

FELLOWSHIP IN ADVANCED RADIATION TECHNIQUES

ABOUT THE UNIVERSITY

Malla Reddy Vishwavidyapeeth is a reputed educational institution located in Hyderabad, Telangana, India. Recognized as a “Deemed to be University under Distinct (Existing) Category,” the university offers multidisciplinary programs across medical, dental, nursing, pharmaceutical sciences, and allied health sciences. The institution emphasizes academic excellence, clinical expertise, innovation, and global collaboration in advancing healthcare education.

PROGRAM OVERVIEW

The Fellowship in Advanced Radiation Techniques is a one-year specialized program designed to develop expertise in modern radiation oncology and precision cancer therapy.

The program focuses on:

- IMRT, IGRT, and SBRT techniques
- Proton therapy and advanced radiation modalities
- Brachytherapy principles and applications
- Radiation planning and dosimetry
- Radiation safety and toxicity management
- Multimodal cancer treatment integration

The program integrates clinical exposure, hands-on training, and advanced technological applications to ensure comprehensive expertise in radiation oncology.

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PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates will be able to:

1. Apply advanced radiation therapy techniques effectively.
 2. Perform radiation planning and dosimetry.
 3. Integrate multimodal cancer treatment approaches.
 4. Ensure patient safety and quality care in radiation oncology.
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PROGRAM OUTCOMES (POS)

1. **Technical Expertise:** Master advanced radiation techniques like IMRT, IGRT, SBRT.
 2. **Planning Skills:** Perform accurate radiation planning and dose calculations.
 3. **Advanced Therapy Application:** Apply proton therapy and brachytherapy.
 4. **Patient Safety:** Ensure radiation safety and toxicity management.
 5. **Clinical Decision-Making:** Optimize treatment strategies.
 6. **Research Orientation:** Contribute to advancements in radiation oncology.
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COURSE OUTCOMES (COS)

- **CO1:** Understand principles of radiation oncology.
 - **CO2:** Perform treatment planning and dosimetry.
 - **CO3:** Apply advanced radiation therapy techniques.
 - **CO4:** Manage radiation-related toxicities.
 - **CO5:** Integrate multimodal cancer treatments.
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PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate expertise in advanced radiation techniques.
 2. Apply precision-based cancer treatment methods.
 3. Integrate clinical and technological approaches in oncology.
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PROGRAM DETAILS

- **Certificate Awarded by:** Malla Reddy Vishwavidyapeeth
 - **Program Duration:** One-Year Fellowship
 - **Mode of Delivery:** Clinical + Hands-on + Theoretical
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ELIGIBILITY CRITERIA

- **Academic Qualification:** MD/DNB in Radiation Oncology or equivalent
- **Professional Requirement:** As per institutional norms

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KEY FEATURES

- Advanced training in radiation oncology
- Hands-on exposure to modern radiation techniques

- Training in planning, dosimetry, and safety
 - Exposure to multimodal cancer treatment
 - Evidence-based clinical practice
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LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Comprehensive understanding of radiation oncology principles
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COGNITIVE SKILLS

- Clinical decision-making in cancer treatment
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PRACTICAL & PROFESSIONAL SKILLS

- Proficiency in radiation therapy techniques and planning
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TRANSFERABLE SKILLS

- Patient communication and multidisciplinary coordination
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SUBJECT-SPECIFIC SKILLS

- Advanced radiation and treatment planning techniques
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CURRICULUM MODULES – THEORY

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- Radiation Physics & Biology
 - Radiation Safety & Protection
 - Imaging & Treatment Planning
 - External Beam Radiation Therapy
 - Brachytherapy
 - Proton Therapy
 - Adaptive Radiotherapy
 - Ethical & Legal Aspects
 - Advances in Radiation Oncology
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PRACTICAL COURSEWORK

- Radiation planning and dosimetry
- IMRT, IGRT, SBRT procedures

- Clinical rotations in radiation units
 - Case discussions and simulations
 - Research and documentation
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CAREER OUTCOMES

Graduates can pursue careers as:

- Radiation Oncologist (Advanced Practice)
- Cancer Treatment Specialist
- Consultant in Oncology Centers
- Academic and Research Professional



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