

EN607 – Energy and Environmental Engineering Laboratory (2019 onwards)

LIST OF EXPERIMENTS

1. Determination of Chemical oxygen demand (COD, O₂ eq. mgL⁻¹) of the given wastewater sample
 2. Determination of Bio-chemical oxygen demand (BOD, O₂ eq. mgL⁻¹) of the given wastewater sample
 3. Measurement of pH, electrical conductivity, salinity and total solids of given water samples
 4. Measurement of reduction in level of ambient noise by noise-absorbing material using noise dosimeter
 5. Determination of luminous efficacy of various light sources using lux meter
 6. Thermal analysis: heat loss through circular pipe - with/without insulation using infrared thermometer
 7. Energy logger: energy consumption of an electrical utility with respect to different load
 8. Flat plate collector
 9. Evacuated tube collector
 10. Solar PV panel characterization: Series and parallel connection
 11. Solar still
 12. Parabolic trough collector
 13. Solar chimney: natural draft and forced draft
 14. Electrochemical work station
 15. Battery – discharging and charging characteristics
 16. Power Quality Analyzer
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EXPERIMENT DOCUMENTATION FORMAT

- ✓ About instrument (working principle, make & model and specification)
 - ✓ Theory behind the experiment
 - ✓ Protocol → procedure
 - ✓ Data measurement
 - ✓ Analysis of data
 - ✓ Calculation and graph
 - ✓ Results
 - ✓ Inferences