

Report on the International Medical Physics Week (IMPW) Celebration by AMPI

International Organization for Medical Physics (IOMP) launched the International Medical Physics Week (IMPW) during 11 – 15 May 2020 with the objective to motivate organization of activities in this week that result in the promotion of medical physics globally. Due to the current situation created by COVID-19 pandemic, it was not possible to have physical meetings or seminars and hence virtual meeting was the option left to celebrate this occasion. Association of Medical Physicists of India (AMPI) organized a Webinar to celebrate IMPW on 15th May, 2020.



ASSOCIATION OF MEDICAL PHYSICISTS OF INDIA

Invites you to celebrate

International Medical Physics Week

11 - 15 May 2020

WEBINAR

Date: 15th May 2020

Time: 3 to 4 pm

Title of the talk: **Image artifacts and their evaluation method in diagnostic nuclear medicine**

Speaker: **Dr. S. C. Kheruka**

Moderator: **Dr. Ajay Srivastava**

Inauguration of the webinar by **Dr. S. D. Sharma, President, AMPI**

Registration link: [https://us02web.zoom.us/meeting/register/tZMpd06hrDorH9DqSfX0m7lhK9HEnuKrA0Ut](https://us02web.zoom.us/join/https://us02web.zoom.us/meeting/register/tZMpd06hrDorH9DqSfX0m7lhK9HEnuKrA0Ut)

Dr. Shobha Jayaprakash

Secretary, AMPI & Webinar Host

The AMPI-IMPW flyer was prepared with all the details of the Webinar to be held on 15th May 2020 along with the registration details and link for the participants to register. The flyer was uploaded on AMPI website (www.ampi.org.in) and also sent to the AMPI members through various media.

Dr. (Mrs.) Shobha Jayaprakash, Secretary, AMPI welcomed the participants and narrated the importance of celebrating IMPW. The webinar was started with the inaugural address by Dr. Sunil Dutt Sharma, President, AMPI. He emphasized that the purpose of celebrating IMPW is to highlight the importance of medical physics in patient care. Contemporary medical diagnosis and treatment specifically using ionizing radiation is technology oriented where medical physicists play very important role. Whether it is the case of X-ray based transmission imaging or isotope based emission imaging and treatment using variety of radiation beams and sources, it is impossible to imagine the effective and safe use of these technologies without the involvement of medical physicists.



Dr. Shobha J.



Dr. S. D. Sharma



Dr. A. K. Srivastava



Dr. S. C. Kheruka

Dr. Sharma reminded that it is our duty to keep abreast with recent developments and promote actively its use in healthcare as medical physics is a dynamic field. Celebrating IMPW is the beginning of this process and we should promote this discipline everyday. He also brought to the notice of the participants that artificial intelligence is an evolving approach and we have the challenge of using this

approach in our daily routine. As a concluding remark he opined that medical physicists are contributing immensely in healthcare and they deserve a better recognition.

The title of the webinar was “Image Artifacts and their evaluation method in diagnostic nuclear medicine”. The speaker Dr. S.C. Kheruka, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, India is a well known nuclear medicine expert who has long experience of working in this field. During the talk Dr. Kheruka highlighted the following:

As system complexity increases, it becomes more important to recognize the various types of artifacts that can occur in Gamma camera and their potential impact on clinical studies. A thorough evaluation of the system at installation and a comprehensive quality control program will detect most problems that can occur. The most sensitive indicator of Gamma camera performance is uniformity. Because this measurement is performed on a daily basis, it is the principal tool in evaluating the status of the system. Most artifacts related to the integrity of the detector head, computer system, and hard copy device can be detected on the uniformity image. For tomographic imaging, a quantitative determination of uniformity is needed to ensure that the system will not introduce ring artifacts into the patient data. An extensive series of parameters have been developed over the years for acceptance testing and performance characterization of Gamma camera, SPECT and PET scanners, and other nuclear medicine instrumentation. A baseline set of quality control results should be recorded, after a thorough evaluation of the system at installation and acceptance testing, to serve as a reference for the life of the equipment. These can be used as a basis for developing detailed protocols for individual systems and models of equipment. As advances in medicine occur at a rapid rate, the review and update of guidelines should take place at regular intervals and should be considered to be part of the quality assurance process.

Moderator of the webinar was Dr. Ajay Srivastava, Medical Physicist cum Radiological Safety Officer, University College of Medical Sciences and Guru Teg Bahadur Hospital, Delhi & Vice Chairman, College of Medical Physics of India (CMPI). After the elaborate and informative talk by Dr. Kheruka there was a very interactive session which was moderated very effectively by Dr. Srivastava.

A total of 126 participants registered for the webinar which included international participants as well. The webinar was hosted by Secretary, AMPI who thanked all the participants for their active participation. Finally, Dr. Pratik Kumar, Vice President, AMPI proposed the vote of thanks for all including participants, speaker, moderator and the organizer.
