



RAGHU ENGINEERING COLLEGE

(Autonomous)

(Approved by AICTE, New Delhi, Permanently Affiliated to JNTU-GV, Vijayanagaram)

Accredited by NBA (EEE, ME, ECE & CSE) & NAAC by A+ Grade)

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APPLIED CHEMISTRY LAB

(Common to CSE, CSD, CSM, CSO, CSC, EEE, ECE)

Course Objectives:

- Verify the fundamental concepts with experiments.

Course Outcomes: At the end of the course, the students will be able to

- Demonstrate and analyse experimental skills
- Calculate water quality parameters like the hardness of water, DO etc.,
- Determine the cell constant and conductance of solutions.
- Acquire hands on knowledge on various instrumental techniques
- Prepare a commonly used polymer

List of Experiments:

1. Determination of Hardness of a groundwater sample.
2. Determination of Strength of an acid in Pb-Acid battery
3. Estimation of Ferrous Iron by Dichrometry
4. Determination of percentage Moisture content in a coal sample
5. Preparation of nanomaterials by precipitation method.
6. Conductometric titration of strong acid vs. strong base
7. Conductometric titration of weak acid vs. strong base
8. Determination of cell constant and conductance of solution
9. pH metric titration- determination of strength of strong acid vs. strong base
10. Verify Lambert –Beer's Law
11. Preparation of a polymer (Bakelite)
12. Adsorption of acetic acid by charcoal

Reference:

- "Vogel's Quantitative Chemical Analysis 6th Edition 6th Edition" Pearson Publications by J. Mendham, R.C.Denney, J.D.Barnes and B. Sivasankar