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
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

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_1885**
Ref : Project Proposal entitled **TECHNICAL TERM SIGN LANGUAGE DETECTION**

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)	Ms. NATASHA SALDANHA	**Department**	COMPUTER SCIENCE AND ENGINEERING
	Mr. K.VINAY		
	Mr. GANESHA SHETTY		
	Mr. GIRIPRASAD PATIL	**Sanctioned Amount (in Rs.)**	3,500.00
Guide(s)	Mrs. VIDYA		

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

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)

H. O. D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

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
COMPUTER SCIENCE AND ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI

2) Mrs. VIDYA
COMPUTER SCIENCE AND ENGINEERING
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, MOODBIDRI

3) THE ACCOUNTS OFFICER
KSCST, BENGALURU

H.O.D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELAGAVI

A PROJECT REPORT ON

"TECHNICAL TERM SIGN LANGUAGE RECOGNITION FOR THE DEAF AND DUMB"

Submitted in partial fulfillment for the award of Degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE & ENGINEERING

By

GANESHA SHETTY	4AL19CS034
GIRIPRASAD S PATIL	4AL19CS036
K.VINAY	4AL19CS041
NATASHA SALDANHA	4AL19CS057

Under the Guidance of

Mrs. Vidya

Senior Assistant Professor

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MOODBIDRI-574225, KARNATAKA

2022-23

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

ALVA'S
Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"TECHNICAL TERM SIGN LANGUAGE RECOGNITION FOR THE DEAF AND DUMB"** has been successfully completed by

GANESHA SHETTY	4AL19CS034
GIRIPRASAD S PATIL	4AL19CS036
K. VINAY	4AL19CS041
NATASHA SALDANHA	4AL19CS057

the bonafide students of **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY** 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 Project Work prescribed for the Bachelor of Engineering Degree.

Mrs . Vidya **Project Guide**	**Dr. Manjunath Kotari** **Head Of the Department**	**Dr. Peter Fernandes** **Principal**

H.O.D.
Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

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

External Viva

Name of the Examiners	Signature with Date
1.	
2.	

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MIJAR, MOODBIDRI D.K. -574225, KARNATAKA

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DECLARATION

We,

GANESHA SHETTY
GIRIPRASAD PATIL
K.VINAY
NATASHA SALDANHA

hereby declare that the dissertation entitled "**TECHNICAL TERM SIGN LANGUAGE RECOGNITION FOR THE DEAF AND DUMB**" is completed and written by us under the supervision of our guide **Mrs. Vidya**, Senior Assistant Professor, Department of Computer and Engineering, Alva's Institute of Engineering and Technology, Moodbidri, in partial fulfillment of requirements for the award of the degree **BACHELOR OF ENGINEERING** in **DEPARTMENT OF COMPUTER AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the academic year 2022- 23. The dissertation report is original and it has not been submitted for any other degree in any university.

GANESHA SHETTY	**4AL19CS034**
GIRIPRASAD PATIL	**4AL19CS036**
K.VINAY	**4AL19CS041**
NATASHA SALDANHA	**4AL19CS057**

ABSTRACT

Communicating between a deaf-mute and a typical person has never been easy. This essay examines various approaches used to lower communication barriers by creating an aid for people who are deaf-mute. The development of embedded systems has opened up opportunities for the design and development of sign language translation systems to help the hearing impaired people. The major goal is to create a real-time application for people with physical disabilities to support their communication in efficient ways. Sign language detection algorithms have the potential to greatly improve communication and accessibility for people who are hard of hearing. However, the output generated by these algorithms often contains technical terms and jargon that can be difficult for non-experts to understand. In this publication, we present a method for detecting technical terms related to sign language detection using natural language processing techniques.Our approach involves training a machine learning model to identify technical terms by analyzing a corpus of sign language detection research papers. We pre-process the text by removing stop words, stemming the remaining words, and converting all words to lowercase. We then use the text blob library in Python to extract noun phrases from the pre-processed text, which are likely to contain technical terms related to sign language detection. We manually annotate a subset of the noun phrases as technical terms or non-technical terms, and use this annotated data to train a machine learning model dependent on a support vector machine (SVM) classifier. We evaluate the performance of our model using a test dataset and demonstrate that it can accurately identify technical terms related to sign language detection with high precision and recall.Our method has potential applications in education and other fields where technical terminology can be a barrier to understanding. By automatically detecting and highlighting technical terms in sign language detection research, our method can help make this important area of research more accessible to a wider audience. We also go through the limitations of our strategy and some directions for further study.