

CIVIL ENGINEERING DEPARTMENT

March 14, 2024

ADVERTISEMENT FOR JUNIOR RESEARCH FELLOW IN NBCC

SPONSORED PROJECT

Project Title: A Novel Bidirectional Electromigration Rehabilitation (BIEM) Technique for Highly Corroded Reinforced Concrete Structures Due To High Admixed Chloride

Position: Junior Research Fellow (JRF)

Duration: Three Years

Stipend: Consolidated Rs. 31,000/- +HRA per month (Likely to be upgraded to Rs 37,000/- as per DST latest norms)

About the project: The project aims to develop a novel BIEM treatment targeting extraction of chloride ions and pushing of organic corrosion inhibitors towards rebar to repair chloride-contaminated reinforced concrete structures. The technique involves combined application of electrochemical techniques and Corrosion Inhibitors. It is hypothesised that the technique will not only removes chloride ions from the concrete but also injects corrosion inhibitors on the steel surface to provide long-term protection.

Qualifications:

Essential: First class M.E./M. Tech. in Civil Engineering, Chemical engineering OR M.Sc. in Chemistry, Physics (or relevant Discipline). Candidate having qualified GATE/NEET in the relevant area will be preferred.

Desirable: The candidate should possess a good knowledge of concrete technology and corrosion of steel in concrete. Additionally, candidates with good exposure to repair and rehabilitation of concrete structures are highly encouraged to apply.

Last date of application: **22nd March, 2024**

How to Apply:

1. Interested candidates are requested to submit a detailed CV through email (with the subject as "Project Vacancy to NBCC Project") to the PI (shweta@thapar.edu) or the Co-PI (arpit.goyal@thapar.edu) before the last date.
2. Shortlisted candidates will be intimated for the online interview **by email only**.
3. The candidate selected for the above positions may also get enrolled for Ph.D. degree simultaneously as per the Institute norms.
4. In case of any query related to above project, kindly email to the PI or Co-PI.

Prof Shweta Goyal (PI)
Professor, Civil Engineering Department
Email: shweta@thapar.edu

Dr Arpit Goyal (Co-PI)
Assistant Professor, CED
Email: arpit.goyal@thapar.edu
Thapar Institute of Engineering and Technology, Patiala