Virtual Conference on Radiation Applications in Medicine

7-8 November 2021

Christian Medical College and Hospital Ludhiana, India

The departments of Radiation Oncology and Radio Diagnosis, Christian Medical College and Hospital Ludhiana, Punjab organised a two-day international virtual scientific programme, Conference on Radiation Applications in Medicine from 7th to 8th November 2021 on the occasion of International Day of Medical Physics (IDMP) and International Day of Radiology (IDoR).

Contribution of Medical Physics in healthcare is multi-dimensional and it has improved the healthcare tremendously. The recent advancements in Medical Physics may it be in Radio diagnosis, Radiotherapy, Nuclear Medicine and various fields specially using ionizing radiation has made monumental sprints. To bring over it and recognize the contribution of Medical Physics to healthcare, International Organization for Medical Physics (IOMP) has started to celebrate 7th November, the birthday of Madam Marie Curie as International Day of Medical Physics (IDMP) since 2013. The main purpose of IDMP celebrations include motivating the organization of activities that result in the promotion of the subject of medical physics globally, increasing the visibility of the profession and outreach to fellow professionals and general public. Since the 7th day of November 2013, the very first International Day of Medical Physics, where various academic and teaching institutes showcased the contributions of medical physicists to healthcare globally and continues to be celebrated annually thereafter. Discovery of X-rays on 8 November 1895 by German physicist Prof Wilhelm Roentgen has revolutionised the medical diagnosis and treatment. The anniversary of this discovery is celebrated around the world as
IDoR in recognition of the remarkable contributions made by radiological imaging and radiological treatment to health care, and the role of radiation professionals in providing quality care to patients.

Christian Medical College Ludhiana has been always in the forefront to avail the best diagnostic and treatment facilities to treat patients since 1894. The teaching and training program for radiotherapy technologists in CMC Ludhiana dates to early 1960’s and the MD Radiation Oncology program at the institute is completing 30 years. The departments of Radiation Oncology and Radio Diagnosis collectively decided to commemorate the Pearl Jubilee celebrations on the occasion of IDMP and IDoR 2021.

The theme of this year’s IDMP celebrations is ‘Communicating the Role of Medical Physicists to the Public’. The rapidly evolving applications of physics in medicine and the ongoing pandemic demands new set of skills as well as outlooks to meet the challenges efficiently and successfully. The Departments of Radiation Oncology and Radio Diagnosis, Christian Medical College and Hospital, Ludhiana, India celebrated IDMP with a two-day international scientific programme Virtual Conference on Radiation Applications in Medicine. The rapidly evolving applications of physics in medicine and the current pandemic demands new set of skills as well as outlooks to meet the challenges efficiently and successfully. This virtual conference offered a forum for sharing invaluable experiences for improving the practice of Medical Physics and an opportunity to listen to a number of great people holding and practicing high ideas in life as well as profession. The scientific programme included talks and teaching sessions by eminent speakers in the field of medical physics. On 7th November 2021, the first day, the conference started with inaugural ceremony. The programme started with a prayer and invocation song. A congenial welcome to the patrons of the conference Dr William Bhatti, Director, CMC& H Ludhiana, Dr Jeyaraj Pandian, Principal CMC Ludhiana, all speakers and participants were proposed by the Organizing Chairperson Dr Jaineet Sachdeva. An introduction to the purpose and objectives of the virtual conference, IDMP and IDoR celebrations were described by the Organizing Secretary Dr Mary
The patrons addressed the virtual gathering and Dr Jeyaraj Pandian, Principal CMCL released the e-Souvenir and Abstract Book of the conference. Greetings and best wishes from the Director and Principal of CMC Ludhiana, office bearers of various endorsing professional associations, Organising committee members and abstracts of all the invited talks, poster and oral presentations, endorsements and advertisements from knowledge and trade partners comprised the e-Souvenir. Dr Subhash Singla, Organising Chairman delivered the IDoR message.

The Pearl Jubilee directory of CMC alumnus of Radiation Oncologists and Radiation Therapists were introduced and released by Dr M K Mahajan (Ex Prof and Head) and Mrs Manjinder Dhanoa (Sr Tutor and Technologist) respectively. A vote of thanks was extended by the scientific committee chairperson Dr Pamela Jeyaraj. Dr Preeti Negi and Dr Abraham P Abraham mastered the inaugural ceremony. Following the inauguration, a prerecorded video message on the IDMP celebration from the President IOMP, Prof Madan Rehani and a live message from the President AFOMP, Prof Arun Chougule were conveyed.

The first invited talk of the conference was on ‘Medical Physicists are indispensible’ by Dr SD Sharma, President AMPI. Talk by Dr Dayanand Sharma on Hadron Therapy, Dr DN Sharma on Radiation Ablation for Cardiac Arrythmias, Dr Aswin Kumar on Extracorporal RT to Bone for Osteosarcoma, Ms C Narmada on The Modular software platform for all Patient QA – VERIQA constituted the first session followed by Dr K Ganapathy on Artificial Intelligence applications in Intensity Modulated Proton Therapy, Dr Bhavana Rai on Brachytherapy in the era of precesion RT, Mr Rakesh Kaul on Shining Girls-Dark Stories and Mr
Purushothaman K on Knowledge based planning features in Eclipse TPS constituted a brain storming second session. The Pearl Jubilee Best Poster session Comprised 11 poster presentations followed by the preferred paper session of 4 talks. The session VI, last session of Day 1 constitutted talk by Dr Raghavendra Holla on Physics of SBRT for moving targets, Mr Deepak Kumar on treatment of AVM: Radiotherapist’s perspective, Mr Subramanya Betageri on (VERT): A virtual reality linear accelerator that brings treatment room to the classroom. Each talk was followed by enlightening Q&A. Not only the queries were cleared, but also expert opinions were shared.

The second day, scientific programme started with a brief introduction on the international Day of Radiology by the Organising Secretary Dr Mary Joan. Prof Arun Chougule President AFOMP delivered the first talk on Medical Physicists Challenges as Health Professionals followed by the IDoR symposium on Interventional Radiology in CMC Ludhiana presented by Dr Vivek Agarwal and Dr Amit Batra. Dr S Panneer Selvam talked on MR Principles an overview and Mr Mukesh Jain on Artificial Intelligence:Way ahead for Radiology. The second session of the day, session VIII of the conference comprised of talk by Dr Rakesh Kapoor on Establishing a new cancer center-Pearls and Perils, Dr Pankaj Tandon on Roles and Responsibilities of Nuclear Medicine Physicists in the Practice of Nuclear Medicine, Dr G Rijju on Role of PET based RT planning and concluded by the pre recorded video of Dr Madan Rehani’s talk on Are oncology patients getting high radiation doses from CT and PET/CT exams. The Pearl Jubilee best oral paper presentation followed where 7 delegates presented their research work. The last session was a mind blowing panel discussion on Extends of the frontiers of Medical Physics in Diagnostic Radiology, Nuclear Medicine and Radiotherapy: Current Issues and Way Forward.

Overall, we had 10 scientific sessions which covered 18
invited talks, 4 preferred talks, 11 poster presentations and 7 oral presentations in addition to the IDMP messages from Presidents of IOMP and AFOMP and a panel discussion on ‘Extends the frontiers of Medical Physics in Diagnostic Radiology, Nuclear Medicine and Radiotherapy: Current Issues and Way Forward’. Stalwarts in the field of Medical Physics, Radiation Oncology, Radiology, Radiation Technology who play significant role as educators, regulators and policy makers very actively interacted and given their insights on how to tackle the current issues and how to jump over the hurdles. Delegates from about 40 countries across the world took part in this virtual conference. A cumulative participation of 962 radiation professionals in the two-day conference was highly encouraging and definitely a morale booster not only to the organisers but also to the participants as well. An expert line of speakers were gathered on the virtual platform to share their views and experience on diverse professional issues and their resolution. It was a unique platform for all radiation professionals from different domains of radiation physics, radiation biology, radiation dosimetry and clinical medical applications to get together, know each other and appreciate and acknowledge the contributions of each domain. The organizers would like to take this opportunity to sincerely thank each and every one who spared the valuable time to actively participate in this conference enhancing the scientific exactitude of each other. We are confident that this IDMP-IDoR celebrations 2021 will prove to be a milestone for the medical physics community and help us all in developing ourselves as indispensable healthcare professionals.

Below are few newspaper clips in local (Punjabi) and regional (Hindi) languages and in English.
Medical Physicists have been very efficiently planning the radiation treatment for cancer patients, corroborating quality assurance of equipment and procedural protocols, researching on new diagnostic and treatment modalities, ensuring radiation protection and safety of patients and personnel in various streams of healthcare. It is the need of the hour to raise the professional profile of medical physics and we have tried to bring light to the current issues and how to resolve them.

The organizers highly appreciate the active participation, cooperation and endorsement of the organizations IOMP, AFOMP, SCMPCR, AMPI NC, NZ AROI, IRIA, NMPAI, NAAD, ARTTI and ISRT for their support in organizing this conference. A word of thanks to AMPI NC and our trade partners, without whom this conference couldn’t be arranged as beautiful as it was.

As discussed and disseminated in the conference, a single day or two days IDMP celebrations might not completely serve the purpose of uplifting the professional status of medical physicists in healthcare. We should equip and improve ourselves to meet the challenges efficiently. There are great times ahead of us; Country needs our service. Each one of us is needed - in our country, community and university - to ensure decisive, visible and measurable actions are taken for the medical physics profession. As we celebrated the IDMP and IDoR 2021 by holding this international Virtual Conference on Radiation Applications in Medicine, the spirit of this conference will make each and every one of us to be a leader not only within our own spheres of influence but also in the associated multidisciplinary specialties and commit to take pragmatic action to accelerate professional and personal development. Wishing everyone a fruitful IDMP& IDoR 2021!