



# 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

**Dr. S. G. Sreekanteswara Swamy**  
Fellow & Principal Investigator - SPP

27th March 2015

Ref: 7.1.03/SPP/1018

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

*Prof. Sreeleela  
EC  
KSCST*

Dear Sir,

Sub : Sanction of Student Project - 38th Series: Year 2014-2015

Your Project Proposal Reference No. : **38S1628**

Ref : Your Project Proposal entitled " **FUNGAL LIGNIN PEROXIDASE FOR BIODEGRADATION OF PULP PAPER AND TEXTILE EFFLUENT**

I am happy to inform that your project proposal referred above, has been approved by the Secretary, KSCST for "Student Project Programme - 38th Series" and has been sanctioned with a budgetary break-up as detailed below:

| Student / s | Ms. Rohini S<br>and others                          | Budget                  | Amount (Rs)     |
|-------------|---|-------------------------|-----------------|
|             |   | Materials/Consumables   | 5,000.00        |
| Guide/s     | Asst. Prof. Soumya C & Asst. Prof.<br>Vinutha Moses | Labor                   | 1,000.00        |
|             |   | Travel                  | 1,000.00        |
| Department  | Biotechnology                                       | Miscellaneous           | 500.00          |
|             |   | Report                  | 500.00          |
|             |   | <b>TOTAL</b>            | <b>8,000.00</b> |
| Rupees      | <b>EIGHT<br/>THOUSAND</b>                           | <b>ZERO<br/>HUNDRED</b> |                 |

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

*Sapthagiri College of Engineering  
Chickasandra, Hesaraghatta Road,  
Bengaluru-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.

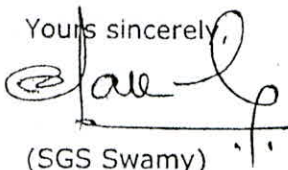
The sanctioned amount will be sent separately by our Accounts Department.

**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  
Biotechnology  
Sapthagiri College Of Engineering  
14/5, Chickasandra, Hesaraghatta Main Road,  
Bengaluru - 560 057
- 2) Asst. Prof. Soumya C & Asst. Prof. Vinutha Moses  
Department of Biotechnology  
Sapthagiri College Of Engineering  
14/5, Chickasandra, Hesaraghatta Main Road,  
Bengaluru - 560 057
- 3) The Finance Officer, KSCST, Bangalore



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

38S1628

# Fungal lignin peroxidase for biodegradation of paper pulp and textile effluent



A Project Report Submitted To The Karnataka State Council For Science And  
Technology  
(KSCST – 2014-15)

Submitted By

Ms Rohini S  
Ms Priyanka P Ullal

Under the guidance of

Mrs Soumya C  
Mrs Vinutha Moses  
Assistant Professor  
Department of Biotechnology  
Sapthagiri College of Engineering  
Affiliated to Visvesvaraya technological university  
Bangalore, Karnataka

Submitted to

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY  
INDIAN INSTITUTE OF SCIENCE CAMPUS,  
BENGALURU - 560012  
Karnataka

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



# SAPTHAGIRI COLLEGE OF ENGINEERING

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru-560 057



## DEPARTMENT OF BIOTECHNOLOGY

### CERTIFICATE

This is to certified that the project work entitled "Fungal lignin peroxidase for ~~bio~~gradation of paper pulp and textile effluent" has been carried out by Ms Rohini and Ms Priyanka P Ullal bonafide students of VIII semester B.E in Biotechnology of Sapthagiri College of Engineering, under scheme of The Karnataka State Council For Science And Technology during the academic year 2014-2015. The research is a record of original work carried out by them, in Department of Biotechnology, Sapthagiri College of Engineering, Bangalore, Karnataka, under our guidance and supervision and it has not formed the basis for the award of any Degree.

Signature of Guide

Mrs. Soumya C

Mrs. Vinutha Moses

(Dr. Aswatha Kumar M)

Signature of Principal

1-08-15

From,

Soumya C

Dept of Biotechnology,

Sapthagiri College of engineering,

Bangalore.

To,

Principal,

Sapthagiri College of engineering,

Bangalore.

Through

HOD


Respected Sir,


**Subject: Requisition to grant KSCST Sanction fund amount**

With reference to above subject I, Kindly request you to issue the cheque in the favour of soumya C of the grant amount Rs 8,000 towards the procurement of chemicals, glass wares, characterization of sample and report preparation. The budget estimation to carry out project as attached.

Thanking You,

Yours faithfully,

  
Soumya C

Forwarded  
for the kind  
kind  
  
1-8-15

ALCS  
  
01/08

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

| BUDGET ESTIMATE |  |                        |        |
|-----------------|--|------------------------|--------|
| Bill No         |  | Particulars            | Amount |
| 1               |  | Sample charcterisation | 1368 ✓ |
| 2               |  | Chemicals              | 5298 ✓ |
| 3               |  | Project report         | 800 ✓  |
| 4.              |  | Travel +Miscellaneous  | 534 ✓  |
|                 |  | Grand total            | 8000   |

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



# RAGHAVENDRA SPECTRO METALLURGICAL LABORATORY

## **BILL**

No. 5668  
Customer : ROHINI.S  
SAPTHAGIRI COLLEGE OF ENGINEERING

Date : 11-Jul-2015

Page 1 of 1

Vendor :  
Phone :

| Your Reference                               | D.C.No.          | Qty. | Rate    | Amount  |
|--|------------------|------|---------|---------|
| T<br>NT073 TEXTILES WASTE WATER              | LT DT:10.07.2015 | 1    | 1200.00 | 1200.00 |
| Sub Total                                    |                  |      |         | 1200.00 |
| Add Service TaxRgn No.: AAEFR8971MST001 @14% |                  |      |         | 168.00  |
| Total (Rounded) :                            |                  | 1    |         | 1368.00 |

for RAGHAVENDRA SPECTRO METALLURGICAL LABORATORY

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



# GRACE ENTERPRISES

Ph : 99163 56657

Suppliers of : Laboratory Equipments Sales &amp; Services, Glass Wares &amp; Plastics Wares &amp; Chemicals

# 101, 8th 'C' Cross, Venkatapura, Bangalore - 560 034. E-mail : graceenterprisessam@gmailcom

M/s. *Somnagar**Sophy's college of engg***TAX INVOICE**(ORIGINAL)  
(DUPLICATE / TRIPLICATE)

No. 494

Date 22/04/16

Your Order No.

Date

Challan No.

Date

Despatched Per

To

To

From

Freight : To Pay/Paid Rs.

No. of Cases

R.R./G.R./P.R. No.

Date

Documents Through/Payment

| Sl.No.              | DESCRIPTION                                     | RATE | QTY.      | AMOUNT<br>Rs. | Ps. |
|---------------------|---|------|-----------|---------------|-----|
| 1.                  | <i>Guicool</i>                                  | 1200 | 500ml x 1 | 1200          | 00. |
| 2.                  | <i>NNNN tetraethylene<br/>methylene diamine</i> | 1350 | 250ml x 1 | 1350          | 00  |
|                     |   |      |           | 270           | 00. |
| 3.                  | <i>Ammonium per Sulphate</i>                    | 270  | 500g x 1  | 1828          | 00  |
| 4.                  | <i>Bromocyanide</i>                             | 1828 | 100g x 1  | 4648          | 00  |
|                     |   |      | total     | 650.          | 72  |
|                     |   |      | VAT 14%.  |               |     |
| Amount in Words Rs. |   |      | TOTAL     | 5298.         | 72  |

TIN No. : 29080728923

We certify the goods on which Sales Tax has been charged have not been exempted under Sales Tax Act or the rules made thereunder and that the Charges on account of Sales Tax on those goods are correct under the provision of the Act and the contract.

Time

Party's

TIN No.....

E. &amp; O. E.

L.S.T. No.....

All goods are considered at consignee's Risk and we are not Responsible for any damage or breakage in transit. Interest will be charged at 24% on bills not paid within 30 days.

C.S.T. No.....

For GRACE ENTERPRISES

Area Code.....

SUBJECT TO BANGALORE JURISDICTION

*Rajaram*



SCE-2014-15

## Payment Voucher

No. : 1210

Dated : 8-Aug-2015

Through : TGMG-103091002852

| Particulars | Amount |
|-------------|--------|
|-------------|--------|

Account :

KSCST( Project Work)

8,000.00

On Account of :

Being towards refund of KSCST expenses ( expenses incurred towards chemicals, Glass ware and Characterization of samples and report Preparation)

Bank Transaction Details:

Soumya C

Cheque

8-Aug-2015

8,000.00

SAPTHAGIRI COLLEGE OF ENGINEERING  
TGMG BANK A/C NO.: 103091002852

Chq. No. 812563 Date 20/8/15 Rs. 8000

Prepared

Verified

Authorized Signatory

Amount (in words) :

INR Eight Thousand Only

₹ 8,000.00

Receiver's Signature

Authorised Signatory

Checked by



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



## KSCST PROJECTS

### UTILIZATION CERTIFICATE

**KSCST Student project program 38th series - 2014-2015**

| Sl No | Title of the project   | Amount | Certified that KSCST has provided partial financial support of <b>RS 24000/-</b> towards Biofuel and SPP student project program 38th series<br><br>Sum of Rs <b>24000/-</b> only has been utilize for the purpose Biofuel and SPP student project program for which it was sanction |
|-------|--|--------|--|
| 1     | Estimation and de-identification of gender signature from finger prints  | 3000/- |  |
| 2     | Fungallignin peroxidase for Bio Degradation of pulp paper and textile effluent   | 8000/- |  |
| 3     | Multipurpose measuring device using Bluetooth on ANDROID   | 6000/- |  |
| 4     | The potential utilization of processed areca catechu water an agro waste for bioethanol production by fermentation process | 7000/- |  |

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

*K. Sri*  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bangalore - 560 057

*B*  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
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      | 38S0913                 | Estimation and de-identification of gender signature from finger prints  | CSE/<br>Prof. Kamalakshi Naganna             | 3000/-                   | 3000/-                         | 0                                      |
| 2      | 38S1628                 | Fungal lignin peroxidase for Bio Degradation of pulp paper and textile effluent  | BT/<br>Prof. Soumya C<br>Prof. Vinutha Moses | 8000/-                   | 8000/-                         | 0                                      |
| 3      | 38S1329                 | Multipurpose measuring device using Bluetooth on ANDROID   | EC/<br>Prof. Agalya P.                       | 6000/-                   | 6000/-                         | 0                                      |
| 4      | 38S_B_BE_038            | The potential utilization of processed areca catechu water an agro waste for bioethanol production by fermentation process | BT/<br>Prof. Shobha G                        | 7000/-                   | 7000/-                         | 0                                      |

*x kavi*  
Signature of the Principal with seal

Sapthagiri College of Engineering  
 Date: Chikkasandra, Hesaraghatta Main Road  
 Bengaluru - 560 057

Signature of Auditor with seal

Date:

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