



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

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Mr. H. Hemanth Kumar
Executive Secretary

Ref: 7.1.01/SPP/10

19th April 2021

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

Dear Sir/Madam,

Sub : Sanction of Student Project - 44th Series: Year 2020-2021

Your Project Proposal Reference No. : **44S_BE_1156**

Ref : Your Project Proposal entitled " **SELF BALANCING MED SUPPLY BOT DURING FLOODS**

We are pleased to inform that your student project proposal referred above, has been approved by the Council under "Student Project Programme - 44th Series" with a budgetary break-up as detailed below:

Student / s	Mr. Gagan M K	Budget	
	Mr. Swastik R Gowda	Particulars	Amount (Rs.)
	Ms. Akshatha M Deshpande	Materials/Consumables	4,000.00
	Ms. Nichenametla Bhargavi	Labour	-
Guide/s	Mr. Santhosh S	Travel	-
		Miscellaneous	500.00
Department	Electronics And Communication Engineering	Report	500.00
		Total	5,000.00
	FIVE THOUSAND RUPEES ONLY		

The following are the guidelines to carryout the project work :

- The project should be performed based on the objectives of the proposal sent by you.
- The project should be completed in all respects and softcopy of the full report in a CD (single file .pdf format only) should be submitted to KSCST.
- 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.
- Please quote your **project reference number printed above** in all your future correspondences.
- 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 :
 - Title of the project
 - Name of the College & Department
 - Name of the students & Guide(s)
 - Keywords

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

- 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.)**

The sanctioned amount will be sent to the Principal / Head of the Institute by NEFT details provided by the college/institution.

The sponsored projects evaluation will be held in the Nodal Centre /online platform and the details of the same 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 (by email):

- 1) Dr. Kiran B Malagi
SPP Coordinator
Alva'S Institute Of Engineering And Technology,
Shobavana Campus,
Mijar, Moodbidri - 574 225.
- 2) Mr. Santhosh S
Department of Electronics And Communication Engineering
Alva'S Institute Of Engineering And Technology,
Shobavana Campus,
Mijar, Moodbidri - 574 225.

3) The Finance Officer, KSCST, Bangalore

Encl: As Above



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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010



**PROJECT REPORT ON
DESIGN AND IMPLEMENTATION OF SELF
BALANCING MED-BOT**

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

**BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING**

Submitted By

Name	USN
AKSHATHA M DESHPANDE	4AL17EC006
GAGAN M K	4AL17EC032
NICHENAMETLA BHARGAVI	4AL17EC061
SWASTIK R GOWDA	4AL17EC091

**Under the Guidance of
Mr. SANTHOSH S
Assistant Professor
Department of E&C Engineering**



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI – 574 225.

2020-2021

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

MOODBIDRI - 574 225

(Affiliated to VTU, BELAGAVI)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled **DESIGN AND IMPLEMENTATION OF SELF BALANCING MED-BOT** is a bona fide work carried out by

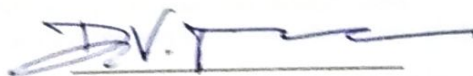
AKSHATHA M DESHPANDE	4AL17EC006
GAGAN M K	4AL17EC032
NICHENAMETLA BHARGAVI	4AL17EC061
SWASTIK R GOWDA	4AL17EC091

in partial fulfillment for the award of BACHELOR OF ENGINEERING in ELECTRONICS & COMMUNICATION 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.



Signature of the Guide

Mr. Santhosh S



Signature of the H.O.D

Dr. D V Manjunatha

H.O.D.
Dept. Of Electronics & Communication
Alva's Institute of Engg. & Technology
MOODBIDRI - 574 225
INTERNAL VIVA



Signature of the Principal

Dr. Peter Fernandes

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

Signature with date

Name of the Examiners

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ABSTRACT

Whenever any disasters take place like floods, there is a need to design appropriate product which helps the rescue team to transport medicines to the effected people. The rescue team usually will be focusing on saving people in flood spots, but the people who have been saved and are in the rescue camps need proper medication and their necessities have to be taken care of. Also there will be least amount of rescuers available to save people during floods. In such scenario it becomes difficult to the rescue team to focus on saving people who are stuck in floods and also taking care of people who are effected and are in camps.

This project is based on a development of Self Balancing two wheeled bot. In particular, the focus is on the electro-mechanical mechanisms & control algorithms required to enable the robot to perceive and act in real time. The two wheeled self balancing bot is an example of advanced development in the field of robotics. The concept of two-wheel self-balancing robot is based on Inverted pendulum theory. This type of robot has earned interest and fame among researchers and engineers of worldwide as it based on such a control system that is used to stabilize an unstable system using efficient micro controllers and sensors. These robots provide exceptional robustness and capability due to their smaller size and power requirements. These types of implementations find applications in several purposes such as surveillance & transportation.

This paper proposes a system that will act as a helper hand to the rescue team in the flood affected areas. The Proposed System will be able to carry medicines and necessary items to each bed in the rescue camps. Because of this kind of system the flood effected people can get quick medications. As there will be less availability of people in the rescue team, this kind of bots helps for transportations with less human assistance.