



مستشفى الملك فيصل التخصصي ومركز الأبحاث  
King Faisal Specialist Hospital & Research Centre  
Gen. Org. مؤسسة عامة



## ICRM2022

# 7<sup>th</sup> INTERNATIONAL CONFERENCE ON RADIATION MEDICINE

Virtual Event, Hosted by King Faisal Specialist Hospital & Research Centre, Riyadh, Saudi Arabia

12 - 16 RAJAB 1443 | 13 - 17 FEBRUARY 2022

CLINICAL APPLICATIONS AND INNOVATIVE APPROACHES

## MPW02: General Radiography Annual Physics QC

**Date & Time:** Thursday 17 Feb 2022, 13:15:30

**Venue:** Online

**Coordinator:** Omar Noor & Shadia Alanazi

**Workshop Faculty:** Mahmoud Ahmed

**Target Audience:** Medical physicists

**Prerequisites:**

- 1- Laptop or Pc.
- 2- General radiography QC Simulation Software

**Workshop Description:**

The course is a lecture simulation on the quality control of QC concepts in general radiography. It will be both didactic and inductive method of teaching that will cover all quality control tests required for testing performance characteristics of general radiography.

**Objectives:**

To become familiar with the specific requirements related to QC concepts in general radiography

The participants should be able to:

- 1- Develop and maintain an effective quality control program
- 2- Conduct the following quality control tests for general radiography equipment

<b>1- Radiation Safety Tools And Equipment</b>
<b>2- Tube Potential</b>
<b>3 -Output Linearity</b>
<b>4- Timer Accuracy &amp; Repeatability</b>

<b>5- Half Value Thickness</b>	
<b>6- Automatic Exposure Control Test</b>	
	<b>6-1 Operation of Guard Timer &amp; Chamber Selection Matching</b>
	<b>6-2 AEC Reproducibility</b>
	<b>6-3 AEC Repeatability</b>
	<b>6-4 Chamber Reproducibility</b>
	<b>6-5 Response of the AEC With Phantom Thickness</b>
<b>7- Flat Panel Detector &amp; Image Quality Tests</b>	
	<b>7-1 Dark Noise</b>
	<b>7-2 Image Retention or Image Ghosting</b>
	<b>7-3 Detector Dose Index Reproducibility &amp; Repeatability</b>
	<b>7-4 Detector Uniformity, Uncorrected Defective Detector Elements &amp; Signal To Noise Ratio</b>
	<b>7-5 Blurring, Line Defects And Stitching Artifacts</b>
<b>8- Low Contrast Detectability , High Contrast Spatial Resolution &amp; Dynamic Range</b>	