VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi- 590018

PROJECT REPORT ON

"MORPHOMETRIC ANALYSIS OF VARAHI RIVER BASIN"

Sponsored by Karnataka State Council for Science and Technology

Indian Institute of Science Campus, Bengaluru- 560012

Submitted in partial fulfilment of requirements for the award of degree

BACHELOR OF ENGINEERING

IN

CIVIL ENGINEERING

Submitted by

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Certificate

Certified that the project work entitled **"MORPHOMETRIC ANALYSIS OF VARAHI RIVER BASIN"** is the bona-field work carried out by

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in partial fulfilment forthe award of Bachelor of engineering in civil engineering of **Visvesvaraya Technological University, Belagavi** during the academic year 2022-2023, it is certified that all corrections and suggestions indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

15.05.23

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ABSTRACT

Drainage basin morphometry is a quantitative way of describing the characteristics of the surface form of drainage basin and provide important information about the region's topography and underlying geological structures. It plays an important role in selecting sites for construction of artificial recharge structures.

In present study has been made to discover the stream properties of Varahi River Basin, Dakshina Kannada district, Karnataka, using the various stream attributes such as the aerial, linear and relief parameters. The basin is having ten sub basins. The basin having elongated shape and coarse drainage texture indicates that the basin is in between the youth and the mature state.

In total 40 samples were collected from the various bore well. The samples were analyzed for various Physio-chemical parameters like pH, TDS, EC, Total hardness, Calcium, Magnesium, Sodium, Potassium, Chloride and Nitrates. Later test results are analyzed and compared with drinking water standards. concentration and quality of the potable water has deteriorated to a large extent at some sampling locations. Key words: Morphometry, Drainage basin, Topography, Geological structure.