

FELLOWSHIP IN NEURO MODULATION

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 Neuro Modulation is a one-year advanced program designed to train healthcare professionals in neurostimulation and neuroplasticity-based therapies for psychiatric, neurological, and chronic pain disorders.

The program focuses on:

- Transcranial Magnetic Stimulation (TMS) and Electroconvulsive Therapy (ECT)
- Deep Brain Stimulation (DBS) and Vagus Nerve Stimulation (VNS)
- Neuroplasticity and mechanisms of brain modulation
- Neuro-modulation in psychiatric disorders including depression and anxiety
- Applications in neurological disorders such as Parkinson’s disease and epilepsy
- Patient selection, safety, and management of complications

The program integrates clinical training, hands-on procedures, and research to ensure comprehensive expertise in neuro modulation therapies.

(Deemed to be University)

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

Graduates will be able to:

1. Understand mechanisms and principles of neuro modulation techniques.
 2. Apply non-invasive therapies such as TMS and ECT effectively.
 3. Gain proficiency in invasive techniques including DBS and VNS.
 4. Manage neurological and psychiatric disorders using neuro-modulation.
 5. Ensure safe patient selection and complication management.
 6. Address ethical and legal considerations in neuro-modulation.
 7. Conduct research in neuro modulation and emerging therapies.
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PROGRAM OUTCOMES (POS)

1. **Clinical Expertise:** Apply neuro-modulation techniques in clinical practice.
2. **Non-Invasive Skills:** Perform TMS and ECT procedures effectively.
3. **Invasive Techniques:** Understand DBS and VNS procedures and management.
4. **Patient Care:** Perform patient selection and monitoring safely.
5. **Complication Management:** Identify and manage adverse effects.
6. **Multidisciplinary Approach:** Integrate neurology, psychiatry, and pain management.
7. **Research Orientation:** Contribute to advancements in neuro modulation therapies.

COURSE OUTCOMES (COS)

- CO1: Perform TMS and ECT procedures.
- CO2: Understand DBS and VNS techniques and applications.
- CO3: Manage patients undergoing neuro-modulation therapies.
- CO4: Identify and treat complications and side effects.
- CO5: Integrate clinical and technological approaches in treatment.

PROGRAM-SPECIFIC OUTCOMES (PSOS)

1. Demonstrate expertise in neuro modulation therapies.
2. Apply advanced neuromodulatory techniques effectively.
3. Integrate clinical practice with technological advancements.

PROGRAM DETAILS

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

ELIGIBILITY CRITERIA

- Academic Qualification: MD or equivalent (Psychiatry / Neurology / Anesthesiology or related field)
- Professional Requirement: As per institutional norms

KEY FEATURES

- Advanced training in neuro modulation therapies
- Hands-on exposure to TMS, ECT, DBS, and VNS
- Training in psychiatric and neurological applications

- Focus on patient safety and complication management
 - Integration of technology with clinical practice
 - Evidence-based therapeutic approaches
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LEARNING OUTCOMES

KNOWLEDGE & UNDERSTANDING

- Comprehensive understanding of neuro modulation mechanisms
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COGNITIVE SKILLS

- Clinical decision-making in neuromodulatory treatments
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PRACTICAL & PROFESSIONAL SKILLS

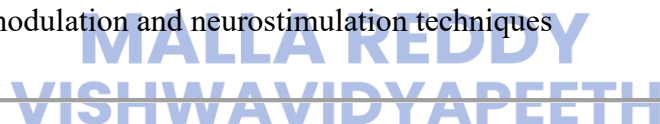
- Proficiency in TMS, ECT, and related procedures
 - Hands-on experience in clinical and procedural settings
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TRANSFERABLE SKILLS

- Patient communication and interdisciplinary collaboration
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SUBJECT-SPECIFIC SKILLS

- Advanced neuro modulation and neurostimulation techniques
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CURRICULUM MODULES – THEORY

SEMESTER 1: FUNDAMENTALS OF NEURO MODULATION

- Introduction to Neuro Modulation
 - Neuroplasticity and Mechanisms of Action
 - Transcranial Magnetic Stimulation (TMS)
 - Electroconvulsive Therapy (ECT)
 - Patient Selection and Clinical Assessment
 - Clinical Rotations
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SEMESTER 2: ADVANCED NEURO MODULATION TECHNIQUES

- Deep Brain Stimulation (DBS)
- Vagus Nerve Stimulation (VNS)
- Advanced Applications in Psychiatry and Neurology

- Invasive Neuro Modulation Techniques
 - Complications and Side Effects
 - Research Project & Case Studies
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PRACTICAL COURSEWORK

- TMS and ECT procedures
 - Observation of DBS and VNS procedures
 - Patient assessment and selection
 - Clinical case management
 - Complication management
 - Case discussions and documentation
 - Research and dissertation work
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CAREER OUTCOMES

Graduates can pursue careers as:

- Neuro Modulation Specialist
- Psychiatrist / Neurologist with Neurostimulation Expertise
- Pain Management Specialist
- Clinical Researcher
- Academic and Teaching Professional

