Mahdi Ghorbani

Ph D, Biomedical Engineering and Medical Physics Department, Faculty of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

E, mail: mhdghorbani@gmail.com

Phone: +98 21 23872566

Cell phone: +98 912 2112754

Academic education

1999, B. Sc., Applied Physics, Atomic Physics, Yazd University, Yazd, Iran

2003, M. Sc., Medical Physics, Radiotherapy, Ahwaz Jondishapour University of Medical Sciences, Ahwaz, Iran

2004, Ph. D., Medical Physics, Radiotherapy (Brachytherapy), Mashhad University of Medical Sciences, Mashhad, Iran

Books

2007, The Basics of Ionizing Radiation Dosimetry and Detection, Translation (In Farsi), Publisher: Sokhangostar, Publication Place: Mashhad , Iran, Ghorbani Mahdi

2015, The physics and technology of thin film layers. Edition (In Farsi), Publisher: Khate sefide danesh, Publication place: Tehran, Iran, Hosseinabadi S, Alaee MS, Ghorbani M.

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Research Projects

2003 , Calculation of Percent Depth Doses at Different Points Under a Step, filter Using Clarkson Method.

Role: Scientific Cooperation Research type: Basic

Ahvaz Jondishapur University of Medical Sciences

Co, workers: Tahmasebi Birgani M. J.; Ghorbani M.; Ansari M.

2008 , Evaluation of Dosimetric Parameters of the GZP6 Afterloading Intracavitary Brachytherapy Unit by Monte Carlo Simulation and Measurement by TLD and Treatment Planning.

Role: Scientific Cooperation Research type: Applied

Mashhad University of Medical Sciences

Co, workers: Bahreyni Toossi M. T., Ghorbani M., Mowlavi A. A.; Makhdoumi I.

2009 , Monte Carlo Simulation of Stepping Source Channel of GZP6 Afterloading Intracavitary Brachytherapy Unit.

Role: Scientific Cooperation Research type: Applied

Mashhad University of Medical Sciences

Co, workers: Bahreyni Toossi M. T., Abdollahi M.; Ghorbani M.

2010 , Monte Carlo Simulation of the Siemens Primus Medical Linac for Use in Radiotherapy.

Role: Scientific Cooperation Research type: Applied

Islamic Azad University (Ahvaz Branch)

Co, workers: Pakravan D.; Ghorbani M.; Momennezhad M.

2011, Monte Carlo Modeling of Electron Mode in Siemens Primus Medical Linear Accelerator

Role: Scientific Cooperation Research type: Applied

Mashhad University of Medical Sciences

Co, workers: Bahreyni Toossi M. T., Ghorbani M., Akbari F, Sobhkhiz Sabet L., Mehrpouyan M.

2011, A Monte Carlo study on tissue dose enhancement in high dose rate brachytherapy: a comparison between gadolinium and gold nanoparticles.

Role: Scientific Cooperation Research type: Applied

Mashhad University of Medical Sciences

Co, workers: Bahreyni Toossi M. T., Ghorbani M., Mehrpouyan M., Akbari F, Sobhkhiz Sabet L.

2011, A Monte Carlo study on electron and neutron contamination from hip prosthesis in radiotherapy with a 15 MV Siemens Primus linac

Role: Scientific Cooperation Research type: Applied

Mashhad University of Medical Sciences

Co, workers: Bahreyni Toossi M. T., Behmadi M., Ghorbani M.,

Teaching Experiences

2005, 2009 , Mashhad University of Medical Sciences, Temporary Teacher of “Medical Physics for the Operation Room Students”, “Radiation Protection”, “Atomic and Nuclear Physics”, “Anesthesia Physics” and “Basics Physics”, Mashhad, Iran

2005, Azad Islamic University of Mashhad, Temporary Teacher of “Medical Physics for the Operation Room Students” and “Anesthesia Physics” , Mashhad, Iran

2004, Iran University of Medical sciences, Temporary Teacher of “Physics

Lab for Students of Medicine” , Tehran, Iran

2003, Azad Islamic University of Shushtar, Temporary Teacher of “General Physics”

and “Mathematics” , Shushtar, Iran

2001, 2003 , Ahwaz Jondishapour University of Medical Sciences, Teaching

Assistant of “Physics Lab” and “Medical Physics Lab” , Ahwaz, Iran

Committee Membership

2005 , Member of Iranian Association of Medical Physics.
Place: Tehran , Iran
Start Date: 2001

2005 , Member of Iranian Association of Radiology
Place: Tehran , Iran
Start Date: 2004 Finish Date: To be continued

2010 , Member of The Users of Iranian National Accelerator Project

Place: Tehran , Iran

Start Date: 2010

Research Interests:

Brachytherapy, Monte Carlo Simulation, external beam radiotherapy, dose enhancement by nanoparticles, neutron contamination estimation, boron neutron capture therapy.