

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Belgaum, Karnataka



Project Report on

**“MAPPING OF DO ALONG VRISHBHAVATHI RIVER
USING REMOTE SENSING & GIS”**

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

BACHELOR OF ENGINEERING

In

CIVIL ENGINEERING

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ABSTRACT

Water is a vital natural resource which forms the basis of all life. It is a key resource in all economic activities ranging from agriculture to industry. With ever increasing pressure of human population, there is a severe stress on the available water resources. Experts from all disciplines have agreed that factors such as urbanization, industrialization, poor land management and environmental pollution have imposed additional stress on the available surface water resources. Valuable surface water resources have either been consumed to their capacity and/or polluted to such levels that they could no longer be used not only for direct human consumption but also in irrigation.

Many human activities and their by-products have the potential to pollute surface and sub-surface water. Large and small industrial enterprises, the water industry, the urban infrastructure, agriculture, horticulture, transport, discharges from abandoned mines, and deliberate or accidental pollution incidents all affect the water quality. Pollutants from these and many other activities may enter surface or groundwater directly. The pollutants from the stream may move slowly in to the ground thus affecting the quality of groundwater.

Agriculture is the world's biggest water user. The water to be used should preferably be soft, low in dissolved solids, free from poisonous constituents and should meet other standards depending on usage.

Quality of water embraces its combined physical, chemical and biological characteristics. The quality of water for irrigation is as important as nature of soil. If water supplied for irrigation is not good, soil deteriorates and ultimately the crop yield decreases.

In the present study, an attempt is being made to study the water parameters of the Vrishabavathi river from Gali Anjaneya Temple to RV College of Engineering and to study the assimilating capacity of the river in the form of DO and BOD Variation in the selected stretch. Analysis of the water samples are integrated on to the GIS platform. Analysis of the water samples reveals that even though the river tries to recuperate at regular intervals, addition of industrial waste and domestic waste loads are not permitting the river to recuperate. It is an eye opener for a decision maker to take necessary action to check the pollution.