

INDIAN INSTITUTE OF TECHNOLOGY DELHI
Industrial Research & Development Unit
Hauz Khas, New Delhi -110016

No. IITD/IRD/RP03827G/262645

Dated:05/10/2020

Advertisement No.: IITD/IRD/154/2020

Applications from Indian nationals are invited for Project Appointment under the following project. Appointment shall be on contractual basis with consolidated fellowship renewable yearly or upto the duration of the project whichever is earlier based on satisfactory performance. It is expected that he/she would join for Ph.D. after clearing the Departmental formalities.

Project theme: The aim of the project is to synthesize and characterize new class of thermoset resin namely, Polybenzoxazines (PBzs) to overcome the shortcomings of conventional phenolic resins. It is required to synthesize and characterize the monomers (BZs) structurally and thermally stable, followed by developing new composite/nano-composite formulations using high performance polybenzoxazine based polymers. The developed formulations will be used as polymeric adhesives to join metals to metals or metals to ceramics. In depth experimentation on evaluation of strength of adhesives needs to be done followed by failure analysis.

Nature of work: Development of new structures of monomers via designing, synthesis and characterization of monomers/nanomaterials for adhesives. Project involves organic synthesis, polymer synthesis, characterization etc. The research papers may be communicated to appropriate journals based on quality of work performed.

Title of the Project	Novel Composite Polymeric Adhesives based on Fibers and Nano-fillers for Joining Metals (RP03827G)	
Funding Agency	Council of Scientific & Industrial Research (CSIR)	
Name of the Project Investigator	Prof. (Ms.) Jayashree Bijwe	
Deptt./Centre	Centre for Automotive Research & Tribology (CART) / ITMMEC	
Duration of the Project	Upto:31/10/2022	
Post (s)	Consolidated Pay-slab / Fellowship	Qualifications
Jr. Research Fellow (1)	Rs.31,000/- p.m. plus HRA @ 24% (For JRF)	Candidates should be MSc. in Chemistry, preferably Organic Chemistry with expertise to synthesize organic/polymeric molecules with 60% marks and passing of NET/GATE test.
OR	OR	OR
Sr. Research Fellow (1)	Rs.35,000/-p.m. plus HRA @ 24% (For SRF)	1 st class M.Sc. in Chemistry, preferably Organic Chemistry with proven expertise of synthesis or organic molecules and at least two years of post-MSc. research experience, as evidenced from published papers in standard refereed journals and passing of NET/GATE test with validity.

The candidates who are interested to apply for the above post should download **Form No. IRD/REC-4** from the IRD Website (<http://ird.iitd.ac.in/rec>) of IIT Delhi and submit the duly filled form with complete CV (having personal details, academic qualifications, research experience, publications, name, affiliation and mobile number, email address of two referees, information regarding educational qualifications indicating percentage of marks/division, details of work experience, etc. as pdf attachment **by e-mail with advertisement No. on the subject line to Prof. (Ms.) Jayashree Bijwe at email id: jbijwe@gmail.com**

IIT Delhi reserves the right to fix higher criteria for short-listing of eligible candidates from those satisfying advertised qualification and requirement of the project post and their name will be displayed on web link (<http://ird.iitd.ac.in/shortlisted>) **along with the online interview details. Only short-listed candidates will be informed for online interview.**

5% relaxation of marks may be granted to the SC/ST Candidates. In case of selection of a retired/superannuated government employee, his/her salary will be fixed as per prevailing IRD norms.

The last date for submitting the completed applications by email is 12/10/2020 by 5.00 p.m. In case any clarification is required on eligibility regarding the above post, the candidate **may contact Prof. (Ms.) Jayashree Bijwe at email id: jbijwe@gmail.com**



A.R., IRD

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- Copy to Chairperson, DRC/CRC
- Dr. Harshita Bhatnagar, RD Coordinator, (R&D) Wing