



JAWAHARLAL NEHRU CENTRE FOR ADVANCED SCIENTIFIC RESEARCH

(A Deemed University)

Jakkur P.O., Bangalore - 560 064

Phone: 080-2208 2776

Email: srfp@jncasr.ac.in

Website: <http://www.jncasr.ac.in/fe/srfp.php>

INFORMATION SHEET - SUMMER RESEARCH FELLOWSHIPS - 2015

In association with the Department of Science and Technology and the Rajiv Gandhi Foundation, New Delhi.
For motivated and talented Indian students in Science and Engineering.

AREAS OF RESEARCH:

Life Sciences: Infectious and non-infectious diseases, bioinformatics, developmental biology, biochemistry, molecular biology, immunology, genetics, life-history evolution, circadian biology, animal behaviour, behavioural ecology, evolutionary genetics, experimental evolution, population dynamics, phylogeography, neurophysiology, behavioural neurobiology and behavioural genetics.

Materials Sciences: Nano sciences, energy and green materials.

Chemical Sciences: Solid state chemistry, theoretical and computational chemistry, organic, physical and inorganic chemistry, organic and asymmetric synthesis, medicinal and bio-organic chemistry, polymer chemistry, supermolecular chemistry and chemistry of nanomaterials.

Physical Sciences: Condensed matter theory and experiment, statistical physics, semiconductor materials physics, biophysics, nano physics, organic electronics, computational materials science, soft matter, semiconductor interfaces, heterostructures, physical metallurgy and transmission electron microscopy.

Engineering Sciences: Computational fluid dynamics using mesoscopic simulation techniques, Dynamics and rheology of complex microstructured fluids including suspensions, emulsions and polymer solutions, Flow of granular media, Active matter, Hydrodynamic stability of Newtonian and viscoelastic fluids, High Reynolds number flows and turbulence, Non-linear dynamics and chaos, vortex dynamics.

Mathematics

Atmospheric Sciences: Atmospheric boundary layer, near-surface environment, radiation, solar-terrestrial relations, monsoon dynamics, modelling.

MINIMUM ACADEMIC REQUIREMENTS FOR APPLYING:

- Students who have secured not less than 80% in Maths and Science subjects in their 10th and 12th standard or equivalent examinations, and not less than first class in graduation and post graduation (if applicable).
- Students presently studying in I and II year of B.Sc., II, III & IV year of B.S., I, II & III year of B.E. /B.Tech., I year of M.Sc., and I-IV year of Integrated M.Sc. can apply for **Life Sciences and Mathematics**.
- Students presently studying in II & III year of B.Sc., II, III & IV year B.S., II, III & IV year of B.E./B.Tech., I year of M.Sc. and II-IV year of Integrated M.Sc. can apply for **Physical Sciences, Engineering Sciences and Atmospheric Sciences**.
- Students presently studying in I year of M.Sc. can apply for **Materials Sciences and Chemical Sciences**.

The students selected under this programme are placed with scientists at the Centre or elsewhere in India, for 2 continuous months with a stipend of Rs. 6000 /- p.m and travel support as per Centre's norms. **About 15 students from the Summer Research Fellowship Programme will be chosen as Rajiv Gandhi Science Talent Research Fellows based on the completed project reports and committee recommendations.**

Detailed information and application form can be downloaded from <http://www.jncasr.ac.in/fe/srfp.php> . The filled in application form with attested documents should reach the address mentioned below:

Mailing address: The Academic Coordinator
Fellowships and Extension Programmes
Jawaharlal Nehru Centre for Advanced Scientific Research
Jakkur P.O., Bangalore – 560 064.

Important dates: Last date for downloading application form from website : 12th December 2014
Last date for receipt of completed application form : 19th December 2014

- NOTE:**
1. Please ensure that your completed application includes:
(a) Two confidential reports sealed by the referee and with the referees' signatures across the seals.
(b) Attested Xerox copies of relevant mark sheets etc.
 2. Students who have already completed this programme earlier need not apply.
 3. Your "Area of Research" on the left hand top corner of the mailing envelope.
 4. Mere applying to this programme does not warrant selection.



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APPLICATION FOR SUMMER RESEARCH FELLOWSHIPS - 2015

In association with the Department of Science and Technology and the Rajiv Gandhi Foundation, New Delhi.

**LAST DATE FOR RECEIPT OF COMPLETED APPLICATION FORM:
19th DECEMBER 2014**

1. Name

2. Date of Birth
Day Month Year

3. Address for Correspondence:

4. Residential Address, if different from 3:

Pin
Phone Fax
Email:

Pin
Phone Fax
Email

5. Current Institutional Address, if different from 3 :

Pin
Phone: Email:

6. Present Educational Status (Tick the appropriate one[#]) :

B.Sc.	B.S.	B.E. / B.Tech	M.Sc.	Integrated M.Sc.
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

[#] Refer to the minium academic requirements mentioned in the information sheet carefully before putting a tick.

7. Branch of study

8. Discipline of interest (**Tick only one**): (If you wish you may choose an area different from what you are presently studying) If you wish to apply to more than one area, you will need to fill separate forms for each.

Atmospheric Sciences <input type="checkbox"/>	Chemical Sciences <input type="checkbox"/>	Engineering Sciences <input type="checkbox"/>
Life Sciences <input type="checkbox"/>	Materials Sciences <input type="checkbox"/>	Mathematics <input type="checkbox"/>
		Physical Sciences <input type="checkbox"/>

Specify area of research interest (you may refer the information sheet).

9. Were you selected for this programme in earlier years ? Yes No did not apply

10. Educational background (SSLC/10th Standard or equivalent onwards) (Attach attested copies of statement of marks)

Examination/ Degree	Institution	Year	Elective Subjects	% of marks* or GPA	Rank out of (Please fill) students

* For 10th & 12th or equivalent examinations give only the % of marks for Maths and Science subjects.
A minimum of 80% is required for Maths and Science subject(s) separately.

11. Academic Awards/Scholarships/Distinctions received : (Attach copies of certificates)

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12. Names and addresses of the two referees providing letters of recommendation

(Please hand over the attached referees' report sheets to the referees. Please collect the filled reports from them in a sealed envelope signed by them across the seal. Mail these along with your completed application form. If the recommendation letters are not sent, the application form will be incomplete and is liable to be rejected.)

_____ Pin <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
* Phone _____ Fax _____
* Email: _____

_____ Pin <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
* Phone _____ Fax _____
* Email _____

* mandatory information

13. (i) Give upto three sub-areas (in the order of preference) of the discipline in which you would like to work. If the sub-area of your choice is not mentioned in the information sheet, please specify it.
- (ii) Describe briefly a project you would like to undertake. Please note that you could be assigned a project different from the ones you describe below.

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14. In the space below, mention any extra reading / general reading in your sub-area of interest that you have done (include author/s name/s, title, year of publication, publisher as appropriate).

15. Describe your career plans.

16. In your opinion 'What is Science all about' ?

IMPORTANT: Candidates have to indicate their acceptance within 15 days or else the offer will stand cancelled and will go to the next person in the waiting list. If the candidate accepts the offer initially and then fails to join the programme, he/she is denying the wait listed candidate an opportunity to avail the fellowship. In case of non-reporting, we will be communicating this to the referees and the candidate's parent institution. If the candidate is offered a similar fellowship from any other institution/Academy, the candidate has to decide on any one offer. The candidate cannot accept more than one offer at the same time. Selected students will undertake to work at the institution they are placed for a minimum uninterrupted period of 2 months. SRFP Certificates will be issued only to students who complete a mandatory training period of 2 months.

DECLARATION: I hereby declare to understand and accept the above mentioned statements.

Place :

Date :

Signature of the candidate



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CONFIDENTIAL RECOMMENDATION FORM - 1

Note to Referee

The Summer Research Fellowship Programme is meant to introduce talented young students to the world of research. Apart from guided reading, laboratory work, etc., some involvement with current research will be attempted. You are requested to answer our queries below keeping this in mind. **If you are recommending more than one candidate, please rank order them under item (7). The completed form may please be passed on to the candidate in a sealed envelope signed across the seal. This will enable the candidate to mail your confidential report along with his/her completed application form to:**

The Academic Coordinator
Fellowships and Extension Programmes
Jawaharlal Nehru Centre for Advanced Scientific Research
Jakkur, Bangalore 560 064.

so as to reach us by 19th December 2014

To be filled in by the applicant

Referee's Name :

Title/Position :

Institution* :

Address* :

Phone* :

Email*:

(* mandatory information)

(a) Candidate's name :

(b) Candidate's discipline of interest :

(c) Sub-area of interest :

To be filled in by the referee

1. How well do you know the candidate ? (Check as many boxes as applicable)

- as reported by others as my advisee
- as a student in a class ofstudents
- as a student engaged in independent study under my guidance
- any other (please specify)

2. How long have you known the candidate ?

3. Please summarize your evaluation of the candidate by ticking the appropriate box in each of the categories (of evaluation) below, out of _____ students at your institution.

	Exceptional Top 2%	Very good Top 10%	Good Top 25%	Remaining 75%	Unable to judge
a. Breadth of scientific knowledge					
b. Comprehension of concepts					
c. Ability to reason logically and clearly					
d. Degree of motivation for research					

4. What is your overall ranking of the candidate as compared with students you have known over a few years at his/her educational level?

Top 2%
(Exceptional)

Top 10%
(Very Good)

Top 25%
(Good)

75%
(Remaining)

out of _____ students at your institution.

5. Describe any special skills [experimental, mathematical, computational or others] that the candidate has shown, which in your opinion makes him/her deserve this fellowship.

6. Any other comment you would like to make about the candidate (you may highlight here any incident where the candidate has impressed you).

7. Rank Order : If you are recommending more than one student

Place:

Date:

Signature of the referee



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CONFIDENTIAL RECOMMENDATION FORM - 2

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To be filled in by the applicant

Referee's Name :

Title/Position :

Institution* :

Address* :

Phone* :

Email*:

(* mandatory information)

(a) Candidate's name :

(b) Candidate's discipline of interest :

(c) Sub-area of interest :

To be filled in by the referee

1. How well do you know the candidate ? (Check as many boxes as applicable)

as reported by others as my advisee

as a student in a class ofstudents

as a student engaged in independent study under my guidance

any other (please specify)

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a. Breadth of scientific knowledge					
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Top 2%
(Exceptional)

Top 10%
(Very Good)

Top 25%
(Good)

75%
(Remaining)

out of _____ students at your institution.

5. Describe any special skills [experimental, mathematical, computational or others] that the candidate has shown, which in your opinion makes him/her deserve this fellowship.

6. Any other comment you would like to make about the candidate (you may highlight here any incident where the candidate has impressed you).

7. Rank Order : If you are recommending more than one student

Place:

Date:

Signature of the referee