

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM – 590 018



A Project Report on

**“STUDY OF TRADITIONAL WATER HARVESTING
STRUCTURES USING GEO SPATIAL TECHNOLOGIES AND
MEASURES FOR REJUVINATION IN HASSAN DISTRICT”**

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In

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By

SINDHU P

4GH08CV046

PRAMOD B.J

4GH08CV035

HARSHITHA P

4GH08CV018

FARHAN ULLA SHERIFF

4GH08CV013

Under the Guidance of

Dr.PRASHANTH S

Professor & Head

Co-Guide

Dr. S.G. SRIKANTESHWARA SWAMY

fellow, KSCST, IISC, Bangalore

**DEPARTMENT OF CIVIL ENGINEERING
GOVERNMENT ENGINEERING COLLEGE**

HASSAN-573 201

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ABSTRACT

Many parts of north and south interior Karnataka depends on ground water for its domestic and agricultural needs. In earlier days so many water harvesting structures have been constructed in which temple ponds or traditionally called as Kalyanis were made for drinking purposes and also for domestic needs. Kalyanis are mainly recharged by the ground water and some times it may also filled by the rainwater. These Kalyanis are paved with stone pitching on their side walls and gradually sloping towards the centre. The water thus in contact with soil in its base. Kalyanis constructed near temples called Pushkaranis, plays an important role in socio-religious and cultural activities of Indian tradition and as a storage reservoir to supply water for temples. Apart from these ponds helps to recharge the wells in and around the area. That was the one of the reasons for the ancient rulers to allot funds for their maintenance.

Traditionally, where the rainfall was relatively low every efforts was made to retain all the water that fell on the ground through appropriate water retention and conservation strategies such as Kalyanis, temple tanks, and ponds. A proper survey is required to assess the present status, water storage capacity along with water quality of such Kalyanis in state to suggest various measures for their renovation. With this back drop, this study makes to assess the present status and suggest scientific measures for their rejuvenation in different agro-climatic zones of the states. The renovation works has six components, i.e. cleaning the inlet and outlet channel, boiling of contaminated water, removing weeds and slush and de-silting, spreading of clay and sand, repairing of steps and parapet wall and rearing of fish in some Kalyanis.

The present study is an attempt to investigate the status of Kalyanis in 3 taluks of Hassan district in different agro-climatic zones by using advance scientific tools like geographic information system(GIS), global positioning system(GPS). The results of which might serve as a first hand information on current status to user agencies for better planning, monitoring, evaluation and implementation of various developmental activities for rejuvenation for sustainable development of the area.