

Department of Medical Physics

Our Mission:

The RCC, a centre of excellence in patient care, Medical education and research was established in 1999 and Upgradation of existing Regional Cancer Centre as State Cancer Institute of 138 Crores Project is in full swing and expected to complete in May 2020, with state of the art cancer treatment facilities with all modern Radiotherapy equipments like two Linear Accelerators, high and low energy, Clinac iX low energy (6 MV) LINAC and Varian TRUE Beam 6, 10. 15 MV LINAC and Ir ¹⁹² 24 channels Gamma med plus iX Varian Brachytherapy machine along with CT Simulator, PET CT, MRI and Cyclotron for department of Medical Physics .



Faculty:

S. No.	Faculty Name	Designation
1.	Dr. Mukesh Kumar Zope	Assistant Professor
2.	Dr. Santosh Kumar	Assistant Professor
3.	Dr. Deepali Bhaskar Patil	Radiological Safety Officer
4.	Mr. Mani Kant Jha	Medical Physicist
5.	Mr. Satya Kumar	Medical Physicist

Clinical Expertise:

- Medical Physics** - Radiation therapy uses high-energy radiation to kill or shrink cancer cells. Charged particles, electrons, x-rays and gamma rays are radiations used for killing the cancer cells. The radiation therapy can be given through an external beam or internally.
- Our Medical Physics plan meticulously for better outcome minimizing the chance for any side effects. Our physicists ensure complete safety while performing the radiation therapies. Our team of expert oncologists formulate a consensus and personalized treatment plan through joint clinics.

Publication:

Dr. Mukesh Kumar Zope , Assistant Professor (As submitted):

List of Publication in year 2019

- Photon Beam Commissioning and Rapid Arc Prerequisite QA of Varian Unique Performance Low Energy Linear Accelerator (LINAC); Journal of Medical Physics and Applied Sciences, ISSN 2574-285X, Vol.4 No.3:3, 2019, Mukesh Kr. Zope^{1*}, Deepali Bhaskar Patil², Angel Kuriakose³, Aslam PA³ and Basil George³
- A Comparative Study of Dosimetric Analysis of Three Different Sets of Five Fields and Seven Fields IMRT Plans for Prostate Cancer; International Journal of Medical Physics, Clinical Engineering and Radiation Oncology, 2019, 8, 175-192; Mukesh Kumar Zope¹, Deepali Bhaskar Patil², Angel Kuriakose³, Aslam Rahman³, Vinita Trivedi³, Shekhar Kumar Keshri²
- A Dosimetric Characterization of an Elekta Synergy Platform Linear Accelerator; IOSR Journal of Dental and Medical Sciences (IOSR-JDMS); e-ISSN: 2279-0853, p-ISSN: 2279-0861. Volume 18, Issue 5 Ser. 11 (May.

2019), PP 40-46, Deepali Bhaskar Patil¹, Mukesh Kumar Zope²

4. Installation and Commissioning Experience with a New Generation High- Energy Medical Linear Accelerator with Advanced Delivery and Imaging Functionalities; Journal of Medical Science and clinical Research, JMSCR Vol||07||Issue||06||Page 1144-1147||June, Mukesh Kumar Zope¹, Deepali Bhaskar Patil²

Abstract:

1. As 1st author Presented poster Association of Radiation Oncologists of India (AROICON-2019) 41st Annual conference at Gujarat University Convention and Exhibition Center (GUCEC), Ahmadabad (Gujarat) from 28th November to 1st December 2019.
2. Presented Oral (As Co-author) in Conference of AMPICON-2019 at Kolkata during 7th- 9th November 2019.
3. As Co-author Presented poster & oral presentation and awarded by 3rd runner in the AROI Bihar chapter 3rd annual conference at Paras HMRI hospital, Patna during 15th-16th 2019.

Dr. Santosh kumar , Assistant Professor (Medical Physics) (As submitted):

List of Publication in year 2019

1. Presented Oral Paper in Conference of AMPICON-2019 at Kolkata November 2019 during 7th- 9th (Title – Immobilization Device used to treat unusual site for better Radiation delivery ; A Single instructional Experience)

Dr. Deepali Bhaskar Patil: Radiological Safety Officer (As submitted):

List of Publications

1. Photon Beam Commissioning and Rapid Arc Prerequisite QA of Varian Unique Performance Low Energy Linear Accelerator (LINAC); Journal of Medical Physics and Applied Sciences, ISSN 2574-285X, Vol.4 No.3:3, 2019, Mukesh Zope^{1*}, Deepali Bhaskar Patil², Angel Kuriakose³, Aslam PA³ and Basil George³
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Department Achievements:

- Bachelor of Medical Radiotherapy Technology course approved by AERB
- Diploma in Medical Radiotherapy Technology (DMRT) Course.
- Inclusion of Faculty from Medical Physics and other departments in Integrated Paramedical Students teaching.
- To start Medical Physics Internship duration of one year for four students. (Approved by College council)
- Also we are providing the radiation safety expertise to others departments (Radio diagnosis, Orthopaedics, Dental, Urology, forensic medicine & Gastrology).
- Public awareness of about Radiation Safety.
