

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnanasangama, Belgaum – 590018



Project Report on

**DESIGN AND ECONOMICAL PERFORMANCE OF GRAY
WATER TREATMENT UNIT**

Submitted in Partial fulfillment for the Award of Degree

**BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING**

Submitted by

ROSAN B.L	- 1GA05CV036
CHAITRA KULKARNI	- 1GA07CV006
CHETHAN S.GOWDA	- 1GA07CV007
UMESH KUMAR.N	- 1GA07CV039

Under the guidance of

Smt. SAI DARSHAN.T.R

Senior Lecturer, Department of Civil Engineering
Global Academy of Technology
Bangalore – 560098



GLOBAL ACADEMY OF TECHNOLOGY

DEPARTMENT OF CIVIL ENGINEERING

Rajarajeshwarinagar, Bangalore -98

<http://www.gat.ac.in>

JUNE 2011

ABSTRACT

Throughout the world, supply of water has been a challenging risk. In India, the 'water supply and shortage' is one of the major issues. The quarrel between the budding human populace, the planet's unchanging supply of freshwater and falling water table has strained attention the reuse of gray water as an alternative water resource.

This paper present the finest design of laboratory scale gray water treatment plant, which is a combination of natural and physical operations such as Screening, Primary settling with cascaded water flow, Aeration, Agitation and Filtration, hence called as hybrid treatment unit. The economical performance of the plant for treatment of gray water showed in terms of deduction competency of water pollutants such as Total Dissolved Solids, Total Suspended Solids, Total hardness, Oil and Grease.

Our designed gray water treatment process is a low technology system, also extensive including natural systems and based on the imitation or adaptation of processes that occur naturally in soils and water bodies.

Hence, this technology could be a good alternative to treat gray water.