

**KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**

*Indian Institute of Science campus, Bengaluru*

**FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE**

**44th SERIES OF STUDENT PROJECT PROGRAMME**

***(Hand written proposals will not be accepted, please fill all the details in this MS word file as per the following format. Kindly take a photocopy of completely filled project proposal and Demand Draft for filling up the Google Forms.)***

<https://forms.gle/yqSYxZRP6uJsP5QA8>

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|  | **Name of the College: KLS Gogte Institute of Technology** |
|  | **Project Title:**  **Investigations on the effect of Nylon Microparticles on Friction Stir welding of 3D Printed polymer components.** |
|  | **Branch: Mechanical Engineering** |
|  | **Theme (as per KSCST poster): 3D Printing** |
|  | **Name(s) of project guide(s):**   1. **Name: Prof. VIVEK TIWARY**   **Email id: vgtiwary@git.edu**  **Contact No.: 7760023238** |
|  | **Name of Team Members (Strictly not more than four students in a batch):**  **Name: SAMARTH MAIDARAGI USN No.: 2GI17ME113**  **Email id: sammaidaragi@gmail.com**  **Mobile No: 8904938494**  **Name: SUMEDH MUKUND DESAI**  **USN No.: 2GI17ME148**  **Email id: desaisumedh88@gmail.com**  **Mobile No.: 8277484024**  **Name: SURAJ KUMAR B K**  **USN No.: 2GI17ME150**  **Email id: imsurajkk@gmail.com**  **Mobile No.: 9590702642**  **Name: VISHAL R KHANAGAVI**  **USN No.: 2GI17ME165**  **Email id: vishalrkhanagavi@gmail.com**  **Mobile No.: 9606531794** |
|  | **Team Leader of the Project:**  **Name: SUMEDH MUKUND DESAI**  **USN No.: 2GI17ME148**  **Email id: desaisumedh88@gmail.com**  **Mobile No.: 8277484024** |
|  | **Processing Fee Details (Demand Draft should be drawn from Canara Bank / State Bank of India only):  (processing fee of Rs. 1000/- drawn in favor of Secretary, KSCST, Bangalore – 12)**  **Demand Draft No.:**  **Date:**  **Bank name:**  **Note:** Please write Team leader name, Contact No., Project Title and Name of the College on the backside of the DD. |
|  | **Date of commencement of the Project: 15/12/2020** |
|  | **Probable date of completion of the project: 15/04/2021** |
|  | **Scope / Objectives of the project:**   1. **To fabricate 3D printed parts with addition of Nylon Microparticles.**    1. **To print flat ABS parts.**    2. **To use Nylon Microparticles at the edges while printing layer by layer.** 2. **To join the 3D printed parts with FSW.  a. To use Cylindrical FSW tool for joining.**   **b. To use appropriate fixtures for holding the 3D printed parts**   1. **To check the Tensile strength and Hardness of the joined components.**    1. **To check the Tensile strength and Hardness for different parameters.**    2. **To perform Design of Experiments (DOE) on the possible outcomes.** |
|  | **Methodology:**  **Note:** In case of fabrication work in the project, an engineering drawing with dimensions / detailed design should be attached to the proposal. |
|  | **Expected Outcome of the project:**   1. **To overcome the limitations of the bed size of the commercially available 3D printers.** 2. **To enhance the strength at the section of FSW welded parts.** 3. **Tensile and Hardness Testing analysis of the joined 3D printed parts.** |
|  | **Is the project proposed relevant to the Industry / Society or Institution?:**  **Yes / No: Yes**  **If Yes, please provide details of the Industry / institution and contact details:**    **KLS Gogte Institute of Technology  "Jnana Ganga",  Udyambag, Belagavi 590008  Karnataka, India**  **Phone: +91-831-2405500**  (**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.) |
|  | **Can the product or process developed in the project be taken up for filing a Patent?**  **Yes / No:**  **Prior Art search done?**  **Yes/No:**  **Note:** If Yes, you may contact Patent Information Centre of KSCST  for more details  Email: patent@kscst.iisc.ernet.in |
|  | **Budget details (break-up details should be given):**  Note: KSCST will provide nominal grant support for carrying out the project by students if selected by the project selection committee.   |  |  | | --- | --- | | **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 | |
|  | **Any other technical details (Please specify):** |
|  | **SPP Coordinator (Identified by the college):**  **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.  **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:** vgtiwary@git.edu | **Email id:** |
| **Contact No.:** 7760023238 | **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**

1. Samarth Maidaragi
2. Sumedh Mukund Desai
3. Suraj Kumar B K
4. Vishal R Khanagavi

**ENDORSEMENT**

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

This is to certify that 1) Mr.Samarth Maidaragi, 2) Mr. Sumedh Mukund Desai,  
3) Mr. Suraj Kumar B K, 4) Mr. Vishal R Khanagavi, are bonafide student(s) of Department of Mechanical, in the degree program of our institution. If the project proposal submitted by these students under the 44th 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 send the completed project report or 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:** vgtiwary@git.edu | **Email id:** | **Email id:** |
| **Contact No.:** 7760023238 | **Contact No.:** | **Contact No.:** |