

Canara Engineering College, Benjanapadavu

Department of Mechanical Engineering Bantwal taluk, DK, Karnataka – 574219, India

Date: 10/11/2022

Advertisement for Junior Research Fellow (JRF)

Applications are invited from the interested candidates (Indian National) for the post of Junior Research Fellow (JRF) to work on the Research and Development (R&D) project titled "Development of filaments for 3D printing and other applications, from Recycled PET bottles and other plastic waste" funded by Department of Science and Technology (DST), New Delhi. The appointment will be purely temporary for a period maximum up to 25th June 2024. Details are given as below:

Sl. No.		Area of Specialization	Maximum Duration	Consolidated Salary per month	Number of Positions
1	Junior Research Fellow (JRF)	Development of filaments for 3D printing and other applications, from Recycled PET bottles and other plastic waste	Up to 25 th June, 2024 (up to the termination of the project)	Rs. 31,000/- + HRA*	One (01)

^{*}HRA or hostel accommodation will be provided as per availability of fund/DST rule/availability of hostel room

Brief of the R&D project

Project Title	Development of filaments for 3D printing and other applications, from Recycled PET bottles and other plastic waste			
Funding Agency	Department of Science and Technology (DST), New Delhi			
Principal Investigator (PI)	Dr. B. Krishna Prabhu, Dept. of Mechanical Engineering, CEC, Bantwal.			
Co-Principal	Mr. Vinod Kumar MV, Mr. Srinivas Shenoy, Dept. of Mechanical			
Investigator (Co-PI)	Engineering., CEC, Bantwal.			



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Detail of the Project

Plastic consumption in India is increasing exponentially over last decades. Demand for commodity plastics is also growing at the rate of 15 % per year. Polymers used in packages have about 50% of share in this consumption. With a drastic growth prevailing in the consumption of plastic, recycling the post-consumed plastics may be an essential requirement to avoid issues regarding plastic waste management and environment related issues. Recycling plastics has many benefits; it contributes to energy savings in industries, reduction of greenhouse gas emissions and disposal-related issues, partially.

Polyblending is considered as an approach to economically develop new materials that are tailored for a specific performance. The concept of physically blending two or more existing polymers or copolymers to obtain products with better properties is attracting widespread interest for its commercial utilization

This project aims to develop process and optimization for recycling of plastic waste and coated paper waste for producing filament stocks for 3D printing, and granules for plastic industries as a replacement for the virgin plastic granules. The successful execution aids in replacing virgin plastics with recycled plastics in the plastic industries.



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Information for the Position of JRF

Essential Qualifications:	 B.E/B.Tech. (Mechanical Engineering) and M.E/M.Tech. in Mechanical Engineering (or related areas). Candidates must have at least 60% (CGPA 6.5/10) marks in aggregate from a recognized technical institute or university as a full-time program. Desirable: a. Scholars who are selected through NET-CSIR-UGC NET including lectureship (Assistant professorship) and GATE. b. National level examination conducted by central government departments and their agencies and institutions such as DST, DBT, DAE, DOS, DRDO, MHRD, ICAR, ICMR, IIT, IISC, IISER etc.
Desirable Qualification	Candidate must be able to work independently and flexibly. The following will be desirable qualities. (i) Experience of conducting tests or physical model tests in lab. (ii) Ability to interact with industries and work on developing plastic blends, as per the need of the industries. (iii) Good communication and writing skills
Age Limit Last date for receipt of the application	32 Years or as per DST rules (Age relaxation as per GOI rule). 23 rd November 2022

Application Process:

Interested candidates may apply in the prescribed format along with CV, photo copies of relevant certificates, grade/mark sheets, publications etc. They need to send the scanned copy of below mentioned documents.

- (i) Cover letter
- (ii) Duly filled application form in the prescribed format with passport-size photograph,
- (iii) Bio-data/Resume
- (iv) Educational certificates and mark sheets (class X onwards)
- (v) GATE qualified certificate and
- (vi) Proof for research experience, publications, special achievements and patents, if any.

Interested candidates must fill the application form attached below and should send the **soft copies** of all the documents along with duly filled application form in the prescribed format must be sent to the Principal Investigator as a single PDF file by email to the email ID: kpbantwal@gmail.com on or before 23rd November 2022 and hard copies of all the documents should be send to the address for correspondence (given below).

Correspondence Address:

Dr. B. Krishna Prabhu

Professor, Department of Mechanical Engineering Canara Engineering College, Benjanapadavu, Bantwal Taluk Dakshina kannada District-574219



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Additional Information:

- 1. The shortlisted candidates will be informed by email/post/phone. Most probably it will be an online interview. The online interview is most likely to be held during last week of November 2022. The position will be available immediately.
- 2. Selection will be based on qualification, interview and relevant experience.
- **3.** Selected candidates will be required to join immediately or as soon as possible (on mutual consent between PI and candidate).
- **4.** Candidates before appearing for the interview shall ensure that they are eligible for the position, they intend to apply. The date of interview (online interview) will be communicated to the shortlisted candidates by email/phone/post. Please note that no TA/DA is admissible for attending the interview. No any extra payment will be provided if the interview will be conducted in online mode.
- **5.** Candidates who are already employed should produce relieving certificate from their employers, if selected.
- **6.** The appointment will be on a purely temporary basis co-terminus with the project. The selection committee decision will be final. The duration of the post is up to 25th June 2024 or up to the termination of project, subjected to performance review time to time.
- 7. Merely fulfilling the eligibility requirement does not guarantee shortlisting for interview; additional criteria may be imposed for shortlisting. CEC, Bantwal reserves the right to reject any or all the application without assigning any reasons thereof.
- **8.** For any further information and clarification, candidates can contact Principal Investigator on the address given for correspondence.

APPLICATION FOR THE POST OF JUNIOR RESEARCH FELLOW (JRF)

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	For Office Use:								
-	Serial Number:							ur recent size photo	
-	Eligible for W	ritten exam/Iı	nterview	: Yes / No					
	Verified the Co	ertificates:							
	Post Applied	for Junio	or Rese	arch Fello	w (JRF	')			
	1. Name of the (Block Letters)								
-	2(a). Father's	•							
-	2(a). Mother's	s Name:							
	3(a). Date of Birth:				3(b). Nationality:				
-	3(c). Sex: Male/Female/other				3(d).	3(d). Marital Status: Married/Single			
	3(e). Category (Open/OBC/SC/ST/PWD):								
	3(f) Age on 01.01.2021(in Years):								
4.	Address for C	ommunicatio	on:						
	(i) Address for communication								
	(ii) Mobile No	:							
	(iii) Email ID:	:							
5(5(a). Educational Qualifications (Attach self-attested copies of all certificates)								
	Name of	Discipline/		Board/		Name of Institute/	Marks/	Year of	

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Name of Exam Passed	Discipline/ Specialization	Board/ University/	Name of Institute/ College	Marks/ CGPA	Year of Passing
X					
XII					
B.E./B.Tech					
M.E/M.Tech					
PhD					
Other					

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Attach self-attes	sted copies	of all	certificates.			
b). B.Tech/M.T	ech Projec	t Title	S			
B. Tech Project						
M. Tech Project Titles						
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Number of Pul	olications (Attach	a separate list of	publications with	full details, if	required):
National					nternational	1 1 1 1 1 1 1
Workshop/Tra	iining prog	rams a	attended (Attach	a separate sheet, i Details	f required):	
Other Achieve	ments (Atta	ach a s	eparate sheet, if re	equired):		
S. No. Details						
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10. Contact Details of Two Referees:

Particulars	Referee I	Referee II
Name		
Designation:		
Organization:		
Office Address:		
Contact Number:		
Email ID:		

11. Declaration: I hereby declare that I have carefully read the instructions and particulars supplied to me and that the entries made in this application form are correct to the best of my knowledge and belief. I understand that, if the provided information will be found incorrect, I may be disallowed to appear in the interview/test or terminated at any stage even after selection. If selected for the post, I promise to abide by the rules and discipline of the Institute and DST. I note that the decision of the Institute is final in regard to selection for the post and assignment to a particular Department and field of study. The Institute shall have the right to expel me from the Institute at any time after my admission, provided it is satisfied that I was admitted on false particulars furnished by me or my antecedents prove that my continuance in the Institute is not desirable. Further, if my performance is found not satisfactory, my service can be terminated at any stage. Moreover, my service can be terminated at any stage due to shortage of fund or any other reason(s). I agree that I shall abide by the decision of the Institute, which shall be final.

Date: Place:

Signature of the Candidate

Note: Attach the list of enclosures along with the application.

NOTE: The envelope containing the application should be super scribed as,

"Development of filaments for 3D printing and other applications, from Recycled PET bottles and other plastic waste" on

"Development of filaments for 3D printing from recycled plastic waste"