

# MALNAD COLLEGE OF ENGINEERING

(An autonomous Institution under VTU)

HASSAN-573201(KARNATAKA)

## PROJECT REPORT ON

### “Water Resource Management in Hassan District Using ArcGIS”

*A project report submitted in the partial fulfillment of the requirement for the award of Bachelor's Degree in Civil Engineering*

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## ABSTRACT

Water is essential to human life and all the activities of man depend on a constant supply of fresh water. The expanding world population and the increasing demand for consumer goods is the source of this increase. The per capita use of water varies greatly around the world. The minimum need to sustain a person's life is about 3 litre per day; the per capita water use is much higher in developed than developing countries. For example In India, daily water usage in homes is 135 L/c/d, in ,USA it is 600 L/c/d.

The water management is one of the oldest activities of the man worldwide. As today there is a greater demand for water supplies, the need to water management is stronger than ever.

“A GIS(Geographical Information System) is a special case of information system where the database consists of observations on spatially distributed features,activities or events which are definable in space as points, lines or area. It is used for:“creating and using maps; compiling geographic data; analyzing mapped information; sharing and discovering geographic information”.In this project ArcGIS software has been utilised for water resource management in Hassan District.

- ✓ Major three rivers in Hassan district namely Yagachi, Hemavity and Votehole are flowing full in rainy season. The elevation of all rivers stretch is at comparatively higher than the other water scarcity area.
- ✓ From over study it is concluded that most of minor irrigation tank located in Arasikere taluk are dried can be supplied water naturally from the Yagachi water reservoir.
- ✓ Other water scarecity area such as Dudda, Shantigrama, Baagur, Halebidu, Gandasi, Kattaya can be provided water by constructing diversion headworks at the upper side of those river.