



## ***CURRICULUM VITALE***

18 October 2026

### **Seyedeh Zahra Islami Rad**

Associate Professor of Nuclear Engineering, Medical Radiation  
Faculty of Science, Physics Department, University of Qom, Qom, Iran  
Email: [szislami@qom.ac.ir](mailto:szislami@qom.ac.ir), [szislami@yahoo.com](mailto:szislami@yahoo.com)

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#### **Academic Background**

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| 2011/1-2014/6   | Ph.D. Degree in Medical Radiation, Faculty of Physics, Amirkabir University of Technology (Tehran Polytechnic University)<br>Supervisor: M. Shamsaei Zafarghandi (AUT), M. Ghannadi Maragheh (Atomic Energy Organization of Iran)<br>Thesis: Optimization of effective parameters on performance of an Animal PET system using evaluation of simulation and tomography results   |
| 2007/9-2009/10  | M.Sc. Degree in Medical Radiation, Faculty of Physics, Amirkabir University of Technology (Tehran Polytechnic University), Iran<br>Supervisor: M. Shamsaei Zafarghandi (AUT), M. Ghannadi Maragheh (Atomic Energy Organization of Iran)<br>Thesis: Separation Of Eu from Sm-153 Produced By Irradiating Natural Samarium Targets For Nuclear Medicine Applications and Dosimetry |
| 2003/9 – 2007/6 | B.Sc. Degree in Physics, Faculty of Physics, Tarbiat Moallem University (Hakim Sabzevari), Iran                                                                                                                                                                                                                                                                                  |

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| <b>Positions</b> |                                                                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015-now         | Associate Professor, Faculty of Science, Physics Department, University of Qom, Qom, Iran                                                             |
| 2019-2021        | Manager of Education, Research & Information Technology, University of Qom, Qom, Iran                                                                 |
| 2013-now         | Member of Knowledge Base Company, Parto Tajhiz Besat Co., Designing and constructing nuclear instrumentation and Spectroscopy Equipment, Tehran, Iran |
| 2008-2014        | Researcher and Project Manager, Nuclear Science and Technology Research Institute, Tehran, Iran                                                       |
| 2013-2014        | Researcher of the research department of nuclear gauging and imaging systems, Nuclear Science and Technology Research Institute, Tehran, Iran,        |
| 2012-2013        | Researcher of the research department of radiation application in industry, Nuclear Science and Technology Research Institute, Tehran, Iran, (2013)   |

| <b>Academic Honors</b> |                                                                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 2021                   | The recipient of the Top Director Award, University of Qom                                                                                 |
| 2019                   | The recipient of the Top Investigator Award, University of Qom                                                                             |
| 2018                   | The recipient of a Young Investigator Award at the Ruyesh Festival                                                                         |
| 2018                   | Top technology at the 3rd Science & Technology Festival                                                                                    |
| 2011                   | Foundation of National Genius, Iran, The recipient of Research Grant for Young Investigator                                                |
| 2010                   | The recipient of an Investigator Award 12 <sup>th</sup> Khwarizmi Youth Festival in Application Research, Tehran, December 15, 2010        |
| 2009-2014              | Named as a Top student among Nuclear Engineering M.S. & Ph.D. Students, Amirkabir University of Technology (Tehran Polytechnic University) |

| <b>National Patent</b> |                                                                                                                                |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 2018                   | Gamma level meter using scintillation detectors as a long length bar, 2018, No: 018011                                         |
| 2012                   | Confirmation Certification from Mobarakeh Steel Company in order to “design, construction, and set up the densitometer system” |
| 2010                   | Online gamma continuous level meter, the state organization for registration of deeds and properties, 2010, No: 65596          |
| 2010                   | Online industrial gamma thickness meter, 2010, No: 65599                                                                       |

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| 2010       | Industrial gamma computed tomography-first generation, 2010, No: 65602                          |
| 2009- 2013 | Design and Construction: Animal Positron Emission Tomography (IRI-micro PET, gamma densitometer |

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## Publications

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1. **Seyedeh Zahra Islami Rad**, Reza Gholipour Peyvandi, “Mass-Balance-Driven Single-Point Calibration of a Gamma-Ray Densitometer for Real-Time Conversion Monitoring in Polypropylene Reactors” Results in Engineering, 10.1016/j.rineng.2026.113374, 2026.
2. **Seyedeh Zahra Islami Rad**, Reza Gholipour Peyvandi, “A novel calibration method for online determination of nitrogen- to-carbon ratio in urea synthesis” Scientific Reports, <https://doi.org/10.1038/s41598-026-72724-3>, 2026.
3. **Seyedeh Zahra Islami rad**, Reza Gholipour Peyvandi, Behnam Sadeghi, “Industrial Case Study: Rapid Diagnosis of Flow Maldistribution in an HF Alkylation Column Using Radiometric Gamma Scanning” Russian Journal of Nondestructive Testing, Vol. 62, No. 4, pp. 498–504, 2026.
4. Mahdijeh Mahabadi, Hassan Ranjbar, **Seyedeh Zahra Islami-Rad**, Ehsan Boustani, “Feasibility of Simultaneous <sup>152</sup>Eu and <sup>154</sup>Eu radioisotope production from natural europium for gamma spectrometry calibration” Nuclear Analysis, 5, 100236, 2026.
5. Mahdijeh Mahabadi, Hassan Ranjbar, **Seyedeh Zahra Islami-Rad**, Reza Bagheri, “Optimized production of dual-isotope sources for gamma detector calibration” Scientific Reports, Vo.15. 41415, 2025.
6. **S. Z. Islami rad**, R. Gholipour Peyvandi, “Determination of Nitrogen-to-Carbon Ratio in Urea Synthesis using Gamma Radiation Technique and Comparison with Oscillation Technique” Chemical Engineering Journal Advances, Vol. 24,100850, 2025.
7. **S. Z. Islami rad**, **S. Eisvand Nazari**, “Design and Optimization of the Radioactive Source Arrangement for the Level Gauging of Petrochemical Urea Reactor” Journal of Research on Many-Body Systems, Accepted, 2025.
8. **S. Z. Islami rad**, R. Gholipour Peyvandi, “The gamma level gauging at high temperature and pressure using a new calibration technique in the petrochemical industry” Russian Journal of Nondestructive Testing, Vol. 61, No. 6, 2025.
9. H. Movahedi Aliababd, S. B. Islami rad, **S. Z. Islami rad**, “Effect of V-, Cr- and Mn-doped rutile TiO<sub>2</sub> on Dielectric Properties in a Nanocapacitor: A Theoretical Approach” AIP Advances, Vol. 15, No. 4, 2025.
10. **S. Z. Islami rad**, R. Gholipour Peyvandi, “A simple and inexpensive design of

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radioactive source for accurate level and height gauging in petrochemical industries” Measurement: Sensors, Vol. 38, 101817, 2025.

11. Mahdiyeh Mahabadi, Hassan Ranjbar, **Seyedeh Zahra Islami-Rad**, Ehsan Boustani, “Computational evaluation of natural europium irradiation for HPGe detector calibration using MATLAB software” Journal of Radiation Safety and Measurement, Vol.14, pp. 1-9, 2025.
12. **S. Z. Islami rad**, R. Gholipour Peyvandi, “Comparison of Backscattered and Transmitted Gamma Rays Spectra for Prediction of Volume Fraction of Three-Phase Flows Using Machine Learning Model” Journal of Nondestructive Evaluation, Vol. 43, pp. 107-115, 2024.
13. **S. Z. Islami rad**, R. Gholipour Peyvandi, “A practical and precise technique for determination of Beta emitter source in thickness gauging of thin film” Russian journal of Nondestructive testing, Vol. 60, No. 6, pp. 658–665, 2024.
14. **S. Z. Islami rad**, Z. Safi, “Evaluation of the performance of Symbia T SPECT camera using SIMIND Monte Carlo simulation” Paramedical Sciences and Military Health, Vol. 18, No. 3, 2024.
15. **S. Z. Islami rad**, R. Gholipour Peyvandi, S. Ghanavati, “Evaluation of the response function of NaI (TI) and plastic scintillator with temperature fluctuations” Instruments and Experimental Techniques, Vol. 67, No. 2, pp. 253-259, 2024.
16. **S. Z. Islami rad**, Z. Khalifeh, “Simulation of a Simple Water Cherenkov Detector Using GEANT4 Monte Carlo Code for Muons Detection”. JMRPh, Vol. 6, No. 2, pp. 46-55, 2023.
17. **S. Z. Islami rad**, R. Mansuri, G. H. Rezaei, “Determination of natural radioactivity using gamma spectrometry in used soils as construction materials in Qom province, Iran” Journal of Radiation Research and Applied Sciences, 16, 100753, 2023.
18. **S. Z. Islami rad**, R. Gholipour Peyvandi, H. Gharghani, “Evaluation of Nuclear Data Analysis Techniques for Volume Fraction Prediction in the Flow Meter” Radiochimica acta, Vol. 111, No. 1, pp. 73-79. 2023.
19. Z. Khalifeh, **S. Z. Islami rad**, “Evaluation of Effective Parameters on a Simple Muon Detector Efficiency Using GEANT4 Monte Carlo Model” Physics of Particles and Nuclei Letters, Vol. 19, No. 3, pp. 235–240, 2022.
20. R. Gholipour Peyvandi, **S. Z. Islami rad**, “Precise Prediction of Interface Distribution of Materials in Multiphase Separation Facilities Using a Low-cost and Simple Technique: ANN” Iranian Journal of Chemistry and Chemical Engineering (IJCCE), 2021.
21. **S. Z. Islami rad** “Influence of the Mechanical Error on Performance of Beta Thickness

Gauging and the Prediction of System Operation Time” Russian journal of nondestructive testing, Vol. 56, No. 4, pp. 369–374, 2020.

22. **S. Z. Islami rad**, R. Gholipour Peyvandi, “Precise Volume Fraction Measurement for Three-Phase Flow Meter Using  $^{137}\text{Cs}$  gamma Source and one Detector” Radiochimica Acta, Vol. 108, 2021.
23. **S. Z. Islami rad**, R. Gholipour Peyvandi, S. Sadrzadeh “Determination of the volume fraction in (water-gas-oil-air) multiphase flows using a simple and Low-cost technique: Artificial Neural Networks” Physics of Fluids, Vol. 31, 2019.
24. **S. Z. Islami rad**, R. Gholipour Peyvandi, “A Simple and Inexpensive Design for Volume Fraction Prediction in Three-phase Flow Meter: Single Source-Single Detector” Flow Measurement and Instrumentation, Vol. 69, 101587, 2019.
25. **S. Z. Islami rad**, R. Gholipour Peyvandi, M.K. Sadeghi “A GATE Monte Carlo Model for a Newly Developed Small Animal PET Scanner: The IRI-microPET” Polish Journal of Medical Physics and Engineering, Vol. 25, No. 2, 2019.
26. **S. Z. Islami rad**, R. Gholipour Peyvandi, “Precise Volume Fraction Percentage Measurement in Three-Phase Flows Using Gamma-Ray Technique and Artificial Neural Network” Nashrieh Shimi va Mohandesi Shimi Iran (NSMSI), Vol. 37, No. 89, pp. 173-189, 2018.
27. **S. Z. Islami rad**, R. Gholipour Peyvandi, “A novel and fast technique for evaluation of plastic rod scintillators as position sensitive gamma-ray detectors using artificial neural networks” Radiation Physics and Chemistry, Vol. 157, pp. 1-5, 2019.
28. R. Gholipour Peyvandi, **S. Z. Islami rad**, “Precise prediction of radiation interaction position in plastic rod scintillators using a fast and simple technique: Artificial neural network system” Nuclear Engineering and Technology, Vol. 50, pp. 1154-1159, 2018.
29. **S. Z. Islami rad**, R. Gholipour Peyvandi, “Determination of uranium and thorium concentrations in thorium ore sample using artificial neural network and comparison with net area peak method” Radiochimica acta, Vo. 106, pp. 669–674, 2018.
30. **S. Z. Islami rad**, R. Gholipour Peyvandi, “An optimal experimental-Monte Carlo combined model for analyzing of the cement raw by prompt gamma neutron activation” Russian journal of nondestructive testing, Vol. 54, pp. 448–454, 2018.
31. R. Gholipour Peyvandi, **S. Z. Islami rad**, “Application of artificial neural networks for prediction of volume fraction using spectra of gamma rays backscattered by three-phase flows” The European Physical Journal Plus, Vol.132, 511, 2017.
32. **S. Z. Islami rad**, R. Gholipour Peyvandi “Animal Positron Emission Tomography System of IRI-MicroPET: Evaluation of Performance and Image Quality” Iranian Journal

of Biomedical Engineering, Vol.10, pp. 49-57, 2016.

33. R. Gholipour Peyvandi, A. Taheri, A. Olfateh, **S.Z. Islami rad**, “A New automated and precise calibration method for gamma level gauges with rod detector arrangement” Applied Radiation and Isotopes, Vol. 112, pp. 1-4, 2016.
34. **S.Z. Islami rad** “Optimization of energy window for gamma densitometer based backscatter method in oil industry”, The Russian Journal of Nondestructive Testing, Vol. 52, No. 4, pp. 245-249, 2016.
35. R. Gholipour Peyvandi, A. Taheri, **S.Z. Islami rad**, “Production of  $^{153}\text{Sm}$  using natural samarium target in Tehran research reactor for radiotherapy purposes” Journal of radioanalytical & nuclear chemistry, Vol. 310, pp. 53-58, 2016.
36. R. Gholipour Peyvandi, F. Hassanali, S. Rahmanzadeh, **S.Z. Islami rad**, M, Ghannadi “Measuring U concentration in solution product of UF<sub>6</sub> hydrolysis using a gamma ray densitometer.” Kerntechnik, Vol. 80, pp. 481-484, 2015.
37. R. Gholipour Peyvandi, **S.Z. Islami rad**, A. Taheri, S. Rahmanzadeh Tootkaleh, M. Askari Lehdarboni, “Study of  $^{60}\text{Co}$  as gamma source in backscatter gamma densitometers” Kerntechnik, 80, 275-279, 2015.
38. **S.Z. Islami rad**, R. Gholipour Peyvandi, A. A. Ghafari, M. Askari Lehdarboni, “Design Performance Evaluation of a High Resolution IRI-microPET Preclinical Scanner” Nuclear Instrument & Method A, Vol. 81, pp. 6-13, 2015.
39. **S.Z. Islami rad**, R. Gholipour Peyvandi, E. Tavakoli, “PET Block Detector Calibration Using Subtractive Clustering Algorithm and Comparison with Hough Transform Algorithm” Instruments and Experimental Techniques, Vol. 59, pp.75-81, 2015.
40. H. Faripour, R. Gholipour Peyvandi, **S.Z. Islami rad**, “Evaluation of Thallium Quantity Through Grown NaI(Tl) Crystal by Czochralski Method” Crystallography Reports (Kristallografiya), Vol. 59, pp.1076-1078, 2014.
41. R. Gholipour Peyvandi, S. Rahmanzadeh Tootkaleh, **S.Z. Islami rad** “Influence of Temperature on the Performance of Gamma Densitometer” Instruments and Experimental Techniques, Vol. 57, pp. 667-670, 2014.
42. **S. Z. Islami Rad**, M. Shamsaei Zafarghandi, R. Gholipour Peyvandi, M.Ghannadi Maragheh “Study of the Slow-Fast Preamplifier Input Parameter’s Effects on Output Image for LYSO Scintillator With PS-PMT Based Animal PET” Instruments and Experimental Techniques, Vol. 57, pp. 488-493, 2014.
43. **S. Z. Islami Rad**, M. Shamsaei Zafarghandi, R. Gholipour Peyvandi, M.Ghannadi Maragheh “Evaluating Image Reconstruction Methods in Improving Effective Parameters On Image Quality in IRI-MicroPET” Instruments and Experimental Techniques, Vol. 57,

pp. 218-221, 2014.

44. **S. Z. Islami Rad**, R. Gholipour Peyvandi, R.Heshmati “Motion detection in CT images with a novel fast technique” Instruments and Experimental Techniques, Vol. 56, pp. 276-282, 2014.
  45. R. Gholipour Peyvandi, **S. Z. Islami Rad**, R. Heshmati, S. Zaferanlouie, M. Ghanadi Maragheh “Influence of gamma emitter source intensity against energy on the image RMS contrast” The Egyptian Journal of Radiology and Nuclear Medicine, Vol. 42, pp. 425-431, 2011.
  46. R. Gholipour Peyvandi, **S. Z. Islami Rad**, R. Heshmati, M. Ghanadi Maragheh, Influence of Projection Steps on Image Quality Using Single Source-Single Detector Gamma Ray Tomograph” Instruments and Experimental Techniques, Vol. 54, pp. 542-547, 2011.
  47. **S. Z. Islami rad**, M. Shamsaei, R. Gholipour Peyvandi, M. Ghannadi Maragheh “Reactor Production and Purification of  $^{153}\text{Sm}$  Radioisotope via  $^{\text{nat}}\text{Sm}$  Target Irradiation” Radiochemistry, Vol. 53, pp. 542–544, 2011.
  48. R. Gholipour Peyvandi, **S. Z. Islami Rad**, M. Ghanadi Maragheh “Study of beam width on reconstructed image contrast using the first generation gamma ray CT” Instruments and Experimental Techniques, Vol. 54, pp. 149-152, 2011.
  49. R. Gholipour Peyvandi, **S. Z. Islami Rad**, M. Ghanadi Maragheh “Image reconstruction using industrial gamma ray CT with different scatter windows” Instruments and Experimental Techniques, Vol. 54, pp. 153-155, 2011.
  50. R. Gholipour Peyvandi, **S. Z. Islami Rad**, M. Ghanadi Maragheh, A. Anari, A.R. Jalilian “3D industrial single-source/single-detector gamma CT design and development” Recent Patents on Medical Imaging, Vol. 1, pp.1-4, 2011.
  51. Reza. Gholipour Peyvandi, **Seyedeh Zahra. Islami rad**, Mani. Rezaei rad, Mohammad. Ghannadi Maragheh “Fast gammametry for evaluation shielding concrete specimens”, Archives of Applied Science Research, Vol. 2, pp. 200-204, 2010.
  52. R. Gholipour Peyvandi, **S. Z. Islami Rad**, M. Ghanadi Maragheh, “Influence of gamma energy in the image contrast for material with different density” International Journal of Pure and Applied Physics (IJPAP), Vol. 6, 2010.
  53. **S. Z. Islami rad**, M. Shamsaei, R. Gholipour Peyvandi, M. Ghannadi Maragheh, A. Bahrami Samani, S. Shirvan. “Separation of Eu Radioisotopes Impurity from Irradiated Natural Sm Target for purification of  $^{153}\text{Sm}$ ” Journal of Nuclear Science and Technology, Vol. 54, pp. 19-24, 2011.
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### Conference Proceedings

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2023: 20<sup>th</sup> Fluid Dynamics Conference, Semnan University, Iran

*Artificial intelligence for prediction of volume fraction in three-phase flows*

**S. Z. Islami rad**

2022: National Conference on Technological Advances in Applied Physics, Graduate University of Advanced Technology, Kerman, Iran

*Determination of volume fraction in air-gasoil-water flows using gamma spectrometry and ANN*

**S. Z. Islami rad**

2019: 26th national and 4rd international Iranian Conference on Biomedical Engineering, Iran University of Science and Technology, Iranian Biomedical Engineering Society, Tehran, Iran

*Evaluation of the resolution of the IRI-microPET animal PET scanner using GATE simulation*

**S. Z. Islami rad**

2017: The 21<sup>st</sup> Annual and 6<sup>th</sup> International Nuclear Medicine and Molecular Imaging Congress, Mashhad, Iran

*Design and construction of an IRI-microPET preclinical scanner*

**S. Z. Islami Rad**, R. Gholipour Peyvandi

2016: Third National Conference on Fluid Flow Measurement in Oil, Gas, Refining, Petrochemical and Water Industries, Iran University of Science and Technology, Tehran, Iran  
*Metering equipment usable in the oil, gas, and petrochemical industries based on gamma ray characteristics*

R. Gholipour Peyvandi, **S. Z. Islami Rad**

2016: 22nd Iranian Nuclear Conference, Yazd, Iran

*Investigating the effect of temperature on the performance of gamma densitometers*

R. Gholipour Peyvandi, M. Askari, **S. Z. Islami Rad**

2016: 22nd Iranian Nuclear Conference, Yazd, Iran

*Design and implementation of sinogram filling pattern in industrial CT scanning*

**S. Z. Islami Rad**, R. Gholipour Peyvandi, M. Askari, A. Olfateh

2016: 22nd Iranian Nuclear Conference, Yazd, Iran

*Design and construction of plastic scintillation detector for Beta thickness gauge*

M. Askari, **S. Z. Islami Rad**, A. Taheri, R. Gholipour Peyvandi

2015: 21st Iranian nuclear conference, University of Isfahan, Isfahan

*Performance and comparison of the least squares regression algorithm for gamma spectrum analysis in analyzing materials.*

R. Gholipour Peyvandi, S. Rahmanzadeh Tootkaleh, **S.Z. Islami Rad**, M. Askari Lehdarboni

2015: 21st Iranian nuclear conference, University of Isfahan, Isfahan  
*Calibration of PET detector using Hough transform and cluster algorithm*  
**S.Z. Islami Rad**, M. Askari Lehdarboni, R. Gholipour Peyvandi

2015: 21st Iranian nuclear conference, University of Isfahan, Isfahan  
*Design and fabrication of rod plastic scintillator for use in level gauges 21st Iranian nuclear conference*  
R. Gholipour Peyvandi, S. Rahamanzadeh Tootkaleh, M. Askari Lehdarboni, **S.Z. Islami Rad**, A. Azimbeigi Rad

2014: 11th Iranian conference of medical physics, Tehran, Iran  
*Evaluation of resolution in IRI- animal micro PET system*  
**S.Z. Islami Rad**, R. Gholipour Peyvandi, M. Askari Lehdarboni

2014: Iranian physics conference, Tehran, Iran  
*Study the effect of incident beam angle in the gamma-ray densitometer*  
M. Askari Lehdarboni, R. Gholipour Peyvandi, **S.Z. Islami Rad**, S. Rahmanzadeh Tootkaleh

2014: 20th Iranian nuclear conference, University of Guilan, Iran  
*Design and fabrication of a mold level gauge in metal production*  
R. Gholipour Peyvandi, M. Askari Lehdarboni, **S.Z. Islami Rad**

2014: 20th Iranian nuclear conference, University of Guilan, Iran  
*Study the effect of Earth's magnetic field on a typical shieldless PMT used in industrial gauges*  
R. Gholipour Peyvandi, M. Askari Lehdarboni, **S.Z. Islami Rad**

2012: 19th Iranian conference on biomedical engineering, Tehran, Iran  
*Imaging and comparing reconstruction algorithms of IRI-micro PET*  
**S.Z. Islami Rad**, R. Gholipour Peyvandi, F. Kalantari, A.A. Ghafari, M. Shamsaei Zafarghandi

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### Teaching Experience

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Graduated course: Nuclear Physics, Health Physics, Nuclear Physics Lab, Simulation, Advanced detection of Nuclear Radiation, Detection of Nuclear Radiation Lab, Shielding  
Department of Physics, University of Qom, 2013-now

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Undergraduate course: General Physics I and II, Mathematical Methods in Physics I and II  
Physics III, Nuclear Physics, Health Physics, Nuclear Physics Lab, Detection of Nuclear Radiation, Radioisotopes, and Applications,

Department of Physics, University of Qom, 2013-now

Undergraduate course: Teacher Assistant in General Physics I and II  
Department of Physics, Amirkabir University of Technology,  
Tehran, Iran, 2007-2015.

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### **Research Interests**

Radiometric Instrumentation, Detector Development, Radiation Detection, Radiation Applications in Industry, Spectroscopic Systems, Medical Physics, SPECT & PET, Radiotracer Applications in Industry, Simulation Using MCNPX, Application of Machine Learning in Radiometric Instrumentation.

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### **Book**

S.Z. Islami rad, M.M. Kafaeei, L. Shahshahani, M. Hasani, "Nuclear Imaging of PET (Positron Emission Tomography) Physics, Engineering, and Description of a Model Made in Iran", Publisher: Academic Center for Education, Culture and Research Amirkabir Industrial Branch, 2017, Tehran , Iran, Persian

Book chapter: S.Z. Islami rad, "Nuclear Technology, Nuclear applications in Medicine and Industry", Publisher: Nuclear Science and Technology Research Institute, 2011, Tehran, Iran. Persian

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### **Thesis Directed**

2025: Irradiation of natural Eu in Tehran research reactor in order to produce gamma spectroscopy calibration source, 2025.

2024: Design and optimization of the radioactive source arrangement for the level gauging of RAZI Petrochemical Urea Reactor

2023: Simulation and analysis of experimental data of Masjed Soleyman nuclear level gauges

2022: Performance evaluation of SPECT system (Symbia T) in nuclear medicine center of Esfahan

2021: Prediction of volume fraction in homogeneous two-phase flows using gamma ray spectroscopy and Artificial Neural Network (ANN)

2021: Determination of Natural Radionuclides Concentrations (Gamma Emission) in Water Resources of Qom Province Using Gamma Spectroscopy

2020: Determination of natural radionuclide concentrations (gamma emission) using gamma spectroscopy in soil samples of Qom province

2019: Determination of the volume fraction percentage in three-phase flows of water, oil, and gas using gamma ray interaction in material

2019: Simulation of Cherenkov Radiation Detection for Muon Flux Using the Monte Carlo Simulation Tool GEANT

2017: Reconstruction of positron emission tomography images using two methods and their comparison

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### **Additional Information**

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#### **Parental Responsibilities**

- Successfully balancing the demands of scientific research with the joy of fulfilling parental responsibilities.
- Demonstrating effective time management and organizational skills to maintain productivity in both personal and professional realms.