

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE PILANI, PILANI CAMPUS**  
**SPONSORED RESEARCH AND CONSULTANCY DIVISION**

**CALL FOR JUNIOR RESEARCH FELLOW (JRF) IN AN INDUSTRIALLY  
SPONSORED RESEARCH AND DEVELOPMENT PROJECT**

**Date: 21/10/2020**

Applications are invited from suitable candidates for **Junior Research Fellow (JRF)** to work on the following project sponsored by consultant industrial organization, under the joint supervision of **Dr. Somak Chatterjee and Dr. Krishna Chaitanya Etika** in the Department of Chemical Engineering, BITS-Pilani, Pilani Campus, Rajasthan.

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**Title of the project:** Design and development of multifunctional nanocoatings for engineering applications

**Principal Investigators:** Dr. Somak Chatterjee and Dr. Krishna Chaitanya Etika

**Project Description:** Nanostructured coatings have gained tremendous importance in the field of engineering materials due to their ability to impart attractive and tunable functionality to a variety of surfaces. Only a few nanometer thick nanocoatings have been demonstrated to greatly alter or augment a variety of material properties that include, corrosion and wear resistance, optical absorption, flame retardancy, electrical conductivity, transport characteristics etc., which makes them attractive for a variety of applications. These nanocoatings can be applied by a variety of techniques, such as layer-by-layer assembly, spin or spray coating onto different substrate materials. The properties of the nanocoatings can be tuned by the help of different parameters, like, precursor, method of deposition, thickness, surface engineering and many more. The current project involves investigating the role of these parameters in the evolution of a novel kind of nanocoatings materials, strategically targeted for specific industrial applications. The project involves development of the base concept, testing strategy and technology transfer support to high volume manufacturing facility. Due to the confidential nature of the project, further specific information will only be shared once the fellow has been selected for this position. It is mandatory for the selected fellow to sign a non-disclosure agreement (NDA) with the sponsoring industry, to carry out the investigations related to this project.

**Duration of the project:** 24 months

**Project position and number:** JRF, One in number

**Fellowship amount:** 28000 per month

**P-3: FORMAT FOR ADVERTISEMENT OF RESEARCH STAFF IN PROJECT**

**Eligibility requirements:** M.E./M.Tech. with at least 60% marks in Chemical Engineering/Material Science/Environmental Engineering/Nano Technology or relevant area; M.Sc. chemistry with 60% marks (with only NET qualifications or with research experience will considered.)

**Desirable Qualifications:** Gate or UGC-NET qualification.

**Application Deadline:** 25/11/2020

**Tentative Interview Date:** 10/12/2020

**Expected Joining Date:** 20/01/2021

**Application procedure:**

- Interested and eligible candidates can send their current resume or C.V. and a cover letter with details about educational qualifications, research experience and other relevant details to [somak.chatterjee@pilani.bits-pilani.ac.in](mailto:somak.chatterjee@pilani.bits-pilani.ac.in) or to [etika.krishna@pilani.bits-pilani.ac.in](mailto:etika.krishna@pilani.bits-pilani.ac.in) with the subject “Application for JRF position”.
- Only shortlisted candidates will be informed through email and called for interview through Video conference (skype or google meet) or at Chemical Engineering department, BITS, Pilani, Pilani Campus, Rajasthan.

**Notes:**

1. For any queries regarding position, please feel free to email the PIs.
2. The selected candidate will be encouraged to join the PhD program of BITS, Pilani as per institute rules.
3. No TA/DA will be paid for attending the interview.

**Dr. Somak Chatterjee & Dr. Krishna Chaitanya Etika**  
**Assistant Professor**  
**Chemical Engineering Department**  
**BITS Pilani, Pilani Campus.**