

Junior Research Fellow for the Development of Biopolymers

About This Position

The SParK Lab in collaboration with Soft Matter Rheology Lab in the Chemical Engineering Department at IIT, Gandhinagar has an opportunity for a junior research fellow to design and develop biopolymers. The candidate will implement molecular biology strategies to construct recombinant DNA and express the proteins in host micro-organisms (e.g. E. coli). The candidate will develop a one-pot solution by (1) Designing proteins with deliberate mutations in the protein sequence through genetic engineering, (2) Crosslinking the biopolymers through the generated mutations to fabricate hydrogels, and (3) Augmenting these structures with selective metal ion sequestration functionality to minimize toxic pollutants.

Minimum Qualification (As per DBT Norms)

B.Tech / B.Sc / M.Sc Chemical Engineering / Biotechnology / Microbiology / Biochemistry / Chemistry or a related discipline. Valid GATE/NET/Any other national level examinations scores are required

Demonstrated work with Hydrogels, synthesis and characterization

Demonstrated experience in molecular biology techniques including PCR, Cloning, Site-directed mutagenesis, protein expression in E. coli systems and purification through chromatography techniques including affinity IMAC and IEX

Additional Preferred Qualifications

Demonstrated experience with molecular biology techniques such DNA/RNA isolation, Primer design, Mutagenesis PCR, Restriction digest, Gibson assembly, Gel electrophoresis, Design and construction of recombinant vectors, Transformations of vectors

This list of duties and responsibilities is not intended to be all-inclusive and may be expanded as necessary.

Duration: Initial appointment is for 1 year, extendable up to 1 more year based on performance

Remuneration: 37000/Month + HRA

Application Procedure

Candidates must fill the [google form \(https://forms.gle/kGoDvUQXEL7YpC27A\)](https://forms.gle/kGoDvUQXEL7YpC27A) to be considered for this position.

Application Deadline

The deadline for submission is March 10th, 2024.