curriculum vitae

PERSONAL INFORMATION

Surname		**Khajehpiri**
Name		**Boshra**
E-mail		**Boshrakh1373@gmail.com**
Skype		**Boshra Kh**

Nationality		Iranian

Date of birth		[04, 01, 1995]

Education and training		Biomedical Engineering (Bioelectric)

Master of science		
• Date (from – to)		September 2018- still studying
• Name and type of organisation providing education and training		K. N. Toosi University of Technology
• Principal subjects		Neonatal brain MRI segmentation, Deep learning, Level-set
• Supervisor		Dr. Hamid Abrishami moghaddam
Bachelor of science:		
• Date (from – to)		September 2013 - December 2017
• Name and type of organisation providing education and training		Islamic Azad university, Tehran Science and Research Branch
• Duration of the program of study		4 years
• Principal subjects/occupational skills covered		Compressed Sensing in MRI, Signal Processing Working on reconstruction algorithms used to accelerate MRI scanning time based on CS theory
• Title of qualification awarded		Bachelor Degree in Biomedical Engineering
• Final mark obtained (GPA)		17.33 / 20
High school:		
• Date (from – to)		2009 – 2013
• Name and type of organisation providing education and training		Razavieh High school
• Duration of the program of study		4 years
• Title of qualification awarded		High school diploma in the field of Mathematics & Physics
• Final mark obtained (GPA)		18.17 / 20

Bachelor of science's graduation thesis

Title		A study on the reconstruction of Magnetic Resonance Images (MRI) of brain based on Compressed Sensing (CS) theory, focused on different reconstruction algorithms
Language		Persian
Supervisor		Dr. Pooria Zamani
Thesis Summary		Magnetic Resonance Imaging (MRI) is one of the advanced medical imaging methods. Using this technique, one can see the image of the body's internal tissues and thereby detect the problems and diseases of the organs of the body without the use of X-rays and ionizing radiation. But this method has a disadvantage, being time-consuming. Finding a method to accelerate the imaging process can be helpful in many ways, including increased resolution and reduced artifacts, patient comfort, and more equipment life-span. So far, much effort has been made (whether in terms of hardware or software development, such as fast MRI) but still did not lead to the desirable result until the recent entrance of the theory of Compressed Sensing (CS) in Imaging field which resulted in a significant reduction in imaging time by sampling at a much lower rate. According to this theory, given the existence of redundancy of information in MRI sampling domain (k-space), under conditions, with a sampling rate less than the Nyquist, one can also obtain good quality images. The purpose of the thesis is to investigate various methods and algorithms used in the reconstruction of MRI brain images in light of the theory of CS utilizing MATLAB simulation software. (L1-Reconstruction, SL0, k-t FOCUSS, Iterative Thresholding)

certifications

Certifications of language knowledge		IELTS 7.5 band score

Work experience, stages, studies abroad

• Date (from – to)		July 2017- January 2018 (7 months)
• Name and address of firm		Day General Hospital
• Type of business or sector		Internship Course
• Main activities and responsibilities		• Getting familiar with general medical devices and operating room equipment, their application and the proper way to use them • Troubleshooting and repairing medical devices with minor problems including Electroshock, syringe pump, ECG, EEG, patient vital signs monitoring, ventilator, flat motor, flat control, foot pedal, etc. (under the supervision of engineers in the sector) • Visiting different parts of the hospital and updating and recording all information about the devices in the hospital, including property number, birth certificate number, year of manufacture, country and producer company, etc. • Recording all the updated information on the hospital's recently installed network system • Participating in intern's lectures focused on specific devices in detail

Personal skills and competences

Mother tongue		**Persian**

Other language(s)

		English
• reading		excellent
• writing		good
• speaking		good
		Arabic
• reading		good
• writing		elementary
• speaking		elementary

Technical skills and competences		Computer Software familiar with: MATLAB Microsoft Visual Basic Turbo C++ Microsoft Office Proteous (design and simulate electric circuits) MicroC Pro PIC (program PIC family microcontrollers) Multimedia Builder

Additional information		• Attended 'Khobregan' talent institute from October 2008 to June 2009 (studying advanced mathematics, chemistry and physics) • Attended one year of a Robo Cup course at 'Aseman' institute in 2010 • Got accepted at the first stage of Tehran Laboratory and Workshop contest in 2010 (field of computer) • Designed an electrical circuit with PIC microcontrollers (a smart house temperature controller) which can sense the air temperature and turn on-off the air conditioner according to its given input range