

Curriculum Vitae

Personal Data:

First name: Parinaz

Last name: Mehnati

Nationality: Iranian

Date of birth: 1971/09/06

Place of birth: Iran

Marital status: Married

Specialty: Medical Physics

Academic rank: Professor

Department/Research Center: Medical physics

Position hold: Head of Department, Radiobiology laboratory director

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h-index (Scopus): 11

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Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=6506940137>

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Fields of interest

Radiation Protection in imaging, Designing of novel radiation shields, Radiobiology

Skills: (language, software...)

Language: English, Persian, Turkey, Japanese

Educational Background:

Date	Degree	Institution	Country
2000	PhD	<i>Medical Biophysics department, Kyushu University</i>	<i>Japan</i>
1997	MS	<i>Medical Biophysics department, Kyushu University</i>	Japan
1995	BSc	Tabriz University of Medical sciences	Iran

Sabbaticals:

Start and End Date (month/year)	Details

Thesis

Degree	Title
PhD	<i>Cell proliferation delay after High and Low LET ionizing radiation including X-rays and Heavy-ions.</i>
MS	<i>Investigation on the relation between LET and Interphase cell death in exposed cells to Heavy-ions</i>

Educational experience

Teaching

Date (month/year)	Course Name, Venue (Institution, Address)
Sept. 2002 – present	Medical Physics for students of Medicine
Sept. 2010-present	Radiobiology for students of MSc in Medical Physics
Sept. 2010-present	Radiation protection for students of MSc in Medical Physics
Sept. 2002 – present	General Physics (Laboratory experiments) for students of BSc in Radiology Technology, Laboratory sciences, Nutrition sciences, general health, etc.

Workshop(s)

Date (month/year)	Course Name, Venue (Institution, Address)
2023	Conference on new medical sciences and technologies
November 2023	One day Novel Medical Radiation Protection conference
August 2023	One day Novel Medical Radiation Protection conference
August 2023	One day Novel Medical Radiography conference
October 2023	Training course for university professors across the country titled "Accompanying the Wise 2"
June 2023	AFOMP school virtual webinar on "Invivo imaging and Dosimetry for patient QA"
June 2023	Internationalization workshop
May / 2023	Conference on productivity and consumption optimization in the health system
2019/April	Radiobiology and Radio-protection
20192019/April	Radioprotection in woman, Pregnant, paediatric
20192019/April	Radiation protection in diagnostic radiology
2017/October	Radiobiology and Radio-protection
2017/October	Radioprotection in woman, Pregnant, paediatric
2017/October	Radiation protection in diagnostic radiology

Lecture(s)

Date (month/year)	Details
2024 May 7-10	39th Iranian Congress of Radiology
2023 November 8-9	<i>Parinaz Mehnati, Hamed Zamani, Majid Alizade, Mohammad Hossein Zare</i> The 6 th international TPCF preclinical imaging symposium A regional effective dose, risk of exposure-induced death, and annual per capita dose in diagnosis radiology procedures
2023 https://www.icrjournal.ir/article_179488.html	<i>Parinaz Mehnati</i> ¹ <i>Raziyeh Mohammadi</i> ² 38 Iranian Congress of Radiology <i>Determining of the Amount of the Radiation Damage Risk Reduction Using Nanoparticles Composite</i>
2023 https://www.icrjournal.ir/article_179490.html	<i>Parinaz Mehnati</i> ¹ <i>Mahdi Mansoori Kia</i> ² 38 Iranian Congress of Radiology <i>Prevention of Radiation Damages Using Bismuth- epoxy Composite</i>
2021 https://civilica.com/doc/1274832	Parinaz Mehnati ¹ , Abbasali Nazeri ² , Reza Malekzadeh ³ , Soheila Refahi. 2nd International Conference on Nanotechnology & Nanoscience <i>Evaluation of composite shields against electromagnetic radiation in medical imaging</i>
November and December 2018 Doi: 10.22038/IJMP.2018.13030	Faride Biglari; Parinaz Mehnati; Ali Jomehzadeh , 12th. Iranian Congress of Medical Physics, Interpretation of In-air Output Ratio of Wedged Fields in Different Measurement Conditions
November and December 2018 Doi: 10.22038/IJMP.2018.12845	Mohammad Yousefi Sooteh; Parinaz Mehnati; Reza Malekzadeh , 12th. Iranian Congress of Medical Physics,

	<i>Usefulness of nanoparticles to making shield and protection of sensitive organs in chest CT scan test</i>
November and December 2018 Doi: 10.22038/IJMP.2018.12809	Reza Malekzadeh; Parinaz Mehnati; ta Allah Nadiri; Yaser Bagheri; Hadi Sabri; Reza Meynagi Zadeh Zargar; Mahak Osuli, 12th. Iranian Congress of Medical Physics, Prediction of solar ultraviolet intensity by using Fuzzy Logic in the north-west of Iran
November and December 2018 Doi: 10.22038/IJMP.2018.12079	Parinaz Mehnati; Samad Ghasemi; Mohammad Reza Ardalan; Fariba Mahmood Poor, Organ dose in kidney imaging with contrast media
2018/5/1-3 May	P. Mehnati, Farzaneh Asaldoust, Saleh Ashrafi, Davood Alizadeh. Radio Worker Beta Ray Detection via Bremsstrahlung X- Ray Measurement, 16th congress of IRSA.
2018 DOI: 10.22038/IJMP.2018.12945	Mehnati P, Maryam Ghorbanipoor, Asghar Mesbahi, Behnam Nasiri Motlagh, Mohammad Mohammadzadeh A study on the esophageal cancer radiotherapy effects on the patient's lung health.
2018 DOI: 10.22038/IJMP.2018.13082	Parinaz Mehnati, Bahman Alipour, Roya Salehi Change of Hemoglobin Concentration with nano particles can predict breast cancer using near infrared source?
DOI.10.22038/IJMP.2018.13033	P. Mehnati, Vahid Doostmohammadi, Ali jomehzadeh Rn – 222 Concentration and Gamma Dose Rate Measurements in the Vicinity of Hot Springs in Kerman Province, Southeastern,Iran

2018/5/1-3 May	P. Mehnati , Fariede Biglarie, Ali Jome zade. An investigation of collimator scatter factor with variations of ionization chambers thickness and type of build-up caps in the wedged fields for 6 MV photon beams, 16th congress of IRSA.
2018/7/19-20 July	P. Mehnati , Mohammad Yusefi Sute, Reza Malek zadeh. Usefulness of Nano Particles to making Shield and Protection of Sensitive Organs in chest CT scan tests. 12th Iranian congress of Medical Physics
2018/7/19-20 July	P. Mehnati , Mohammad Yusefi Sute, Reza Malek zadeh, Ali Tarigat Nia, Yagub Breast Radiation Protection in coronary Angiography. 12th Iranian congress of Medical Physics
19-20	P. Mehnati , Reza Malek zadeh, Hadi Sabri, Reza Meinagi Zargar, Mahak ousuli. Ground Based Measurements of sola UV index in Tabriz. 12th Iranian congress of Medical Physics.
2018/7/19-20 July	P. Mehnati , Reza Malek zadeh, Ata allah Naderi, Mohammad Yusefi, Hadi Sabri, Reza Meinagi Zargar, Mahak Ousuli. Prediction of solar ultraviolet intensity by using fuzzy logic in the north- west of Iran. 12th Iranian congress of Medical Physics
2018/5/1-3 May	P. Mehnati , Mohammad Yusefi Sute, Reza Malek zadeh. Investigation on the Micro and NANO Particles shields for Radiation Protection. 16th congress of IRSA, Tehran
2018/5/1-3 May	P. Mehnati , Mohammad Yusefi Sute, Reza Malek zadeh, Samad Gasemi. Evaluation of the Bismuth Radiation Protection Efficacy for clinical imaging. 16th congress of IRSA, Tehran.
2018	Reza Malek zadeh., P. Mehnati , Hadi Sabri, Reza Meynagi Zadeh Zargar Estimated ultraviolet exposure levels for a sufficient vitamin D status in northwestern Iran. DOI: 10.22038/IJMP.2018.12804

2018	Reza Malek zadeh., P. Mehnati, Ata Allah Nadiri, Yaser Bagheri, Hadi Sabri, Reza Meynagi Zadeh Zargar, Mahak Osuli An artificial neural network to predict solar UV radiation in Tabriz DOI: 10.22038/IJMP.2018.12803
2018/5/1-3 May	P. Mehnati, Mohammad Yusefi Sute, Reza Malek zadeh, Samad Gasemi. Chest CT Radio – Protection by Bismuth Shield. 16th congress of IRSA., Tehran.
September 2017	Reducing Breast cancer induction risk from chest CT scanning exams. Parinaz Mehnati, Reza Malekzadeh*. International Tehran Breast Cancer Congress., Tehran, Iran
(22-24 February2017)	P. Mehnati, Mehran Arash, Mostafa Ghavami. Breast cancer risk decline in women CT scan using Bismuth Polyurethane shield, the 12th International Breast cancer Congress.
2017/5/9-11 May	P. Mehnati, S Gasemi. Study of patient dose during intravenous urography in Tabriz: Estimated by Monte Carlo simulation method. 14th congress of IRSA, 13-16 May, 2015
2017/5/9-11 May	Treatment efficiency after exposure of CHO cells to 6 Gy at different post irradiations time with measuring of apoptotic cells. 14th congress of IRSA.
2017/5/9-11 May	Parinaz Mehnati, Salehi. The S and G2-M phase variation after exposure to 2 Gy Y-ray at different time post radiation. 14th congress of IRSA
2017/5/9-11 May	Parinaz Mehnati, Vida Sargazi, Investigation of breast dose in thoracic CTscan by axial and spiral scanning modes in Single and multi-detector CT scan. 14th congress of

	<i>IRSA.</i>
2017/5/9-11 May	Parinaz Mehnati, Mehran Arash, Mostafa Ghavami, Mohammad Sadegh Zakerhamid, Radiation dose of breast decreased by using bismuth silicone shield in chest CT scan. 14th congress of IRSA. -تهران
2016/5/18-20 May	P. Mehnati, Farhood Fahima. معرفی راهکاری برای تشخیص ص زود هنگام بیماری های پستان "های پستان" پنجمین کنفرانس سلامت زنان ایران، سرطان در زنان ، (مرکز رفاهی ولایت، شیراز).
2016/5/18-19 May	P. Mehnati. Reduction of breast cancer risk using bismuth-silicone shield- 5th International conference of women health
13-16 May, 2015	Mehnati P, Maede Jafari. Radiologic diagnostic assays in woman breast cancer: a comparison on the sensitivity and specify of optical mammography and MRI. 12 th congress of IRSA,
13-16 May, 2015	Mehnati P, Maede Jafari, Radiologic diagnostic assays in woman breast cancer: a comparison on the sensitivity and specify of mammography and ultrasound, 12th congress of IRSA.
13-16 May, 2015	Mehnati P. Radiation protection in new modalities in imaging. 12th congress of IRSA
13-16 May, 2015	Mehnati P, Maede Jafari. Imaging properties of near infra read photons in normal and cancer cells, 12th congress of IRSA
(20 ,21 May 2015)	P. Mehnati, leili Danaei. Evaluation of chest CT in women with age segregation and stochastic effects on the breast. 4th Iranian International conference on Women's health, Shiraz – Iran

13-16 May- 2014	Mehnati P, Reza Dadgar. Investigation of breast dose in chest CT 12th congress of the Iranian Radiographic sciences association,
13-16 May- 2014	P. Mehnati, Rana Farshbaf, Habiballah Dadgar. 18F- FDGPET IN MEDULLOBLASTOMA. 12th congress of the Iranian Radiographic sciences association
15-16 Nov. 1393	P. Mehnati, v. sargazi. Study of lung and breast doses in single and multi-slices CT Eleventh Iranian conference of Medical physics
15-16 Nov. 1393	P. Mehnati, v. sargazi. Investigation breast reduction dose in multi slice CT with Bismuth shield, Eleventh Iranian conference of Medical physics
15-16 Nov. 1393	Mehnati P, Maede Jafari. Diagnosis of skin, brain, breast tissues with tissues photonic characteristic Eleventh Iranian conference of Medical physics
15-16 Nov. 1393	Mehnati P, Maede Jafari. Digital mammography artifacts Eleventh Iranian conference of Medical physics
15-16 Nov. 1393	Mehnati P, Maede Jafari. Using optical mammography for early dignisis of breast cancer Eleventh Iranian conference of Medical physics
28-30 August Tabriz -2013	Mehnati P. Medical application of magnetic nanoparticles in cancer diagnosis and treatment, The 2st Asian conference on applied electromagnetic and wave optics (ASEPE),
15-18 May 2012.	Mehnati. The Relation between female body

	characteristics and diagnostic mammography. 28 th Iranian congress of Radiology- Tehran
(2012/12/12-14,December)	Mehnati P , Baradaran B, Effect of radiotherapy on the breast cancer cell proteins- 5th Tehran Breast cancer conference.
(2012/12/12-14,December)	Mehnati P , Baradaran B, Fakhrjou A, Montazari V. Isolation of Breast cancer cell from breast cancer specimen. 5 th Tehran Breast cancer conference
19-21 June -2012	Fazel M, Mehnati P , Baradaran B, Pirayesh J, Study of apoptosis death in the breast cancer cells after radiation treatment. 4 th congress of the Iranian society of Gynaecological oncology-
4-6 December 2012	Mehnati P , A Review on the medical application of electromagnetic in the breast cancer study. The 1st Asian conference on applied electromagnetic and wave optics (ASEPE)-
4-6 December 2012	Sayfar F, Foroutan rad S, Sayyar rezvan P, faramarzi M, Mehnati P , Comparison of sensitivity and specificity of Ultrasound versus electromagnetism in diagnosis of liver and kidney injuries in abdominal trauma. The 1st Asian conference on applied electromagnetic and wave optics (ASEPE)-
(2012/12/12-14,December)	P. Mehnati , Mona Fazel, Behzad Baradaran. Study of radiotherapy effect on the breast cancer cells proteins 5 th Tehran Breast cancer conference
22-24 Feb 2011)	Parinaz Mehnati Investigation of patients' rights in the radiology centers in medical Law: Patient's rights. The 3rd international congress
(17-19 May, 2011)	Parinaz Mehnati , Tohid Mortazazadeh Investigation on the radiation health in

	radiology centers in Tabriz
26-28 Oct, 2011	P .Mehnati. Study of attention to patient safety during radiology, 1st national Conference of health, patient safety
(2-4 NOV, 2011)	P .Mehnati, J. Pirayesh Islamian. Study of attention to radiation protection during the past two years in radiology centers in Tabriz. 1st MEFOMP International Conference of Medical Physics
(2-4 NOV, 2011)	P .Mehnati. A Comparison study of digital and film screen mammography imaging from the viewpoint of patient's rights. 1st MEFOMP International Conference of Medical Physics
(2-4 NOV, 2011)	Agae F, Baradaran B, Pirayesh J, P . Mehnati. Deoxy-D-Glucose and Ionizing radiation responses of T47D and SKBR3 Breast cancer cells. 1st MEFOMP International Conference of Medical Physics
(2-4 NOV, 2011)	P .Mehnati, J. Pirayesh Islamian Doxorubicin and Ionizing radiation responses of T47D and SKBR3 Breast cancer cells. 1st MEFOMP International Conference of Medical Physics
2011	P .Mehnati. The role of academic advisor in preparing medical students for e-learning. Conference of E-learning
16-19 May 2011	P .Mehnati, T Mortazazadeh, Investigation on the radiation health in radiology centers in Tabriz- The first international& 4th national congress on Health education & Promotion
(2-4 NOV, 2011 Shiraz, Iran)	Mehnati P, A study on the application benefits of CR system in Mammography. 1st MEFOMP International Conference of Medical Physics
1-3 September 2010	Parinaz Mehnati, Asgar Mesbahi Evaluation of patient dose in cardio angiography procedures in angiography department of Shahid Madani hospital (International Conference in Radiation Protection in Medicine

May 2010	Parinaz Mehnati, Parisa Mehnati Compare of 3 circumferential dosimeters measurement. 9th Iranian congress of Medical Physics, Tehran, Iran
23-25 sep. 2009	P .Mehnati. Review on the medical equipments and new findings for breast cancer diagnosis, International Congress of Nuclear Medicine& Molecular Imaging
5-9 Nov, 2009	Parinaz Mehnati, Hale Hoda, Hamed Alizadeh. Investigation of the breast parenchyma patterns of mammograms in the radiology. 8th International congress on obstetrics and gynecology
Jun 2009	P .Mehnati. Incidence of polyploidy in CHO cells exposed to Gamma-rays. The 8th Iranian congress of Medical Physics university of Medical sciences, Tehran, Iran
November 24-26 2007	P .Mehnati. Gamma radiation induced endoreplication in the exposed CHO cell line. The 1 st International congress on health Genomics & Biotechnology- Tehran, Iran.
13-15 Feb. 2007	P. Mehnati. An Investigation into the effects of Gamma Rays on the cell cycle phases of Chinese hamster ovary cell line. The 7th Iranian congress of Medical Physics Ahvaz university of Medical sciences, Ahvaz, Iran

29-31 Oct 2006	P .Mehnati, H. Sasaki An Evaluation on the fraction of Non-hit cell and death after exposure to high LET accelerated. (Rafsanjan, Iran)
16-18 Nov.2005	P .Mehnati, Biotechnology: Technology of animal cell culture. 12th congress of Biomedical engineering, Tabriz, Iran
May 11-13 2004	P .Mehnati, Sasaki Hiroshi. Expression of poly (ADP-ribose) polymerase and P53 in cultured mammalian cells exposed to accelerated heavy-ions (Fe or Ar Ions). The 6th Iranian congress of Medical Physics, Mashhad, Iran.
17-22 August 2003	P. Mehnati, H. Sasaki - Effect of exposure to accelerated heavy-ions on the cell proliferation kinetics 12th International congress of radiation research- Brisbane, Australia

Research Activities: **Research areas, Interests**

Designing of novel radiation shields, Radiobiology, Radiation Protection

Books:

N	Title	authors	Publisher	Authorship/ Translation/
۱	<i>Radiation Protection,</i>	<i>Parinaz Mehnat</i>	Tabriz University of Medical Sciences, 2004	Translation

۲	<i>Introduction to Radiation protection</i>	S. Ahmadi- F. Yazadansetad- J. Pirayesh – P. Mehnati	Pezhvake Alborz, Tabriz,2016	Translation
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Published Articles

N	Title	authors	Journal	Year	Indexed in (Scopus, Medline, WOS,)
	Title	Authors	Addres	Year	
57	Removal of Fexofenadine and Montelukast Drugs from Aquatic Environment Using a Rhodotron Accelerator	Omid Abouee Mehrizi, Seid Kamal Ghadiri, Fatemeh Anvari, Parinaz Mehnati	10.18502/jehsd.v9i2.15845	2024	
56	Reduction of Radiation Risk to Cardiologists and Patients during Coronary Angiography: Effect of Exposure Angulation and Composite Shields	<i>Reza Malekzadeh, Ali Tarighatnia, Parinaz Mehnati, Nader D Nader</i>	https://scholar.google.com/citations?view_op=view_citation&hl=en&user=kjZL8y4AAAAJ&sortby=pubdate&citation_for_view=kjZL8y4AAAAJ:NhqRSupF_l8C	2024	
55	Prevention of Radiation Damages Using Bismuth-epoxy Composite	<i>Parinaz Mehnati, Mahdi Mansoori Kia</i>	https://scholar.google.com/citations?view_op=view_citation&hl=en&user=kjZL8y4AAAAJ&sortby=pubdate&citation_for_view=kjZL8y4AAAAJ:P5F9QuxV20EC	2023	
54	<i>Trade-off between breast dose and image quality using composite bismuth shields in computed tomography: A phantom study</i>	<i>P. Mehnati Reza Malekzadeh Hussein Ali Hussein Noor H. Obaid Saadat Ebrahimiyan Mohammad Yousefi Sooteh Soheila Refahi</i>	https://www.sciencedirect.com/journal/journal-of-medical-imaging-and-radiation-sciences/ Journal of Medical Imaging and Radiation Sciences 54 (2023) 145–152 Journal of Medical Imaging and Radiation Sciences Doi.org/10.1016/j.jmir.2022.12.005	2023	
53	The Effectiveness of Silicone-Based Non-Lead Nanoparticles for Radiation Protection of Patients in Diagnostic Radiology by Monte Carlo Simulation	<i><u>P. Mehnati</u> <u>Seyfollah Asadpour</u> <u>Reza Malekzadeh</u> <u>Soheila Refahi</u> <u>Ahmad Shanei</u></i>	https://jims.mui.ac.ir/39th year/number 946/first week of Bahman <i>Journal of Isfahan Medical School</i> DOI:10.22122/jims.v39i649.14574	2023	
52	<i>Shielding performance of multi-metal nanoparticle composites for diagnostic radiology: an MCNPX and Geant4 study</i>	<i><u>P. Mehnati</u> <u>R. Malekzadeh</u> <u>Nikan Asadpour</u> <u>Saeed Rajabpour</u> <u>Soheila Refahi</u> <u>Ahmad Shanei</u></i>	https://www.springer.com/journal/12194 Radiological Physics and Technology volume 16, pages57–68 (2023) Radiological Physics and Technology Doi.org/10.1007/s12194-	2023	

			022-00690-2		
51	Evaluation of silicon and 10% bismuth shield with variable thickness compared with constant thickness on the dose reduction and image quality during chest CT examination	<u>P. Mehnati</u> S. Abolhadi A.A. Parach A. Mehdi pour A.R. Sayadi	https://www.radioprotection.org/ Radioprotection 2023, 58(1), 55–60 Radioprotection Doi.org/10.1051/radiopro/2022032	2023	
50	<i>Reduction of Radiation Risk to Cardiologists and Patients during Coronary Angiography: Effect of Exposure Angulation and Composite Shields</i>	<u>P. Mehnati</u> R. Malekzadeh A. Tarighatnia Nader D. Nader	https://fbt.tums.ac.ir/ Vol. 11, No. 2 (Spring 2024) XX-XX Frontiers in Biomedical Technologies	2022	
49	<i>Measurement of ²²⁶Ra, ²³²Th, ⁴⁰K and ¹³⁷Cs concentrations in sediment samples and determination of annual effective dose due to these radionuclides in vicinity of hot springs in Kerman Province</i>	<u>P. Mehnati</u> ¹ , A. Jomehzadeh, V. Doostmohammadi	https://ijrr.com/ <i>Int. J. Radiat. Res.</i> , January 2022; 20(1): 223-228 <i>International Journal of Radiation Research</i> DOI: 10.52547/ijrr.20.1.34	2022	
48	<i>Determination of Rn- 222 concentration and annual effective dose of inhalation in the vicinity of hot springs in Kerman province, southeastern Iran</i>	<u>P. Mehnati</u> ¹ , V. Doostmohammadi, A. Jomehzadeh*	https://ijrr.com/ <i>Int. J. Radiat. Res.</i> , January 2022; 20(1): 211-216 <i>International Journal of Radiation Research</i> DOI: 10.52547/ijrr.20.1.32	2022	
47	<i>Image Quality and Pulmonary Nodule Detectability at Low-dose Computed Tomography (low kVp and mAs): A phantom study</i>	Sepideh Iranmakani, Amir Reza Jahanshahi, <u>Parinaz Mehnati</u>, Tohid Morteza zadeh, Davood Khezerloo	Website: www.jmssjournal.net <i>J Med Sign Sens</i> 2022; 12:64-8. <i>Journal of Medical Signals & Sensors</i> DOI: 10.4103/jmss.JMSS_65_20	2022	
46	<i>Evaluating the radio protective effect of Cimetidine, IMOD, and hybrid radio protectors agents: An in-vitro study</i>	Siroos Rahgoshai , <u>Parinaz Mehnati</u> , Mahmoud Reza Aghamiri , Meysam Haghighi Borujeini , Amin Banaei , Ali Tarighatnia , Nader D. Nader , Mohammad Kiapour , Razzagh	<i>Applied Radiation and Isotopes</i> Volume 174, August 2021, 109760 https://doi.org/10.1016/j.apradiso.2021.109760	2021	

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45	Assessment of solar ultraviolet radiation in Tabriz city, Iran	P. Mehnati , H. Sabri2, R. Meynaghizadeh Zargar , Y. Rasolzadeh, D. Mahmoudi, R. Malekzadeh	International Journal of Radiation Research, Int. J. Radiat. Res., April 2021; 19(2): 437-441 DOI: 10.18869/acadpub.ijrr.19.2.437	2021	
44	Polyurethane compositions of Bismuth used for breast shields during chest CT	P. Mehnati1 , M. Arash1, M.S. Zakerhamidi, M. Ghavami	International Journal of Radiation Research, Int J Radiat Res 2021, 19(2): 451-456 DOI:10.52547/ijrr.19.2.25	2020	
43	Application of personal non-lead nano-composite shields for radiation protection in diagnostic radiology: a systematic review and meta-analysis,	Parinaz Mehnati, Reza Malekzadeh, Mohammad Yousefi Sooteh.	<i>Nanomedicine Journal,</i> 7, 170-182. DOI: 10.22038/NMJ.2020.07.0001	2020	
42	Assessment of the effect of Nano Composite Shield on Radiation Risk Prevention to Breast during Computed Tomography, ,	Parinaz Mehnati, Reza Malekzade, Baharak Divband and Mohammad Yousefi Sooteh.	<i>Iran j radial,</i> doi:10.5812/iranjradiol.96002, 17(1): e96002	2020	
41	Functional response difference between diabetic /normal cancerous patients to inflammatory cytokines and oxidative stresses after radiotherapy	Parinaz Mehnati, Behzad Baradaran, Fateme Vahidian, Susan Naderiazam.	<i>Reports of practical oncology and Radiotherapy,</i> doi.org/10.1016/j.rpor.2020.06.008	2020	
40	Predicting the Risk of Radiation Pneumonitis and Pulmonary Function Changes after Breast Cancer Radiotherapy,	) Mehnati P, Ghorbanipoor M, Mohammadzadeh M, Nasiri Motlagh B, Mesbahi A.	<i>J Biomed Phys Eng,</i> JBPE465241587843000.pdf	2020	
39	Assessment of Patient Dose with Special Look at Pediatrics during Cardiovascular Imaging	Mehnati P, Asghari Jafarabadi M, Danaee	<i>The Journal of Biomedical Physics and Engineering (JBPE),</i> 10(1):51-58, doi: 10.31661/jbpe.v0i0.902	2020	
	CT Role in the Assessment of	Mehnati P, Jafari	<i>The Journal of Biomedical</i>	2020	

38	Existence of Breast Cancerous Cells.	<i>Tirtash M, Ghavami M</i>	<i>Physics and Engineering (JBPE), 7,217-224. DOI: http://dx.doi.org/10.22086/jbpe.v0i0.384</i>		
37	Interpretation of In- air Output Ratio of Wedged Fields in Different Measurement Conditions	P.Mehnnati , Fariede Biglarie, Ali Jomezade	<i>Journal of Medical Signals and Sensors Iranian Journal of Medical Physics DOI:10.4103/jmss .jmss - 36- 18</i>	2019	
36	Use of bismuth shield for protection of superficial radiosensitive organs in patients undergoing computed tomography: a literature review and metaanalysis	Parinaz Mehnnati , Reza Malekzadeh, Mohammad Yousefi Sooteh.	<i>Radiol Phys Technol, 12(1):6-25. DOI: 10.1007/s12194-019-00500-2.</i>	2019	
35	Application of near- infrared light intensity to determine normal and cancerous breast vessel contrast by gold nanoparticles	Parinaz Mehnnati-Bahman Alipour-Roya Salehi	<i>Nanomed J.2019;6(3):207-213.DOI: 10.22038/nmj.2019.06.00007</i>	2019	
34	Influence of the size of nano- and micro particles and photon energy on mass attenuation coefficients of bismuth-silicon shields in diagnostic radiology	Malekzadeh R, Mehnnati P , Yousefi M, Mesbahi A.	<i>Radiol Phys Technol, 12(3):325-334. Doi: 10.1007/s12194-019-00529-3.</i>	2019	
33	Comparing X- ray dose reduction capability of silicon-bismuth micro- and nanocomposite shields using chest CT test.	Parinaz Mehnnati , Reza Malekzadeh, Mohammad Yousefi Sooteh.Yazdansetad F	<i>IJRSM.2019;7(3):35-40</i>		
32	New Bismuth Composite Shield for Radiation Protection of Breast during Coronary CT Angiography	Parinaz Mehnnati , Reza Malekzad, Mohammad Yousefi Sooteh.	<i>Iran J Radiol, 16(3):1-7. Doi: 10.5812/iranjradiol.84763</i>	2019	
31	Breast conservation from radiation damage by using nano bismuth shields in chest CT scan	Mehnnati P , Sooteh MY, Malekzadeh Reza, Divband B, Refahi S.	<i>Crescent J Med Biol Sci. 5(3). 2018.</i>	2018	
30	Bismuth Silicon and Bismuth Polyurethane Composite Shields for Breast Protection in Chest Computed Tomography Examination	Parinaz Mehnnati1 , Mehran Arash, Parisa Akhlaghi.	<i>Journal of Medical Physics, 43: 61-65.</i>	2018	
29	Assessment of the efficiency of new bismuth composite shields in radiation dose decline to breast during chest CT	Parinaz Parinaz Manaia , Reza Malekzadehb, Mohammad Yousefi Sooteh, Soheila	<i>The Egyptian Journal of Radiology and Nuclear Medicine, 49 : 1187–1189, Doi.org/10.1016/j.ejrn.2018.06</i>	2018	

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27	Near-Infrared Visual Differentiation in Normal and Abnormal Breast Using Hemoglobin Concentrations	Parinaz Mehnati, Sirous Khorram, Mohammad Sadegh Zakerhamidi, Farhood Fahima	J Lasers Med Sci, 9(1):50-57. doi:10.15171/jlms.2018.11.	2017	
26	Reducing Radiation Doses in Female Breast and Lung during CT Examinations of Thorax Scanners.	Mehnati P, Ghavami M, Heidari H	DOI: http://dx.doi.org/10.22086/jbpe.v0i0.462	2017	
24	Estimation of absorbed dose of radiosensitive organs and effective dose in patients underwent abdominopelvic spiral CT scan using impact CT patient dosimetry	Parinaz Mehnati, Auyub Amirnia, Nasrollah Jabbari,	Tehran University Medical Journal, 75, 2: 103-112.	2017	
23	Estimating cancer induction risk from abdominopelvic scanning with 6- and 16-slice computed tomography	Parinaz Mehnati, Ayoub Amirnia & Nasrollah Jabbari.	International Journal of Radiation Biology, DOI:10.1080/09553002.2017.12682802	2017	
22	Relation between Mammographic Parenchymal Patterns and Breast Cancer Risk	Parinaz Mehnati, Hamed Alizadeh, Haleh Hoda,	Asian Pacific Journal of Cancer Prevention, 17 (4), 2259-2263, DOI: http://dx.doi.org/10.7314/APJCP.2016.17.4.2259 .	2016	
21	Assessing Absorption Coefficient of Hemoglobin in the Breast Phantom Using Near-Infrared Spectroscopy	Parinaz Mehnati, Maede Jafari Tirtash, Mohammad Sadegh Zakerhamidi, Parisa Mehnati.	Iranian Journal of Radiology, 13(4):e31581, DOI: 10.5812/iranjradiol.31581	2016	
20	Evaluation Of Gamma Radiation-Induced Cytotoxicity Of Breast Cancer Cells: Is There A Time-Dependent Dose With High Efficiency?	Fazel M, Mehnati P, Baradaran B, Islamian PJ.	Indian J Cancer, 53, 25-28	2016	
19	Comparative Efficacy of Four Imaging Instruments for Breast Cancer Screening.	Parinaz Mehnati, Maede Jafari Tirtash.	Asian Pacific Journal of Cancer Preventio, 16 (15), 6177-6186.	2015	

18	Which Factors are Impressive on the Education Process of Medicine Students at Current Time	Parinaz Mehnati, Shirin Babri.	Quarterly educational development of jundishapur, 6; 3, 191-197	2015	
17	Gamma-Radiation Induced Endoreplication In Exposed CHO Cell Line.	Mehnati P.	American-Eurasian Journal of Toxicological Sciences, 6 (1): 25-29, DOI: 10.5829/idosi.ajejts.2014.6.1.83259.	2014	
16	Comparison between Film - Screen and Digital Mammography for Woman Breast Cancer Screening: Mean Glandular Dose.	Mehnati P, Alizadeh Riabi A.	Academic Journal of Cancer Research 7 (2): 162-167.DOI: 10.5829/idosi.ajcr.2014.7.2.83313	. 2014	
15	Evaluation of Mean Glandular Dose in A Full-Field Digital Mammography Unit In Tabriz, Iran.	Alizadeh Riabi H, Mehnati P, Mesbahi A.	, Radiat Prot Dosimet; 142(2-4): 222-227, doi:10.1093/rpd/ncq218	2010	
14	Evaluation of Patient Radiation Dose during Angiography and Angioplasty in Angiography Department Of Shahid Madani Hospital-Tabriz.Iran	Mesbahi A, Aslanabadi N, Mehnati P, Keshtkar A.	Iranian Journal of Medical Physics 6(1): 53-59.	2009	
13	Comparison of Radiation Dose to Patient and Staff for Two Interventional Cardiology Units: A Phantom Study.	Mesbahi A, Mehnati P, Keshtkar A, Aslanabadi N.	Radiat Prot Dosimet, 131(3): 399-403.	2008	
12	The Effect Of Bladder Volume Changes On the Measured Electrical Impedance of the Urothelium	Keshtkar A, Mesbahi A, Mehnati P.	Int J Biomed Eng and Technol; 1 (3).287-292.	2008	
11	An Evaluation Of The Fraction Of Survivor Cells And Cell Death After Exposure To Accelerated Heavy Ions	Mehnati P.	Int J Low Radiat; 5(2):104-12.	2008	
10	A Study on the Impact of Operator Experience on the Patient Radiation Exposure in Coronary Angiography Examinations	Mesbahi A, Aslanabadi N, Mehnati P	Radiat Prot Dosim; 132(3): 319-323	2008	
9	Surface fluids effects on the bladder tissue Characterisation using electrical impedance spectroscopy.	A. Keshtkar, A. Mesbahi, P. Mehnati	Medical Engineering & Physics, 30(6):693-699.	2008	
	Dosimetric Properties Of A Flattening Filter-Free 6-MV	Mesbahi A, Mehnati P, Keshtkar A,	Radiat J Med Imaging Radiat Oncol, 25(7):315-24.	2007	

8	<i>Photon Beam A Monte Carlo Study</i>	<i>Farajollahi AR.</i>			
7	<i>Interphase Death Of Chinese Hamster Ovary Cells Exposed To Accelerated Heavy Ions</i>	<i>Mehnati P.</i>	<i>Iran J Med Phys; 4(1):14-15.</i>	<i>2007</i>	
6	<i>A Comparative Monte Carlo Study on 6MV Photon Beam Characteristics of Varian 21EX and Elekta SL-25 Linacs</i>	<i>Mesbahi A, Mehnati P, Keshtkar A,</i>	<i>Iran J Radiat Res; 5(1):23-30.</i>	<i>2007</i>	
5	<i>'Track detection on the cells exposed to high LET heavy-ions by CR-39 plastic and terminal deoxynucleotidyl Transferase (TdT),</i>	<i>P. Mehnati</i> , A. Keshtkar, A. Mesbahi, H. Sasaki,	<i>Iran. J. Radiat. Res; 4(3): 137-141.</i>	<i>2006</i>	
4	<i>Exploration of `Over kill effect ` of high-LET Ar- and Fe-ions by evaluating the fraction of non-hit cell and Interphase death</i>	<i>Mehnati P.</i> , Morimoto Sh., Yatagai F. and Sasaki H,	<i>Journal of Radiation Research, 46(3): 343-350</i>	<i>2005</i>	
3	<i>Expression of (Poly ADP-Ribose) polymerase and P53 in cultured mammalian cells exposed to accelerated heavy-ions (Iron or Argon).</i>	<i>Mehnati P</i> , Sasaki H.	<i>Archives of Iranian Medicine, 6(2): 121-126.</i>	<i>2003</i>	
2	<i>Judgement on Hit or Non-hit of CHO Cells exposed to accelerated heavy ions using division delay as indicator</i>	<i>Mehnati P.</i> , Yatagai F. and Sasaki H,	<i>Fukuka Acta Medica, 3: 46-58. 2000</i>	<i>2001</i>	
1	<i>Dependence of induction of interphase death of Chinese hamster ovary cells exposed to heavy-ions on linear energy transfer</i>	Saski H., <i>Mehnati P.</i> Yatagai F	<i>Radiation Research. 148: 449-454 1997</i>	<i>1997</i>	

Selected articles:

Research projects:

N	Title	Details
29	Correlation of Xerostomia with deltaradiomics features, clinical variables and dosimetric in Intensity Modulated Radiation Therapy	2024/PhD student project

	(IMRT) of head and neck cancer	
۲۸	Evaluation of the absorbed dose of thyroid gland during panoramic acquisition using composite thyroid shields on an anthropometric phantom.	2023/MD student project
27	Evaluation of the absorbed dose of thyroid gland during CBCT acquisition using composite thyroid shields on an anthropometric phantom.	2023/MD student project
26	Investigating the absorbed dose of the thyroid gland during panoramic imaging using composite thyroid protectors on an anthropometric phantom.	2023/MS student project
25	Determining of the amount of the radiation damage risk reduction using nanoparticles composites of Tungsten and Tin	2023/MS student project
24	Evaluation of composite radiation shields via different type of matrix and metal in computed tomography	2023/MS student project
23	Measurement of Ra-226, Th-232, K-40, Cs-137 and Rn-222 concentrations and estimating of people annual effective dose in the vicinity of hot springs in Kerman province.	2022/MS student project
22	The efficiency of Rodrutron accelerator in removing Fexofenadine and Montelukast drugs from aqueous environment	2022/MS student project
21	Evaluation of new Nano- Composite Bismuth Shields in head and neck computed tomography in two experimental and Monte Carlo methods	2020/MS student project
20	Construct of nano particle composite shields for radiation protection of sensitive superficial organ in computed tomography imaging	2019/MS student project
19	Measurement of Ra – 226, Cs- 137, Th- 232, K- 40 and Rn – 222 concentrations and estimating of people annual effective dose rate in the vicinity of hot springs in Kerman province	2018/MS student project
18	Beta ray detection via Bremsstrahlung X- ray measurement	2017/MS student project
17	An investigation of collimator scatter factor (Sc) with variation of ionization chambers, thickness and type of buildup caps in the wedged fields for 6 MV photon beams.	2017/MS student project
16	Designing and making of silicone Nano bismuth shields for chest CT scan	2017/MS student project
15	Comparison of breast dose in coronary angiography and angioplasty with and without using bismuth – silicon and bismuth	2016/MS student project

	– Polyurethane composites	
14	Determination of vascular contrast of hemoglobin within gold nano particles and quantum dots using near infra read	2015/MS student project
13	Investigation of breast Dose in chest CT by axial and spiral scanning mode using single and multi-detector CT scan with bismuth shield	2014/MS student project
12	Determination of pulmonary complications following esophageal and breast cancer radiotherapy using radiobiological models and comparison with clinical data	2014/MS student project
11	Designing and construction of the breast shields using different compositions of bismuth in Angio – chest CT	2014/MS student project
10	Designing and construction of the breast shields using different compositions of bismuth in -chest CT	2014/MS student project
9	checking Quality Executive protocols of radiology in imaging of kidneys with contrast material(autography) and Suggest appropriate solution to increase the quality protocols	2013/MS student project
8	Title of proposal: Imaging of breast vessel phantom for optimizing tissue differentiation by a pigment measurement in Near Infra-red wavelengths	2012/MS student project
7	Designing fabrication of abreast phantom for near- infrared source imaging	2011/MS student project
6	Induction of cancer risk in the abdomen adult CT	2011/MS student project
5	Comparison of physical and biological dosimeteries of staffs in angiography department of Shahid Madani hospital of Tabriz	2010/MS student project
4	Investigation of breast dose value in chest CT: using phantom	2010/MS student project
3	Study of radiotherapy effect in Apoptosis induction on the breast cancer cell line	2008/MS student project
2	Enhancing the efficiency of radiotherapy for breast cancer cells (SKBR3, T47D) by a combined therapy method with chemotherapy (2DG/DOX)	2008/MS student project
1	Comparison of breast dose between general and digital mammographic units	2007/MS student project

Positions held: (past- current)

Start and End Date	Job Title, <u>Responsibilities and achievements</u>
2002/06/26 - present	Research Vice Chancellor of Medical physics department
2009/02/26 - present	Student head adviser in school of Medicine
2013/07/26 - present	Director of Radiobiology Laboratory
2022/9/1- present	Head of Medical Physics Department

Association Memberships (past and current)

Start and End Date	Job Title, <u>Responsibilities and achievements</u>
2002/07/01 - present	Member of Deputy of research and technology in school of Medicine
2009/02/26 - present	Member of student head adviser committee in school of Medicine
2014/04/26 - present	Member of the Examiners Board of Basic Sciences in the School of Medicine
2019/02/23- present	Head of Medical Radiation Sciences Research Team, Tabriz University of Medical Sciences, Tabriz, Iran

Awards and Recognitions

Start and End Date	Details
16th research and technology festival/2017	Selected as a Top technology of Tabriz University of Medical Sciences
The 12th Iranian Congress of Medical Physics /2018	Selected as a top paper in Iranian Medical Physics