KSCST

Karnataka State Council for Science and Technology

Indian Institute of Science Campus, Bengaluru - 560 012

Telephone: 080-23341652, 23348848, 23348849 ♦ Telefax: 080-23348840

Email: office@kscst.iisc.ernet.in, office@kscst.org.in ♦ Website: www.kscst.iisc.ernet.in, www.kscst.org.in
office.kscst@iisc.ac.in

Mr. H. Hemanth Kumar
Executive Secretary

16th March 2020

Ref: 7.1.01/SPP/953

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

Dear Sir/Madam,

Sub : Sanction of Student Project - 43rd Series: Year 2019-2020
Your Project Proposal Reference No. : ***43S_BE_0140***

Ref : Your Project Proposal entitled " ***CROP DISEASE PREDICTION USING AI AND DEEP LEARNING TO SUPPORT SMART FARMING***

We are pleased to inform that your student project proposal referred above, has been approved by the Council under "Student Project Programme - 43rd Series" with a budgetary break-up as detailed below:

		Budget	
Student / s	Mr. Ravi K R	**Particulars**	**Amount (Rs.)**
	Mr. Shashikant Chavan		
	Mr. Manoj L	Materials/Consumables	3,000.00
	Mr. Suraj S Kashyap	Labour	-
Guide/s	Dr. Manjunath Kotari	Travel	-
	-	Miscellaneous	500.00
Department	Computer Science And Engineering	Report	500.00
		Total	**4,000.00**
	Four Thousand Rupees Only		

The following are the guidelines to carryout the project work :

a) The project should be performed based on the objectives of the proposal sent by you.

b) The project should be completed in all respects and one copy of the hardbound report along with softcopy of the full report in a CD (.pdf format) should be submitted to KSCST.

c) Any change in the project title and objectives, etc., or students is liable to rejection of the project and the amount sanctioned needs to be returned to KSCST.

d) Please quote your **project reference number printed above** in all your future correspondences.

e) **Important:** After completing the project, 2 to 3 page write-up (synopsis) needs to be sent by e-mail [spp@kscst.iisc.ernet.in] and should include following :

1) Title of the project
2) Name of the College & Department
3) Name of the students & Guide(s)
4) Keywords

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Mijar, MOODBIDRI - 574 225, D.K

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6) Introduction / background
(with specific reference to the project, work done earlier, etc) - about 20 lines
6) Objectives (about 10 lines)
7) Methodology (about 20 lines)
(materials, methods, details of work carried out, including drawings, diagrams etc)
8) Results and Conclusions
(about 20 lines with specific reference to work carried out)
9) Scope for future work (about 20 lines).
(Note: The write-up (Synopsis) should be sent with the approval of project guide. The softcopy of the write-up, in MS Word format, should be sent by e-mail (spp@kscst.iisc.ernet.in). In your e-mail, please also include project proposal reference number and title of the project.)

e) Projects selected for Seminar / Exhibition will be awarded.

The sanctioned amount will be sent through crossed cheque to the Principal. Please furnish the bank account details as per the format enclosed with this letter.

The sponsored projects evaluation will be held in the Nodal Centre and the details of the nodal centre will be intimated shortly by e-mail / Website announcement.

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

Thanking you and with best regards,

Yours sincerely,

(H. Hemanth Kumar)

Copy to:
1) The Head of the Department of
Computer Science And Engineering
Alva'S Institute Of Engineering And Technology,
Moodbidri - 574 225.

2) Dr. Manjunath Kotari
Department of Computer Science And Engineering
Alva'S Institute Of Engineering And Technology,
Moodbidri - 574 225.

3) The Finance Officer, KSCST, Bengaluru

Encl: As Above

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,

BELAGAVI

A PROJECT REPORT ON

"CROP DISEASE PREDICTION USING AI AND DEEP LEARNING TO SUPPORT SMART FARMING"

Submitted in partial fulfillment for the award of Degree of,

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE &ENGINEERING

By

RAVI K R	4AL16CS076
SHASHIKANT CHAVAN	4AL16CS090
SURAJ KASHYAP	4AL16CS109
MANOJ L	4AL16CS125

Under the Guidance of

Dr.Manjunath Kotari

Head of the department

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MOODBIDRI-574225, KARNATAKA, 2019 – 2020

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MIJAR, MOODBIDRI D.K. -574225, KARNATAKA

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project entitled **"CROP DISEASE PREDICTION USING AI AND DEEP LEARNING TO SUPPORT SMART FARMING"** has been successfully completed by

RAVI K R	4AL16CS076
SHASHIKANT CHAVAN	4AL16CS090
SURAJ KASHYAP	4AL16CS109
MANOJ L	4AL16CS125

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 2019–2020. 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.

Dr.Manjunath Kotari	**Dr. Manjunath Kotari**	**Dr. Peter Fernandes**
Project Guide	**Head of the department**	**Principal**

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

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

External Viva

Name of the Examiners	**Signature with Date**
1.	
2.	

ABSTRACT

The Advantage of Machine Learning is Possible to predict the result by analyzing the previous data or results. We intend to develop an android or web based intelligent module plant disease predicting and simultaneously providing precaution's since this has become a necessary tool. Convolutional neural network models were developed to perform plant disease detection and diagnosis using simple leaves images of healthy and diseased plants, through deep learning methodologies. Training of the models was performed with the use of an open database of images, containing different plants in a set of distinct classes of [plant, disease] combinations, including healthy plants. Several model architectures were trained, with the best performance reaching a 90% success rate in identifying the corresponding [plant, disease] combination (or healthy plant). The significantly high success rate makes the model a very useful advisory or early warning tool, and an approach that could be further expanded to support an integrated plant disease identification system to operate in real cultivation condition the analysis and prediction is based on convolutional neural network using Google's Open Source Tensor Flow library. Recent studies have reflected that machine learning and deep learning techniques achieved better performance than traditional statistical methods. Machine learning, a branch of artificial intelligence has been proved to be a robust method in predicting and analyzing a given data set. The module plays a vital role in agricultural, industrial and logistical fields where the food production is an important criterion.