

**FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE**

**41st Series of Student Project Programme (Biofuel)**

***(Hand written proposals will not be accepted, please fill all the details in this MS word file as per the following format. The Softcopy of the proposal should be submitted along with a hardcopy. For details of softcopy of the proposal, please visit website*** [***http://www.kscst.iisc.ernet.in/spp.html***](http://www.kscst.iisc.ernet.in/spp.html) ***For details please Contact email:*** ***spp@kscst.iisc.ernet.in***
***Telephone : 080 23341652 Extn. 25)***

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|  |  **Name of the College :**  |
|  | **Degree : BE / M.Tech., / M.Sc., / MBA :**  |
|  | **Project Title**  |
|  | **Branch:**  |
|  | **Broad Theme / Category (as per KSCST poster) :** |
|  | **Name(s) of project guide(s) :** 1. **Name : Prof. / Dr. / Mr. / Mrs.**

**Email id :****Contact No.:**1. **Name : Prof. / Dr. / Mr. / Mrs.**

**Email id :****Contact No.:** |
|  | **Name of Team Members (Strictly not more than four students in a batch):** **(Please paste the latest passport size photograph adjacent to your respective names)**1. **Name :**

**USN No. :****Email id :****Mobile No. :**1. **Name :**

**USN No. :****Email id :****Mobile No. :**1. **Name :**

**USN No. :****Email id :****Mobile No. :**1. **Name :**

**USN No. :****Email id :****Mobile No. :** |
|  | **Team Leader of the Project :** **Name :** **USN No. :****Email id :****Mobile No. :** |
|  | **Processing Fee Details (Demand Draft should be drawn from Canara Bank / State Bank of India only): (processing fee of Rs. 1000/- drawn in favour of Secretary, KSCST, Bangalore – 12)** **Demand Draft No. :****Date :****Bank name :** **Note :** Please indicate Team Leader name, Project Title and Name of the College on the backside of the DD. |
|  | **Date of commencement of the Project :** |
|  | **Probable date of completion of the project :**  |
|  | **Is this project, an improvised work of project awarded as "Best Project of the Year" in previous series of SPP****Yes / No :****Note:** If yes, Please provide the following details of the project.**Title of the Project:****Series of SPP :** **College :** |
|  | **Scope / Objectives of the project:** |
|  | **Methodology :** **Note :** If this project is an improvised work of the previously awarded project, then please specify the improvised work with respect to the technical aspects. |
|  | **Expected Outcome of the project :**  **Note :** If this project is an improvised work of the previously awarded project, then please give a brief comparison of the results of earlier work and improvised work proposed by you. **Results of the improvised work:**1. **Novelty/Innovation of the modified device:**
2. **Deliverables ( Design/Drawings/Protocol/Prototype):**
3. **No. of Trial Runs:**
4. **Cost effectiveness:**
5. **Industrial Application:**
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|  | **Application of the project :** 1. **Industry**
2. **Health**
3. **Agriculture**
4. **Disaster Management**
5. **Societal**
6. **Education / Acamedic**

(You may provide details also) |
|  | **Is the project proposed relevant to the Industry or Institution? :****Yes / No****If Yes, Please provide details of the Industry / institution and contact details :**(**Note:** Preference will be given to those projects relevant to the industry / institution. Hence be specific in giving detailed information). Is the industry extending support - technology / funds / use the final product, please specify. |
|  | **In case of fabrication work in the project, an engineering drawing with dimensions / detailed design calculations (approximately) of the machine / device should be attached to the proposal.** |
|  | **Can the product or process developed in the project be taken up for filing a Patent?** **Yes / No.** **If Yes, you may contact Patent Information Centre of KSCST for more details** Karnataka State Council for Science and TechnologyIndian Institute of Science Campus, Bengaluru - 560012Tel: +91-080-2334 1652 / 2334 8848 / 2334 8849Email : patent@kscst.iisc.ernet.in |
|  | **Budget details (break-up details should be given) :**

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|  **Budget** | **Amount** |
| a) Materials / Consumables | 0.00 |
| b) Labor | 0.00 |
| c) Travel | 0.00 |
| d) Report | 0.00 |
| e) Miscellaneous | 0.00 |
| **Total** | 0.00 |

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|  | **Any other technical details (Please specify) :**  |
|  | **SPP Coordinator (Identified by the college) :**(Note: KSCST will be providing financial and technical support to student projects and these projects will be evaluated by experts in identified nodal centres. There will be interaction between students and experts to fine-tune the project in the nodal centre. The project recommended by experts will be selected for state level Seminar and exhibition. Hence the role of SPP Co-ordinator is very important to KSCST regarding receipt of project sanctioned, amount released to the College, informing the concerned project guides regarding evaluation of projects and sending the softcopy and hardcopy of the reports to KSCST. Further interacting with the Principal of the institution in submission of statement of expenditure, etc. Hence it is requested that the Principal of the institution to nominate the SPP Co-ordinator for smooth functioning of educational Programmes of KSCST.)**Name : Prof. / Dr. / Mr. / Mrs.** **Email id :****Contact No.:** |

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| **(Name & Signature of Project Guide with Seal)** | **(Name & Signature of HOD with Seal)** |
| **Email id:** | **Email id:** |
| **Contact No.:** | **Contact No.:** |

**DECLARATION**

**(From Project Students)**

We, the project team hereby declare that the details enclosed in the project proposal are true and correct to the best of our knowledge and belief and we undertake to inform KSCST of any changes therein in the project tile, students name will be intimated immediately. In case any of the above information is found to be false or untrue or misleading, we are aware that we may be held liable for it. We hereby authorize sharing of the project information with this project proposal with the Karnataka State Council for Science and Technology, Bangalore.

We are aware that the project team has to exhibit / demonstrate the project in the nodal centre and interact regarding project with the experts and to exhibit the project in the State Level Seminar and Exhibition (if selected). If the student team fails to attend the evaluation in nodal centre or fails to attend the State Level Seminar and Exhibition, the supported project amount will be returned back to KSCST.

We also hereby, enclose the endorsement form to KSCST, Bengaluru.

 **Name of the students Signature with date**

**ENDORSEMENT**

**(From College, endorsement to be taken in the institution / Department Letter head)**

This is to certify that 1) Mr. / Ms.……...................., 2) Mr. / Ms. ……………................
3) Mr. / Ms. …………………............, 4) Mr. / Ms. ……………………................, are bonafide student(s) of Department of ......................................................., in the degree program of our institution. If the project proposal submitted by these students under the 41st Series of Student Project Programme is selected by KSCST, we will provide the requisite laboratory / Computer / infrastructure support in our college / Institution. Further we also take necessary steps to see that the project team will exhibit / demonstrate their project in the nodal centre and in the State Level Seminar and Exhibition (if selected). If the student team fails to attend the evaluation in nodal centre or fails to attend the State Level Seminar and Exhibition, the supported project amount will be returned back to KSCST.

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| **(Name & Signature of Project Guide with Seal)** | **(Signature of HOD with Seal)** | **(Signature of the Principal with Seal)** |
| **Email id:** | **Email id:** | **Email id:** |
| **Contact No.:** | **Contact No.:** | **Contact No.:** |

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**STUDENT PROJECT PROGRAMME (Biofuel)**

**(SPP – 41st SERIES: 2017 - 2018)**

**PROJECT PROPOSALS ARE INVITED FROM FINAL YEAR ENGINEERING STUDENTS**

KSCST invites projects under any branch of the Engineering / Technology covering the following broad themes / categories.

**The following Thrust Areas for novel project proposal**

**B.E. and M.Tech**

1. Micro algae using photo bioreactor and waste water for biodiesel production
2. Nano technologies based biodiesel production and its applications
3. Design, Development and fabrication of manual decorticator, oil expeller and fermenter
4. Process control and automation of biodiesel production system
5. Biodiesel from dairy scum/slaughter waste/poultry waste and standard protocol
6. Automation of small scale blending process
7. Biofuel cells for power generation
8. Application of GPS technology in mapping and monitoring of biofuel plantations.

**M.Sc**

1. Bioethanol from coffee pulp waste, agro waste and sugar molasses
2. Plant physiology for selected biofuel species carbon sequestration
3. Developing hybrid variety of biofuel species using grafting techniques
4. Protein marker assisted Genetic analysis of the variation among the traits of the native biofuel species for improved verities
5. Marker assisted selection of Elite varieties Recognition and demonstration of new species.

**MBA**

1. Feed stock Management for Biodiesel production
2. Supply chain management for biodiesel production and case studies of best practices
3. Standard operating procedure for biodiesel production: seed quality parameters for procurement such as refraction (wastage), moisture, shelling %, oil content and recovery %
4. Cost analysis at different stages of operation like raw material procurement, processing, storage and distribution of biodiesel and by products
5. Prototype Detailed Project Report for Biodiesel Production.

The Project Proposals should be of relevance to the Society / Industries / Institutions / Mankind and should be a practical model that can be implemented.

Emphasis will be given to proposals drawn from the KSCST awarded projects pertaining to the last six years clearly showing significant enhancement / Improvement as far as deliverables are concerned compared to selected proposals.

The list of Awarded projects is hosted in the KSCST – SPP Website.

<http://www.kscst.iisc.ernet.in/spp-biofuel.html>

The project reports can be obtained from

<http://www.kscst.iisc.ernet.in/sppArchive/public/index.php>

**KSCST will not consider the proposals which fall in the following category.**

1. Computer simulation based.
2. Literature surveys / Data collection based (except MBA Students).
3. Compilation of Internet downloaded information.
4. Repetition of previous SPP Projects.
5. Non-scientific projects.
6. Case study projects (except MBA Students).
7. Non-Practical projects.
8. Projects based on obsolete ideas (Not matching with current trends).

As done in the previous year, It has been decided to charge a fee of Rs. 1000/- (Rupees one thousand only) towards processing and project administration. Hence, while applying, the project proposals have to be accompanied with a Demand Draft for Rs. 1000/- favouring **“Secretary, KSCST”**. The Demand Drafts to be obtained from Canara Bank / State Bank of India only payable at Bengaluru.

The Project Proposals should be prepared as per SPP proposal format. Applicants are requested to download the word file of the SPP proposal and fill the same (Hand written proposals will not be accepted. For details of softcopy of the proposal, please visit website [http://www.kscst.iisc.ernet.in/ spp-biofuel.html](http://www.kscst.iisc.ernet.in/%20spp.html)). The hardcopy of the proposal along with Demand Draft have to be submitted to KSCST, in a sealed envelope superscripting ***"Project Proposal for the 41st series of Student Project Program (Biofuel)"*** addressed to ***The Secretary, Karnataka State Council for Science and Technology, Indian Institute of Science campus, Bengaluru - 560 012****.*

***The last date for receipt of Project Proposal is 31st January 2018.***

KSCST sponsored project details and information from 1977-78 to 2016-2017 is available online in the KSCST website as **"SPREAD Online"**. The abstract details and full version of 6 years reports are also available. This also provides student information on completed projects and problems / gaps in technology to develop a project proposal, references and avoid duplication of the project.

The Project proposals will be evaluated by a panel of experts for consideration for sponsorship by KSCST. The amount sponsored will be sent to the Principal by Cheque. The project guide should take necessary steps to utilise this amount for the project work and submit the utilisation certificate and statement of expenditure through the Principal of the institution.

The Mid-term evaluation of the projects will be done at the identified nodal centres or on video conferencing mode. The students need to demonstrate their project when invited to do so. The selection of projects for Seminar and Exhibition will be based on such evaluation.

It is mandatory for the project team to exhibit / demonstrate their project in the nodal centre and in the seminar and exhibition (if selected). The final Seminar and Exhibition will be held during **July 2018 or 1st Week of August 2018.**

For information on Student Projects Programme (SPP) and for downloading the project proposal format and guidelines, please visit our website:

http://www.kscst.org.in/spp-biofuel.html

http://www.kscst.iisc.ernet.in/spp-biofuel.html

http://www.kscst.iisc.ernet.in/sppArchive/public/index.php

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| **DATES TO REMEMBER** |
| **Last date for receipt of hardcopy of the project proposal as per the SPP format** | **31st January 2018** |
| **Project approval by KSCST** | **February 2018** |
| **Evaluation of Projects at Nodal Centre and selection of projects for Seminar / Exhibition** | **May / June 2018** |
| **2 Pages synopsis and Final Project Report submission along with softcopy in a CD & by Email (spp@kscst.iisc.ernet.in)** | **20th June 2018** |
| **Seminar and Exhibition of selected projects** | **Last week July 2018or 1st Week of August 2018** |

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# Guidelines for Project Proposal Submission

1. Students studying in final year engineering are eligible to apply.
2. The Project Guides / HODs need to critically evaluate the project proposals and select the good project proposals before sending them to KSCST.
3. Each project proposal needs to be enclosed with a processing fee of Rs. 1000/- (Rupees one thousand only) in the form of a Demand Draft favouring “Secretary, KSCST”. The Demand Drafts to be obtained from Canara Bank / State Bank of India only payable at Bengaluru. Without processing fee, project proposals will not be considered for the evaluation.
4. The college should nominate the SPP Co-ordinator with whom KSCST can interact regarding evaluation of sanctioned projects, funding, project synopsis, report submission, participation in Seminar / Exhibition, etc. Please contact the Principal for the same.
5. The project team (batch) can have up to a maximum of **FOUR** students.
6. The team should submit the hardcopy of the project proposal in the prescribed SPP format only (available in website also), duly signed by their Project Guide, Head of the Department and Principal of the institution and it should reach KSCST on or before **31st January 2018**. Project proposals sent after this date will not be entertained.
7. KSCST sponsored project details from 1977-78 to 2015-2016 information is available online in the KSCST website as "SPREAD Online". The abstract and full version of 6 years reports are also available. This provides students, information on completed projects, and problems / gaps in technology to develop a project, references and avoid duplication.

http://www.kscst.iisc.ernet.in/sppArchive/public/index.php

1. Each Project team should send ONLY ONE proposal.
2. The project team SHOULD NOT change the topic of the project after the project has been selected and sponsored by KSCST and should not deviate from the identified objectives. In the event of any such changes, the project will be treated as cancelled and the college should refund the sanctioned amount to the Secretary, KSCST, Indian Institute of Science Campus, Bengaluru - 560 012.
3. The SPP Co-ordinator of the college needs to send the consolidated list of all the projects proposed by email to spp@kscst.iisc.ernet.in as per the format provided in our website ([www.kscst.iisc.ernet.in/spp/41\_series/41S\_project\_details\_BE\_MSc\_MTech\_MBA.xlsx](http://www.kscst.iisc.ernet.in/spp/41_series/41S_project_details_BE_MSc_MTech_MBA.xlsx)) so that remittance of the sanctioned amount can be done in one go.
4. Project proposals will be reviewed and evaluated by a team of experts and those selected will be announced in the KSCST website - www.kscst.iisc.ernet.in or www.kscst.org.in.
5. The project sanction letter will be sent to the Principal of the institution with copies to the Project guide and Head of the Department.
6. The evaluation of projects will be conducted only at nodal centres. The students need to demonstrate their project in the nodal centre. The sponsored projects will be short-listed for Seminar and Exhibition during the evaluation. It is mandatory for the project team to exhibit / demonstrate their project in the nodal centre and also in the seminar and exhibition (if selected). The seminar and exhibition will be held during July / August 2018. Venue will be intimated to the college.
7. The amount sponsored will be sent to the College in the name of the Principal by A/c. Payee Cheque. The project guide should take necessary steps to utilise this amount for the project work and submit the utilisation certificate and statement of expenditure through the Principal of the institution.
8. Every sanctioned project will be given a unique Project Reference Number. Please use the same reference number while corresponding with KSCST by E-mail: spp@kscst.iisc.ernet.in
9. The nodal evaluation of sponsored projects will be conducted during May / June 2018 and the projects will be short-listed for annual Seminar and Exhibition. The Juries will be selecting best projects for the awards at seminar and exhibition.
10. It is mandatory for the project team (one student and Project Guide) selected for Seminar and Exhibition to participate in the event. This will be organised in one of the engineering colleges in the state. (Previous Seminar and Exhibition (40th Series) was hosted by NMAM Institute of Technology, Nitte, Karkala Taluk, Udupi District on 11 - 12th August 2017).
11. It is mandatory for the project team to send the project synopsis (2-3 page write-up) of the completed project for publishing in the form of digital / hardcopy of the SPP compendium which will be brought out during Seminar and Exhibition.
12. It is also mandatory for the project team to submit one copy of the final project report along with a CD containing the final report (including cover page, initial pages, Contents, Abstract) in .pdf format to KSCST.
13. During the Seminar and Exhibition, “Best Project of the Year Award” will be presented to the outstanding projects with a cash prize (for both Students and Project Guides) and certificates to all participants of the Seminar and Exhibition in a function organized for the occasion.
14. Kindly visit our website www.kscst.iisc.ernet.in/spp-biofuel.html for further details and announcements.

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