

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL

New Scheme Based On AICTE Flexible Curricula

Electrical & Electronics Engineering, VIII-Semester

Open Elective EX- 803 (B) Environmental Issues, Policy, Standards & Regulations

UNIT 1 Global environmental concerns: The Scenario, The Changing Global atmosphere & common concerns. United Nations Framework Convention on Climate Change (UNFCCC), Kyoto Protocol, Conference of Parties (COP), Various Clean Development Mechanism (CDM), Prototype Carbon fund (PCF), Earth Summit, Sustainable development. Green Certificate

UNIT-2 The Global Program for protected area management, Strategies for environmental improvement plan. Organizations working in the field of energy and environment - UNEP, IPCC, CPCB etc. Basic features of ISO 14000.

UNIT-3 Water Quality: Parameters: Physical, Chemical and Bacteriological .Potable Water Standards, Waste Water Effluent Standards. Minimal National Standards (MINAS).

UNIT -4 Environment Policies: Water Act 1974, The Air Act, 1981, Environmental (Protection) Act.- 1986, M. P. State Environment Policy, Municipal Solid Waste (Management & Handling) Rules, 1998, Biomedical Waste (Management & Handling) Rules 1998.

UNIT-5 Review of various energy sources. Importance of unconventional sources such as solar, biogas, wind, tidal etc. Study of typical energy converters such as high performance motors, special generators driven by biogas engines, wind turbines etc. Mini-hydro generators. Modern state-of-the art and futuristic systems in this area.

References:

1. Environmental Issues and Policies, Prentice Hall—Stephon Ison, Stephen Peake, Stuart Wall
2. ISO 14000 Environmental Management by Goetsch, Davis. Prentice Hall
3. Standard methods for the Examination of Water and Wastewater. (1989).17thEd. APHA, Washigton. D.C., 2-12
4. Energy Management by Paul O'Callaghan –McGraw Hill
5. Cleaner Production – Energy Efficiency Manual for GERIAP, UNEP, Bangkok prepared by National Productivity Council
6. Training material on 'Environmental concerns' prepared by National Productivity Council