

## **International Workshop of Cardiac Magnetic Resonance Imaging**

### **Overview:**

The international workshop of cardiac magnetic resonance (CMR) Imaging is a comprehensive educational event designed for healthcare professionals interested in advancing their knowledge and skills in the field of cardiac MRI. This workshop aims to provide participants with a deeper understanding of the principles, techniques, and clinical applications of cardiac MRI.

### **Who Should Attend:**

The workshop is designed for radiographers/medical imaging technologies, medical physicists, and other healthcare professionals involved in cardiac imaging. Participants can range from beginners seeking an introduction to cardiac MRI to experienced practitioners looking to enhance their skills and keep up with the latest advancements in the field.

### **About This Course**

This course is under development by the Radiation Sciences Department in collaboration with the Radiology Department of the Tehran Heart Center at Tehran University of Medical Sciences. It is designed to cater to a wide range of healthcare professionals, including radiographers/medical imaging technologies, medical physicists, and other medical practitioners interested in gaining a deeper understanding of the physics and techniques associated with CMR.

No prior experience in CMR is necessary to enroll in this course. However, participants are expected to have a foundational knowledge of pulse sequence physics.

## Workshop Highlights:

1. **Lectures by Experts:** Renowned experts in the field of cardiac MRI will deliver informative lectures, covering various aspects of cardiac imaging, including CMR physics, acquisition techniques, image interpretation, and clinical applications.
2. **Hands-on Training:** Participants will have the opportunity to engage in hands-on sessions using state-of-the-art cardiac MRI equipment. These sessions will enhance practical skills and provide a valuable learning experience.
3. **Case Studies and Discussions:** Interactive case studies will be presented, allowing participants to analyze real-life scenarios and discuss diagnostic challenges and treatment strategies with experts and fellow attendees.
4. **Networking Opportunities:** The workshop will provide an ideal platform for networking with professionals in the field of cardiac imaging, fostering collaborations and sharing knowledge.

## Local Organizing Committee

Shapoor Shirani, MD, Tehran University of Medical Sciences

Sadegh Dehghani, PhD, Tehran University of Medical Sciences

Ali Sadri, PhD, Tehran University of Medical Sciences

## What we must know about CMR imaging

Outline:	Time	Speaker
<b>Day 1, April 27</b>		
Introduction	8-8.10	Dr. Shapoor Shirani
Cardiac Anatomy		
Introduction to Cardiac Chambers	8.10-9	Dr. Zahra Abroodi

Valves and Coronary Vessels and main thoracic and abdominal vessels	9.15-10.15	Dr. Zahra Abroodi
Question	10.15-10.30	Dr. Zahra Abroodi
Basic Cardiac MRI Physics		
Principles of Cardiac MRI	10.45-11.45	Dr. Sadegh Dehghani
The Physics of Black blood, Cine, and STIR	12-13	Javid Abdolmohammadi
Question	13-13.30	Javid Abdolmohammadi
<b>Day 2, April 28</b>		
Advanced MRI Physics		
Advanced MRI Physics Concepts (perfusion, stress perfusion)	8-9	Javid Abdolmohammadi
Advanced Cardiac MRI Sequences (Phase Contrast Velocity Mapping - i.e. Flow Measurement; & Late Gadolinium Enhancement Imaging; i.e. PSIR)	9.15-10.15	Dr. Ali Nahardani
Question	10.15-10.30	Dr. Ali Nahardani
Introduction to Cardiac MRI Techniques		
Basics of Cardiac MRI Imaging and Patient Preparation	10.45-11.45	Kianosh Kasani
Imaging Planes, Cine and STIR Imaging	12-13	Kianosh Kasani
Question	13-13.30	Kianosh Kasani
<b>Day 3, April 29</b>		
Intermediate Cardiac MRI Techniques		
Tissue Characterization in Cardiac MRI, T1 and T2 mapping	8-9	Dr Sadegh Dehghani
Perfusion Imaging, Stressed Perfusion Imaging, and Phase-Contrast Imaging	9.15-10.15	Shabnam Shokraei
Question	10.15-10.30	Shabnam Shokraei
Advanced Cardiac MRI Applications		

Late Gadolinium Enhancement, Strain imaging	10.45-11.45	Kianosh Kasani
MRA with and without Contrast	12-13	Hosein Mahmoudzadeh
Question	13-13.30	Hosein Mahmoudzadeh
<b>Day 4, April 30</b>		
Clinical aspect of CMR		
Myocardium diseases and related CMR protocols for diagnosis	8-9	Dr. Najme Sadat Mousavi
What is important in echo report?	9.15-10.15	Dr. Najme Sadat Mousavi
Question	10.15-10.45	Dr. Najme Sadat Mousavi
Practical work	11-17	Shabnam Shokraei
<b>Day 5, May 1</b>		
Practical work	9-15	Hosein Mahmoudzadeh
<b>Day 6, May 2</b>		
Practical work	9-15	Dr Sadegh Dehghani