A Correlation and Regression Study for Ground Water Samples in and Around Dyeing Industry

Sumathi Ramesh[1]*

[1]**Asst.Professor – II, Civil and Structural Engineering, SCSVMV University, Enathur, Kanchipuram, TamilNadu, India**

Abstract : Ground water samples were collected from ten locations in and around dyeing industries of Ayyampettai village of Kanchipuram Town in the month of December 2014.Water quality assessment was carried out for the physical, chemical and biological parameters such as color, odour, turbidity, Total dissolved solids(TDS), Electrical Conductivity(EC), p^H, Phenolphthalein Alkalinity, Total Alkalinity, Total Hardness, Calcium, Magnesium, Sodium, Potassium, Iron, Manganese, Free Ammonia, Nitrite, Nitrate, Chloride, Fluoride, Sulphate, Phosphate, Tidy's test Chemical Oxygen Demand(COD), Biological Oxygen Demand(BOD),and Faecal Coliform. Highly correlated and interrelated water quality parameters were determined by correlation co efficient method and related by Regression equations. Comparison of observed and estimated values of various water quality parameters exhibits that the regression equations developed in the study can be very much used for monitoring the water quality parameters by knowing the above said parameters alone. This study gives the easiest and rapid method of monitoring the quality of any system of water bodies.
Keywords: Assessment. Water quality, standards, Correlation and Regression analysis.

*****