



Karnataka State Council for Science and Technology

Indian Institute of Science Campus, Bengaluru - 560 012

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Mr. H. Hemanth Kumar
Executive Secretary

Ref: 7.1.01/SPP/1333

27th March, 2019

The Principal,
Alva's Institute of Engineering and Technology,
Shobavana Campus,
Mijar,
Moodbidri - 574 225.

Dear Sir/Madam,

Sub : Sanction of Student Project - 42nd Series: Year 2018-2019
Your Project Proposal Reference No. : 42S_BE_2934

Ref : Your Project Proposal entitled " **PLASTIC WASTE RECYCLING THROUGH SHREDDING PROCESS**

I am happy to inform that your student project proposal referred above, has been approved by the Council for "Student Project Programme - 42nd Series" and has been sanctioned with a budgetary break-up as detailed below:

Students	Mr Darshan Ks and others	Budget	Amount (Rs)
		Materials/Consumables	7,000.00
Guide/s	Mr. Kiran Ch	Labor	500.00
		Travel	500.00
Department	Mechanical Engineering	Miscellaneous	500.00
		Report	500.00
		TOTAL	9,000.00
NINE THOUSAND RUPEES ONLY			

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 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 points:
 - Title of the project
 - Name of the College & Department
 - Name of the students & Guide(s)
 - Keywords

PRINCIPAL

Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
BELAGAVI - 590018**



**A project report on
"PLASTIC WASTE MANAGEMENT BY MECHANICAL
SHREDDER"**

**Submitted in partial fulfillment of the requirements for the degree of
BACHELOR OF ENGINEERING**

**in
MECHANICAL ENGINEERING**

By

AKASH B P

USN: 4AL15ME008

CHRISTINA

USN: 4AL15ME028

DARSHAN K S

USN: 4AL15ME029

MANOJ

USN: 4AL15ME051

Under the Guidance of

Mr. KIRAN C H

Assistant Professor

Department of Mechanical Engineering



**ALVA'S INSTITUTE OF ENGINEERING AND
TECHNOLOGY**

MOODBIDRI-574225, KARNATAKA

2018 – 2019

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Mijar, Moodbidri D.K. -574225, Karnataka.



DEPARTMENT OF MECHANICAL ENGINEERING

CERTIFICATE

Certified that the project work entitled "PLASTIC WASTE MANAGEMENT BY MECHANICAL SHREDDER" is a bonafide work carried out by

AKASH B P

USN: 4AL15ME008

CHRISTINA

USN: 4AL15ME028

DARSHAN K S

USN: 4AL15ME029

MANOJ

USN: 4AL15ME051

are bonafide student of Department of Mechanical Engineering, Alva's Institute of Engineering and Technology in partial fulfillment for the award of BACHELOR OF ENGINEERING in MECHANICAL ENGINEERING of the VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI during the year 2018-2019. 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 Bachelor of Engineering Degree.

Mr. KIRAN C H
Project Guide

Dr. HARISHANAND K S
Head of department
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Dr. PETER FERNANDES
Principal
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225, D.K.

External viva

Name of examiner

- 1) G.B. Vaggar
- 2) MOHAN KUMAR

signature with date

12/6/19
12/6/19

ABSTRACT

The plastic has become vital asset for humanity. Plastic have been used widely in both water and food packaging industries. Plastic waste is not homogeneous so special attention has to be taken for managing plastic waste. Plastic continue to threaten the quality of our land, water and air. More than 40% of this quantity is disposed unsafely. Unsafe disposal of plastic in rural areas is becoming prevalent and will come at massive cost to the rural ecology and economy. plastic do not decompose at all; others could take up to 450 years to breakdown. Hence in our project we choose to design and development of the plastic shredder Machine. This machine is used for cutting the plastic in to small pieces, which are in irregular shaped flakes which can be fed in to extrusion machine where it can form filament and further used in 3D printing machine. Hence it reduces the dumping of waste plastic on earth's environment. Our shredder project involves sharpened blades made up of case-hardened steel which shreds plastics.

Key Words: Plastic Shredder, Thermosetting, Thermo Plastics, Case Hardened Steel, 3D Printing.