



**Birla Institute of Technology & Science (BITS), Pilani**  
Hyderabad Campus

Dr. Satyapaul A. Singh, Assistant Professor  
Department of Chemical Engineering

11 December, 2021

**CALL FOR JUNIOR RESEARCH FELLOWS IN A SERB - CRG PROJECT**

Applications are invited from candidates for a Junior Research Fellow (JRF) position in a SERB-CRG (Core Research Grant) project “**Mechanistic insights of CO<sub>2</sub> methanation using core-shell catalysts**” under the supervision of Dr. Satyapaul A. Singh (PI) and Prof. I. Sreedhar (Co-PI) at BITS-Pilani Hyderabad Campus. The project shall involve synthesis & characterization of core-shell nanoparticles, catalytic activity studies, Density Functional Theory (DFT) simulations to investigate the reaction mechanisms and ASPEN PLUS simulations for techno-economics investigation. Deserving JRF may be considered for the Ph.D. program at BITS-Pilani Hyderabad campus if he/she meets the institute norms.

**Duration:** 3 years (Starting from January 2022)

**Fellowship:** Rs. 31000 + HRA per month for first two years, Rs. 35000 + HRA per month in the third year, subject to progress of the work and as per SERB norms.

**Place of work:** BITS-Pilani, Hyderabad Campus

**Eligibility:**

- M.E./M.Tech (or BE/BTech with an exceptional track-record) in Chemical Engineering or an allied stream. However, candidates from other backgrounds (Chemistry, Mechanical) who have an interest in DFT simulations can also apply.
- Preference will be given to GATE/NET qualified (in any of the previous years) candidates but not guaranteed. Ultimately, position will be offered to the candidate with subject knowledge, skills and performance in the final interview.
- The stipend will be provided as per SERB norms for the selected non-GATE/NET candidate.
- Hands-on experience in nanomaterial synthesis & characterization, ASPEN PLUS/equivalent, any DFT tools are desired, but not mandatory.

**How to apply:** Interested candidates can email their CVs to [satyapaul@hyderabad.bits-pilani.ac.in](mailto:satyapaul@hyderabad.bits-pilani.ac.in) by 31<sup>st</sup> December 2021. Preliminary shortlisting will be based on CV and telephonic/audio-visual/physical interview within a week of the last date of application. For the final interview, the candidate will be informed through e-mail.

Dr. Satyapaul A. Singh (PI)

**Website:** <https://universe.bits-pilani.ac.in/hyderabad/satyapaulsinghamarthaluri/Profile>

**Research Profile:** <https://scholar.google.co.in/citations?user=p5hXJbkAAAAJ&hl=en&oi=ao>

Prof. I. Sreedhar (Co-PI)

**Website:** <https://universe.bits-pilani.ac.in/Hyderabad/sreedhar/Profile>

**Research Profile:** <https://scholar.google.co.in/citations?user=KZwtWtUAAAAJ&hl=en>



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## CV Format

1. Name:

2. DOB:

3. Contact Details

i. Mobile:

ii. Email ID:

4. Education:

i. Bachelors' Degree (name and overall grade):

ii. Masters' Degree (name and overall grade):

iii. Any other Degree (name and overall grade):

5. Details of qualifying exam:

- GATE/CSIR-NET (Please mention the score, year of qualifying and category)

6. Research Publications, if any:

7. Presentations in Conference/Conference proceedings, if any:

8. Previous relevant work experience, if any:

9. Comment on your communication (verbal and written) skills:

10. Technical expertise:

- Experience in Handling Equipment and/or Simulation tools, mention the details

11. List of three references. Please mention the name and contact details of two faculty/ your employer/ teacher who can endorse your candidature. (Recommendation letters are not required).

12. A brief statement of interest:

- Mention your interest in pursuing Ph.D. (~200 words)

13. Any other relevant information: