

SINA AMIRRAJAB

A self-motivated graduate student with high abilities for interdisciplinary teamwork.
Excellent academic, communication, and creative problem-solving skills.

Room 2.111, GEM-Z, Medical Image Analysis, Department of Biomedical Engineering, Eindhoven University of Technology,
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Areas of Interests

- **MRI Physics:** MR simulation, Sequence development
- **Cardiac MR:** Cine and perfusion simulation, Quantification

Education

2018- present

Ph.D. in the Medical Image Analysis group of Biomedical Engineering department at the Eindhoven University of Technology, Eindhoven, Netherlands.

Supervisor: Prof. Dr. Ir. Marcel Breeuwer

Topic: Realistic Cardiovascular Magnetic Resonance Simulation – ESR of [OpenGTN](#) project funded by the European Union in the Marie Curie ITN-EID program (project 764465)

2014- 2017

M.Sc. in Medical Imaging group of the Biomedical Engineering (Bioelectric) department at the Amirkabir University of Technology, Tehran, Iran.

Supervisor: Dr. Abbas Nasiraei Moghaddam

Thesis: Metal artifact estimation and correction in presence of foreign metallic objects in MRI. GPA: 17.46/20 or 3.8/4

2009- 2013

B.Sc. at Electrical Engineering (Electronics), University of Guilan, Rasht, Iran.

Supervisor: Dr. Seyed Mohsen Hosseini-Golgoon

Thesis: Design and production of Solid State Relay (SSR)

Research & Professional Experience

2017- 2018

Undergraduate Research Advisor

Amirkabir University of Technology

- *Design and Production of a Smart Contrast Agent Injection Pump used with MR Angiography*

2016- 2018

MR Researcher

Amiran Negar Teb Company, Tehran, Iran

- *Researcher in MR physics*

- *Performing quality control and acceptance testing for newly purchased MRI scanners for institutes and hospitals*

2014- 2017

Research Assistant

Advanced Medical Imaging Research Lab (**AMIRLab**), Tehran, Iran

- *Simulating magnetic field perturbation in presence of metal with ANSYS Maxwell and MRI procedure in presence of static magnetic field inhomogeneity.*
- *Pulse sequence simulation with JEMRIS and MRILab.*
- *Specific phantom design to perform MRI and modify the parameter to reach less metal related artifact.*

2013-2015

Research and Development Assistant

Persian Electronics Company, Tehran, Iran

- *Industrial project advisor and planning designer*
- *Electrical PCB designer for advanced control systems*
- *Product management and quality control*

Teaching Experience

2016-2017

Undergraduate Teaching Assistant and Lecturer Assistant

Course: The Principles of Radiology and Radiography Systems

Amirkabir University of Technology, Department of Biomedical Engineering

- *Held 11 weekly classes for reviewing the course contents*
- *Teaching the MRI section of Course*
- *Graded final Projects and seminars*

2015-2016

Graduate Teaching Assistant

Course: Medical Imaging Systems (Fall 2015 & Fall 2016)

Amirkabir University of Technology, Department of Biomedical Engineering

- *Prepared and graded homework solutions*
- *Held 4 classes for solving assignments*
- *Graded final Projects*

Publications

- **S. Amirrajab, V. Ghodrati, A. Nasiraei Moghaddam. Main Factors in Estimation of Non-excitable area around ferromagnetic objects in MRI.** *European Society of Magnetic Resonance in Medicine and Biology 2017 (ESMRMB), 10.1007/s10334-017-0632-1.*
- **S. Amirrajab, V. Ghodrati, A. Nasiraei Moghaddam. Correction of Ferromagnetic Object Artifacts Using Simulated Off-Resonance Map.** *Submitted to the ISMRM 2018.*

Hobbies

Travelling, camping, fishing, web surfing, watching movies, learning new stuff