

**VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING &  
TECHNOLOGY**

**M. TECH - POWER ELECTRONICS (PE)**

**PROGRAM EDUCATIONAL OBJECTIVES (PEO) FOR M.TECH POWER ELECTRONICS (PE) PROGRAM:**

The Post Graduates of Power Electronics program will

- I. Proficient in applying sustainable and inclusive technologies to analyze, formulate and provide solutions for real time problems in diversified fields.
- II. Solve complex technological problems using emerging technologies and tools.
- III. Work effectively as an individual and team member with good communication skills in project execution
- IV. Demonstrate interdisciplinary skills and professional ethics in relating engineering issues to broader societal context.
- V. Engage in life long learning for a successful professional career.

**PROGRAM SPECIFIC OUTCOMES (PSOS):**

- a. Design and conduct experiments, as well as analyze the power electronic converters & drives and interpret the data.
- b. Function on multidisciplinary technological issues assimilating power electronics advancements.
- c. Use the techniques, skills, and modern engineering simulation tools necessary for the design and development of power converter topologies.
- d. Propose, plan and execute projects subjected to financial, personnel and time constraints in allied fields assimilating power electronics advancements

## **Program Outcomes for M.Tech Power Electronics (PE) Program:**

Upon completion of the M.Tech Power Electronics (PE) programme, students will be able to

- a. Apply the knowledge of power electronics for the control of electrical systems.
- b. Design and conduct experiments, as well as analyze the power electronic converters & drives and interpret the data.
- c. Design system or component to meet the desired needs with in realistic constraints.
- d. Function on multidisciplinary technological issues assimilating power electronics advancements.
- e. Identify, formulate and model the power electronic systems as a solution to the problems in allied disciplines.
- f. Acquire and demonstrate the professional, social, moral and ethical responsibility
- g. Communicate effectively on complex engineering activities with the engineering community and with society at large.
- h. Work with the independent and reflective thinking for problem solving in power electronics and allied fields
- i. Recognize the need for and engage in life-long learning to update with or develop technologies to meet the growing and changing needs of society
- j. Use the techniques, skills, and modern engineering simulation tools necessary for the design and development of power converter topologies.
- k. Propose, plan and execute projects subjected to financial, personnel and time constraints in allied fields assimilating power electronics advancements.