

GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING AND TECHNOLOGY
ENVIRONMENTAL ENGINEERING LAB

Course Code: GR20A3089

L/T/P/C: 0/0/4/2

III Year II Semester

Pre-Requisites: Engineering Chemistry

Course Objectives:

1. Gain knowledge in various parameters of water.
2. Identify the significance to conduct experiments on water purity
3. Explain current environmental issues through laboratory experiments.
4. Prepare the students to excel in experiment research Programmed or to succeed in
5. Develop problem solving and laboratory skills using modern instrumentation

Course Outcomes:

1. Describe the knowledge of physical, chemical and biological parameters of water and their importance.
2. Develop the social responsibility to eradicate water borne diseases
3. Recognize the methods to control environmental pollution
4. Express water quality parameters in written reports
5. Generalize the various quality control aspects of industrial effluents by performing the different lab tests.

List of Experiments

1. Determination of pH and Turbidity
2. Determination of Conductivity and Total dissolved solids.
3. Determination of Alkalinity/Acidity.
4. Determination of Chlorides and iron.
5. Determination and Estimation of total solids, organic solids and inorganic solids.
6. Determination of Nitrogen/total Phosphorous.
7. Determination of Dissolved Oxygen (DO) and B.O.D
8. Determination of C.O.D
9. Determination of Optimum coagulant dose.
10. Determination of Chlorine demand.
11. Presumptive coliform test.

REFERENCES:

1. Standard Methods for Analysis of water and Wastewater – APHA.
2. Chemistry for Environmental Engineering by Sawyer and Mc. Carty., Mc Graw-Hill Publications, 2003.