

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590018



PROJECT REPORT ON
"MUNICIPAL WASTEWATER TREATMENT USING
PLANT EXTRACTS BY ADSORPTION TECHNIQUE"

Submitted in partial fulfilment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING

Submitted By

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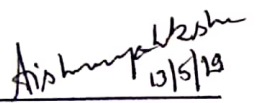
DEPARTMENT OF CIVIL ENGINEERING

Certificate

This is to certify that following students


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Has submitted Final report on "*MUNICIPAL WASTEWATER TREATMENT USING PLANT EXTRACTS BY ADSORPTION TECHNIQUE*" for VIII Semester Bachelor of Engineering in Civil Engineering during the academic year 2018-19. The final report has been approved as it satisfies the academic requirements with respect to Project work prescribed for the Bachelor of Engineering Degree.




Ms. Aishwarya Lakshmi

Project Guide

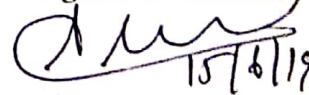
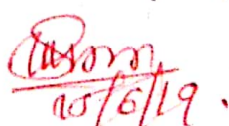

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15/6/19

15/6/19

"MUNICIPAL WASTEWATER TREATMENT USING PLANT EXTRACTS BY ADSORPTION TECHNIQUE"

ABSTRACT

Mangalore, one of the fastest growing and developing city in Karnataka. Hence the risk of water contamination increases in many folds. In light of that, the study area selected for investigation is the municipal waste water from Alvas engineering campus. The collected samples of water were analysed for parameters like pH , Nitrates, Chlorides, Sulphate, Carbonates and Bicarbonates, Total dissolved solids, Hardness etc. Seed powders of *Moringa oleifera* ,Neem, Thulasi, and Soybean as natural absorbent and environmentally friendly antimicrobial agent is used for purification of wastewater for various purpose. In present study various doses of *Moringaoleifera* ,Neem, Thulasi, and Soybean seed powder like 2.5, 5, 7.5, 10, 12.5 mg/l were taken and checked for the efficiency dose on raw municipal wastewater. After treatment of water samples with *Moringa oleifera* , Neem, Thulasi, and Soybean seed powder were analyzed for different parameter like pH, turbidity, TDS, TS, hardness, chlorides, alkalinity, acidity. Application of this low cost seeds is recommended for eco-friendly, nontoxic, simplified water treatment where rural and peri-urban people living in extreme poverty are presently drinking highly turbid and microbiologically contaminated water.

Key words: water contamination, municipal wastewater