



Sardar Swaran Singh National Institute of Bio Energy
 (Formerly: Sardar Swaran Singh National Institute of Renewable Energy)
 (An autonomous Institute of Ministry of New and Renewable Energy, Govt. of India)
 Jalandhar – Kapurthala Road, Wadala Kalan 12 KM. Stone, Jalandhar 144601(Punjab)



Advertisement No. 348-26/37/2022-ADMIN

Applications are invited from eligible candidates for 4 posts of JRF in the field of Bioenergy under the SSS-NIBE Bio-Energy Promotion fellowship. The research positions for JRF are purely contractual positions. The contractual tenure of JRF will be initially for a period of two years and extendable based on performance (after review).

Particulars of academic qualifications, research experience and other requirements of the contractual posts are given on the website of <http://nibe.res.in/>

The specific topics of the research areas for JRF are: (a) Biomass resource assessment: Data analytics & Artificial Intelligence, supply chain management, LCA, techno economics, social impacts (b) Gasification of biomass and MSW to hydrogen, syngas to hydrogen. (c) Pyrolysis and HTL of lignocellulosic and Algal Biomass (d) Lignin Valorisation and Biomass conversion to value added chemicals (e) Biochar/ Activated carbons from biomass and Activated carbon to graphene – biomaterial for fuel cell, Supercapacitor (f) Biomass, pellets, briquettes, torrefied pellets, charcoal etc. (g) Fuel cell, Bio-hydrogen for fuel cells, materials from biomass (h) Biomass Cookstoves.

| S. No. | Designation | No. of Posts | Fellowship Amount | Qualification/ eligibility | Maximum age |
|--------|------------------------------|--------------|--|--|--|
| 1. | Junior Research Fellow (JRF) | 4 | Rs.31000 per month +HRA as admissible or Hostel facility if available. | Candidates must either have 60% marks or equivalent CGPA in B.E./B.Tech. (Degree in Chem. Engg., Mech. Engg., Agri. Engg., Civil Engg., Biochem. Engg., Energy Engg., Environmental and allied engineering subjects or must have 60% marks in M.Sc. (Chemistry, Biochemistry, Biotechnology, microbiology and allied science subjects) and GATE/NET qualification as applicable. | 28 years, which is relaxed up to 5 years in the case of candidates belonging to Schedule Castes/Schedule Tribes, Physically Handicapped and OBC(NCL) applicants as per Govt. of India rules & regulations. |

Eligible candidates can download the Advertisement, Application Form and Instructions from website <https://nibe.res.in>. The candidates should fill the downloaded Application Form as per the instructions. The duly filled Application form (as per the Instructions) is to be sent via e-mail to sss.nibe@nibe.res.in with the subject "Application for JRF" along with the self-attested scanned copy of documents on / before 17/02/2023. Incomplete/Partially filled applications, any deviations from the instructions are liable to be rejected. NO TA / DA will be paid for attending for interview.

Director General

Advertisement for the post of Junior Research Fellow (JRF)

Applications are invited from eligible candidates for the 4 (Four) positions of Junior Research Fellow (JRF) to work under SSS-NIBE Bioenergy Promotion Fellowship by the Sardar Swaran Singh National Institute of Bio-Energy, Kapurthala.

Interested candidates should send their duly filled Application form (as per the Instructions) via e-mail to sss.nibe@nibe.res.in with the subject "Application for JRF" along with the self-attested scanned copy of documents on / before 17/02/2023. Incomplete/Partially filled applications, any deviations from the instructions are liable to be rejected.

1. Introduction

Sardar Swaran Singh National Institute of Bio-Energy (SSS-NIBE), an autonomous Institute of the Ministry of New and Renewable Energy initiated "**SSS-NIBE Bio-Energy Promotion Fellowship**" to promote research activities in Bio-Energy and to attract competent researchers in this field under JRF/SRF/PDF programme in the field of Bio-Energy. The broad spectrum of Bio-Energy covers Biomass assessment & management, biomass characterization, Biomass conversion technologies (gasification, combustion, pyrolysis,) Solid waste/state biomethanation, Liquid biofuels (biodiesel, bioethanol, bio-oils, green diesel), Algal biomass production, Biohydrogen production, Solid waste treatment & management, Life cycle analysis/assessment of bioenergy system, 1st, 2nd and 3rd generation biofuels etc.

2. General

2.1. SSS-NIBE under Bio-Energy Promotion Fellowship scheme provide Research Fellowships to bright and enthusiastic young men and women for research under the expert guidance of scientists working at SSS-NIBE in the various fields of Bio-Energy.

2.2. The SSS-NIBE Bio-Energy Promotion Fellowships are tenable in India. Only bonafide Indian citizens, residing in India are eligible for the award of research Fellowship. The programme is aimed at National Human Resource Development in the area of Bio-Energy.

2.3 The award of SSS-NIBE Bio-Energy Promotion Fellowship is temporary for a fixed tenure and does not imply any assurance or guarantee for subsequent employment by SSS-NIBE to the beneficiary. The authority to award / terminate Fellowship and relax any of the conditions vests with the Director General, SSS-NIBE. The awardees shall not lay claim to permanent absorption in SSS-NIBE, after the expiry of Fellowship.

2.4. The selection rules, amount of fellowship, etc. will be governed as per DST guidelines (adopted by MNRE) and guidelines as amended from time to time.

3. Subject of Research

Preference is given to a subject / topic of research relevant to the research programmes of SSS-NIBE and importance in Bio-Energy areas.

(a) Biomass resource assessment: Data analytics & Artificial Intelligence, supply chain management, LCA, techno economics, social impacts (b) Gasification of biomass and MSW to hydrogen, syngas to

hydrogen (c) Pyrolysis and HTL of lignocellulosic and Algal Biomass (d) Lignin Valorisation and Biomass conversion to value added chemicals (e) Biochar/Activated carbons from biomass and Activated carbon to graphene – biomaterial for fuel cell, Supercapacitor (f) Biomass, pellets, briquettes, torrefied pellets, charcoal etc. (g) Fuel cell, Bio-hydrogen for fuel cells, materials from biomass (h) Biomass Cookstoves

4. Junior Research Fellowship (JRF) under SSS-NIBE Bio-Energy Promotion Fellowship

4.1 Essential Qualifications:

Candidates must either have 60% marks or equivalent CGPA in B.E./B.Tech. (Degree in Chem. Engg., Mech. Engg., Agri. Engg., Civil Engg., Biochem. Engg., Energy Engg., Environmental and allied engineering subjects or must have 60% marks in M.Sc. (Chemistry, Biochemistry, Biotechnology, microbiology and allied science subjects) and GATE/NET qualification as applicable.

4.2 Age Limit:

The upper age limit for JRF shall be 28 years, which is relaxed up to 5 years in the case of candidates belonging to Schedule Castes/Schedule Tribes, Physically Handicapped and OBC(NCL) applicants as per Govt. of India rules & regulations.

4.3 Tenure:

JRF will be tenable initially for a period of two years. The term is extendable for one more year on the basis of assessment of the progress made through publication and if not awarded the SRF. The combined tenure of JRF & SRF will not exceed more than five years in any case. On completion of two years as JRF and if the fellow is registered for PhD, the fellowship will be upgraded to SRF and stipend will be increased for the 3rd and subsequent years on the basis of assessment through interview by a review committee consisting of scientists concerned, Head of Division and Expert member in the relevant field. Extension of tenure will be purely on the basis of progress report and recommendation of the review committee.

General Conditions - SSS-NIBE Bio-energy Promotion Fellowship.

He/She has to be a full-time researcher and submit himself/herself to the disciplinary regulations of the Institute. Regular attendance of the fellow may be ensured by the department by keeping an attendance register. In case fellow decided to appear for competitive examination, he/she would invariably seek permission from the guide and competent authority. Fellow is not to take any assignment other than related to his/her approved research programme, paid or unpaid. However, if required, the fellow may be asked to assist the institute in other activities as assigned by the competent authority. However, it should be ensured that these assignments should not hamper the progress of research work of the fellow. No fellow shall discontinue his/her fellowship without prior approval of Director General, SSS-NIBE. In case he/she wishes to discontinue the fellowship prior to completion of the tenure on attainment of original objectives of research, he/she must submit the resignation to Director General, SSS-NIBE through the guide one month in advance indicating specific reasons for not continuing the fellowship. The research fellow shall keep inform Director General, SSS-NIBE about his/her getting the higher degree if any, submission/acceptance/ publication of any research paper arising out of the research work done during the tenure of the fellowship. He/She must acknowledge the support of SSS-NIBE in the publication(s). One copy of each of all the research papers published must be sent to SSS-NIBE at each stage of manuscript/publication/reprint.

5. **Stipend / Fellowship Amount (i) Junior Research Fellows (JRF):**

| Sl. No. | Designation | No. of Position | Emoluments per month for first 2 years |
|---------|------------------------------|-----------------|--|
| 1. | Junior Research Fellow (JRF) | 04 | Rs.31,000 per Month+HRA as admissible or Hostel facility if available. |

Note: The stipend of research fellow/associate is exempt from the payment of income tax under 10(16) of IT Act, 1961. (Emoluments are on the basis of guidelines defined by DST O.M No SR/59/Z-08/2018 dated 30th January, 2019).

8. **Service Conditions:**

8.1 **Selection:** Selection of the fellows would be strictly based on merit and through open advertisement. Both online and hardcopy application will be considered and reviewed from time to time as per requirement of the Institute. A committee under the Chairmanship of Director General, SSS-NIBE having subject expert will assess the applicants through personal interview. Successful applicants will be communicated as per procedure. NO TA / DA will be paid for attending for interview.

8.2 **Tenure:** The performance of the fellow will be reviewed through an appropriate review committee (three members) constituted by the Director General of the Institution before extending the tenure in terms of fellowship tenure. Research Fellow to submit annual progress report to Guide/Project Incharge/Scientist.

8.2. **DA & CCA:** JRFs will not be entitled to these allowances.

8.3. **House Rent Allowance (HRA):** All research fellows may be provided hostel accommodation wherever available and those residing in accommodation provided by the Institute will not be eligible for drawing HRA. Wherever provision of hostel accommodation is not possible, HRA may be allowed as per Central Government norms applicable for Kapurthala. The fellowship amount may be taken as basic for calculating the HRA.

8.4. **Leave and other entitlement benefits:** The JRF are eligible only for casual leave. The Leave with stipend not exceeding 30 days for each completed calendar year. The leave will be treated as part of the Fellow's tenure. During the first year of Fellowship or any uncompleted year, leave may be granted on pro-rata basis. In case Fellow proceeds on leave before termination of Fellowship, he/she must join back before the expiry of tenure; failing which the tenure will be deemed to have terminated with effect from the date he/she proceeded on leave. The fact of joining back from leave should be communicated to SSS-NIBE immediately.

Participation of JRFs in any scientific event/workshops in India or abroad will be treated as "on duty" and subject to prior approval of competent authority well in advance. The travel entitlement for Fellows for participation in scientific events/ workshops in India will be 2nd AC by rail. Maternity leaves as per Govt. of India instructions issued from time to time would be available to female candidates.

8.5. **Bonus & Leave Travel Concession:** JRF will not be entitled to these allowances.

- 8.6. **Retirement Benefits:** JRF will not be entitled to these benefits.
- 8.7. **Publication/Patent:** The results of JRF's research work may be published in standard refereed journals at the discretion of the Fellow or his Guide with prior approval of the Institute. It should be ensured by the fellow that the assistance provided by the Funding Agency / Institution of Government of India is acknowledged in all such publications and one copy of the published research papers should be sent to SSS-NIBE.
- Patent:** The commercial exploitation of the results and ownership of patent rights pertaining to investigations concerning the intellectual work of the SSS-NIBE research fellows/associates will be as follows: -
- (i) SSS-NIBE at its own cost may seek the patent rights and/or commercial exploitation of the results of the intellectual work of the fellow and all right would vest exclusively with SSS-NIBE.
 - (ii) All matters concerning ownership of IP and its licensing/exploitation would be governed by the IP policy defined by the MNRE/SSS-NIBE.
9. **Encouragement for pursuing higher degree.** Students selected as JRF may be encouraged to register for Ph.D.