

Medical Physics in the Middle East: current status and future directions

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The Profile of Medical Physics Societies and Associations in Middle East Countries 2017



Country	Association / Society	Founded Year	Approximate number of Medical Physicists		
			Total	Male	Female
Bahrain	Bahrain Society of Medical Physics and Bio-Engineering (BSMPBE)	2008	40	21	19
Iraq	Iraqi Medical Physics Society (IMPS)	2011	44	14	30
Jordan	Jordanian Association of Physicists in Medicine (JAPM)	2006	80	30	50
Kuwait	Kuwait Association of Medical Physics (KAMP)	2016	24	16	8
Lebanon	Lebanese Association of Medical Physics (LAMP)	2005	20	12	8
Oman	Oman Medical Physics Society (OMPS)	2011	51	24	27
Palestine	Palestine Medical Physics Society (PMPS)	2006	4	2	2
Qatar	Qatar Medical Physics Society (QaMPS)	2009	25	17	8
Saudi Arabia	Saudi Medical Physics Society (SMPS)	2006	376	282	94
Syria	Syrian Medical Physics Association (SyMPA)	2009	40	29	11
UAE	Emirates Medical Physics Society (EMPS)	2005	58	7	51
Yemen	Yemen Medical Physics Association (YMPA)	2013	8	7	1
Total			770	461	309

Approximate Numbers of Therapy Equipment* 2017



Country	Cobalt 60 Unit	Linear Accelerator	High Dose Rate Remote Loading	Low Dose Rate Remote Loading
Bahrain	-	-	-	-
Iraq	3	15	2	-
Jordan	1	10	2	1
Kuwait	2	3	1	1
Lebanon	2	17	3	1
Oman	-	2	1	-
Palestine	-	2	1	-
Qatar	-	2	1	-
Saudi Arabia	1	21	7	1
Syria	5	3	1	1
UAE	-	-	-	-
Yemen	-	-	-	-
Total	14	75	19	5

*Azam Niroomand-Rad et al. "Status of Medical Physics in Education and training in Middle East..." Medical Physics International journal (2017)

Approximate Numbers of Diagnostic Equipment 2017



Country	CT	Fluoroscopy	MRI	Ultrasound
Bahrain	-	-	-	-
Iraq	>70	2	70	250-300
Jordan	100	60	55	600
Kuwait	36	26	14	23
Lebanon	265	250	~100	>1000
Oman	3	3	2	2 or 3
Palestine	1	1	-	1
Qatar	13	54	15	>500
Saudi Arabia	150	>500	50	>500
Syria	150	>500	50	>1000
UAE	7	11	5	250-300
Yemen	1	-	-	-
Total	~800	~1400	~360	~4500

Approximate Numbers of Equipment Used in Nuclear Medicine 2017



Country	PET	SPECT	PET-CT	SPECT-CT	Gamma Camera
Bahrain	-	-	-	-	-
Iraq	-		8	-	2
Jordan	1	1	8	-	15
Kuwait	1		15	12	6
Lebanon	-	20	1	1	5
Oman	-	1	-	-	4
Palestine	-	-	1	-	-
Qatar	1	-	7	1	
Saudi Arabia	2	8	2	4	20
Syria	2	8	8		
UAE	-	2	5	1	4
Yemen	-	-	-	-	2
Total	14	40	42	19	58

Universities with MSc Program in Medical Physics 2017



Country	University, Institution, City	Description of Research	Annual No. MSc. Admitted Male / Female
Iraq	Univ. of Nahrain Medical college	2 years (MSc) 2016	2 / 2
	Univ. of Sulaimania Med. College	2 years (Diploma) 2015	2 / 0
Jordan	Jordan University of Jordan	2 years (MSc) 2007	
Lebanon	Lebanese University	2 years (MSc) 2014	6 / 6
	Beirut Arab University	2 years (MSc) 2017	2 / 2
Saudi Arabia	King Faisal Specialist Hosp	3 years (MSc) 2017	2 / 1
	King Fahad Specialist Hosp.	3 years (MSc) 2017	1 / 0
Syria	Damascus Univ.	2 years (MSc) 2014	5 / 8

Universities and Institutions with Medical Physics Research Programs 2017



Country	University, Institution, City	Description of Research
Bahrain	-	-
Iraq	Mustansiriya Med. College, Baghdad	MSc. radiotherapy and radiation protection
	Sulaimaniya Med. Univ., Sulaimaniya	Diploma: Radiotherapy Training
Jordan	Univ. of Jordan, Amman	Nuclear Medicine
	Yarmouk Univ., Irbid	Radiation Protection, Dosimetry, Medical Imaging
	Hashemite Univ., Alzarqa	Radiotherapy, Jell Dosimetry
	Univ. of Science and Technology, Irbid	Monte Carlo Simulation, Radiation Protection
Kuwait	King Hussain Cancer Foundation, Amman	Support Different Types of Research
	Cancer Control Center, Shuwaikh	Dosimetry, PET and Radionuclide Therapies
Lebanon	Sheikh Jabir Molecular Imaging Center	PET
	-	-
Oman	National Oncology Center, Royal Hospital, Muscat	Radiotherapy and Diagnostic (NM) Dosimetry, Radiation Protection
Palestine	-	-

Universities and Institutions with Medical Physics Research Programs 2017



Country	University, Institution, City	Description of Research
Qatar	Hamad Medical Corporation, Doha	Dosimetry, Radiotherapy, Radiation Protection, Diagnostic, Nuclear Medicine, and QC.
Saudi Arabia	King Faisal Specialist Hosp. & Research Centre, Riyadh	Dosimetry, Radiotherapy, Radiation Protection, Diagnostic and Nuclear Medicine, Electronics
	King Fahd Univ. of Petroleum, Minerals, Dhahran	Radiation Physics, Dosimetry, Radiotherapy,
	King Fahd Medical City, Riyadh	Dosimetry, Radiotherapy, Radiation Protection, Diagnostic, Nuclear Medicine
	Prince Salman Military Hosp., Medical City, Riyadh	Radiation Dosimetry, Radiotherapy, Radiation protection, Diagnostic, Nuclear Medicine
	King Abdulaziz Medical City, Riyadh	Radiation Dosimetry, Radiotherapy, Radiation Protection, Diagnostic Radiology, Nuclear Medicine
	King Saud Univ. Hosp., Riyadh	Radiotherapy, Dosimetry and Diagnostic Radiology
	King Faisal Specialist Hosp. & Research Centre, Jeddah	Radiotherapy, Dosimetry and Diagnostic Radiology
Syria	AlBaironee Hospital, Damascus	Dosimetry, Radiotherapy, Radiation Protection, Diagnostic, Nuclear Medicine, and QC.
	Damascus Univ., Damascus	Dosimetry, Radiotherapy, Radiation Protection, Diagnostic, Nuclear Medicine, and QC.
UAE	Dubai Health Authority (DHA), Dubai	Patient Radiation Safety
Yemen	-	-

Clinical Trainings for Medical Physicists 2017



Country	University, Institution, City	Duration
Jordan	King Hussain Cancer Foundation	3-6 months
Lebanon	Rafik Hariri University Hospital	4-6 months
	American University Hospital	4-6 months
	Bsalim Hospital	4-6 months
	Reyak Hospital	4-6 months
Oman	Local Training for Junior Medical Physicists	2 years
Saudi Arabia	King Faisal Specialist Hospital & Research Centre	3 years
	King Fahad Specialist Hospital, Dammam	3 years
Syria	AlBaironee Hospital	4 YEARS
UAE	On Job Training within Hospitals	-

Certification of Medical Physicists



Clinical Practice:

High demand on MP

Most MP with BSc

Most MP un-certified

National Bodies
for Certification
of MP:

NONE

Current Status

Academic programs:

3 BSc

5 MSc

National
Regulations
for Qualifications:

NONE

Certification of Medical Physicists



- There are no national or regional certification board
- Last year the International Medical Physics Certification Board (www.IMPCB.org) started exams in the region:

Country	IMPCB Exam	Dates
Saudi Arabia	Examination Part I and II	February 9 and 10, 2019
Jordan	Examination Part I and II	April 24 and 25, 2019
Qatar	Examination Part I, II and III	October 22, 23, and 24, 2019
Saudi Arabia	Examination Part I, II and III	February 8 and 9, 2020



IDMP Annual awards



2015 Mr Ibrahim Duhaini



2016 Dr Abdalla AlHaj



2017 Dr Huda AlNaemi



2018 Dr Jamila Al Suwaidi



2019 Dr Hanan AlDousari



2020

MEFOMP news 2019

- Dr. Hannan Al Dousari manage to create new “Women's Committee for Medical Physics” in MEFOMP.
- Dr. Jameela Al Suwaidi was appointed member of ICRP Committee 3 “Radiological Protection in Medicine”
- Dr. Zeina Alkattar manage to create new “Professional Relation Committee” in MEFOMP.



MEFOMP news 2019



- Mr. Refaat AlMazrou, M.Sc., FIPEM, Chair of Education and Training Committee at MEFOMP, issued a scientific book on "Quality Control Procedures of the Gamma Camera, SPECT and SPECT/CT"
- MEFOMP President, Dr. Huda Al Naemi won the prestigious 2019 Healthcare Gold Medal Award from Institute of Physics and Engi-neering in Medicine (IPEM).



MEFOMP activities 2019



- Workshop on Radiation Protection for Physicians, 16 February 2019, Doha, Qatar
- 2019 Radiation in Medicine and Workshops, February 2019, Riyadh, KSA.
- The Kuwait Society of Nuclear Medicine Annual Conference 24 to 26 March 2019, Kuwait.



MEFOMP activities 2019



- International Conference on Bio and Medical Physics was held on 20th to 21st June 2019, Dubai, UAE
- IAEA National Training Course on Occupational Radiation Protection in Kuwait , November 2019
- Training Course on Radiation Protection for Radiographers and Technologists 25 February 2019, Doha, Qatar
- IAEA Regional Train-the-Trainers Course for Radiation Protection Officers, 25 to 29 March 2019 Beirut, Lebanon.



MEFOMP activist 2019



- AAPM/ISEP Workshop on Advances in Radiotherapy and Diagnostic Physics on 21 to 24 April 2019, Amman, Jordan
- Workshop on Optimization of Radiation in Interventional Radiology & Cardiology April 2019, Doha, Qatar.



MEFOMP activist 2019



- 1st MEFOMP workshop on “Medical Physics in Diagnostic Radiology” on 28 to 29 September 2019, Muscat, Oman.



FUTURE

- To prepare a strategic plan and coordinate activities for improvement of academic training and educational environment
- Clinical training for Medical Physicists
- Establish Certification Board for MP in all MEFOMP with the support of the International Medical Physics Certification Board (www.IMPCB.org)

Accreditation of Quality Control Service Providers

A screenshot of the MEFOMP website's accreditation page. The browser address bar shows 'https://www.mefomp.com/CERTIFICATE-OF-ACCREDITATION-001_a6988.html'. The page features the MEFOMP logo and navigation menu. The main content area is titled 'CERTIFICATE OF ACCREDITATION 001' and certifies the 'Radiation Safety Section' at 'Hamad Medical Corporation' in Doha-Qatar. A sidebar on the right contains 'CATEGORIES' (News, Events, Reports) and 'LINKS' (AAPM, EFOMP, IOMP).

Home > Accreditation

CERTIFICATE OF ACCREDITATION 001

This is to certify that

Radiation Safety Section
Under OHS, Hamad Medical Corporation
P.O. Box 3050
Doha-Qatar

has implemented and maintained the Quality Control Service Provider requirements according to: MEFOMP - Accreditation Program for quality control service provider of X-ray medical equipment - General Requirements

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Middle East Federation of Organizations of Medical Physics

Accreditation Program for Quality Control Service Providers of X-ray Medical Equipment - General Requirements and Guidance



references

- Azam Niroomand-Rad et al. “Status of Medical Physics in Education and training in Middle East...” Medical Physics International journal (2017)
- MEFOMP website : www.mefomp.org

