



KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Indian Institute of Science campus, Bengaluru

Telephone: 080 -23600978, 23341652 || Email: spp@kscst.org.in
Website: www.kscst.org.in/spp.html or https://kscst.karnataka.gov.in/en

FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE 48th SERIES OF STUDENT PROJECT PROGRAMME

(Handwritten proposals will not be accepted, please fill all the details in this MS word file, insert images / diagrams wherever necessary. Convert to pdf file, get it approved from the project guide / head of the department and principal of your institution. Keep ready the scanned pdf file of 1) Declaration and Endorsement 2) details of processing fees made and fill-up the Google Form.

<https://forms.gle/ks2WxWB4ei1hgv9D9>

1.	Name of the College: ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY
2.	Project Title: SMART FLOOR CLEANING SYSTEM
3.	Branch: ELECTRONICS AND COMMUNICATION
4.	Theme (as per KSCST poster): Rural Engineering and Technical support, Smart cities and Infrastructure Development.
5.	Name(s) of project guide(s): Name: Mr. SUDHAKARA H.M Email id: sudhi123@aiet.org.in Contact No.: 9611385725
6.	Name of Team Members (Strictly not more than four students in a batch): (Type names in Capital Letters as provided in your college) (Please paste the latest passport size photograph adjacent to your respective names) Name: SHIVAKUMAR K.V USN No.: 4AL21EC079 Email id: 4al21ce079shiva@gmail.com Mobile No: 9019752561

	<p>Name: SHASHANK VIRESH SHETTI USN No.: 4AL21EC078 Email id: 4al21ec078@gmail.com Mobile No.: 8867650239</p> <p>Name: PRASANNA KUMAR B.I USN No.: 4AL21EC064 Email id: 4al21ec064@gmail.com Mobile No.: 8088668035</p> <p>Name: SHASHANK SWAMI USN No.: 4AL21EC077 Email id: 4al21ec077@gmail.com Mobile No.: 7975468909</p>
7.	<p>Team Leader of the Project: Name: SHIVAKUMAR K.V USN No.: 4AL21CE079 Email id: 4al21ce079@gmail.com Mobile No.: 9019752561</p>
8.	<p>Processing Fee Details (Through Online Payment only): (processing fee of Rs. 1180/-) Please furnish the payment details in the format provided in the last page of the proposal.</p>
9.	<p>Date of commencement of the Project: 29-10-2024</p>
10.	<p>Probable date of completion of the project:</p>
11.	<p>Scope / Objectives of the project: The goal of the smart floor cleaner project is to create an effective electromechanical cleaning robot that can do mopping and sweeping duties. By robotics technology, the robot which can be operated in both manual and automatic modes, seeks to make floor cleaning easier. The project aims to automate the cleaning process, minimize manual labour and guarantee reliable and superior cleaning outcomes in a variety of settings including households, businesses, and healthcare facilities by integrating elements such microcontrollers,sensors, and cleaning mechanisms.</p>

12.	<p>Methodology:</p> <p>The design and implementation of the smart floor cleaning system project are done in a systematic manner. The robots functional foundation is first created by assembling the hardware parts, which include the Arduino UNO microcontroller, motor driver L298N, Bluetooth module HC-05, servo motors, and water pump. Efficient movement is made possible by the integration of sensors for obstacle identification and navigation. Both manual operation using a keypad or Bluetooth app and automatic mode for self-cleaning are supported by the control system. To guarantee complete cleaning, sweeping and mopping mechanisms are integrated, driven by motors and a water pump. A 12V battery powers the system, and every part is adjusted for best performance. Lastly, a lot of testing is done to improve the robot's performance and make sure it achieves the goals.</p> <p>Note: In case of fabrication work in the project, an engineering drawing with dimensions / detailed design should be attached to the proposal.</p>
13.	<p>Expected Outcome of the project: The smart floor cleaner project will result in a working cleaning robot that can efficiently complete sweeping and mopping duties in both manual and automated modes. To guarantee effective and reliable cleaning across a range of floor kinds, the robot will include parts like motors, sensors, and microcontrollers in addition to user-friendly controls like smartphone app with Bluetooth. The prototype, which aims to save time and lessen human labour, will show how robotics and electronics can be used practically in daily life by providing a scalable and affordable way to maintain cleanliness in commercial, industrial, and residential settings.</p>

14.	<p>Is the project proposed relevant to the Industry / Society or Institution?</p> <p>Yes / No:</p> <p>Yes</p> <p>If yes, please provide details of the industry / institution and contact details:</p> <p>Our project is used in the houses , apartment , hotels etc.</p> <p>(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.</p>												
15.	<p>Can the product or process developed in the project be taken up for filing a Patent?</p> <p>Yes / No:</p> <p>NO</p> <p>Prior Art search done?</p> <p>Yes/No:</p> <p>NO</p> <p>Note: If your answer is “Yes”, you may contact Patent Information Centre of KSCST. For more details, email: pic@kscst.org.in</p>												
16.	<p>Budget details (break-up details should be given):</p> <p>Note: KSCST will provide nominal grant support for carrying out the project by students if selected by the project selection committee.</p> <table border="1" data-bbox="354 1283 1338 1713"> <thead> <tr> <th>Budget</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>a) Materials / Consumables (Please specify)</td> <td>4300</td> </tr> <tr> <td>b) Labor (Describe)</td> <td>1000</td> </tr> <tr> <td>c) Travel (Describe)</td> <td>500</td> </tr> <tr> <td>e) Miscellaneous (Please specify)</td> <td>1000</td> </tr> <tr> <td>Total</td> <td>6800</td> </tr> </tbody> </table>	Budget	Amount	a) Materials / Consumables (Please specify)	4300	b) Labor (Describe)	1000	c) Travel (Describe)	500	e) Miscellaneous (Please specify)	1000	Total	6800
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e) Miscellaneous (Please specify)	1000												
Total	6800												
17.	<p>Any other technical details (Please specify):</p> <p>This project is based on Iot(Internet of things)</p>												

18.	<p>SPP Coordinator (Identified by the college):</p> <p>Note: To be identified by the principal of the institution. The project proposals must be submitted to KSCST through SPP coordinator designated by the principal.</p> <p>Name: Dr. Pradeep V Email id: office.ise.@aiet.org.in Contact No.: 7406057060</p>
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Name of the Project Guide:Mr.Sudhakar H.M
Email id:sudhi123@aiet.org.in
Contact No.: 9611385725

Name of the HOD: Dr.Dattathreya.G
Email id:dattathreya@aiet.org.in
Contact No.: 9481582906

DECLARATION

(From Project Students)

(To scan this page and enclose in the project proposal)

We, the project team hereby declare that the details enclosed in the project proposal (Title of the Project: SMART FLOOR CLEANING SYSTEM, Branch: ELECTRONICS AND COMMUNICATION, College: ALVAS INSTITUTE OF ENGINEERING AND TECHNOLOGY) are true and correct to the best of our knowledge and belief. We undertake to inform the Karnataka State Council for Science and Technology (KSCST) of any changes to the project title or team members' names immediately through our project guide or the SPP Coordinator of our institution.

Additionally, we declare that the project work is original and not a result of copying or purchasing. We are committed to completing the project independently, with support from our faculty and project guide, while utilizing the facilities provided by the college. We will not engage in plagiarism and pledge to be sincere and dedicated in executing and completing the project as proposed.

We understand that if any of the above information is found to be false, untrue, or misleading, we may be held liable. We authorize the sharing of the project information contained in this proposal with KSCST, Bengaluru.

We acknowledge that the project team must exhibit and demonstrate the project, participate in the mid-term evaluation of sanctioned projects, and engage with experts. Additionally, we must exhibit the project at the Annual State-Level Poster Presentation and Exhibition, if selected. Should our team fail to participate in the mid-term evaluation or the Annual Exhibition (if selected), we understand that the supported project funds will be returned to KSCST.

We also enclose the endorsement form for KSCST, Bengaluru.

Name of the students with USN No.

Signature with date

1. SHIVAKUMAR K.V
2. SHASHANK VIRESH SHETTI
3. PRASANNA KUMAR B.I
4. SHASHANK SWAMI

(Name & Signature of Project Guide with Seal)

Email id: sudhi123@aiet.org.in

Contact No.: 9611385725

(Name & Signature of HOD with Seal)

Email id: dattathreya@aiet.org.in

Contact No.: 9481582906

ENDORSEMENT

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

(To scan this page and enclose in the project proposal)

This is to certify that 1) Mr. SHIVAKUAMR K.V, 2) Mr. SHASHANK VIRESH SHETTI 3) Mr. PRASANNA KUMAR B.I 4) Mr. SHASHANK SWAMI are bonafide student(s) of Department of ELECTRONICS AND COMMUNICATION, in the degree program of our institution. If the project proposal submitted by these students under the 48th 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 mid-term evaluation of project and in the Annual State-Level Poster Presentation and Exhibition (if selected). If the student team fails to send the completed project report or fails to attend the evaluation in mid-term evaluation of sanctioned projects or fails to attend the Annual State-Level Poster Presentation and Exhibition (if selected), the supported project amount will be returned to KSCST.

**(Name & Signature of
Project Guide with Seal)**

(Signature of HOD with Seal)

**(Signature of the Principal
with Seal)**

Email id: sudhi123@aiet.org.in

Emailid: dattathreya@aiet.org.in

Email id:

Contact No.: 9611385725

Contact No.: 9481582906

Contact No.:

DETAILS OF PROCESSING FEES MADE THROUGH NEFT / UPI PAYMENT

(**Note:** Include this page in the softcopy of the student project proposal. The student team shall furnish the details in the Google Form. It is informed to the students to 1) keep ready the softcopy of the project proposal and other documents and 2) Furnish the payment made details as processing fees and 3) update the details in the Google Form on the same day of payment made to KSCST by NEFT / UPI payment).

1. TITLE OF THE PROJECT	:	SMART FLOOR CLEANING SYSTEM
2. NAME OF THE TEAM LEADER	:	SHIVAKUMAR K.V
3. EMAIL ID	:	4al21ec079@gmail.com
4. CONTACT MOBILE NO.	:	9019752561

PAYMENT MADE DETAILS

5. BANK REF. NO. / UTR NO. / UPI No. (12 digits)	:	432449755969
6. TRANSACTION ID	:	432449755969
7. NAME OF THE SENDER / ACCOUNT HOLDER and CONTACT NUMBER	:	SHIVAKUMAR K.V
8. NAME OF THE BANK	:	BANK OF BARODA
9. PROCESSING FEES	:	Rs. 1,180/- (Inclusive of 18% GST)
10. DATE OF PAYMENT MADE	:	19-11-24
11. TIME	:	22:14:45
12. MODE OF PAYMENT MADE (NEFT / UPI, PLEASE SPECIFY)	:	UPI(GOOGLE-PAY)

(Name & Signature of
the team leader)

(Name & Signature of
Project Guide or HOD with Seal)

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Indian Institute of Science campus, Bengaluru

48th SERIES OF STUDENT PROJECT PROGRAMME (SPP)

(Note: This page is for information about bank details of KSCST to the student team and college / institution and not to include this page in the project proposal softcopy)

BANK ACCOUNT DETAILS OF KSCST

Name and address of the Institution	Karnataka State Council for Science and Technology, IISc Campus, Bangalore -560012
Account holder's name / Designation	Secretary, Karnataka State Council for Science and Technology
Bank Account No. & Name of the bank	Current A/C No. 0683201000024 Canara Bank, IISc Campus Branch, Bangalore-560012
IFSC Code	CNRB0000683
MICR Code	560015023
Bank Branch Address	Canara Bank, Indian Institute of Science, Bangalore-560012

BANK DETAILS

Name of the Agency	Karnataka State Council for Science and Technology IISc Campus, Bangalore - 560012
Account holder's name / Designation	Secretary , Karnataka State Council for Science and Technology
Bank Account No. & Name of the bank	Current A/C No. 0683201000024 Canara Bank IISc Campus Branch Bangalore-560012
IFSC Code	CNRB0000683
MICR Code	560015023
Bank Branch Address	Canara Bank Indian Institute of Science Bangalore-560012



केनरा बैंक Canara Bank

भारत सरकार का उपक्रम

A Government of India Undertaking



KARNATAKA STATE COUNCIL FOR SCIENCE



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भारत 2023 INDIA

वसुधैव कुटुम्बकम्

ONE EARTH • ONE FAMILY • ONE FUTURE