

PTW: E-Learning made in Bangladesh



Bringing medical physics knowledge to the region of South Asia and out into the whole world: this is the mission of the South Asia Centre for Medical Physics and Cancer Research (SCMPCR) in Dhaka, which was also able to be supported by PTW in 2021. During the corona pandemic it has laid its focus on e-learning – and as such is perfectly in tune with the times. Not to mention, a special highlight for the region's medical physics community is coming up at the end of 2021.

In order to find out more about how the SCMPCR was able to continue its work in the past few months, we conducted an interview with Professor Dr. Golam Abu Zakaria, founding chairman of the SCMPCR, as well as Dr. Frank W. Hensley and Volker Steil, who have been involved with the work at the centre for a number of years and have been supervising exchange projects.

There is good news to report:

As a result of the corona pandemic, the SCMPCR team has transferred its training activities predominantly to the internet. Before the pandemic, experts from around the world would travel to Bangladesh to carry out workshops and lectures for students and practitioners. This included speakers and trainers from our Dosimetry School, who often carried the required dosimetry equipment along as well. The training sessions were financially supported by companies such as the dosimetry specialist PTW Freiburg GmbH, or the German Academic Exchange Service DAAD (Deutscher Akademischer Austauschdienst). The swift and effective changeover to online

training courses functioned so well because the SCMPCR and its partnering universities had already set up the required infrastructure, technology, manpower and the technical equipment early on.

200 Applicants for 85 E-Learning Positions

The 2021 e-learning programme offered by SCMPCR is well worth a look: there were four comprehensive programmes offered for medical physicists, all based on different topics; for example, on the subject of brachytherapy or quality assurance in medical imaging. The interest in the courses was overwhelming – the organizers had the difficult task of selecting the 85 most suitable candidates from up to 200 applicants per seminar. In doing this, for people with similar qualifications, it was above all ensured that attention was paid to offering applicants from less developed countries and also women the chance to partake. Each event lasts one week and consists of online workshops by renowned experts in their fields, from all around the world, including Germany, the USA,

Canada, India, Japan and Australia. The courses were evaluated beforehand by international medical physics organizations. The participants who attend all days of the seminar and successfully pass the final exam receive a certificate. One positive side-effect: As a result of the courses being offered online, travel and accommodation costs are no longer a factor meaning that not only medical physicists from South Asia can participate, but also those from Europe, Africa and South America.

Furthermore, the SCMPCR workers also organize training for radiation oncologists, radiologic technologists, nursing staff and students. They are now mostly held as hybrid events: this means that they are visited on location by a limited number of participants and at the same time the event is streamed live online, thus allowing hundreds of people to participate. The SCMPCR wants to continue this trend into the future – including preventive programmes, which are aimed at the general public, for example in regard to providing preventive cancer care.




SCMPCR E-Learning Program (ELP-03)

February 5, 2021 – February 26, 2021

Brachytherapy Basic Principles and Advanced Clinical Applications

Panel of Speakers



Dr. Frank W. Hensley
Former Medical Physicist
Department of Radiation Oncology
University Hospital Heidelberg, Germany



Accredited by IOMP as CPD event
for Medical Physicists
International Organization
for Medical Physics



Dipl. Eng. Renate Walter
Medical Physicist and Radiation Protection Commissioner
University Hospital Augsburg, Germany



Dr. Jamema Swamidas
Associate Professor and Medical Physicist
Department of Radiation Oncology
Advanced Centre Training Research and Education in
Cancer (ACTREC) Tata Memorial Centre, Mumbai, India.



Dr. Mamun Haque
Nuclear and Medical Radiation Physicist
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Acknowledgement







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E-learning programmes offered by the SCMPCR training centre in Dhaka, Bangladesh – supported by PTW Freiburg

Hybrid Events for Training and Prevention

Currently, self-help groups or cancer prevention are not widespread in Bangladesh. The SCMPCR team wants to change that by informing women, particularly in remote regions away from the capital city Dhaka, about topics such as cervical cancer or breast cancer prevention. The centre is supported in part by its vast network of universities and hospitals: lots of doctors are familiar with the SCMPCR's programmes and advertise them. The seminars are conducted either in Dhaka or locally in small towns in the more remote regions, which are often home to minorities – this is a unique offer, which is aimed directly

at the affected patient and is in high demand. The local people in these communities are informed about the events by vans using loudspeakers. The residents then either participate in person or, due to the limited number of places during the corona pandemic, via livestream on the internet. Additionally, these events are streamed into other towns and projected into large halls, allowing many people to access the programmes.

Uncertain Financing

Besides prevention programmes, the SCMPCR's hybrid hands-on-workshops will play a larger role in the future. Teaching staff will go into hospitals and train the personnel on site

using the equipment that is present, with the workshops being streamed online at the same time. The training courses will be financed from donations, just like all the work carried out by the SCMPCR. The centre does not receive any funding from the state, which is why the support of companies such as PTW is vital: the German company has also donated money to the SCMPCR this year, money which was raised during the calendar fund raising event. It is used to fund the wages of the workers, who are responsible for the maintenance and expansion of the e-learning programmes.

Despite the uncertain financing, the SCMPCR team has managed to transform Bangladesh into a significant location for medical physics: Bangladeshi experts are often being asked to carry out the commissioning of new linear accelerators, for example in hospitals in Nepal and Ethiopia. Moreover, a particular highlight for the Bangladeshi medical physics community as a whole is taking place in 2021: for the first time in the congress's history, the "21st Asia-Oceania Congress on Medical Physics" will take place in Bangladesh – of course as a hybrid event.

Further information regarding the SCMPCR's e-learning programmes can be found here: <https://scmpcr.org/e-learning-program/>

Would you like to make a donation to support the SCMPCR's work? More information can be found here: <https://alobhubon.org/scmpcr/>.



Tino Ebneth is a medical physics expert. He is Head of the PTW Dosimetry School, which he initiated in 2014. In his role as the head of school he is responsible for planning, developing and implementing the school's training programme.