

FEASIBILITY STUDIES ON TREATMENT OF MUNICIPAL SOLID WASTE LANDFILL LEACHATE USING DUAL MEDIA UP FLOW REACTORS

A PROJECT REPORT

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Abstract

Leachate is a liquid waste water generated from solid waste landfill disposal area. It is due to infiltration and percolation of rain water. This is a highly polluted liquid waste, reddish-brown in colour and having high dissolved organic and inorganic substances. Proper treatment is necessary before its disposal to avoid the contamination of soil and ground water resources.

Experimental study has been carried out to find out the treatment feasibilities of leachate using three different reactors with Laterite-Sugarcane Bagasse as low cost adsorbents. Physico-chemical characteristics of raw and treated leachate are made to know the treatment feasibilities. The experimental studies reveal that, Sugarcane Bagasse is not suitable as an adsorbent media than Laterite media used in R_1 and R_3 . The reactor R_1 is more efficient in the treatment of leachate compared to the reactor R_2 and R_3 in the removal of pollutant parameters.