

Junior Research Fellow in the Development of Photo-Based Protein Purification Technologies

About This Position

The SPark Lab in the Chemical Engineering Department at IIT, Gandhinagar has an opportunity for a junior research fellow to design and develop photo-based protein purification technologies. 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 seek to understand and exploit interactions of these designer proteins with inorganic building blocks (nanomaterials) to achieve hybrid materials. This research opportunity will involve the candidate to employ light, electron and atomic force microscopy tools to validate and characterize the generation of hybrid materials. Finally, these materials will be evaluated for their efficacy/efficiency towards their intended application.

Minimum Qualification

B.Tech / B.Sc / M.Sc Chemical Engineering / Biotechnology / Microbiology / Biochemistry / Chemistry or a related discipline

Demonstrated experience in green fluorescent protein expression in E. coli systems and purification through chromatography techniques including affinity IMAC and IEX

Demonstrated work with photocleavable proteins

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

Ability to convey information effectively in the form of manuscripts and conference presentations and to work independently

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: Without GATE - 25,000 INR per month

With GATE - 31,000 per month

Application Procedure

Candidates must fill the [google form \(https://forms.gle/teGz185LW1LdVMHGA\)](https://forms.gle/teGz185LW1LdVMHGA) to be considered for this position.

Application Deadline

The deadline for submission is December 5th, 2022.