A PERSPECTIVE ON THE POTENTIAL OF PHYTOREMEDIATION IN TREATMENT OF KITCHEN GREYWATER IN TROPICAL CLIMATES

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Abstract

The exponentially growing global population has put a strain on the limited resources this planet has to offer, such as water. Exploring the possibility of treating contaminated water and implementing reuse practices would reduce the stress placed on water bodies worldwide. Among the various water treatment procedures available Phytoremediation comes across as one of the most cost effective biological and eco friendly methodologies. Kitchen greywater is a major contaminant of water bodies and is composed of microorganisms, organic and inorganic substances. Although research has previously been conducted on phytoremediation, not much focus has been laid on reviewing its potential in treating kitchen greywater exclusively. Two aquatic plants – water hyacinth and water lettuce – have been famously reviewed in the past under the context of phytoremediation, but recently the plant called water chestnut has not been reviewed extensively. This paper explores all the three aforementioned plant species that can be used for phytoremediation in tropical climates and their efficiency in treating kitchen greywater.

Recent Publications

By Dr. T. Vijaya Kumar (under progress)

Stability of weak confined wake behind a cylinder in fully developed turbulent channel flow, Science direct Procedia Engineering 105(2015) 359-367.

Comparative study of common Effluent Treatment Plants at Delhi – A Case study Engineering sustainable Development and Inclusive Growth: Vision 2025

Biography

Dr. T Vijaya Kumar is an Associate Professor at Delhi Technological University. Anjali Singh, Navishka D. Pandit and Abhishek Aggarwal are students of Civil Engineering, Bachelors of Technology under him at Delhi Technological University. They have immense interest in working on wastewater remediation methods. Anjali Singh has previously worked at IIT Kharagpur on STUDY OF SANITATION, HEALTH, AND SOCIAL IMPACTS IN WEST BENGAL FOR NIRMAL BANGLA MISSION.

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