Vidyasagar University

Midnapore-721102, West Bengal

POs & PSOs for the Post-Graduate Programme in ELECTRONICS

National Educational Policy – 2020

[w.e.f. 2025-26]

Department of Electronics_2025-26

Programme/Learning Outcome (P/LO)

After completion the M.Sc. in Electronics course, the students will be able to:

PO1: Advanced Theoretical Knowledge: Acquire strong mathematical foundation, computational skills with Python, knowledge for analog and digital circuits, electronic materials, semiconductor devices, network analysis and synthesis, control systems and instrumentation, electronic and optical communications, electromagnetism and antenna, VLSI design and technology, digital signal processing and microprocessor and microcontroller.

PO2: Practical Skill Development: Confident to work independently in circuit design lab, digital lab, microprocessor and microcontroller lab, communication lab and VLSI design lab.

PO3: Research Skill Development: Learn to identify and formulate a research problem, literature review, scientific methodology, inference drawing, report writing and public presentation.

PO4: Industrial Exposure: Exposure to industrial atmosphere and to work therein with a real problem.
PO5: Ethics and Knowledge Systems: Learn ethical principles, professional ethics, responsibilities, engineering practice norms and Indian Knowledge systems.

PO6: Team work and Collaboration: Train up for individual and teamwork.

PO7: Communication Skill: Development of communication Skill for doing work at different research organizations, Government and multi-national sectors.

PO8: Interdisciplinary Integration: Integrate mathematical knowledge with other scientific and engineering domains, promoting interdisciplinary problem-solving.

PO9: Lifelong Learning: Engage in lifelong learning to stay updated with emerging areas in Electronics, Data communication, IOT & machine learning, and scientific research.

PO10: Employability and Entrepreneurship: Demonstrate employability and entrepreneurship skills by applying theoretical knowledge in teaching, research,industry, and innovation.

Programme Specific Outcomes (PSOs)

The M.Sc. In Electronics course will help to develop skilled scientific manpower having comprehensive knowledge on electronics with an understanding of technological developments and applications of the subject. After completion of the course, a student achieves:

PSO1: State-of-the-art knowledge about various theoretical and experimental techniques that are used within the scope of this subject.

PSO2: A comprehensive knowledge in the areas of electronic materials, analog electronics, digital electronics, computer programming, electronic communications, VLSI design and technology, digital signal processing, electronic devices, computer networks, microprocessor and microcontroller etc. and acquires good theoretical and practical insight in that fields.

PS03: Ability to demonstrate practical skills in the use of tools, technologies and methods related to electronics, and apply the scientific techniques in the design and execution of experiments.

PSO4: Working on a chosen specialized area of electronics in his/her master's project and/or industrial training develops an ability to carry out a scientific work independently.

PSO5: Skills to compete in national/international level examinations such as NET/SET/GATE etc., and can pursue a career in higher studies.

PSO6: Confident to do work at various research institutes, public and private organizations.