

**Shree Swami Vivekanand Shikshan Sanstha Kolhapur,
DATTAJIRAO KADAM ARTS, SCIENCE AND COMMERCE COLLEGE,
ICHALKARANJI**

Course Outcomes

ELECTRICITY AND MAGNETISM-II (PAPER-IV)

B.Sc. I, SEMISER-II (PHYSICS)

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This course develops concepts in electricity and magnetism such that the behavior of the physical universe can be understood from a fundamental point of view. It provides a basis for further study of current electricity. Content will include:- Complex number, Admittance and susceptance of A.C Circuit, Owen's Bridge, Biot - Savart's law, Ampere's Circuital law, magnetic properties of the material, Faraday's law of electromagnetic induction, Lenz's law, energy stored in magnetic field, Equation of continuity of current, Maxwell's equations, Electromagnetic wave propagation through vacuum, Electromagnetic wave propagation in isotropic dielectric medium

Course Outcomes: -

1. Student should understand the A.C series L.C.R. circuit and resonance in series L.C.R. circuit
2. Student should develop skill in computing Maxwell's equation problems and A.C circuit.
3. Apply law such as Biot - Savart's and Lenz's law for selected problems in electricity and magnetism.
4. Use the tools, methodologies, language and conventions of physics to test and communicate ideas and explanations.