahin Jabbari, 2007. Assessment of 6 and 8 MeV electron beams of a Neptun 10P Medical Linac using Monte Carlo Method. *Journal of Nuclear Science and Technology*, No. 40, pp. 11-18. [Persian].
17. Ahad Zeinali, Bijan Hashemi, Shahram Akhlaghpour, Majid Nazemi, 2008. Predicting of human vertebral body fracture using the finite element method based on the QCT data. *Iranian Journal of Medical Physics*, Vol. 4, No. 2, pp. 19-32. [Persian].
18. Payman Hejazi, Bijan Hashemi, Majid Shahriari, Anoshirvan Kazemnejad, 2008. Determining the wedge factor dependence on the field size, depth, and off-axis ratio in a medical linac using Monte Carlo method for proposing an algorithm to be used in treatment planning. *Koomesh Journal (Semnan University of Medical Sciences)*, Vol. 10, No. 1 (29), pp. 13-19. [Persian]. English abstract available from: http://koomeshjournal.semums.ac.ir/browse.php?a_id=411&sid=1&slc_lang=en.
19. Ahmad Mostaar, Bijan Hashemi, Mohammad Hassan Zahmatkesh, Seyed Mahmoudreza Aghamiri, Seyed Rabi Mahdavi, 2010. Constructing and development of a chemical dosimeter based on solid radiochromic polymer and evaluating its response against high energy photon beam machines. *Journal of Nuclear Science and Technology*, 52 (2), pp. 23-29. [Persian].
20. Azizollah Rahimi, Bijan Hashemi, Mohammad Hassan Zahmatkesh, Ramin Jaberi, Shahab Sheibani, 2011. An Investigation of the Dose Distribution from LDR Ir-192 Wires in the Triangular Implants of the Paris System using Polymer Gel Dosimetry. *Iranian Journal of Medical Physics*, 7 (29), pp. 23-34. [Persian].
21. Abbas Haghparast, Bijan Hashemi, Mohammad Taghi Eivazi, 2011. An assessment of the factors involved in effective attenuation coefficient of the compensator material for the treatment with 6MV photons using intensity modulated radiation therapy method. *Koomesh Journal (Semnan University of Medical Sciences)*, 12 (3), pp. 279-284. [Persian]. English abstract available from: http://koomeshjournal.semums.ac.ir/browse.php?a_id=1235&sid=1&slc_lang=en.
22. Manijeh Beigi, Bijan Hashemi, Mahmoud Allahverdi, Seied Rabie Mehdi Mahdavi, Hossein Ghiasi, 2012. Designing and Evaluating a Simple Small Phantom for Dosimetry Intercomparison of linacs Photon Beams. *Journal of Nuclear Science and Technology*; 3 (57):19-28. [Persian].
23. Karim Khoshgard, Bijan Hashemi, Azim Arbabi, Mohammad Javad Rasaei, Masoud Soleimani, 2012. Radiosensitization effect of PEGylated Gold Nanoparticles in Orthovoltage X-ray Irradiation of the MCF-7 Cancerous Cell Line. *Modares Journal of Medical Sciences: Pathology*, 15(3):11-22. [Persian]. English abstract available from: http://mjms.modares.ac.ir/article_6222.html.
24. Karim Khoshgard, Bijan Hashemi, Azim Arbabi, Mohammad Javad Rasaei, and Masoud Soleimani, 2013. The Radiosensitivity Effect of Folic Acid Conjugated Gold Nanoparticles in Superficial Radiation Therapy of MCF-7 Cancer Cell Line. *Journal of Nuclear Science and Technology*, 64:38-47. [Persian]. English abstract available from: <https://www.sid.ir/En/Journal/ViewPaper.aspx?ID=460524>.

25. Seyed Ali Rahimi, Bijan Hashemi, Seyed Rabie Mahdavi³, Seyed Hadi Molana, 2014, Determination of Correction Factors for Small Field Radiotherapy Using 6 and 18MV Energies of a Linac. Journal of Mazandaran University of Medical Sciences, 24(120):173-178. [Persian]. English abstract available from: http://jmums.mazums.ac.ir/browse.php?a_id=4863&sid=1&slc_lang=en.
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48. **Bijan Hashemi, Elham khodayari, Amin Banaei. Assessment of Abdomen-Pelvis CT Protocols Based on Doses for Various Patient Sizes using Anthropomorphic (XCAT) Phantoms and Monte Carlo Simulation. 21st Asia-Oceania Congress of Medical Physics. 10-12 December 2021, United International University (UIU), Dhaka, Bangladesh.**
49. **Bijan Hashemi, Milad Hatamian, Seied Rabi Mahdavi, Masoud Soleimani, Leila Khalafi. In-Vitro Role of Radiofrequency Hyperthermia on Cell Cycle and Assessing Appropriate Time Interval for Carrying out Radiotherapy. 21st Asia-Oceania Congress of Medical Physics. 10-12 December 2021. United International University (UIU), Dhaka, Bangladesh.**

50. Bijan Hashemi, Ghada Sharbo, Mohsen Bakhshandeh, Afshin Rakhsha. Assessment of Novel Developed IMRT Planning Protocols for Treating Nasopharyngeal Cancer Patients Based on the Target and Organs at Risks Common Volumes. 21st Asia-Oceania Congress of Medical Physics. 10-12 December 2021. United International University (UIU), Dhaka, Bangladesh.
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Research Interests:

1. Assessment, optimization and development of multi-modalities cancer treatment procedures based on photon/electron external beam radiotherapy combined with nanoparticles, hyperthermia, or other novel modalities.
2. Assessment, optimization and development of radiotherapy protocols (conventional, CRT, IMRT, IGRT, CBRT, Cyberknife, and brachytherapy) using experimental and simulation methods.
3. Assessment, optimization and development of cancer radiotherapy procedures based on Monte Carlo or other simulation or experimental methods and radiobiological models.
4. Assessment, optimization and development of medical imaging procedures based on Monte Carlo or other simulation or experimental methods.
5. Assessment, optimization and development of ionizing and non-ionizing radiation dosimetry and protection methods.
6. Assessment, optimization and development medical diagnosis methods based on visual evoked potential (VEP) and electroretinogram (ERG).

Current Job Duties:

- A) Lecturing relevant Medical Physics M.Sc. and Ph.D. courses (As outlined above) to registered students as the faculty member of Medical Physics Department of Tarbiat Modares University (Tehran, Iran).
- B) Acting as the supervisor/advisor of research projects (Dissertation/Thesis) of M.Sc. and Ph.D. registered students as the faculty member of Medical Physics Department of Tarbiat Modares University. Tehran, Iran.
- C) Acting as the Official Member of Tarbiat Modares University Educational Board. Tehran, Iran.
- D) Acting as the Secretary and Official Member of the National Medical Physics Audit and Evaluation Board of the Ministry of Health and Medical Education of Iran (Tehran, Iran).
- E) Acting as the Editorial Board and Peer Reviewer of National and International Professional Journals relevant to Medical Physics and other Allied Sciences such as Radiology, Radiotherapy, Nuclear Medicine, Cancer, etc.
- F) Acting as the Full Member of the Iranian Association of Medical Physics (Tehran, Iran).

Honors/Prizes

- Receiving an Appreciation Letter from Tarbiat Modares University Chancellor as the Distinguished Head of the Department of Medical Physics among All Departments of Faculty of Medical Sciences. Tehran, Iran. September 2001.

REFERENCES:

Names and E-mails of the persons who can serve as a reference and verify me.

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