



Karnataka State Council for Science and Technology

Indian Institute of Science Campus, Bengaluru - 560 012

Telephone: 080-2334 1652, 2334 8848, 2334 8849 ♦ Telefax: 080-2334 8840

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

Dr. S. G. Sreekanteswara Swamy
Executive Secretary

27th March 2017

Ref: 7.1.03/SPP/1112

The Principal
Sapthagiri College of Engineering,
14/5, Chickasandra,
Hesaraghatta Main Road,
Bengaluru - 560 057

Dear Sir,

Sub : Sanction of Student Project - 40th Series: Year 2016-2017
Your Project Proposal Reference No. : 40S_BE_2312

Ref : Your Project Proposal entitled " **FOREST MONITORING SYSTEM BASED ON GPRS AND POWERED BY IOT**

I am happy to inform that your project proposal referred above, has been approved by the Secretary, KSCST for "Student Project Programme - 40th Series" and has been sanctioned with a budgetary break-up as detailed below:

Student / s	Ms. Manasa J. and others	Budget	Amount (Rs)
		Materials/Consumables	6,000.00
Guide/s	Prof. Suma V Shetty	Labor	1,000.00
		Travel	-
Department	Electronics And Communication Engineering	Miscellaneous	-
		Report	500.00
		TOTAL	7,500.00
	Rupees Seven Thousand Five Hundred		

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 one copy of the hardbound report along with softcopy of the full report in a CD (.pdf format) 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 sanction 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

for
Principal
Sapthagiri College of Engineering
14/5, Chickasandra, Hesaraghatta main Road
Bengaluru - 560 057

12
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road,
Bangalore-560 057

5) 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.

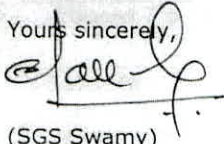
The sanctioned amount will be sent separately by our Accounts Department.

The sponsored projects evaluation will be held in the Nodal Centre and the details of the nodal centre will be intimated shortly.

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,



(SGS Swamy)

Copy to:

- 1) The Head of the Department of
Electronics And Communication Engineering
Sapthagiri College Of Engineering,
14/5, Chickasandra,
Hesaraghatta Main Road,
Bengaluru - 560 057
- 2) Prof. Suma V Shetty
Department of Electronics And Communication Engineering
Sapthagiri College Of Engineering,
14/5, Chickasandra,
Hesaraghatta Main Road,
Bengaluru - 560 057
- 3) The Finance Officer, KSCST, Bangalore


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Bangalore-560 057

A PROJECT REPORT

On

A Forest Monitoring System Powered By IOT

Submitted to

Visvesvaraya Technological University

Belagavi, Karnataka – 590018



In Partial fulfillment for the award of degree in

Bachelor of Engineering

During VIII Semester of

Electronics and Communication Engineering

For the academic year 2016-17

Submitted by

Manasa J	1SG13EC050
Harshitha R	1SG13EC034
Jayanthi Sri Haripriya	1SG13EC035
Aman Makrani	1SG13EC013

Under the guidance of

Prof. Suma V. Shetty

Assistant Professor, Dept.ECE



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2016-17

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057



SAPTHAGIRI COLLEGE OF ENGINEERING
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru- 560057
Department of Electronics and Communication Engineering

CERTIFICATE

Certified that the Project work entitled "A FOREST MONITORING SYSTEM POWERED BY IOT", carried out by Ms. Manasa.J (1SG13EC050), Ms. Jayanthi Sri Haripriya (1SG13EC035), Ms. Harshitha.R (1SG13EC034), Mr. Aman Makrani (1SG13EC013), bonafide students of 8th Semester Electronics and Communication Engineering in partial fulfillment for the award of **Bachelor of Engineering** in Sapthagiri College of Engineering of the Visvesvaraya Technological University, Belagavi during the year 2016-17. 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 said degree.

Suma V Shetty

Signature of the Guide

Mrs. Suma V.Shetty

Assistant Professor

Dept. of ECE,

SCE, Bengaluru

Sandhya Rani M.H.
06/06/2017

Signature of the HOD

Mrs. Sandhya Rani M.H.

Associate Professor and HOD

Head of the Department

Dept. of ECE,

Sapthagiri College of Engineering
Bengaluru - 560 057

Dr. Aswatha Kumar M

Signature of the Principal

Principal

SCE, Bengaluru

Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore- 560 057

External Viva

Name of the examiners

1. *P. Agalya*
2. *Nagesh*

Signature with date

Dr. Aswatha Kumar M
28/6/17
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesaraghatta Road
Bangalore-560057

ABSTRACT

Forests are part of the important and indispensable resources for human survival and social development that protects the balance of the earth ecology. There is a need to design a smart and efficient Forest Monitoring System.

This project presents the prototype of a system for detection of any uncontrolled anthropogenic activities, smoke or fires in forests using sensors. The data from the sensors is processed in the microcontroller and is transmitted to the receiver unit through Zigbee network. The abnormalities alert the receiver unit and the pictures taken through camera are mailed.

This Forest Monitoring system prototype is designed and developed in an effort to improve the security level for valuable trees which have high demand in market like teak, Sandalwood, etc. This prototype is tested and demonstrated successfully for its functionality.


Principal
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Chikkasandra, Hesareghatta Road,
Bangalore-560 057

CHAPTER 6

IMPLEMENTATION AND RESULTS

The prototype of the system can be implemented in places where precious trees are planted, to prevent forest fires and other illegal activities.

6.1 Snapshots of IOT Working

Step1: IOT APP on the transmitter side.

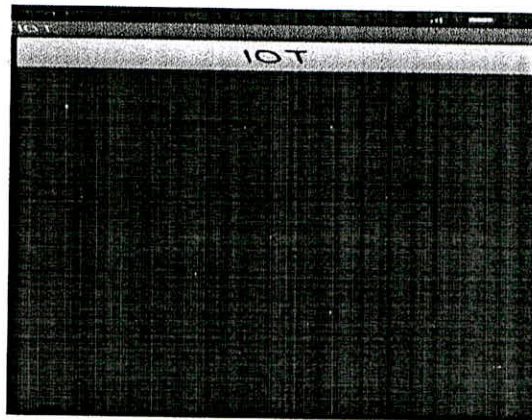


Fig 6.1: IOT APP on the transmitter side.

Step2: Option indicating to enter EMAIL ID on the transmitter side.

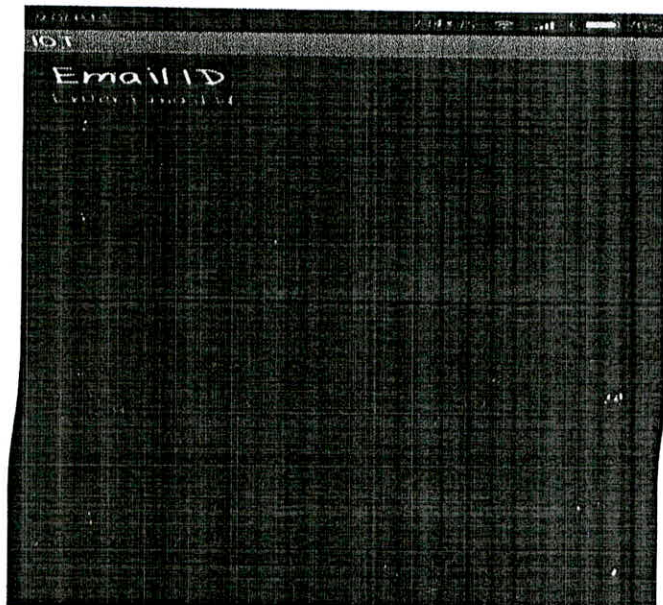


Fig 6.2: Option indicating to enter EMAIL ID on the transmitter side.

KSCST PROJECTS

UTILIZATION CERTIFICATE

KSCST Student project program 40th series -2016-2017

Sl No	Title of the project	Amount	<p>Certified that KSCST has provided partial financial support of RS 36000/- towards Biofuel and SPP student project program 40th series</p> <p>Sum of Rs36000/- only has been utilize for the purpose Biofuel and SPP student project program for which it was sanction</p>
1	Isolation & identification of Micro labs for absorption and conversion of ammonia, nitrates and nitrogen using Aquaponics system	6,500/-	
2	Forest Monitoring System based on GPRS and powered by iot	7,500/-	
3	Performance and emission analysis of single cylinder si engine varying ethanol blends with petrol	10,000/-	
4	Redaction of pollution levels in the atmosphere by the use of methanol blended petrol fuel in automobile IC engine and study of its effects on the performance of the engine	12,000/-	

Certified that I have satisfied myself that condition on which the grant in aid sanctioned has been duly/are be fulfilled and that I have excise the following check to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of check exercised

1. Cash book
2. Vouchers


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 Bangalore - 560 057


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 Bangalore - 560 057

Sl. No	Project proposal ref no	Title of the project	Dept./Guide	Amount Sanction by KSCST	Amount utilized by the college	Balance if any to be refunded to KSCST
1	40S_B_0183	Isolation & identification of Micro labs for absorption and conversion of ammonia, nitrates and nitrogen using Aquaponics system	BT/ Prof. Saranya D / Prof. Ananda H V/ Prof. Blessy Baby Mathew	6,500/-	6,500/-	0
2	40S_B_2312	Forest Monitoring System based on GPRS and powered by iot	EC/ Prof. Suma V Shetty	7,500/-	7,500/-	0
3	40S_B_049	Performance and emission analysis of single cylinder si engine varying ethanol blends with petrol	ME/ Prof. Raghuthama Rao	10,000/-	10,000/-	0
4	40S_B_064	Reduction of pollution levels in the atmosphere by the use of methanol blended petrol fuel in automobile IC engine and study of its effects on the performance of the engine	ME/ Prof. Raghuthama Rao	12,000	12,000	0



Signature of the Principal with seal

Signature of Auditor with seal

Date: _____
Principal
Sapthagiri College of Engineering
Chikkasandra, Hesarahatta Road
Bangalore-560 057

Date: _____

Principal
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