



<b>Program: B.Tech in Computer Science and Engineering (Data Science)</b>	<b>Final Year. B.Tech</b>	<b>Semester: VIII</b>
<b>Course: Environmental Management (DJ19ILO8029)</b>		

**Pre-requisite:** Knowledge of environmental science.

**Objectives:**

1. Understand and identify environmental issues relevant to India and global concerns
2. Learn concepts of ecology
3. Familiarise environment related legislations
4. Understand Environmental Auditing Procedures.

**Outcomes:** On completion of the course, learner will be able to:

1. Identify Environmental issues and get familiarized to the concept of Ecosystem and environmental management.
2. Know policies and legal aspects and understand EM system standards.
3. Understand Environment Impact assessment.
4. Understand Environment Auditing procedures.
5. Describe Environmental management Techniques.

<b>Environmental Management (DJ19ILO8029)</b>		
<b>Unit</b>	<b>Description</b>	<b>Duration</b>
<b>1</b>	<b>Principles of Environmental management (EM):</b> Introduction of EM, Definition, Ecosystem concept, Participants in EM, Ethics and the environment, International Environmental Movement, Environmental issues relevant to India.	<b>08</b>
<b>2</b>	<b>Policy and Legal Aspects of EM:</b> - Introduction to various Environmental Policies, Indian and International Environmental laws and legislation. <b>EM system Standards:</b> - Core Elements, Benefits, Certification Body Assessment & Documentation for EMS, ISO- 14000 Standards.	<b>10</b>
<b>3</b>	<b>Environmental Impact Assessment (EIA) :-</b> Purpose, steps, hierarchy of EIA, Environmental Impact Statement and Impact Indicators, Evolution of IA in India and worldwide. Preliminary stages of EIA, Impact, Prediction, Evaluation and Mitigation.	<b>10</b>
<b>4</b>	<b>Environmental Auditing (EA):-</b> Objectives, Scope and Types of EA, Audit Methodology, Elements of Audit Process, Auditing of EMS.	<b>06</b>
<b>5</b>	<b>Environmental Management Techniques:</b> - Environmental Monitoring and Modelling, Environmental technology Assessment and Environmental Risk Assessment, Eco-mapping.	<b>08</b>

**Books Recommended:**

*Text Books:*

1. Environmental Management, T V Ramachandra and Vijay Kulkarni, TERI Press
2. Environmental Management: Principles and Practice, C J Barrow, Routledge, Publishers, London, 1999



Shri Vile Parle Kelavani Mandal's

**DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING**

(Autonomous College Affiliated to the University of Mumbai)

NAAC Accredited with "A" Grade (CGPA : 3.18)



*Reference Books:*

1. A Handbook of Environmental Management Edited by Jon C. Lovett and David G. Ockwell, Edward Elgar Publishing
2. Indian Standard Environmental Management Systems — Requirements with Guidance for Use, Bureau Of Indian Standards, February 2005
3. Environmental Management: An Indian Perspective, S N Chary and Vinod Vyasulu, Macmillan India, 2000
4. Introduction to Environmental Management, Mary K Theodore and Louise Theodore, CRC Press
5. Environment and Ecology, Majid Hussain, 3<sup>rd</sup> Ed. Access Publishing.2015

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