Dr. U T Vijay
Executive Secretary

24th April, 2023

Ref: 7.1.01/SPP/33

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

Dear Sir/Madam,

Sub : Sanction of Student Project - 46th Series: Year 2022-2023

Project Proposal Reference No. : 46S_BE_1874

Ref : Project Proposal entitled **LANDSLIDE PREDICTION MODEL FOR COORG REGION USING ANN APPROACH**

We are pleased to inform that your student project proposal referred above, has been approved by the Council under "Student Project Programme - 46th Series". The project details are as below:

Student(s)	Mr. ADITYA KULKARNI	Department	CIVIL ENGINEERING
	Mr. SANDEEP S PAWAR		
	Mr. PRAVEEN KUMAR		
	Mr. SINDHOOR NAIK	Sanctioned Amount (in Rs.)	3,000.00
Guide(s)	Prof. ANUSHA B RAO		

Comments / Suggestions of the Experts

The ANN models need lot of data to train & verify the model. There is no clarity on this issue.

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/nWTaJjvrwzp3Wmvt6. The synopsis should include following:
   1) Project Reference Number
   2) Title of the project
   3) Name of the College & Department

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

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)

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 in the Nodal Centre/Online Mode and the details of the same will be intimated shortly by email / Website announcement.

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/YWz56TrGg7fnSQgc7. The report should be prepared in the format prescribed by the university.

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. ANUSHA B RAO
   CIVIL ENGINEERING
   ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI

3) THE ACCOUNTS OFFICER
   KSCST, BENGALURU

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010

PROJECT REPORT ON
"LANDSLIDE PREDICTION MODEL FOR COORG REGION USING ANN APPROACH"

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

BACHELOR OF ENGINEERING
IN
CIVIL ENGINEERING

Submitted By

Aditya Kulkarni	4AL19CV002
Praveenakumar	4AL19CV029
Sandeep S Pavar	4AL19CV034
Sindhoorkumar N Naik	4AL19CV037

Under the Guidance of
Ms. ANUSHA B RAO
Assistant Professor
Department of Civil Engineering

ALVA'S
Education Foundation

DEPARTMENT OF CIVIL ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
MOODBIDRI – 574 225

2022-2023

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MIJAR, MOODBIDRI D.K. 574225 -KARNATAKA

ALVA'S
Education Foundation®

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

Certified that the project work entitled "**LANDSLIDE PREDICTION MODEL FOR COORG REGION USING ANN APPROACH**" has been successfully completed by

Aditya Kulkarni	**4AL19CV002**
Praveenakumar	**4AL19CV029**
Sandeep S Pavar	**4AL19CV034**
Sindoorkumar N Naik	**4AL19CV037**

The bonafide students of Department of Civil Engineering, 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 2022-23. 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 seminar work prescribed for the Bachelor of Engineering Degree.

Ms. Anusha B Rao
Project Guide

Dr. H Ajith hebbar
Head of the Department
H.O.D.
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
Signature with date

Name of the examiners

1.
2.

ABSTRACT

Landslides are one of the most frequent and destructive natural disasters, causing severe damage to life and property. The causes of landslides are multifaceted, encompassing various geological, meteorological, and anthropogenic factors. Geological factors include slope steepness, soil and rock type, and groundwater conditions, while meteorological factors such as heavy rainfall or snowmelt can trigger slope failures. Human activities, including deforestation, construction, and improper land use planning, can also contribute to landslide occurrence. Landslides can occur in different forms, including falls, slides, flows, and complex combinations therefore Each type exhibits distinct characteristics, ranging from sudden and rapid rockfalls to slow-moving debris flows. The understanding of landslide types is crucial for predicting their behaviour and implementing effective countermeasures. Accurate landslide prediction is crucial for preventing or mitigating the impact of landslides. In recent years, artificial neural network (ANN) approach has emerged as a promising tool for landslide prediction. The study uses various factors such as slope, rainfall, soil type, land use, and vegetation cover as input data to train the ANN model. The trained ANN model then predicts the likelihood of landslides in the region. The accuracy of the model depends on the quality and quantity of input data used for training. The results indicate that the ANN approach is effective in predicting landslides and can assist in mitigating the impact of landslides. The study highlights the importance of accurate and comprehensive data collection for landslide prediction and prevention.