

# M.Sc Medical and Radiological Physics



## WHERE?

Centre for Medical and Radiation Physics, National Institute of Science Education and Research (NISER), Jatni, Odisha, an autonomous institute under the Department of Atomic Energy (DAE), Government of India affiliated to the Homi Bhabha National Institute, Mumbai.

## ABOUT

Medical physics is the branch of science that mainly deals with the applications of ionizing radiation in health care through radiotherapy, diagnostic radiology, nuclear medicine and the associated radiological protection. Specifically, for past several decades, ionizing radiation is being used worldwide for the treatment of cancer and diagnosis of the various diseases.

The Master's program is the first of its kind in the State of Odisha. It is also the **first of its kind** at Master's level being conducted by an institution of the Department of Atomic Energy, Government of India.

## SCOPE

The demand for number of radiological and medical equipment is tripling, so the number of the medical physicists also will increase by three times. Hence, there is a **need for more medical physicists to be trained**.

### Skills developed by students

- Safe use of diagnostic and treatment radiation equipment
- Quality assurance of radiation machines, radiation treatment planning and radiation treatment delivery
- In-depth knowledge on the radiation machine structure and function
- Understanding of principles and physical laws governing the biological effects of radiation
- Solution of radiation therapy technology related problems
- Train junior technicians in radiation therapy and trainee oncologists on the relevant aspects of medical physics
- Innovation in radiation therapy technology to enhance safety, improvement of efficacy and cost effective assurance of service

## WHO CAN APPLY AND HOW?

Candidates who wish to apply should meet the minimum criteria below:

- First class (60% and above) in Bachelor's degree in Physical Sciences or an equivalent degree with Physics as one of the main subjects from a recognized University. <sup>a</sup>
- Candidates should have JAM 2023 / JEST 2023 scorecards.

Only online applications through the website are accepted.

<sup>a</sup>Candidates who are appearing in their Final Examination for Bachelor's Degree can also apply provided they submit an undertaking that they will submit the Qualifying degree certificates by the time of Interview.

## PROGRAM DETAILS AND SUPPORT

The master's program in medical and radiological physics has been designed according to the syllabus prescribed by the Homi Bhabha National Institute (HBNI), Mumbai. It has a rigorous curriculum with emphasis on physics, radiology and its medical applications.

Degree awarding institute	: Homi Bhabha National Institute, Mumbai
Duration of the course	: 2 years Master's program and 1 year mandatory internship
Total No. of seats	: 10
Minimum qualification and selection	: 60% marks in B. Sc with physics as a main course and JAM 2022 / JEST 2022 scorecards. The shortlisting will be based on JAM 2023 / JEST 2023 marks, followed by interview for selection
Fellowship	: Rs. 16,000/- p.m. + HRA and Contingency as per DAE rules, during master's program
Internship hospitals as per AERB guidelines	: All India Institute of Medical Sciences, Bhubaneswar, Acharya Harihara Post Graduate Institute of Cancer, Cuttack and Tata Memorial Centre, Mumbai

More details about the program are available at: <https://www.niser.ac.in/cmpr/>

## UMBRELLA INSTITUTIONS



### Department of Atomic Energy (DAE)

Anushakti Bhavan, Chhatrapati Shivaji Maharaj Marg, Mumbai, Maharashtra 400001



### Homi Bhabha National Institute (HBNI)

2nd floor, BARC Training School Complex, Anushaktinagar, Mumbai, Maharashtra 400094



### Atomic Energy Regulatory Board (AERB)

Niyamak Bhavan, Anushakti Nagar, Mumbai, Maharashtra 400094, India

## COLLABORATING INSTITUTIONS



### All India Institute of Medical Sciences (AIIMS), Bhubaneswar

Sijua, Patrapada, Bhubaneswar, Odisha 751019



### Acharya Harihar Post Graduate Institute of Cancer (AHPGIC)

SCB Medical Road, Mangalabag, Medical college post office, Cuttack, Odisha 753007



### Tata Memorial Centre (TMC)

Dr. E Borges Road, Parel, Mumbai, Maharashtra 400 012

## IMPORTANT DATES

Date of Activation of online application	: 10 <sup>th</sup> April 2023
Last date of online application	: 15 <sup>th</sup> May 2023
Announcement of shortlisted applicants	: 31 <sup>st</sup> May 2023
Date of interview	: 3 <sup>rd</sup> - 6 <sup>th</sup> July 2023
Announcement of final selection list	: 7 <sup>th</sup> July 2023

## WEBPAGE

For applying online, please visit the 'Announcements' section of the NISER website <https://www.niser.ac.in/> or scan the QR code.



## CONTACT

Centre for Medical and Radiological Physics,  
National Institute of Science Education and Research (NISER),  
PO-Bhimpur-Padanpur, Via-Jatni, Khurda-752050, Odisha, India  
Email: [cmrp@niser.ac.in](mailto:cmrp@niser.ac.in)