Curriculum Vitae

Seyed Mohammad Entezarmahdi

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Research Interests:

- Nuclear Medicine Physics and Engineering
- Quantitative Medical Data and Image Analysis
- Artificial Intelligence and Information Science
- Post Processing of Medical Images
- Reconstruction of Static and Dynamic Tomographic Images
- Medical Imaging Systems

Education:

2019- 2023: PhD, Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
Areas of focus: Advanced Medical Instrumentation, Nuclear Medicine Imaging, Pattern Recognition, SPECT-CT, PET-CT
Research Projects: Extracting Time Activity Curve from Myocardial Dynamic SPECT, Based on Automatically Image Segmentation

2008-2010: MSc, Medical Radiation Engineering, Shiraz University, Iran.
Areas of focus: Medical Imaging Systems, Nuclear Medicine, Advanced Mathematics, Stochastic Process, Video/Image Signal Processing, Physics in Radiotherapy, Medical Instrumentation, Nuclear Physics, Radio Isotopes, Health Physics, Dosimetery, Shielding.
Research Projects: Prediction of Final Extent of Brain Ischemic Infarction from Acute MR Textural Information Using Generalized Linear Regression.

2003-2007: Bachelor in Science, Electrical Engineering, Shiraz University, Iran.
Areas of focus: Electrical Circuit Theory, Analogue/Digital Signal and Systems, Electronics, Microprocessor, Control Systems, Electromagnetism, Communication Systems, Microwaves, Antenna Theory.
Research Projects: Cancelling out the Audio Unwanted Positive Feedback in an Amphitheatre with ICA (Independent Components Analysis) Methods and Implementation.

Work Experience:

Nov 19 – Present

Physicist, Nuclear Medicine Department, Namazi Hospital, Shiraz University of Medical Science.

Duties: Instrument Maintenance, Health Physic, Research and Development.

Feb 17 – 2020

Official Councilor, Hospital Management, Namazi Hospital, Shiraz University of Medical Science.

Duties: Medical Economics for: Medical Image Systems, Radiotherapy Systems, Operation Room Medical Devices.

Jan 13 – Present

Scholar Member of Nuclear Medicine and Molecular Imaging Research Center, Shiraz University of Medical Sciences.

Duties: Research, Project Management.

Oct 15 – Nov 19

Head of Nuclear Medicine and CT-Scan Center, Alzahra Charity Hospital, Shiraz University of Medical Science.

Duties: Human Resource Management, Cost and Benefit Management, Research and Develop, Medical Imaging Service for Patients.

Jul 12 – Oct 15

Physicist, Nuclear Medicine Department, Namazi Hospital, Shiraz University of Medical Science.

Duties: Instrument Maintenance, Health Physic, Research and Development.

Dec 10 – Sep 11

Director (Video/Image Signal Processing), Barazesh Pouyan Pars Co.,

Duties: Automation Systems, Electronic Circuits, Image Signal Processing.

Oct 10 – Feb 11

Software Developer (Video/Image Signal Processing), Shahab Sagheb Co.,

Duties: Algorithm Development (Object Detection, Distance Recognition, Tracking, Kalman Filter, Fuzzy Algorithms, Artificial Neural Network)

Journal Publications:

1. F. Yousefzadeh, M. Yazdi, **SM. Entezarmahdi**, et. al. ″SPECT-MPI iterative denoising during the reconstruction process using a two-phase learned convolutional neural network", *EJNMMI physics*, 11 (1), 1-22, 2024.
2. F. Farhoudi, **SM. Entezarmahdi**, M. Haghighatafshar, ″Notable visualization of gallbladder on a 99mTc-MDP SPECT/CT bone scintigraphy in a case of brucellosis", *IJNM*; vol 40, 2024.
3. **SM. Entezarmahdi**, R. Faghihi., M. Yazdi et al. "QCard-NM: Developing a semiautomatic segmentation method for quantitative analysis of the right ventricle in non-gated myocardial perfusion SPECT imaging." *EJNMMI Phys;* vol 10, supp 21; 2023.
4. S. Sina, M. Karimi-Pourfard, M. Sadeghi, **SM. Entezarmahdi**, M. Alavi, "Validation and comparison the dose results of simulated head phantom by GATE Monte Carlo code with Thermoluminescent dosimeter responses in PET imaging", *Radiation Safety and Measurement*, vol 11 (5), 2023.
5. **SM. Entezarmahdi**, N. Shahamiri, R. Faghihi, "A new approach to overcome the inconsistency between SPECT and the anatomical map in maximum A-posterior expectation-maximization reconstruction algorithm" Biomed. *Phys. Eng. Express,* 8**,** 045013; 2022.
6. S. Sina, S. Mehdizadeh Naderi, M. Karimipourfard, Z. Molaeimanesh, M. Sadeghi, E. Zamani, F. Lotfalizadeh, **SM. Entezarmahdi**, R. Faghihi, "Development of a Simple Method for Determining the Absorbed Activity Concentration by the Thyroid Gland of Nuclear Medicine Staff", *Iranian Journal of Medical Physics, 18(3), 211-217*, 2021.
7. M. Haghighatafshar, E. Piruzan, **SM. Entezarmahdi**, F. Shekoohi-Shooli, MR. Parishan. "An applicable count rate saturation correction approach on gamma camera for I-131 labeled radiopharmaceuticals." *Results in Physics 12 1901-1904*, 2019.
8. MR. Mohseni, R. Faghihi, M. Haghighatafshar, **SM. Entezarmahdi**. "Effects of the attenuation correction and reconstruction method parameters on conventional cardiac dynamic SPECT." *Medicine 97, no. 39*, 2018.
9. M. Haghighatafshar, M. Ghaedian, Z. Etemadi, **SM. Entezarmahdi**, T. Ghaedian. "Pilocarpine effect on dose rate of salivary gland in differentiated thyroid carcinoma patients treated with radioiodine." *Nuclear medicine communications 39, no. 5: 430-434,* 2018.
10. E. Piruzan, M. Haghighatafshar, R. Faghihi, **SM. Entezarmahdi**. "Calculation of blood dose in patients treated with 131I using MIRD, imaging, and blood sampling methods." *Medicine 95, no. 11,* 2016.
11. S. Mehdizadeh Naderi, M. Karimipourfard, F. Lotfalizadeh, E. Zamani, Z. Molaeimanesh, M. Sadeghi, **SM. Entezarmahdi**, S. Sina, R. Faghihi. "SU-E-I-78: Establishing a Protocol for Quick Estimation of Thyroid Internal Contamination with 131I in Normal and Emergency Situations." *Medical physics 42, no. 6Part6: 3260-3260.* 2015.
12. H. Sadeghpour, M Alavi, M Shahedi, **SM. Entezarmahdi**, A Sakhteman. "Evaluation of radiochemical purities of some radiopharmaceuticals in Shiraz Namazi teaching hospital." *Trends in Pharmaceutical Sciences 1, no. 1: 15-19,* 2015.
13. S. Mehdizadeh Naderi, S. Sina, M. Karimipoorfard, F. Lotfalizadeh, **SM. Entezarmahdi**, H. Moradi, R. Faghihi. "Design and fabrication of a multipurpose thyroid phantom for medical dosimetry and calibration." *Radiation protection dosimetry 168, no. 4: 503-508,* 2015.
14. MM. Kahani Mojorad, A. KamaliAsl, S. Hashemi, H. Ghadiri, **SM. Entezarmahdi**, J. Khamkhaji. "Simultaneous Use of Two Different Contrast Agents and Assessing their Accuracy in Breast Tissue Using Dual-Energy Digital Mammography." *Journal of Mazandaran University of Medical Sciences 24, no. 122: 239-251.* 2015.
15. Z. Shahpouri, A. Kamali-Asl, A. Bitarafan-Rajabi, J. Hossain, **SM. Entezarmahdi**, S Mohseni, N. Yaghoobi, A. Rahmim. "A Comparative Assessment of Dynamic and Conventional Thallium-201 SPECT Myocardial Perfusion Imaging: Monte Carlo Simulations and Case Studies." *Frontiers in Biomedical Technologies 1, no. 2,* 2015.

16. S. Mohseni, A. Kamali-Asl, A. Bitarafan-Rajabi, **SM. Entezarmahdi**, Z. Shahpouri, N. Yaghoobi. "Effects of filtration on right ventricular function by the gated blood pool SPECT." *Annals of nuclear medicine 29, no. 4: 384-390,* 2015.

Under Review Publications:

1. S. Abbasi, **SM. Entezarmahdi**, R. Faghihi, ″ Comparative analysis of quality control results of 22 dual-energy X-ray absorptiometry systems from six manufacturer: A comprehensive one-day protocol", *Journal of Clinical Densitometry*.
2. N. Shahamiri, M. Yazdi, **SM. Entezarmahdi**, R. Faghihi, M. Khalaf Khan, F. Dehghan, T. Ghaedian. "Enhancing Coronary Artery Disease Prediction through Radiomics and 3D Left Ventricle Analysis in Myocardial Perfusion Imaging SPECT using QCARD-NM", *Journal of Medical Imaging.*

Presented as the Invited Speaker:

1. **SM. Entezarmahdi**, "Quantitative Evaluation of Medical Imaging Instruments", *6th Iranian Imaging Informatics Conference, Tehran (IIIC 2015), Iran,* 2015.
2. **SM. Entezarmahdi**, "Informatics of Nuclear Medicine Imaging". *Iranian Congress of Nuclear Medicine (ICNM 2015). Hamedan, Iran,* 2015.
3. **SM. Entezarmahdi**. "Computer in Nuclear Medicine". *Iranian Congress of Nuclear Medicine (ICNM 2013). Shiraz, Iran,* 2013.

Conference Presentations:

1. **SM. Entezarmahdi**, et. al. "TB-GAN: A new developed Deep Learning Framework for SPECT Myocardial Perfusion Image Denoising". *European Journal of Nuclear Medicine and Molecular Imaging*, EP-0848, Hamburg, Germany, 2024.
2. **SM. Entezarmahdi**, et. al. "Evaluation of Radiomics Based Information to Detect Stenosis in Gated Myocardial Perfusion Imaging", *European Journal of Nuclear Medicine and Molecular Imaging*, EP-1296, Hamburg, Germany, 2024.
3. **SM. Entezarmahdi**, A. Karimi, F. Dehghan, R. Faghihi. "SPECT Myocardial Perfusion Image Denoising by means of Dual-Branches GAN deep Neural Network". *Iranian Conference of Nuclear Medicine, Tehran*, Sep. 2023. **Best Paper Award.**
4. M. Ariaei, N. Shahamiri, M. Yazdi, M. Haghighatafshar, T. Ghaedian, **SM. Entezarmahdi**. "Evaluation of the Left Ventricular Segmentation Algorithm Using B-Spline Explicit Active Surface Model in Myocardial Perfusion SPECT Images in the Presence of Perfusion Defect." *In EUROPEAN JOURNAL OF NUCLEAR MEDICINE AND MOLECULAR IMAGING; 49 (supplement 1)*, S534, Sep 2022.
5. N. Shahamiri, M. Yazdi, **SM. Entezarmahdi**, M. Haghighatafshar, I. Shiri; "Right Ventricular Segmentation and Quantification Using Spherical Model in Myocardial Perfusion SPECT Imaging: A Phantom and Patients Study"; *Journal of Nuclear Medicine 63 (supplement 2) 2434;* Jun 2022
6. F. Yousefzadeh, M. Yazdi, **SM. Entezarmahdi**, R. Faghihi, F. Dehghan, I. Shiri, "Improving the Efficiency of Deep Learning-Based Denoising in SPECT Myocardial Perfusion Image by Two-Phase Learning Algorithm." *Journal of Nuclear Medicine, 63 (supplement 2) 3227;* Jun 2022
7. N. Shahamiri, M Yazdi, **SM. Entezarmahdi**, R Faghihi, F Dehghan, I Shiri, "An empirical update of left ventricular 3D segmentation algorithm in myocardial perfusion SPECT imaging", *European Journal of Nuclear Medicine and Molecular Imaging 62 (supplement 1), 1691-1691,* Virtual Congress, 2021
8. **SM. Entezarmahdi**, F. Dehghan, S. Ghasempoor and M. Haghighatafshar, "Efficacy of Solid Fatty Meal Versus of Fatty Cream in Prevention Interfering Extra-Cardiac Activity in 99mTc-sestamibi Myocardial Perfusion Imaging", *European Journal of Nuclear Medicine and Molecular Imaging 45*, Barcelona, Spain, 2019.

9. S Ghasempoor, **SM. Entezarmahdi**, "Necessity of extrinsic versus intrinsic calibration in gamma camera systems", *European Journal of Nuclear Medicine and Molecular Imaging,* Geramny, 2018.
10. **SM. Entezarmahdi**, A. Banani, A. Kamali-asl, R. Faghihi, and M. Haghighatafshar. "Computationally efficient method for fully 4-D voxel based direct estimation of time activity curve in dynamic myocardial SPECT." European Journal of Nuclear Medicine and Molecular Imaging*, vol. 43, pp. S502-S502. 233 Spring ST, New York, NY 10013 USA: Springer*, Barcelona, Spain, 2016.
11. M. Haghighatafshar, **SM. Entezarmahdi**, S Mortazavi, F Khajerahimi, "How the change in time interval between 99mTc-sestamibi injection and image acquisition may effect on quantitative data of gated SPECT myocardial perfusion imaging at stress phases", *European Journal of Nuclear Medicine and Molecular Imaging 42, S532-S533*, Hamburg, Germany, 2015.
12. **SM. Entezarmahdi**, A. Kamali-asl, M. Haghighatafshar, F. Gheisari, "Assessing the effect of the amount of injected 99mTC-MIBI on the calculated cardiac volume in the myocardial Gated-SPECT, A clinical survey*", European Journal of Nuclear Medicine and Molecular Imaging 42, S351-S352*, Hamburg, Germany, 2015.
13. **SM. Entezarmahdi**, M. Haghighatafshar, A. Kamaliasl, S. Mohseni, "Evaluate the relation between administered radioactivity and functional quantitative parameters in myocardial perfusion imaging".*11th Iranian congress of medical physics*, Tehran, Iran, 2014.
14. M. Mohseni, R. Faghihi, A. Kamaliasl, **SM. Entezarmahdi**, M. Haghighatafshar. "Evaluate the triple head SPECT systems for dynamic SPECT approaches." *11th Iranian congress of medical physics*, Tehran, Iran, 2014.
15. **SM. Entezarmahdi**, A. Kamaliasl, M. Kheirabadi, "Compare the Weighted Bowsher method with Conventional Bowsher one for SPECT Brain Image Reconstruction Using a Priori Anatomical Knowledge*", European Journal of Nuclear Medicine and Molecular Imaging 41, S360-S360,* Gothenburg, Sweden, 2014.
16. N. Chabi, M. Yazdi, **SM. Entezarmahdi**, M. Bordbar, "SPECT/MRI Brain Images Fusion by Using both Amplitude and Phase of Wavelet Coefficients", *European Journal of Nuclear Medicine and Molecular Imaging 41: S364-S364, Gothenburg, Sweden, 2014.*
17. A. Banani, A. Mohseni, R. Faghihi, **SM. Entezarmahdi**, et. Al. "Evaluate the delicacy of Dynamic-SPECT with common gamma camera systems". *5th Iranian Imaging Informatics Conference (IIC2014)*, Shiraz, Iran, 2014. **Best Paper Award**.
18. M. Kheirabadi, A. Kamali-asl, **SM. Entezarmahdi**, "Evaluation of a New Maximization a Posterior SPECT Reconstruction Algorithem by Means of Magnetic Resonance Image as a Priori Knowledge". *5th Iranian Imaging Informatics Conference (IIC2014),* Shiraz, Iran, 2014.
19. **SM. Entezarmahdi**, R. Faghihi, H. Bagher-Ebadian, et. Al. "Predicting Final Extent of Ischemic Infarction in Patients with Stroke with MR Textural Feature Analyisis". *5th Iranian Imaging Informatics Conference (IIC2014),* Shiraz, Iran, 2014.
20. S. Mohseni, A. Kamaliasl, A. Bitarafan Rajabi, **SM. Entezarmahdi**, et. al., "Evaluation of Ventricular Function by Gated Blood Pool SPECT: A Simulation Study". *European Journal of Nuclear Medicine and Molecular Imaging 40: S440-S440, Lyon, France, 2013.*
21. S. Mohseni, A. Kamaliasl, A. Bitarafan Rajabi, **SM. Entezarmahdi**, et. Al. "The Effect of Filtrating and Reconstruction Method on Ventricular Function by the Gated Blood Pool SPECT*", European Journal of Nuclear Medicine and Molecular Imaging 40: S516-S516, Lyon, France, 2013.*
22. N. Chabi, M. Yazdi, **SM. Entezarmahdi**, "An efficient image fusion method based on dual tree complex wavelet transform". *8th Iranian Conference on Machine Vision and Image Processing (MVIP 2013).* Zanjan, Iran, 2013.
23. **SM. Entezarmahdi**, A. Kamali Asl, M. Haghighatafshar, S. Sefidbakht. "A Comparison between SPECT/CT and SPECT/MR Hybrid Imaging for Brain Scan: A Phantom Study". *IEEE Nuclear Science Symposium and Medical Imaging Conference (2013 IEEE MIC)* Seoul, South Korea, 2013.
24. M. Kheirabadi, A. Kamali-Asl, **SM. Entezarmahdi**, "Compare the Weighted Bowsher method with Conventional Bowsher one for SPECT Brain Image Reconstruction Using a Priori Anatomical Knowledge". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.

25. N. Chabi, M. Yazdi, **SM. Entezarmahdi**, "SPECT/MRI Brain Images Fusion Based on Complex Wavelet Transform". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
26. S. Mohseni, A. Kamali asl, A. Bitarafan Rajabi, A. Rahmim, **SM. Entezarmahdi**, et. al. "An Assessment of the Sensitivity and Accuracy of the Cedars-Sinai Quantitative Gated blood pool SPECT (QBS): A Simulation Study". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
27. Z. Shahpouri, A. Kamali asl, A. Bitarafan Rajabi, A. Rahmim, **SM. Entezarmahdi**, et. al. "Evaluation of the 4D NCAT Phantom to Simulate Organ Dynamics". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013. **Best Paper Award.**
28. A. Mehravar, A. Bitarafan-Rajabi, H. Malek, **SM. Entezarmahdi**, M khaligh. "Evaluation of HRFB Collimator Influence in improvement of Myocardial Perfusion SPECT: A simulation study". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
29. A. Mehravar, A. Bitarafan-Rajabi, H. Malek, **SM. Entezarmahdi**, M khaligh. "Feasibility Study of Myocardial Perfusion Imaging with Fan-Beam in Comparison of Parallel-Hole Collimator". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
30. S. Sina, S. Mehdizadeh, M. Haghighatafshar, M.S. Shobeiry, H. Moradi, **SM. Entezarmahdi**. "Equivalent dose to staffs in different procedures of Nuclear Medicine". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
31. S. Mehdizadeh, S. Sina, M. Alavi, **SM. Entezarmahdi**, Aida Banani. "Radioactive waste handling and disposal at nuclear medicine departments in Shiraz, Iran". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
32. S. Mehdizadeh, S. Sina, M. Alavi, F. Gheisari, **SM. Entezarmahdi**, et. al. "Investigation of implementation of health physics protocols and radiation protection standards in nuclear medicine sections of Shiraz hospitals". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
33. M. Rezaeian, A. Bitarafan Rajabi, A. Kamali-asl, **SM. Entezarmahdi**, et. al. "Evaluating of NeuroGam software accuracy in semi quantitative analysis of brain SPECT images by using clinical data". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
34. S. Mohseni, A. Kamali-asl, A. Bitarafan Rajabi, **SM. Entezarmahdi**, et. al. "Do different filtration methods affect on calculated volume and ejection fraction value by the GBPS?" *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
35. Z. Shahpouri, A. Bitarafan Rajabi, A. Kamali-asl, J Hossain, A. Rahmim, **SM. Entezarmahdi**, et. al. "Investigation of Accuracy of Dynamic Myocardial Perfusion 201-Thallium SPECT in comparison to Conventional Static Imagin". *Iranian Congress of Nuclear Medicine (ICNM 2013).* Shiraz, Iran, 2013.
36. **SM. Entezarmahdi**, S. Mohseni. "Investigation of Health Care in MR Department of Tehran Hospitals". *9th Congress of SBMT*, Toronto, Canada, June, 2012.
37. Z. Shahpouri, **SM. Entezarmahdi**, SM. AghaMiri. "Investigation of Health Care in mammography Department of Tehran Hospitals". *Asia Oceania Congress of Nuclear Medicine and Biology (AOFNMB).* Tehran, IRAN, 2012.
38. **SM. Entezarmahdi**, H. B. Ebadian, R. Faghihi, P.D. Mitsias, M. Chopp, J. R. Ewing. "Prediction of final extent of brain ischemic infarction from acute MR textural information using generalized linear regression". *European Society for Magnetic Resonance in Medicine and Biology (ESMRMB-2011)*, Leipzig, DE, 2011.
39. **SM. Entezarmahdi**, M. Yazdi. "Stationary Image Resolution Enhancement on the Basis of Contourlet Transform and Wavelet Transform by means of the Artificial Neural Network". *Iranian Conference on Machine Vision and Image Processing (MVIP-2010)*,P:120-108, Isfahan, Iran, 2010.
40. **SM. Entezarmahdi**, H. B. Ebadian, R. Faghihi, P.D. Mitsias, M.H. Asgari, M. Chopp, J. R. Ewing. "MR Morphological Feature Anlysis for Prediction Final Extent of Ischemic Infarction in Patients with Stroke". *The International Brain Mapping and Intraoperative Surgical Planning society (IBMISPS-2010)*, Maryland, U.S., 2010.
41. **SM. Entezarmahdi**, R. Ghayour, "Neutralize Audio Unwanted Positive Feedback with Blind De-convolution Method Based on Bussgang Algorithm and Implement *That". 3rd Broadcast Engineering Conference (BEC-2009),* IRIB University **,**Tehran, Iran, P: 67-74, 2009.

42. **SM. Entezarmahdi**, S. Mahdizadeh, "CT scan Radiographers` Knowledge on Radiation Protection Principles and Their Utilization in Tehran". *LOWRAD-2008*, Lisbon, Portugal, 2008.

Dissertation Advisor:

1. **MD. Thesis:** M. Mortezanejad
   Supervisor: T. Ghaedian
   Advisor: SM. Entezarmahdi
   Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
   Title: Machine learning approach in selecting stress-only protocole for MPI-SPECT.
   Approved: 2023
   Defended: 2024

2. **MD. Thesis:** M. Danaei
   Supervisor: T. Ghaedian
   Advisor: SM. Entezarmahdi
   Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
   Title: Machine learning approach in differentiating ischemic vs non-ischemic myocardial myopathy.
   Approved: 2023
   Defended: 2024

3. **MSc. Thesis:** Z. Zare
   Supervisor: R. Faghihi
   Advisor: SM. Entezarmahdi
   Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
   Title: Using artificial intelligence for osteoporosis disease progress assessment based on bone mineral density measurement by DEXA and clinical risk factors
   Approved: 2022
   Defended: 2024

4. **MSc. Thesis:** F. Abbasi
   Supervisor: R. Faghihi
   Advisor: SM. Entezarmahdi
   Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
   Title: Assessment of In-Vitro Precision of Different DEXA systems
   Approved: 2022
   Defended: 2024

5. **MD. Thesis:** F. Hashemi
   Supervisor: T. Ghaedian
   Advisor: SM. Entezarmahdi
   Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
   Title: Evaluation of machine learning algorithm, to make an estimate of the angiography findings based on diagnostic parameters of myocardial perfusion scan in nuclear medicine
   Approved: 2021
   Defended: 2022

6. **MSc. Thesis:** M. Khalafkhan
   Supervisor: R. Faghihi
   Advisor: SM. Entezarmahdi
   Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
   Title: Evaluation of Shape Features Radiomics Analysis in Myocardial Perfusion Images for Coronary Artery Disease classification
   Approved: 2021
   Defended: 2024

7. **Spec. MD. Thesis:** Z. Abouei
   Supervisor: M. Haghighatafshar
   Advisor: SM. Entezarmahdi
   Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
   Title: Evaluating 3D OSEM reconstruction method to mitigate the effect of acquisition time reduction in myocardial perfusion imaging
   Approved: 2021
   Defended: 2024

8. **Spec. MD. Thesis:** Y. Moafpourian
   Supervisor: M. Haghighatafshar
   Advisor: SM. Entezarmahdi
   Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
   Title: Visual and Quantitative Analysis of Right Ventricular in Myocardial Perfusion Imaging
   Approved: 2021
   Defended: 2022

9. **MSc. Thesis:** F. Yousefzade
   Supervisor: M. Yazdi
   Advisor: SM. Entezarmahdi
   Department of Medical Engineering, Shiraz University, Shiraz, Iran.
   Title: SPECT Images Denoising During Reconstruction Process Using Deep Networks
   Approved: 2020
   Defended: 2022

10. **MSc. Thesis:** M. Karimi
    Supervisor: R. Faghihi
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
    Title: SPECT Myocardial Perfusion Image Denoising by Self-Supervised Deep Network
    Approved: 2020
    Defended: 2021

11. **MSc. Thesis:** N. Shahamiri
    Supervisor: M. Yazdi
    Advisor: SM. Entezarmahdi
    Department of Medical Engineering, Shiraz University, Shiraz, Iran.
    Title: Whole Organs Segmentation in Cardiac SPECT
    Approved: 2020
    Defended: 2021

12. **MSc. Thesis:** M. Shariati
    Supervisor: R. Faghihi
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
    Title: Effect of rediomics features as an additive value to diagnose the Ischemia in cardiac SPECT
    Approved: 2019
    Defended: 2021

13. **MSc. Thesis:** M. Kharestani
    Supervisor: A. Kamali-asl.
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, University of Shahid Beheshti, Tehran, Iran.
    Title: Develop a reconstruction algorithm for variable resolution micro-cone beam CT to reduce the redundancy in short scan view.

Approved: 2015
Defended: 2017

14. **MSc. Thesis:** A. Kargar
    Supervisor: A. Kamali-asl, H. Bagher-ebadian
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, University of Shahid Beheshti, Tehran, Iran.
    Title: Develop a multi-level prediction algorithm based on acute MR images to predict outcome of a patient with stroke
    Approved: 2014
    Defended: 2015

15. **MSc. Thesis:** E. Piroozan
    Supervisor: R. Faghihi, M. Haghighatafshar
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
    Title: Evaluating the blood DNA double strand breaks in thyroid cancer patiants treated with I-131, comparing with blood dose
    Approved: 2014
    Defended: 2015

16. **M.D. Thesis:** R. Noushad
    Supervisor: M. Haghighatafshar
    Advisor: SM. Entezarmahdi
    Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
    Title: The study of the effect of chewing sugar-free gums after recieving I-131, on I-131 absorbed dose and its side effects in the salivary glands of patients with differentiated thyroid cancer.
    Approved: 2013
    Defended: 2015

17. **M.D. Thesis:** M. Ghaedian
    Supervisor: M. Haghighatafshar
    Advisor: SM. Entezarmahdi
    Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
    Title: Studying the effect of using oral pilocarpine on absorbed salivary gland dose and side effects in patients on radioiodine thrapy
    Approved: 2013
    Defended: 2016

18. **M.D. Thesis:** M. Ghaedian
    Supervisor: M. Haghighatafshar
    Advisor: SM. Entezarmahdi
    Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
    Title: Studying the effect of using oral pilocarpine on absorbed salivary gland dose and side effects in patients on radioiodine thrapy
    Approved: 2013
    Defended: 2016

19. **M.D. Thesis:** AR. Nekooe
    Supervisor: M. Haghighatafshar
    Advisor: SM. Entezarmahdi
    Department of Nuclear Medicine, Shiraz University of Medical Science, Shiraz, Iran.
    Title: Assessing the effect of imaging time on the functional and perfusion parameters of gated SPECT MPI.

Approved: 2012
Defended: 2013

20. **MSc. Thesis:** Negar Chabi
    Supervisor: M. Yazdi
    Advisor: SM. Entezarmahdi, M. Haghighatafshar
    Department of Biomedical Engineering, Shiraz University, Shiraz, Iran.
    Title: SPECT/MR Image Fusion by Mean of Transform Domain.
    Approved: 2012
    Defended: 2013

21. **MSc. Thesis:** Mohammadreza Mohseni
    Supervisor: R. Faghihi, M. Haghighatafshar
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
    Title: Evaluation of Dynamic SPECT Accuracy: Using a Physical Heart Phantom.
    Approved: 2012
    Defended: 2014

22. **MSc. Thesis:** Aida Banani
    Supervisor: R. Faghihi
    Advisor: SM. Entezarmahdi, M. Haghighatafshar
    Department of Medical Radiation Engineering, Shiraz University, Shiraz, Iran.
    Title: The effect of different optimization algorithms in Dynamic SPECT image reconstruction
    Approved: 2012
    Defended: 2014

23. **MSc. Thesis:** Mahin Kheirabadi
    Supervisor: A. Kamali-asl
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, University of Shahid Beheshti, Tehran, Iran.
    Title: Evaluation of a New Maximization a Posterior SPECT Reconstruction Algorithem by Means of Magnetic Resonance Image as a Priori Knowledge.
    Approved: 2012
    Defended: 2014
24. **MSc. Thesis:** Mahdi Kahani
    Supervisor: A. Kamali-asl
    Advisor: SM. Entezarmahdi
    Department of Medical Radiation Engineering, University of Shahid Beheshti, Tehran, Iran.
    Title: Assessing the possibility of three component distinction with dual energy X-ray.
    Approved: 2012
    Defended: 2013

25. **MSc. Thesis:** Masoume Rezaeian
    Supervisor: A. Kamali-asl, A. Bitarafan Rajabi
    Advisor: SM. Entezarmahdi, H. Malek
    Department of Medical Radiation Engineering, University of Shahid Beheshti, Tehran, Iran.
    Title: Evaluating of Nurogam software accuracy in semi quantitative analysis of brain SPECT images
    Approved: 2012
    Defended: 2013

26. **MSc. Thesis:** Samane Mohseni
    Supervisor: A. Kamali-asl, A. Bitarafan Rajabi
    Advisor: SM. Entezarmahdi, N. Yaghoobi

Department of Medical Radiation Engineering, University of Shahid Beheshti, Tehran, Iran.
Title: Evaluation of right ventricular function by Gated blood pool SPECT, using simulation study and comparison with clinical data
Approved: 2012
Defended: 2013

Honors:

- Ranked 1st, Entrance exam, PhD candidacy in Medical Radiation Engineering
- Ranked 2nd, graduating class, Master degree in Medical Engineering, Radiation Application in Medicine, Shiraz University.
- Passed 60 (28 extra) units of courses successfully at Master degree in Medical Engineering.
- Ranked 5th, graduating class, Bachelor degree in Electronic Engineering, Shiraz University.
- Ranked first at scientific competition in Fars state. (1998)

Scientific Skills:

- Calibration and Quality Control of Medical Imaging Systems (Nuclear Medicine, DEXA bone mineral densitometry)
- Post Processing and Analysing Package of Medical Images: CT scan, PET scan, SPECT
- Troubleshooting and Maintenance of Medical Images Instruments: SPECT, CT scan, Angiography, Digital X-ray.
- MATLAB, Python
- Statistical Software: SPSS, Excel, MedCalc

Reference:

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