Karnataka State Council for Science and Technology
(An autonomous organisation under the Dept. of Science & Technology, Govt. of Karnataka)
Indian Institute of Science Campus, Bengaluru – 560 012
KSCST
Telephone: 080-23341652, 23348848, 23348849, 23348840
Email: office.kscst@iisc.ac.in, office@kscst.org.in • **Website:** www.kscst.iisc.ernet.in, www.kscst.org.in

Dr. U T Vijay
Executive Secretary

Ref: 7.1.01/SPP/37

19th April, 2024

To,
The Principal
Alva's Institute of Engineering and Technology
Shobavana Campus Mijar
Moodbidri - 574 225

Dear Sir/Madam,

Sub : Sanction of Student Project - 47th Series: Year 2023-2024

Project Proposal Reference No. : **47S_BE_3426**
Ref : Project Proposal entitled **BREATHE EASY, DRINK PURE: ADDRESSING DUMP YARD POLLUTION AT VAMANJOOR, MANGALORE WITH PLANT-BASED REMEDIATION**

We are pleased to inform that your student project proposal referred above, has been approved by the Council under "Student Project Programme - 47th Series". The project details are as below:

Student(s)	Mr. M. R. BHARATH	**Department**	CIVIL ENGINEERING
	Mr. KAUSHIK		
	Mr. SAHIL SHETTY		
	Mr. VIDYANANDA	**Sanctioned Amount (in Rs.)**	5,000.00
Guide(s)	Prof. SURENDRA P.		

Instructions:

a) The project should be performed based on the objectives of the proposal submitted.
b) Any changes in the project title,objectives or students team is liable for rejection of the project and your institution shall return the sanctioned funds to KSCST.
c) Please quote your project reference number printed above in all your future correspondences.
d) After completing the project, 2 to 3 page write-up (synopsis) needs to be uploaded on to the following Google Forms link https://forms.gle/6s8hq5XbScsBMv3G9. The synopsis should include following:
   1) Project Reference Number
   2) Title of the project
   3) Name of the College & Department
   4) Name of the students & Guide(s)
   5) Keywords
   6) Introduction / background (with specific reference to the project, work done earlier, etc) - about 20 lines
   7) Objectives (about 10 lines)

PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K

8) Methodology (about 20 lines on materials, methods, details of work carried out, including drawings, diagrams etc)

9) Results and Conclusions (about 20 lines with specific reference to work carried out)

10) Scope for future work (about 20 lines).

e) In case of incompeted projects, the sanctioned amount shall be returned to KSCST.

f) The sanctioned amount will be transferred by NEFT to the bank account provided by the College/Institute.

g) The sponsored projects evaluation will be held **third week of May 2024** onwards through Online Mode and the details of the same will be intimated shortly by email / Website

h) After completion of the project, soft copy of the project report duly signed by the Principal, the HoD, Guide(s) and studetn(s) shall be uploaded in the following Google Forms Link https://forms.gle/Mi446v1U5fdFcMD99. The report should be prepared in the format prescribed by the university.

i) The **Utilization Certificate and Statement of Expenditure duly signed by competent authority** of consolidated sanctioned projects from your institution need to be submitted **20 August 2024** without fail.

Please visit our website for further announcements / information and for any clarifications please email to spp@kscst.org.in

Thanking you and with best regards,

Yours sincerely,

(U T Vijay)

Copy to:

1) The HoD
CIVIL ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI

2) Prof. SURENDRA P.
CIVIL ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI

3) THE ACCOUNTS OFFICER
KSCST, BENGALURU

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"JnanaSangama"Belagavi–590010

PROJECT REPORT ON

"BREATHE EASY, DRINK PURE: ADDRESSING DUMP YARD POLLUTION AT VAMANJOOR, MANGALORE WITH PLANT-BASED REMEDIATION"

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

BACHELOR OFENGINEERING

IN

CIVIL ENGINEERING

Submitted By

KAUSHIK	**4AL20CV005**
M R BHARATH	**4AL20CV007**
SAHIL SHETTY	**4AL21CV402**
VIDYANANDA	**4AL21CV403**

Under the Guidance of

Mr. Surendra P

Assistant Professor

Department of Civil Engineering

ALVA'S
Education Foundation

DEPARTMENT OF CIVIL ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI–574225.

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
MIJAR MOODBIDRI D.K. -574225–KARNATAKA.

ALVA'S
Education Foundation

DEPARTMENTOFCIVILENGINEERING

CERTIFICATE

Certified that the project work entitled

"BREATHE EASY, DRINK PURE: ADDRESSING DUMP YARD POLLUTION AT VAMANJOOR, MANGALORE WITH PLANT-BASED REMEDIATION"

Is a Bonafide work carried out by

KAUSHIK	**4AL20CV005**
MR BHARATH	**4AL20CV007**
SAHIL SHETTY	**4AL21CV402**
VIDYANANDA	**4AL21CV403**

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 **CIVILENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2023-2024. 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.

27/05/24

Mr. Surendra P
Project Guide

Prof. B Durgaprasad Baliga
Head of the Department
HOD
Dept. of Civil Engineering
Alva's Institute of Engg. & Technology
Mijar, Moodbidri - 574 225

Dr. Peter Fernandes
Principal
PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar. MOODBIDRI - 574 225, D.K

Name of the Examiners **Signature with Date**

1. Ms. Anusha B Rao 29/5/24
2. Mr. Surendra P 27/05/24

ABSTRACT

The project titled **"BREATHE EASY, DRINK PURE: ADDRESSING DUMP YARD POLLUTION AT VAMANJOOR, MANGALORE WITH PLANT-BASED REMEDIATION"** aimed to examine the The data from Table 8.1 shows fluctuations in the levels of PM2.5 and PM10 pollutants over several dates. PM2.5 levels range from as low as 6 µg/m3 to as high as 21 µg/m3, while PM10 levels vary from 22 µg/m3 to 46 µg/m3. These fluctuations indicate a lack of consistent improvement in air quality.The insufficient efforts in plantation near the dump yard are hindering the improvement of air quality. This inadequacy exacerbates the daily increase in pollution levels, as evidenced by the fluctuating PM2.5 and PM10 readings near the site. Without effective measures to address this issue, achieving the targeted results for air quality improvement may take longer than anticipated. Through rigorous analysis of water samples collected from surrounding wells, significant improvements in water quality are observed. Notably, there is a marked reduction in pollutants and an enhancement in clarity, credited to the successful implementation of plant-based remediation strategies. Nitrate levels exhibit a notable decrease from 12 mg/L to 8.2 mg/L, indicating a substantial reduction in contaminant concentration. Furthermore, the pH value demonstrates a positive shift from 6.3 to 6.8, reflecting favorable alterations in water chemistry. These findings highlight the efficacy of plant-based remediation techniques in mitigating pollution and improving water quality in environments impacted by dump yards. Continued research and implementation of such approaches hold promise for addressing environmental challenges and preserving water resources in similar contexts.This study investigates the potential benefits of enhancing water quality sourced from Vamanjoor in Mangalore, with a focus on its implications for community health and well-being. Through thorough analysis, it is determined that improving water quality in this region could yield significant positive outcomes. Specifically, a reduction in waterborne diseases and an overall enhancement in the quality of life for residents are anticipated as direct consequences of enhanced water quality. These findings underscore the critical link between water quality and public health, emphasizing the importance of proactive measures to safeguard and improve water resources. Implementation of strategies aimed at enhancing water quality in Vamanjoor holds promise for fostering healthier communities and promoting well-being in the region.