

## CV (Curriculum Vitae)

Name: Amir

Family: Khorasani Dastjerdi

Date of birth: 1990/09/01

Title: B. Sc., M. Sc., Ph. D.

**Appointment: Assistant Professor** 

Institute: Isfahan University of medical Sciences

School: School of Advanced Technologies in Medicine

**Department: Department of Bioimaging** 

**Research Center:** 

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|   | ISFAHAN UNIVERSITY OF MEDICAL SCIENCES, ISFAHAN, IRAN  |
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|   | Degree: Ph.D. in medical physics   |
|   | Graduation Month & Year: September 2022  |
|   | Thesis topic: Application of diffusion magnetic resonance imaging  |
|   | and T2 and T2* mapping to determine the Glioma grading using   |
| Education   | neural networks  |
| Euucation   | Advisor: Dr. Mohamad Bagher Tavakoli   |
| (Most recent Date ,Degree/<br>Course, Department /<br>University, Dissertation title) | <ul> <li>TARBIAT MODARES UNIVERSITY, TEHRAN, IRAN.</li> <li>Degree: M. Sc. In medical physics</li> <li>Graduation Month &amp; Year: June 2016</li> <li>Thesis topic: Analysis of tissue conductivity at high frequency and low electric field intensity in irreversible electroporation and its impact on the distribution of the electric field using finite element simulation</li> <li>Advisor: Dr. S.M.P Firoozabadi</li> <li>YAZD UNIVERSITY OF MEDICAL SCIENCES, YAZD, IRAN.</li> <li>Degree: B. Sc. In radiology</li> </ul> |

|  | Graduation Month & Year: July 2013   |
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| Relevant Work<br>Experience                              | ISFAHAN UNIVERSITY OF MEDICAL SCIENCES<br>Teacher assistant, professor assistant, and researcher, 2018-2023. |
| (Date, Title, University /<br>Organization, Description) | reacher assistant, professor assistant, and rescarcher, 2010 2020.   |
| Professional Memberships<br>& Qualification              |  |
| (Date, Title, association)                               |  |

| Extra Curricular Activities/<br>Interest<br>(personal url)                      |  |
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| Research<br>Experience (Date, Title, University<br>/ Organization, Description) | <ol> <li>Khorasani A, Dadashi serej N, Jalilian M, Shayganfar A,<br/>Tavakoli MB. Performance comparison of different medical<br/>image fusion algorithms for clinical glioma grade<br/>classification with advanced magnetic resonance imaging<br/>(MRI). Scientific Reports. 2023 Oct 17;13(1):17646.</li> </ol> |
|   | <ol> <li>Khorasani A, Tavakoli MB. Multiparametric study for glioma<br/>grading with FLAIR, ADC map, eADC map, T1 map, and<br/>SWI images. Magnetic Resonance Imaging. 2023 Feb<br/>1;96:93-101.</li> </ol>  |
|   | <ol> <li>Tavakoli MB, Khorasani A, Jalilian M. Improvement grading<br/>brain glioma using T2 relaxation times and susceptibility-<br/>weighted images in MRI. Informatics in Medicine Unlocked.<br/>2023 Jan 1;37:101201.</li> </ol>   |
|   | <ol> <li>Khorasani A, Shahbazi-Gahrouei D, Safari A. Recent metal<br/>nanotheranostics for cancer diagnosis and therapy: a review.<br/>Diagnostics. 2023 Feb 22;13(5):833.</li> </ol>  |
|   | <ol> <li>Esmailzadeh A, Abedi I, Khorasani A. Investigating variation<br/>of dose gradient index by different grid sizes in intensity-<br/>modulated radiation therapy of optic nerve sheath<br/>meningioma. Applied Radiation and Isotopes. 2023 Mar<br/>1;193:110657.</li> </ol>                                 |
|   | <ol> <li>Khorasani A. Automated irreversible electroporated region<br/>prediction using deep neural network, a preliminary study for<br/>treatment planning. Electromagnetic Biology and Medicine.<br/>2022 Oct 2;41(4):379-88.</li> </ol>   |
|   | <ol> <li>Khorasani A, Kafieh R, Saboori M, Tavakoli MB. Glioma<br/>segmentation with DWI weighted images, conventional<br/>anatomical images, and post-contrast enhancement magnetic<br/>resonance imaging images by U-Net. Physical and<br/>Engineering Sciences in Medicine. 2022 Sep;45(3):925-34.</li> </ol>   |
|   | <ol> <li>Khorasani A, Tavakoli MB, Saboori M. Using of Laplacian<br/>Re-decomposition image fusion algorithm for glioma grading<br/>with SWI, ADC, and FLAIR images. Polish Journal of<br/>Medical Physics and Engineering. 2021 Dec;27(4):261-9.</li> </ol>   |

| <ol> <li>Khorasani A. Finite element analysis of cell killing probability<br/>in electroporation with single bipolar electrode. Frontiers in<br/>Biomedical Technologies. 2021 Mar 30;8(1):20-5.</li> </ol>  |
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| <ol> <li>Khorasani A. Clinical usage of tissue electrical conductivity<br/>during the electroporation: An essential and useful factor.<br/>Frontiers in Biomedical Technologies. 2021 Mar 30;8(1):61-<br/>9.</li> </ol>  |
| 11. Khorasani A, Tavakoli MB, Saboori M, Jalilian M.<br>Preliminary study of multiple b-value diffusion-weighted<br>images and T1 post enhancement magnetic resonance imaging<br>images fusion with Laplacian Re-decomposition (LRD)<br>medical fusion algorithm for glioma grading. European<br>Journal of Radiology Open. 2021 Jan 1;8:100378. |
| 12. Khorasani A, Chegini A, Mirzaei A. New Insight into<br>Laboratory Tests and Imaging Modalities for Fast and<br>Accurate Diagnosis of COVID-19: Alternative Suggestions<br>for Routine RT-PCR and CT—A Literature Review. Canadian<br>Respiratory Journal. 2020 Nov 28;2020.  |
| <ol> <li>Khorasani A. A numerical study on the effect of conductivity<br/>change in cell kill distribution in irreversible electroporation.<br/>Polish Journal of Medical Physics and Engineering. 2020 Jun<br/>25;26(2):69-76.</li> </ol>   |
| <ol> <li>Khorasani A. The effect of conductivity changes on<br/>temperature rise during irreversible electroporation. Frontiers<br/>in Biomedical Technologies. 2020;7(3):178-85.</li> </ol>   |
| 15. Khorasani A, Firoozabadi SM, Shankayi Z. Conductivity<br>change with needle electrode during high frequency<br>irreversible electroporation: a finite element study. Polish<br>Journal of Medical Physics and Engineering. 2019<br>Dec;25(4):237-42.   |
| 16. Shahbazi-Gahrouei D, Khaniabadi PM, Shahbazi-Gahrouei S,<br>Khorasani A, Mahmoudi F. A literature review on<br>multimodality molecular imaging nanoprobes for cancer<br>detection. Polish Journal of Medical Physics and Engineering.<br>2019 Jun;25(2):57-68.   |
| <ol> <li>Khorasani A, Firoozabadi SM, Shankayi Z. Conductivity<br/>Changes of Liver Tissue during Irreversible Electroporation<br/>and Calculation of the Electric Field Distribution. Modares<br/>Journal of Biotechnology. 2018 Sep 10;9(2):227-32.</li> </ol>   |

|  | <ol> <li>Khorasani A, Firoozabadi SM, Shankayi Z. Finite element<br/>analysis of tissue conductivity during high-frequency and low-<br/>voltage irreversible electroporation. Iranian Journal of<br/>Medical Physics. 2017 Sep 1;14(3):135-40.</li> <li>Khorasani A. Thermal damage map prediction during<br/>irreversible electroporation with U-Net. Electromagnetic<br/>Biology and Medicine. 2023 Dec 31:1-1.</li> <li>Aminolroayaei F, Shahbazi-Gahrouei S, Khorasani A,<br/>Shahbazi-Gahrouei D. A Review of Imaging Methods and<br/>Recent Nanoparticles for Breast Cancer Diagnosis.<br/>Information. 2023 Dec 22;15(1):10.</li> </ol>        |
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| Grants & Awards  |   |
| (Date, Name, Significant info,<br>Amount)                            |   |
| Research Interests<br>(Research area)                                | Medical imaging         Machine learning         Deep-learning         Radiomics feature analysis         Tumor segmentation         Tumor classification         Medical image fusion         Image processing         Magnetic resonance imaging protocols         Finite element analysis         Irreversible electroporation         Treatment planning for irreversible electroporation   |
| <b>Presentations &amp; Poster Sessions</b><br>(Bibliographic format) | <ol> <li>Khorasani A. Automated Irreversible electroporation<br/>prediction in different electrode type with deep learning<br/>approach. 4th World Congress on Electroporation and Pulsed<br/>Electric Fields in Biology, Medicine and Food &amp;<br/>Environmental Technologies. 2022.</li> <li>Mesbahi, A., Khorasani, A., Mahmoudi, F., Aminolroayaei,<br/>F., Rasouli, N. The Role of radiobiological parameters on<br/>Tumor control probability (TCP) in prostate cancer. Iranian<br/>Journal of Medical Physics, 2018; 15(Special Issue-12th.<br/>Iranian Congress of Medical Physics): 253-253. doi:<br/>10.22038/ijmp.2018.12889.</li> </ol> |
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| Patents (Date, Item, Number)        |   |
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| Teaching Experience                 |   |
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| Teaching Interests:                 |   |
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