

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM - 590 018, KARNATAKA

**“ADSORPTION OF PHENOLIC
WATER IN A FIXED BED COLUMN”**

*A Project report submitted to the
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ABSTRACT

Phenolic compounds are found in wastewater of various industries such as petroleum refining, coal conversion, plastics, textiles, iron and steel manufacturing as well as pulp and paper manufacturing. It is very essential to reduce the phenol concentration from contaminated water before discharging it into any natural water because of their toxicity to aquatic organisms. A continuous adsorption study in a fixed-bed column was carried out by using 22 mesh size fraction Korvi fullers earth as an adsorbent for the removal of Phenol from aqueous solution. The effect of flow rate and initial concentration of Phenol on the adsorption characteristics of adsorbent was investigated at normal pH of the solution. Data confirmed that the breakthrough curves were dependent on flow rate and initial concentration of Phenol. It was concluded that the Korvi fullers earth column can be used in wastewater treatment.