VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590010

PROJECT REPORT ON

"TENSIOMETER BASED AUTOMATIC IRRIGATION MANAGEMENT FOR EFFECTIVE CROP PERFORMANCE IN COASTAL WETLAND"

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

BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING

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Certificate

Certified that the project work entitled **"TENSIOMETER BASED AUTOMATIC IRRIGATION MANAGEMENT FOR EFFECTIVE CROP PERFORMANCE IN COASTAL WETLAND"** is a bonafide work carried out by

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Are bonafide students of Department of Civil Engineering of Alva's Institute of Engineering and Technology in partial fulfillment for the award of **BACHELOR OF ENGINEERING** in **CIVIL ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year **2020-2021** . It is certified that all corrections/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 requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Wetlands are the area of marsh, fen, peatland or water with water that is static or flowing. Wetlands have the dual capacity of being "water providers" and "water users". Promoting the sustainable trade in wetland products is a way to alleviate poverty and conserve wetland. The process by which water is introduced, temporally stored, and removed from wetlands are commonly known as the water budget.

The topic selected is **"TENSIOMETER BASED AUTOMATIC IRRIGATION MANAGEMENT FOR EFFECTIVE CROP PERFORMANCE IN COASTAL WETLAND"** Dakshina Kannada district, Karnataka. The hydrological data were collected from different government organizations. The method adopted is water balance method and ground water fluctuation method as per the norms and guidelines of Ground water resource Estimation Committee (GEC) 1997

The well observation data were collected for last ten years by taking the monsoon and non-monsoon water levels from ground surface. The water budget is estimated for that years. The objective of the research program are to be perform water budget analysis, to estimate specific yield, recharge and discharge, rainfall-recharge factor and finding the new numerical relationship between rainfall and recharge

Keywords: evaluation, specific yield, recharge and discharge, recharges coefficients, Recharge Rainfall factor, and water budget